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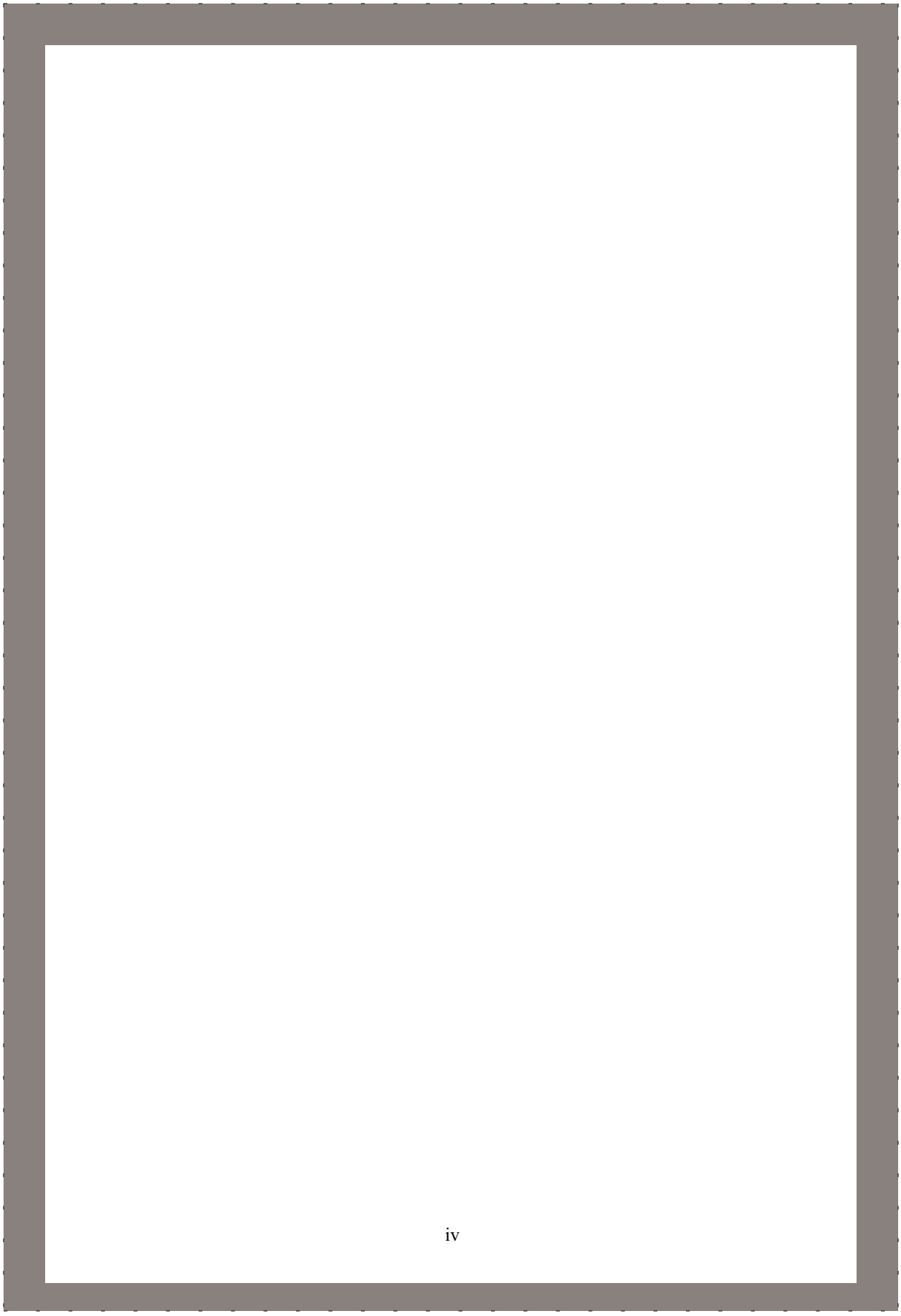
44535-gme_17-3 Sheet No. 1 Side B 09/19/2022 13:53:32

CONTENTS

ARTICLES

44535-gme_17-3 Sheet No. 2 Side A 09/19/2022 13:53:32



44535-gme_17-3 Sheet No. 2 Side B 09/19/2022 13:53:32

SELLING IMMIGRATION VISAS: A MARKET-BASED APPROACH TO BOOST AMERICAN INNOVATION

Sarah Hickman[*] *and Korok Ray*[†]
Mays Innovation Research Center
Texas A&M University

INTRODUCTION

Current U.S. immigration policy is not sufficient for bringing in the volume and the type of immigrants the U.S. needs to meet workforce demand in the technology sector. Today, U.S. immigration policy prioritizes family reunification over employment-based immigration.[1] Such preference leads to inefficiency in the immigration process and denies the government an opportunity to generate revenue from one of its most valuable assets: U.S. citizenship. Using a price mechanism to charge high-skilled immigrants a fee for entry into the U.S. is a more optimal immigration strategy. It will improve U.S. productivity by filling positions in the technology sector, and it will generate millions of dollars in revenue each year, which can be used to offset the social and economic costs of increased immigration.

Conceptually, pricing immigration is not new to the United States. Take the EB-5 investor visa program. In this program, immigrants with large sums of capital can invest in U.S. firms in exchange for U.S. citizenship.[2] However, this transaction differs from the one we propose. The EB-5 program involves a transaction between the investor (the immigrant) and the U.S. private sector, not the government, as the investment accrues to the

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[*] Master's candidate at the Bush School of Government and Public Service, and research assistant at Mays Innovation Research Center, Texas A&M University.

[†] Associate Professor and Director of the Mays Innovation Research Center at Texas A&M, and a Research Fellow at the Law & Economics Center at George Mason University Antonin Scalia Law School. We'd like to acknowledge the Mays Innovation Research Center and the Law & Economics Center for financial support. The opinions expressed here are the authors alone and do not represent the official position of Texas A&M, the Law & Economics Center, George Mason University, or any other organization with which they are currently affiliated. The authors would like to thank the participants in the Law & Economics Center's September 2021 Research Roundtable on Capitalism and the Rule of Law for their helpful comments.

[1] *See, e.g.*, Philip E. Wolgin, Beyond National Origins: The Development of Modern Immigration Policymaking, 1948-1968 4 (2011) (Ph.D. dissertation, University of California, Berkeley) (on file with the Digital Assets Library, University of California, Berkeley), https://digitalassets.lib.berkeley.edu/etd/ucb/text/Wolgin_berkeley_0028E_11224.pdf.

[2] EB-5 Immigrant Investor Program, U.S. CITIZENSHIP AND IMMIGRATION SERVICES (July 15, 2022), https://www.uscis.gov/working-in-the-united-states/permanent-workers/eb-5-immigrant-investor-program.

private sector.[3] Under our policy, the government—while allowing the market to determine demand—will directly impose a fee for immigration, meaning the transaction will take place strictly between the immigrant and the government, as in this case, the fee accrues to the government.

This policy is intended to affect high-skilled immigration, attracting a similar crop of immigrants that benefit from employment-based visa programs today. High-skilled immigrants will benefit the most from an immigration-for-sale program as they will be able to afford the high immigration fee. This fee must be sufficiently high as to avoid an unwanted influx of average-skilled immigrants. Most immigrants will not have the capital to pay such a large fee upfront, particularly as an immigrant's earnings in her home country are lower than they would be in the U.S. The solution to this is to allow immigrants to take out an immigration loan to pay the immigration fee, which they can then pay back over time, similar to the way homeowners pay off their mortgage.

The paper proceeds as follows. Section I reviews the history of U.S. immigration policy and discusses the need for foreign workers in the American workforce. Section II proposes selling immigration visas to high skilled immigrants and details what the design of our policy would look like. Section III discusses a pricing model for pricing immigration, as well as the development of capital markets for lending immigration loans and the method for handling default. Section IV makes the case for why the U.S. should sell immigrant visas and responds to criticisms and counterarguments.

I. BACKGROUND

Prior to 1965, U.S. immigration policy was governed by a system of race-based quotas, which considered race the most important criterion for entry into the United States.[4] This race-based system prioritized white immigrants from western and northern Europe and heavily discriminated against those hailing from Asia, Africa, and elsewhere.[5] In 1965, President Johnson signed the Immigration and Nationality Act of 1965 (INA) into law.[6] Although INA has been amended many times over the years, its core principles have remained the same.[7] These principles include three primary preference categories, which, most importantly for our analysis, emphasize family reunification.[8]

INA effectively dismantled the origins-based quota system and permanently altered immigration patterns in the United States by prioritizing

3 EB-5 Immigrant Investor Program, *supra* note 2.
4 Wolgin, *supra* note 1 at 1.
5 *Id.*
6 *Id.*
7 *Id.*
8 *Id.* at 3.

family reunification above all else.[9] This emphasis led to an unforeseen pattern of chain migration, meaning an immigrant would travel to the U.S. and later send for their family members to follow.[10] During the Vietnam War era particularly, it was common for soldiers fighting overseas to marry natives and return to the U.S. with their new spouses.[11] In part, INA was drafted with these soldiers in mind—allowing those who risked their lives in war to return home with their new wives was a simple way for the government to thank its servicemen.[12] Chain migration ultimately became the foremost unintended consequence of the act.[13] Immigrant populations in the U.S. originating from source countries with the largest flows of migrants to the U.S. grew exponentially, which in part explains why the U.S. today experiences such high immigration from Mexico and other Central American countries.[14] Although Johnson asserted that in addition to family reunification, "those wishing to immigrate to America shall be admitted on the basis of their skills,"[15] immigrants' skills would ultimately influence their admittance less than their relationships with existing residents.[16]

Today, immigration policy in the U.S. remains governed by INA and is rife with inefficiency and inequity, partly because so few avenues for citizenship exist. Under INA, the U.S. government can only grant up to 675,000 permanent immigrant visas annually across all visa categories.[17] There is no limit, however, governing the admission of U.S. citizens' immediate family members, including spouses, parents, and children under 21 years old.[18]

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9 Gerhard Peters & John T. Woolley, *Remarks at the Signing of the Immigration Bill, Liberty Island, New York*, THE AMERICAN PRESIDENCY PROJECT (Oct. 3, 1965), https://www.presidency.ucsb.edu/documents/remarks-the-signing-the-immigration-bill-liberty-island-new-york (last visited Aug. 1, 2022); Wolgin, *supra* note 1 at 2, 4. The Immigration and Nationality Act of 1965 eliminated any mention of race or nationality as criteria for immigration. Johnson greatly miscalculated the significance of INA in his signing speech. He stated, "[t]his bill that we will sign today is not a revolutionary bill. It does not affect the lives of millions. It will not reshape the structure of our daily lives, or really add importantly to either our wealth or our power." He could not have been more wrong; INA ushered in millions of immigrants from parts of the world previously barred from immigrating to the U.S. Immigrants from Asia, Central and South America, and Eastern and Southern Europe flooded across the border and then sent for their families, creating a pattern of compounded immigration from those regions.

10 Wolgin, *supra* note 1, at 2.

11 *See id.* at 60.

12 *Id.*

13 *See id.* at 2.

14 *See id.* at 129–30.

15 Wolgin, *supra* note 1, at 3.

16 *See id.* at 4.

17 *How the United States Immigration System Works*, AMERICAN IMMIGRATION COUNCIL (Sep. 14, 2021), https://www.americanimmigrationcouncil.org/research/how-united-states-immigration-system-works (last visited Aug. 1, 2022).

18 *Id.*

Avenues for becoming a United States citizen or lawful permanent resident are ultimately few unless you have certain familial ties with U.S. citizens.[19] One limited exception, however, is employment-based visas, namely the H-1B visa.[20] The H-1B visa program is a temporary work visa that may or may not lead to a green card, and like most other avenues for immigration, it is highly competitive and accounts for a small fraction of the total amount of employment-based visas awarded every year.[21]

There is an annual limit, or cap, on how many H-1B visas the U.S. government can prescribe.[22] This figure is determined by Congress and currently sits at 85,000 visas per year, 20,000 of which are reserved solely for graduate degree holders.[23] Because demand for H-1Bs always exceeds the annual cap, applicants with complete applications enter a lottery in which visas are randomly adjudicated by USCIS until the cap is met.

One of the most common sources of foreign talent for the H-1B program is U.S. universities, which collectively provide education to a large pool of high-skilled international students. While the H-1B visa program is open to any foreign worker with knowledge in a specialty occupation and with an employment relationship to a U.S. firm, one of the most common pathways for achieving a sponsoring employer is by attending a U.S. educational institution, participating in Optional Practical Training (OPT), and then petitioning for an H-1B.[24]

A. *Immigration-for-Sale vs. EB-5*

Our policy may seem similar to another type of employment-based visa, the EB-5. The EB-5 mirrors immigrant investor programs common in many

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19 There are other pathways for citizenship that provision birthright citizens and refugees. Wolgin, *supra* note 1 at 1. Regarding refugees, the U.S. has historically been the global leader in refugee admissions, although the number of refugees admitted in recent years has been abnormally low, with only 11,000 admitted in FY 2020. Ryan Baugh, *Fiscal Year 2020 Refugees and Asylees Annual Flow Report*, DEPARTMENT OF HOMELAND SECURITY, OFFICE OF IMMIGRATION STATISTICS (Mar. 8, 2022), https://www.dhs.gov/sites/default/files/2022-03/22_0308_plcy_refugees_and_asylees_fy2020_1.pdf (last visited Aug. 1, 2022).

20 *The H1-B Visa Program and Its Impact on the U.S. Economy*, AMERICAN IMMIGRATION COUNCIL (Jul. 15, 2022), https://www.americanimmigrationcouncil.org/research/h1b-visa-program-fact-sheet (last visited Aug. 1, 2022).

21 *See id.*

22 *H-1B Cap Season*, U.S. CITIZENSHIP AND IMMIGRATION SERVICES (Feb. 23, 2022), https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-cap-season#how (last visited Aug 1, 2022).

23 *See id.* Not all H-1B nonimmigrant visas are subject to the annual cap.

24 In order to qualify for a H-1B visa, workers must have at least a U.S. equivalent of a bachelor's degree and have knowledge in a specialty occupation outlined by USCIS. Many fields, ranging from architecture to engineering to the social sciences, qualify workers to apply for an H-1B visa. However, according to the American Immigration Council, nearly two-thirds of petitions for H-1B visas are for STEM occupations.

countries, although it makes up for a small fraction of employment-based visas in the U.S. There are two primary transaction types in all immigrant investor programs: (1) a transaction between the immigrant investor and a private sector entity, and (2) a direct transaction between the immigrant and the government.[25] The United States' EB-5 program is limited to the first transaction type, but the program is significantly different and much smaller than the policy we propose. First, the EB-5 visa requires an investment of $1 million per investor, although the investor can qualify for an EB-5 with a $500,000 investment if they invest in a typically rural area experiencing high unemployment.[26] Under this program, investors are eligible to apply for a green card after two years if, along with their investment, they "create and preserve 10 permanent full-time jobs for qualified U.S. workers."[27]

The EB-5 program is extremely small in comparison to the H-1B, with only 9,085 visas granted in 2019.[28] Because the transaction is made directly between a private firm and an individual investor, measuring the economic impact of the EB-5 program has proven challenging since investments in private businesses can be difficult to track. Further complicating analysis is the fact that investors can withdraw their investments after qualifying for a green card. Sumption and Hooper assert that, at best, the economic contributions from such a limited pool of investors in a country as large as the United States is modest.[29] An immigration-for-sale program in which payments are made directly to the government will have greater economic benefits and will be easier for economists to track and measure.

B. *The Need for Foreign Workers in the American Workforce*

Because demand for H-1B visas is so high, the number of applications received almost always exceeds the fiscal year limit of visas granted. The technology sector benefits the most from foreign workers, and it has sought

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25 The first type of transaction is aimed at boosting foreign direct investment (FDI) and creating jobs in the private sector. The second is designed for generating government revenue. Sumption and Hooper, *Selling Visas and Citizenship: Policy Questions from the Global Boom in Investor Immigration*, MIGRATION POLICY INSTITUTE (2014), https://www.migrationpolicy.org/sites/default/files/publications/Investor-Visas-Report.pdf.

26 The $500,000 investment option is what the majority of EB-5 visa holders opt to make. Eligible investment areas are called Targeted Employment Areas (TEA), defined as "an area that, at the time of investment, is a rural area or an area experiencing unemployment of at least 50 percent of the national average rate." *EB-5 Immigrant Investor Program*, U.S. CITIZENSHIP AND IMMIGRATION SERVICES, https://www.uscis.gov/working-in-the-united-states/permanent-workers/eb-5-immigrant-investor-program.

27 *Id.* Investors' spouses and unmarried children under the age of 21 years old are also eligible to apply for green cards under the EB-5 visa program.

28 Department of Homeland Security, 2019 Yearbook of Immigration Statistics, Tables 7, 27, 32 (2020), https://www.dhs.gov/sites/default/files/publications/immigration-statistics/yearbook/2019/yearbook_immigration_statistics_2019.pdf.

29 Sumption and Hooper, *supra* note 25, at 1.

to increase the visa cap by lobbying Congress to increase the limit of H-1B visas as well as make it easier for temporary workers to get green cards. In 2013, Facebook CEO Mark Zuckerberg rallied top executives in Silicon Valley, including Microsoft founder Bill Gates and Google chairman Eric Schmidt, to fund his non-profit group, FWD.us, aiming to garner support for reforming U.S. immigration policy. One of their goals was to drastically increase the number of temporary work visas, like H-1Bs, and green cards granted to foreign workers with specialized talent in the technology sector. The amount of lobbying from the U.S. technology sector is a deadweight loss on society, itself indicative of the inefficiency of our current system.

The lobbying and political pressure that the technology sector has placed on Congress illustrate that U.S. firms desire skilled foreign talent. These technology companies would easily prefer to divert lobbying expenses into fees paid to the government if such fees guaranteed they could acquire the long-term skilled talent that they desire. Therefore, a market mechanism is a perfect way to capture and resolve excess demand.

C. *STEM Workforce Shortage*

The U.S. is minimizing its productivity by accepting a majority of immigrants on the basis of familial ties rather than skill, especially as the supply of certain high-skilled science, technology, engineering, and mathematics (STEM) workers does not currently meet workforce demand.[30] According to insights from CompTIA, an I.T. trade group, tech job postings in 2019 rose 32% from the year prior, leaving 918,000 IT jobs unfilled later that year and amounting to significant losses in productivity.[31]

The U.S. manufacturing sector is particularly concerned with the shortage in skilled workers. According to Emerson, a Missouri-based engineering solutions company, the manufacturing sector alone is predicted to have 3.5 million available jobs by 2025, 2 million of which risk going unfilled as a result of an insufficient labor pool.[32] In a recent report with Deloitte, the Manufacturing Institute places this number even higher,

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[30] Not every STEM occupation (e.g., academia) faces a shortage of workers. A publication by the Bureau of Labor Statistics finds both a shortage and surplus of STEM workers, stating that "the academic sector is generally oversupplied, while the government and private industry have shortages in specific areas," such as in software development and petroleum engineering. Yi Xue and Richard Larson, *STEM Crisis or STEM Surplus? Yes and Yes*, U.S. BUREAU OF LABOR STATISTICS MONTHLY LABOR REVIEW (May 2015), https://www.bls.gov/opub/mlr/2015/article/stem-crisis-or-stem-surplus-yes-and-yes.htm.

[31] Angus Loten, *America's Got Talent, Just Not Enough in IT*, WALL STREET JOURNAL, (Oct. 15, 2019), https://www.wsj.com/articles/americas-got-talent-just-not-enough-in-it-11571168626?mod=hp_featst_pos1.

[32] *Worker Shortage is at Crisis Levels*, EMERSON, (Aug. 21, 2018), https://www.emerson.com/en-us/news/corporate/2018-stem-survey.

predicting that as many as 2.4 million positions will go unfilled between 2018 and 2028.[33]

Some are concerned about what this labor shortage means for American leadership in science, technology, and innovation and if our shrinking science and engineering (S&E) labor pool will threaten national security and long-term economic output. Many of these concerns rely on weak or incomplete data.[34] Still, the National Science Board characterized the U.S.' S&E workforce challenge as "a long-distance race to retain its essential global advantage in S&E human resources and sustain our world leadership in science and technology."[35] Instead of developing short-sighted policies like INA, the U.S. needs to thoughtfully design and implement policies that will afford it long-term supremacy in STEM.

Selling immigration visas to high-skilled workers is one way to do this, and one of the best places to sell immigration visas is within the existing framework of the H-1B visa program. Immigration policy should prioritize immigrants who offer the most value to U.S. firms and thus should resemble a larger version of the H-1B visa program. However, instead of allocating visas to high-skilled workers via random lottery, the government should sell those visas using a price mechanism. One could conceive of the system today as selling via politics, where politicians are lobbied from different constituencies to admit various immigrants. As usual, this will result in an inferior allocation rather than a more explicit allocation by price.

II. SELLING IMMIGRATION VISAS

We propose a policy whereby immigrants can purchase American citizenship for a fee that can be paid off over time. Central to this proposal is the option for immigrants to take out a loan to finance the high immigration fee. Selling a visa may seem strange because it is a redistribution of resources from people to governments. But this is always the case where the

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[33] *The Jobs Are Here, but Where Are the People?*, DELOITTE INSIGHTS (2018), https://www.themanufacturinginstitute.org/wp-content/uploads/2020/03/MI-DI-The-jobs-are-here-where-are-the-people.pdf.

[34] Butz et al., *Is the Federal Government Facing a Shortage of Scientific and Technical Personnel?*, SCIENCE AND TECHNOLOGY (2004) (attributing the perception of a STEM worker shortage to limited data). Lowell and Salzman report that U.S. universities produce enough scientists and engineers to fulfill workforce demand; however, demand-side factors led many to work in fields outside of their degree. B. Lindsay Lowell & Hal Salzman, *Into the Eye of the Storm: Assessing the Evidence on Science and Engineering Education, Quality, and Workforce Demand*, THE URBAN INSTITUTE 35 (2007), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1034801. Xue and Larson analyze the STEM workforce according to individual fields and determine that some occupations are experiencing a shortage of workers while others experience a surplus. Xue and Larson, *supra* note 30.

[35] Michael Crosby & Jean Pomeroy, *What Will It Take for the United States to Maintain Global Leadership in Discovery and Innovation?*, SCIENCE AND TECHNOLOGY 21 (2004), https://www.rand.org/pubs/conf_proceedings/CF194.html.

government owns a public good. The best example of this is the auctioning of the spectrum, where corporations paid high fees to the government for the right to access the telecommunications airwaves.[36]

Whether or not an immigrant will be able to move to the U.S. by purchasing a visa will largely depend on his or her ability to acquire a loan to finance the high citizenship fee. Until the loan is repaid in full, beneficiaries will be classified as temporary workers. When the immigration loan is fully repaid, the worker will be granted full U.S. citizenship.

This policy will indirectly favor immigrants with specialties in STEM due to the high demand of workers in many of those fields. Immigrants in STEM are likely to have better job opportunities, higher pay, and, as a result, higher creditworthiness. In some cases, employers may compete with each other for the most talented workers by offering to pay for the citizenship fee on behalf of the worker, either partially or in full.

Workers in other fields are equally eligible to apply for citizenship. However, it will be more challenging for low- or medium-skilled workers to find positions in the U.S. that cannot be filled by existing citizens or residents. Take an elementary school social studies teacher, for example. While an immigrant teacher would certainly add value to a U.S. school system, it is unlikely that a teaching position could not be filled by a recent graduate from an American university. Ultimately, for many job categories, there is not enough demand for workers that we could expect an influx of immigrants will move to the U.S. to fill jobs across categories.

Of course, there are exceptions. The proposed policy would conceivably benefit rural America, where there is a shortage of workers in many trades, such as doctors or teachers. Research shows that skilled workers and educational attainment in rural communities lag significantly behind urban centers.[37] Selling visas would be an effective way to fill positions in underserved communities in the U.S. Workers could be incentivized to commit to working in disparaged areas of the U.S. by receiving lower interest rates on their loans or by other means determined by capital markets.

A. *A Price Mechanism for Selling Visas*

Because we can generalize that there is a nationwide shortage of skilled workers in STEM areas, we reason that the incentives for expanding the supply of skilled workers are sufficiently strong and that those workers

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[36] *See* Peter Cramton, Evan Kwerel, Gregory Rosston, & Andrzej Skrzypacz, *Using Spectrum Auctions to Enhance Competition in Wireless Services*, 54 J.L. & ECON. S167, S167 (2011).

[37] *See* Mike Bartlett & Kimberly Hauge, *Developing Talent in Rural America Through Work-Based Learning Experiences*, THE BOOK OF STATES 465, 465 (2017); JESSICA D. ULRICH, EDUCATION IN CHRONICALLY POOR RURAL AREAS LAGS ACROSS GENERATIONS 1–3 (2011).

would be willing to pay a price. How would a price mechanism work in this context?

Economists have long argued for the use of prices to allocate resources. This is common in the case of public goods, where the government owns some shared resource and traditionally has allocated that resource through rationing, using a quota, or some other quantity-based system. But rationing requires the government to have deep knowledge of market conditions, and rationing can lead to excess demand. For example, the federal government historically owned all of the air above both public and private land in the U.S. These airwaves eventually had high value after the development of wireless and cellular technology. Teams of economists then advised the government to design auctions for selling the rights to use the spectrum to major telecom companies.[38]

Congestion pricing of road traffic is another example of utilizing a market mechanism to meter demand. Absent pricing, traffic accumulates because drivers essentially consume at zero price, thereby overconsuming and leading to congestion. Congestion pricing of traffic leads drivers who have the highest value of time to pay those prices, while other drivers choose other times to drive, thereby balancing the distribution of traffic over time and ultimately reducing congestion.

Thus, the price mechanism is useful because it solves two problems that particularly affect immigration: balancing supply and demand and aligning social costs and private benefits. Prices in equilibrium will always balance supply and demand and eliminate gluts and shortages caused by misguided government policies. Perhaps the most classic example is the minimum wage, which acts as a price floor on wages, leading to excess supply. Were the market able to clear, prices would reach an equilibrium lower than the minimum wage, and market demand would equal market supply. Public goods also have an additional issue of social versus private value. As the tragedy of the commons long established, when benefits are private, and costs are social, this will lead individuals to overconsume common resources. A price mechanism can address this by forcing individual users to internalize those social costs.[39]

Access to this country through immigration is one of the most valuable unpriced assets of the United States today. The long waiting lines to come to this country are themselves a signal of excess demand, and they likely

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[38] *See generally* Robert Day & Paul Milgrom, *Optimal Incentives in Core-Selecting Auctions*, THE HANDBOOK OF MARKET DESIGN 282 (Nir Vulkan, Alvin E. Roth, & Zvika Neeman eds., 2010) for a review of what is one of the major success stories in economic theory. Indeed, the recent Nobel prizes awarded to Paul Milgrom and Bob Wilson of Stanford University largely originated from their work in designing these auctions that generated huge revenue for the government.

[39] There is a large literature in game theory and mechanism design that specifically develops methods to achieve this. *See, e.g.*, Korok Ray, *Performance Evaluations and Efficient Sorting*, 45 J. ACCT. RSCH. 839, 840, 855–58 (2007); Mark Bagnoli & Barton L. Lipman, *Provision of Public Goods: Fully Implementing the Core through Private Contributions*, 56 REV. ECON. STUD. 583, 583, 599–600 (1989); Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 40 (1960).

underestimate the true effect since many are dissuaded from applying, given the long and arbitrary process in place today. Pricing immigration may seem offensive to some, possibly counter to the American history of welcoming anyone to our shores. But America today is vastly different from when the Statue of Liberty was accepted from France in 1886, primarily because of the growth of the welfare state. Now, every new immigrant to the U.S. imposes a social cost. There are benefits, but any rational policy must align the costs with the benefits. The best way to mitigate the fiscal drag that many fear high immigration rates impose is to introduce a skill- or merit-based policy, where immigrants pay their social cost upfront. This makes immigrants unequivocally net positive for U.S. productivity, reducing any lingering hostility towards immigrants currently felt today.

B. *Design of a Visa Sale Program*

While the most basic program for selling employment-based immigration visas to high-skilled workers would build on today's H-1B visa program, our plan is more than just a simple expansion of the H-1B program. Presumably, Congress has been reluctant to expand the cap because it does not see enough of a direct benefit. If the government were to raise substantial new revenue, then conceivably, they would be willing to do so. Our policy would explicitly include a fee for a given immigrant to receive guaranteed citizenship.[40] The fee will be sufficiently high that the worker could not afford this fee based off his own income in his home country.

A high price for immigration is a fundamental feature of our policy. If the price for citizenship is high, then only those immigrants with strong labor market opportunities will be able to afford the price. High wages are a direct consequence of high labor demand since that demand is exactly what pushes up the wages. Therefore, imposing a high price on immigration will naturally lead the market to solve the problem by attracting those workers with skills that are in high demand. Today, that population of workers is STEM workers; tomorrow, those skills may be different from STEM. Ultimately, no one will know in perpetuity which skills have the highest demand since technology changes rapidly and markets continuously adjust. Rather than hard-coding the skills that are currently in demand today and having the government pick winners and losers (as currently done in the H-1B program), a price mechanism remains agnostic on what those skills are and lets the market determine that skill mix over time. This is a more flexible and robust approach because it does not place the onus on the government in

40 One way to implement our price is through taxes. In fact, some countries, like Italy, have a golden visa program that takes the form of a lump sum tax paid up front. This is the formal equivalent to an immigration fee. However, from the perspective of policy, it is more straightforward to impose an immigration fee rather than embed this into the tax system because it would complicate the tax system.

determining the optimal skill mix but rather places it in the hands of the labor market.

C. *Who Pays the Citizenship Fee?*

Theoretically, it does not matter whether the employer or the worker pays the fee for guaranteed citizenship.[41] The most qualified workers will receive the best offers from their employers and can use those employment offers to pay their immigration fee over time. Just as banks and other financial institutions evaluate the creditworthiness of potential homeowners by examining their employment and W-2 income, so too could these financial institutions lend to potential immigrants. An offer of employment from Facebook, for instance, is a strong signal of an immigrant's ability to pay overtime. If, for some reason, the political environment disallowed workers paying these immigration fees, employers would still happily pay these fees on behalf of their future employees.

Human capital theory, developed by Gary S. Becker, posits that firms will invest in their workers' human capital if the firm can generate sufficient benefits from that investment over time. In particular, firms are more willing to invest in specific human capital, while workers are more interested in investing in general human capital.[42] This reluctance to pay for general human capital by employers may lead one to think that the immigration visa program would not work. However, firms can easily contract around these barriers. For example, a firm could put in place provisions that would require the new immigrant work at the company for a predetermined number of years in order for the firm to pay the immigration fee. If the immigrant leaves the firm, possibly for another company, then the worker would need to pay back some prorated amount of the fee. This is similar to restrictions that employers put in place when they pay for the graduate education of American workers. Thus, there's already precedent for employers paying for general human capital, and an investment in an immigration visa is simply another example of this.

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41 *See* Gary S. Becker, HUMAN CAPITAL: A THEORETICAL AND EMPIRICAL ANALYSIS WITH SPECIAL REFERENCE TO EDUCATION 31–32 (3d ed. 1993).

42 Specific human capital is specific to the firm itself, while general human capital pertains to the general skills that the worker can obtain in the marketplace. For example, an internal certification for training is an example of specific human capital, whereas the MBA degree is more an example of general human capital.

III. PRICING IMMIGRATION

For immigration visas to be available to anyone, the price must be sufficiently high. Otherwise, the country will be flooded with applicants and would need to impose limits on immigration, similar to today.

Lazear and Ray provide a formal economic model and calibrate it against U.S. wage and immigration data.[43] They estimate that the price of an immigration visa available to anyone who wishes to buy it would be around $80,000.[44] As the previous section showed, any kind of price discrimination for high-skilled workers—such as the kind participating in today's H-1B visa program—will have even higher prices. These are one-time fees that the immigrant or employer pays. Once the immigrant agrees to pay this fee, he or she can adopt citizenship without any other extensive requirements, contrary to current immigration policy, which is normally a tedious years-long process.

A. *An Example*

As stated above, Lazear and Ray employ an economic model to estimate that the price of a visa should be roughly $80,000 for the population of all immigrants currently coming to the United States.[45] That model did not solve for the optimal price under two-tier price discrimination, for example, skilled and high-skilled labor, such as the population of H-1B visas. But in such a scenario, the price of a skilled visa will be higher because of the greater demand for the skilled immigrant. Assume that such a visa costs $125,000, a premium to the standard $80,000 visa. As a benchmark, a starting salary of a software developer at a major technology company is the size of the fee, $125,000 for a student finishing a master's degree in computer science.

A lender could easily post a high-interest rate of 10% the first year, which the immigrant could buy down 1% for every $5,000 that he prepays on the loan. So, if the immigrant pays $25,000 into the loan by the end of that first year, entirely possible given their market wages, then the rate on the remaining term of the mortgage would be 5%. At an overall term of thirty years—for comparison to the standard fixed-rate mortgage—the lender could offer a 5% interest rate on a loan with 80% loan to value (LTV), where 20%, or $25,000, is equity at inception, and the loan of $100,000 must be paid off

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43 *See generally* Edward P. Lazear & Korok Ray, *Choosing and Implementing Optimal Immigration Policies* (May 2021) (manuscript under review) (on file with McCombs School of Business Salem Center for Policy).

44 *Id.* at 2.

45 *Id.* Our estimate of the price of immigration is small, given companies in the US would conceivably pay tens of thousands of dollars per year per immigrant software developer. For example, it's conceivable that a developer earning $200,000 per year creates twice that in value for the corporation. The corporation would thus be willing to pay a sizable amount per year to capture that value.

over thirty years at 5% rate. Using standard calculations, this is a monthly payment of $540. Again, this is easily affordable with current technology sector wages. Like the standard thirty-year mortgage, the initial payments over the life of the loan will mostly accrue to interest, and over time, they'll shift towards paying off the principal. Over thirty years, the total interest would be $67,140 to finance the $125,000 loan.

B. *Immigration Loans*

What will happen if immigrants do not pay the fee? The answer: capital markets. Financial institutions will offer products that will allow potential immigrants to finance these fees over time. Just as potential homeowners take out a mortgage, so too could potential immigrants take out an immigration loan, the balance of which they could pay off over many years. This is an opportunity for innovation in the financial sector. We will now detail some of the economic issues that will arise from and around these immigration loans. Throughout, we'll anchor on the analogy of a homeowner pursuing a mortgage.

Like all loans, an immigration loan is an exchange between one party who demands capital (the immigrant) and one party who supplies it (the financial institution or bank). The immigrant will need the fee paid upfront and can pay it back to the bank over time. This is identical to mortgages, where banks and other lenders transfer large sums to borrowers up front that they recover over time in the form of principal and interest payments. The interest payments on a mortgage compensate for the risk that the lender bears in making the loan. That risk is default on the loan, which occurs if the borrower fails to pay.

The same logic applies with an immigration loan, where the immigrant is the borrower, and the bank is the lender. Just as with mortgages, the bank will use risk-based pricing (i.e., price the interest rate on the loan based off of the creditworthiness of the immigrant). Banks, as private sector actors, have better resources and abilities to do this than the government, which serves this function today by deciding who can and cannot come to this country. Rather than making a binary decision (allow or disallow an immigrant), a bank can use interest rates to price risk in a more specific way. Banks are free to use whatever information they require to issue the loan. For example, banks can require verified employment, as they do for W-2 income for mortgages. They can even offer lower rates for immigrants in more stable or higher-paying jobs. As occurred with the mortgage industry, third-party companies will specialize in scoring the creditworthiness of potential immigrants.

Imagine an immigrant FICO score based on a set of variables unique to the immigrant for estimating his or her creditworthiness. As personal and professional data becomes increasingly digitized, an empirical, data-oriented

approach for estimating immigrants' risk—even those from less-developed countries—should be much easier today than even a quarter-century ago.

The chief difference between a mortgage and an immigration loan is the collateral. With a mortgage, the property itself serves as the collateral that secures the loan. So, if a borrower defaults on the loan by stopping the monthly payments, the bank can ultimately take possession of the house, which it could then sell at a discount in the open market. Even though the bank may take a loss on that sale, the house still provides collateral that makes the bank more likely to lend in the first place. With the immigration loan, there is no collateral (at least up front). But this is not a barrier if we consider the true issue, namely, the incentives of the immigrant to default.

At the origination of the loan, it is unlikely that many immigrants will have any significant resources to contribute to the loan. It is unlikely that most immigrants can provide a reasonable down payment on an immigration loan the way homeowners do for mortgages. Yet a carefully constructed pricing policy can circumvent this issue. In the early months or years of the immigration loan, the bank can impose a high rate of interest on the loan and lower that rate if the immigrant elects to put equity into the loan and pay off some of the balance. This is possible if the immigrant has a secure, high-paying technology job, which the majority of H-1B visa applicants seek. In the early months of their employment, they can allocate a larger share of their disposable income to building up the down payment for the immigration loan. This would "buy down" the interest rate.

After six to twelve months, the bank could refinance the loan into something of a fixed-rate product. Indeed, the down payment concept for mortgages only emerges in the context of the thirty-year fixed-rate mortgage since the homeowner has enough equity in the house (at least 20%) that the bank can forecast a thirty-year waterfall of cash flows and payment schedule. The first year of an immigration loan may be uncertain for the lender because there is no down payment, but the bank can compensate through higher-risk payments. If these interest rates are sufficiently high and the skill of the immigrant is sufficiently strong, then the immigrant has strong incentives to buy down his rate quickly.

C. *Handling Default*

Default on some immigration loans is inevitable, as some immigrants will lose their jobs or even elect not to pay. Therefore, it is vital that both the capital market and the government collaborate on what to do during such cases of default. Referencing mortgages again, recall that a mortgage default ultimately leads to the bank possessing the house, and the greater the homeowner's equity in the house, the less likely he is to default since he places his investment at risk.

While immigrants lack those strong financial incentives and may not have as much equity in their loan, they can face penalties that induce them to

pay. There is a sliding scale of such penalties. The weakest form of penalties can run through the employer, who can levy internal sanctions. To understand these penalties, it depends somewhat on who is paying for the immigration loan. It is possible to build a mechanism of selling immigration visas where either employers or employees pay.

If employers pay the fee over time, similar to how employers cover the costs of an H-1B visa on behalf of employees, the credit risk of a loan decreases. Employers can simply garnish the monthly payments on the loan out of the employee's wages, similar to how employers currently withhold wages for tax purposes. In this mechanical sense, the payment of the immigration loan operates identically to a monthly tax paid to the government.

The risk, however, is what happens if the employee quits or is terminated. In that case, the problem becomes more complex, as the employee needs to be responsible for their monthly loan payments even if they are unemployed. Similar to how the H-1B program functions today, immigrant workers, in the case of unemployment, could be granted a grace period in which they can search for a new job. Some should have enough savings to continue paying their loan. If the worker does not find new employment within a given period, the USCIS can take steps to revoke the worker's temporary worker status. Recall that a worker has not achieved full citizenship status until his or her loan is fully paid. Because this policy is designed to attract the highest-skilled immigrants, the odds of a worker being unable to find new employment is conceivably low.

While this may seem draconian, it is modeled after the existing H-1B rules governing loss of employment. H-1B sponsorship is contingent on employment, and since the sponsoring firm paid the H-1B visa fees, that H-1B status is in limbo if the employer decides to terminate the immigrant or if the immigrant quits their job. Currently, the worker would have a sixty-day unemployment grace period to find new employment before their H-1B status would be revoked.

Conceptually, the immigration loan is attached to the employee—the ultimate beneficiary—since it confers their right to be a citizen, not only to work at a specific company. In that case, the employer can work with the lender if the immigrant employee misses his monthly payments. The employer can exercise internal penalties, such as denying vacations and promotions, requiring more face time at the office, denying alternate work locations and flexible scheduling, and any other benefits that the employee accrues.

If the immigrant employee still misses monthly payments, then the lender and the employer can take more aggressive action to withhold wage payments to the employee. Usually, default on debt is correlated with job

loss, for which poor work performance is an indicator.[46] If the worker is performing poorly, it is likely that he is at risk of termination from the employer. In that case, the threat of termination is a sufficiently strong financial incentive for the immigrant employee to ensure strong work performance, avoid termination, and thus not default on his loan.

The lender and the employer are free to contract as they like. The lender can agree to a clause with the immigrant up front, which states that in case the borrower (the immigrant) fails to make several payments of the loan, then the lender will extract these payments from the employer. Given the high demand for skilled immigrants in technology companies, we believe employers would be willing to agree to these contractual terms if it meant they could secure skilled technology talent. The final and most severe penalty is deportation. The lender does not have the authority to enforce deportation but must cooperate with the government in the event an immigrant's default reaches this point.

D. *Labor Mobility*

One problem with the H-1B visa program today is what happens if the immigrant leaves the sponsoring firm (firm A) for another firm (firm B). In our model, the immigrant is fundamentally responsible for paying his fee, even if he negotiates with firm A to pay that fee. If the immigrant leaves that firm, the unpaid balance ultimately will fall on the immigrant. At that point, if the immigrant chooses to work for firm B, then that firm can then pick up the payment of the immigration fee if it wants to.

Similarly, the same logic holds if an immigrant wants to become an entrepreneur a few years after moving to the country and is paying some of his fee in concert with his current employer. If he leaves his employer, he is still responsible for paying the balance of the fee. Successful future entrepreneurs may be able to negotiate with investors on novel arrangements, where the investors would pay for some of the immigration fee for promising founders. For example, immigrant founders could give up some equity in their new venture to investors willing to pay their fee upfront. Or there may be third-party banks that would lend to immigrant founders specifically to pay off their immigration fee in exchange for stock in the new company. Ultimately, competition for top talent will lead the best entrepreneurs to negotiate unique contracts with investors and lenders, as the expected value of their new venture should be sufficient to pay off any fees.

Ultimately, employers and the immigrants have full freedom of contract to structure whatever arrangement they would like. In a free market, the top

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[46] Gerardi et al., *Can't Pay or Won't Pay? Unemployment, Negative Equity, and Strategic Default,* 31 THE REVIEW OF FINANCIAL STUDIES 1098, 1118 (Oct. 10, 2017) https://academic.oup.com/rfs/article/31/3/1098/4430495.

talent will be able to negotiate more of the payout of the fee by their employers. Competition in the labor market will allow these contracts to be structured as needed depending on the bargaining powers of the immigrants and the employers in various contracting arrangements.

IV. WHY SELL IMMIGRANT VISAS?

Many reasons in favor of selling immigrant visas have been made clear, but there are more arguments to be made. First, the proposed policy will generate millions of dollars in revenue for the U.S. government. If the citizenship fee costs on average $100,000, and the U.S. theoretically replaced the H-1B visa program with our policy and doubled the cap from 80,000 to 160,000 visas, then the government could expect to generate approximately $160 million in revenue. This figure does not include interest payments that U.S. financial institutions would accrue from immigrants financing their loans.

Additionally, we predict that selling immigration visas will reduce the number of visa applicants in other categories because purchasing a visa provides a more straightforward path to entry than traditional immigration pathways. Further, we expect this policy would shrink the backlogs that have occurred as demand for immigration has increased. As of 2018, the backlog of potential immigrants petitioning for green cards reached over four million applicants.[47] In 2020, the backlog for employment-based green cards specifically exceeded 1.2 million.[48] The CATO Institute reported in 2020 that "Indian employer-sponsored applicants face an eight-decade wait for green cards, and nearly 200,000 will die before they could even theoretically reach the front of the line."[49] The backlog is in part a result of the low visa cap for employment-based visas, where demand exceeded supply by over 109,000 applicants from November 2019 to April 2020 alone.[50] Currently, there is no large-scale system in place for streamlining the green card process and the selection process for who receives a green card and who does not needs optimization. The U.S. is essentially turning away talent.

Third, the U.S. is not the only country with fast-growing technology hubs. Cities like Shanghai, Toronto, and Beijing are also experiencing high investments in their technology sectors and will be competing in the global market for talented workers to fill high-skill positions. With an immigration-for-sale policy, the U.S. has an opportunity to become more internationally

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47 *Permanent Legal Immigration to the United States: Policy Overview*, CONGRESSIONAL RESEARCH SERVICE (2018) (available at https://crsreports.congress.gov/product/pdf/R/R42866).

48 David J. Bier, *Employment-Based Green Card Backlog Hits 1.2 Million in 2020*, CATO INSTITUTE (Nov. 20, 2020), https://www.cato.org/blog/employment-based-green-card-backlog-hits-12-million-2020.

49 *Id.*

50 *Id.*

competitive by providing a faster, more efficient, market-based means of granting green cards to workers.

A. *Counterarguments*

Skeptics charge that the EB-5 program already allows selling visas—isn't this just another version of the EB-5? While it is true that the EB-5 investor visa program does confer citizenship and matches some of the spirits of our proposal, the current EB-5 program is much smaller and more restrictive than we envision. As previously noted, in 2019, the U.S. offered only 9,085 EB-5 visas, which, at an investment of $500,000 per investor, would have generated 4.5 billion dollars of private investment—roughly 0.1% of the $4.44 trillion of foreign direct investment the U.S. received by the end of 2019.[51]

There is currently very little overlap between the EB-5 and the H-1B programs, although they are both employment-based visas. We propose a price much less than the EB-5's minimum price of $500,000,[52] and we expect to aim our program toward skilled immigration. The EB-5 program also has other conditions on investment in the U.S., like the creation of permanent jobs. We do not envision any such requirements here since the investment under our proposal is one of human capital rather than financial or physical capital. Lastly, a key difference is that the EB-5 program does not generate revenue for the government, as the transaction takes place between the immigrant investor and the private sector. Our policy will result in fees paid directly to the government, generating millions of dollars in revenue each year that can be used to offset social costs associated with immigration.

1. Favoring the Rich, Penalizing the Poor

Others assume our policy will favor middle- and upper-class immigrants who already possessed wealth in their home country. However, immigrants moving from low-income countries to a high-income country, like the United States, will certainly be wealthier than they would have been if they stayed in their home country. This will attract immigrants from all trades, not just STEM, to apply to purchase a visa. Any person, despite their wealth at the time of application, is eligible for entry through this policy. They will simply need to earn a job in the U.S. and demonstrate to financial institutions that they will be able to repay their loan.

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[51] *Direct Investment by Country and Industry*, U.S. BUREAU OF ECONOMIC ANALYSIS (2020) https://www.bea.gov/data/intl-trade-investment/direct-investment-country-and-industry.

[52] The baseline price of an EB-5 is $1 million. However, the bulk of investors choose to invest in a Targeted Employment Area, which qualifies them for a smaller investment of $500,000.

Additionally, the crop of immigrants that would benefit from an immigration-for-sale policy is the same crop that currently benefits from the H-1B program. In the case of H-1Bs, these immigrants have been educated at American universities, often possess master's degrees, and have specialized skills and knowledge that make them uniquely valuable to U.S. firms. Conceivably, such individuals are already more well-off than the average immigrant entering through family reunification.

Some might say our policy penalizes low-skilled immigrants and such immigrants are vital for production, such as in the industrialization of the U.S. after the Civil War. Our argument is based on U.S. productivity today, namely, that there is a shortage of high-skilled rather than low-skilled labor. There does not seem to be substantial evidence that firms cannot sufficiently hire low-skilled talent, but ample evidence that there are shortages in certain STEM areas.

2. Actions Versus Prices

A third counterargument is that the government should run an auction rather than pick a price. Some, like Orrenius and Zovodny, have argued for an auctions-based approach to immigration.[53] Governments have successfully used auctions before, such as in the auction of spectrum airwaves for wireless telecommunication. However, this distinction is one of detail and not of kind. Auctions are also market-based mechanisms and could easily substitute for a price-based mechanism. However, we believe that a price mechanism has several advantages over an auction.

First, it is simpler and easier to communicate to the rest of the world. Potential immigrants are not multinational businesses with the time and resources to learn about how the auction works. Rather, they would prefer to make a decision based off a simple measure, such as a straightforward price for immigration. Auctions generally have value when there is vast uncertainty on the valuation of the underlying good or commodity. But with high-skilled immigration, the employers have fairly robust data on how much a new software developer is worth to a company, as it must use this information when calculating starting salaries for new employees. There is also good data on the cost of immigrants to society and their fiscal burden, if any. Therefore, we believe it is possible for the government to pick an initial price, and then adjust that price over time on an annual basis based on uptake.

In any given year, the government can impose a quantity threshold to handle any excess demand. For example, the government may announce a cap of 10 million visas sold at $100,000 or $150,000. If there is excess demand and the cap binds (i.e., all visas are sold), then the government has

53 Pia Orrenius & Madeline Zavodny, *An Auctions Approach to Immigration Policy*, THE CENTER FOR GROWTH AND OPPORTUNITY (Feb. 20, 2020), https://www.thecgo.org/research/an-auctions-approach-to-immigration-policy.

clear evidence that it should raise the price the following year. This is superior to an auction for its simplicity.[54] Adding a quantity threshold combined with a price is vastly superior to the current system today, which has only fixed quotas. The main conceptual contribution is that the price should do much of the sorting rather than a quantity threshold alone.

3. Impact on U.S. Higher Education

Another conceivable issue is that our program would adversely affect U.S. higher education, as OPT often helps young foreign workers establish relationships with U.S. employers that will sponsor H-1Bs. Higher education in the U.S., especially at the graduate level at leading universities, often experiences disproportionate international representation.[55] We can break this into two different components: masters and Ph.D. students. Foreign Ph.D. students resolve the shortage of doctoral talent in the U.S. and allow American faculty to run larger programs than they otherwise could if relying solely on American Ph.D. students. International master's students provide a valuable revenue source for U.S. universities since they often pay full price for their education.

We do not believe that selling immigration visas would affect doctoral education since Ph.D. candidates are unlikely to pursue five-year programs, a significant investment in their human capital, purely for immigration-motivated reasons. But some students may pursue a master's degree primarily as an avenue to work for a number of years in the U.S. through OPT and, hopefully, H-1B. First, we believe that there is value to a U.S. master's degree in a technical field at a major research university because it provides both quality education and cultural immersion for immigrants—a factor that will only strengthen immigrants' candidacy in their job search. So, the demand for U.S. master's degrees will not vanish altogether. Second, even if some employers are willing to hire a substantial amount of raw talent out of foreign countries without training inside an American university, this should impose market discipline on U.S. higher education.

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54 Though in some abstract sense, adjusting the price over time in multiple years is not conceptually different from an auction in any one year.

55 The number of international students enrolled at US higher education institutions neared 1.1 million in the 2019-2020 academic year, with nearly 400,000 of those at the graduate level. Additionally, certain universities have disproportionate international representation at the graduate level. New York University, for example, has among the highest international enrollment of all universities in the US; in 2018-19, NYU had a total of 19,605 international students enrolled, with at least 13,840 of them either at the graduate level or completing post-graduate training. Northeastern University also has a disproportionate number of international students in graduate programs. Of Northeastern's 16,762 graduate students enrolled in Fall 2020, 8,440—more than half—were international. Emma Israel & Jeanne Batalova, *International Students in the United States*, MIGRATION POLICY INSTITUTE (Jan. 12, 2021), https://www.migrationpolicy.org/article/international-students-united-states-2020#enrollment_numbers_trends.

4. Relying on Government Screening

A potential problem for the U.S. national security apparatus is the "rich terrorist problem." What if a wealthy terrorist seeks to buy citizenship into the U.S.? One solution is to implement tactics where the government uses extensive background checks to screen for such nefarious actors. However, this has the unfortunate consequence of still relying on government rather than market-based methods. Given that certain actors, like terrorists, impose negative externalities on the destination country's population, we see no recourse other than relying on screening to prevent such actors from accessing U.S. citizenship. Thorough screening procedures will be necessary to ensure the program's integrity. Evaluating migrants' intent, similar to the judgments consular officers in U.S. embassies must make during visa interviews, will be critical for ensuring only appropriately-intentioned immigrants are admitted through the policy.

There will inevitably be those whose motivations are not to contribute to and benefit from the U.S.' superior productivity, but who seek other perks, like visa-free travel, or who want to establish a foothold in the U.S. for unknown reasons. Screening procedures could verify that each beneficiary has a legitimate work offer in the United States and that the U.S. will serve as the primary place of residence for all beneficiaries. One possibility is to require that beneficiaries have never previously been denied a visa from a country offering its citizens visa-free travel—a policy some countries already have in place.[56] This could indicate that other countries have also gauged the immigrants' intentions as appropriate or not.

5. Optics of Discrimination

Lastly, some may consider our proposal to be age discriminatory, as it will benefit young people who have plenty of years to repay their immigration loan. However, this is no different than any other financial product with a years-long repayment contract, such as a mortgage. It is not discriminatory because any person can apply, although most applicants will self-select based on their own evaluation of the trade-off. Take the following example. A twenty-year-old college student is unlikely to choose to live in an apartment complex designed for senior citizens. The apartment complex has not discriminated against her according to her age, as anyone can apply to be a resident, but rather, she self-selected to live somewhere more suitable for her age and lifestyle. For her, the trade-off of living in a senior citizen community is not worthwhile. Likewise, older immigrants may not find the trade-off—citizenship for a high price—worth it, for instance, if they are

[56] Sumption and Hooper, *supra* note 25.

nearing retirement and/or prefer not to incur a large sum of debt so late in life.

6. Other Concerns

Some may argue we still need a family reunification policy to attract top talent. For example, a top Google developer may want to bring his wife from India. This could still be embedded within our market-based framework. Rather than allowing that developer to bring his wife for free, immigrants like him could bring in spouses at a reduced price. That way, the immigrant still has a marginal benefit from coming to the U.S., and the U.S. still earns revenue off of each additional immigrant.

One criticism of any market-based policy is it may rely on markets that themselves are regulated and hence, distorted. However, we see no solution to this other than a wholesale privatization of every industry, which is likely politically unreasonable. For example, this means that distortions in the healthcare market will lead to trickle-down distortions in the labor pool if inefficient firms are the ones sponsoring visas to new immigrants.

CONCLUSION

Rather than the government selecting winners and losers among high-skilled immigrants, a market mechanism should be used to price immigration visas. Market mechanisms are often more effective than government rationing, which is the method in place today for determining how many immigrants the U.S. accepts each year across visa categories. This method hurts the U.S. technology sector, which has long advocated for expanding the H-1B employment-based visa program—an important but all too limited source of top talent for U.S. firms.[57] This policy should build on the existing H-1B framework, as it is intended to attract the same high-skilled immigrants who currently benefit from that program. A key difference, however, is that the number of admitted immigrants should be determined by the market. Because demand for H-1Bs significantly exceeds supply year after year, we anticipate the demand for this type of policy will be sufficiently high.

A key offshoot of this policy will be the development of new capital markets for financing immigration loans. These institutions will loan immigrants the money needed to pay the high immigration fee, which they can then pay off over time, similar to the way a mortgage works on a house. Additionally, our policy will generate revenue for the government each year, which could be used to offset the social and economic costs associated with

[57] Joel Rosenblatt & Olivia Carville, *Tech Fights Claim that Foreign-Worker Spouses Help Take Jobs*, BLOOMBERG (May 14, 2021), https://www.bloomberg.com/news/articles/2021-05-14/big-tech-enters-fray-to-save-jobs-for-spouses-of-foreign-workers.

increased immigration. Importantly, this step could generate higher electoral support for the policy.

In conclusion, America faces a vital need to innovate in order to remain competitive in the future against adversaries like China. Just like a corporation itself, it has a choice to either build or buy. It can build innovation talent by investing in existing citizens through education, or it can import future citizens into the country through immigration.

As the last 40 years of the technological revolution in America has shown, education itself is not enough, and there are large shortages in high-skilled talent. By far, the easiest way to increase the human capital of our country is to import this talent, for the same reason that free trade is often the best solution to domestic product shortages. Our current immigration system lacks a reliable way to identify top talent and is ridden with bias, antiquated procedures, and bureaucracy. Shifting from a family-based model to a skills-based model would vastly improve U.S. productivity and long-term economic growth.

Future research could extend this analysis in several ways. First, measuring the probable impact of the policy on other immigration pathways, namely family reunification, will help economists more comprehensively determine the overall economic impact as well as predict future immigration patterns. We predict that fewer high-skilled immigrants will petition to enter the country via traditional immigration routes when faced with a straightforward option to pay. Second, policymakers are unlikely to support a bold new immigration policy without understanding the political implications. Many Americans generally oppose immigration out of fear of job loss, cultural decay, and overall fear of the country's changing character. Despite the clear economic benefits of immigration and the fact that this policy is unlikely to affect the jobs of average Americans, research on the potential electoral impacts would certainly be helpful to policymakers. Third, it will be important to consider whether or not pricing immigration will encourage or discourage illegal immigration, particularly if Congress places a cap on the number of immigrants admitted through other programs. These questions, among others, would be helpful avenues for future research in this area.

CAN THE UNIVERSITY SURVIVE NIHILISM?

Iván Marinovic[1]

INTRODUCTION

In this essay, I describe four symptoms of what John M. Ellis refers to as "the breakdown of higher education": i) lack of diversity of opinion, ii) intolerance, iii) subversion of academic standards, and iv) politicization.[2] I will argue that this situation is unlikely to be a transitory phenomenon, namely one more wave of illiberalism. Instead, I believe it is the outcome of a deep cultural change, perhaps a manifestation of what Del Noce describes as the crisis of modernity.[3]

This essay contains my views about the state of academia, particularly in the USA. I write as an observer of the current academic environment. I was born and raised in Chile, was educated both in France and the USA, and currently work as a professor of accounting at Stanford Graduate School of Business. Most of the things I discuss in this essay are known, but unfortunately, they are rarely voiced on campus. By writing about these issues, I hope to encourage professors and students to speak out to defend the truth-seeking mission of the university. This essay is an appeal to centrists on both sides of the political spectrum, who understand that "not everything is politics" and that preserving academic freedom and the truth-seeking *telos* of the university is indispensable both for the university and society at large.

I. AN OVERVIEW OF THE PROBLEM

Academia is going through a crisis that threatens its ability to attract talent as well as produce and disseminate knowledge.

The historian Niall Ferguson describes the situation eloquently. Ferguson notes that something is rotten in the state of academia, especially in

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[1] The author is an associate professor of accounting at Stanford GSB and a Research Fellow at the Law & Economics Center at George Mason University Antonin Scalia Law School. The research associated with this writing was funded by a grant from the Law & Economics Center. The opinions expressed here are the authors alone and do not represent the official position of the Law & Economics Center, George Mason University, or any other organization with which they are currently affiliated. The author would like to thank the participants in the Law & Economics Centers 2021 Research Roundtable on Capitalism and the Rule of Law for their helpful comments.

[2] *See* JOHN M. ELLIS, THE BREAKDOWN OF HIGH EDUCATION: HOW IT HAPPENED, THE DAMAGE IT DOES, AND WHAT CAN BE DONE (Encounter Books 1st ed. 2020).

[3] *See generally* AUGUSTO DEL NOCE, THE CRISIS OF MODERNITY (Carlo Lancellotti ed. & trans., 2014).

the United States but also in other parts of the English-speaking world. [4] Corruption in admissions.[5] Grade inflation.[6] A huge and growing political skew to the left amongst both faculty and (even more) administrators. Junk content is published in phony journals by talentless professors in the humanities—repeated challenges to free speech.[7]

We face a climate of political correctness that has turned hostile to thought itself. This climate affects classrooms, research seminars, student selection, and even faculty recruiting. Aside from the rapid increase in the number of talks canceled as a result of pressure from student mobs, professors are being harassed for making statements that defy progressive orthodoxy. And in many cases, these attacks come from colleagues.

The case of Amy Wax, a distinguished law professor at the University of Pennsylvania, is illustrative. Along with Larry Alexander, Wax published an article in 2017 arguing that the lack of bourgeois habits was limiting the progress of the least advantaged groups in the United States.[8] She was immediately condemned, and, in response to her article, more than 4,000 people signed a petition seeking to get her fired. Furthermore, in 2018, the University of Pennsylvania Law School Dean Ruger stripped her of the course she had been teaching with great success to first-year students. Worse still, more than half of her colleagues at the law school signed an open letter that was, in effect, a blanket letter of condemnation of her views. She was not fired, but one can conjecture that, had not she been a tenured professor, she would have been terminated, as was the fate of an adjunct Law professor at Georgetown named Sandra Sellers, who made similar remarks during a private Zoom conversation with another faculty member.[9]

Some faculty and students seem to believe that the university must serve their conception of social justice, so-called 'Social Justice,' and that advancing it is worth paying the price in terms of academic freedom and academic excellence. "For a long time the university has tried to interpret the world; the point now is to change it," think the most extreme. They operate as if upholding academic freedom were a way of perpetuating injustices. In

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4 Niall Ferguson, Opinion, *I'm Helping to Start a New College Because Higher Ed is Broken*, WASH. POST (Nov. 8, 2021), https://www.washingtonpost.com/business/im-helping-to-start-a-new-college-because-higher-ed-is-broken/2021/11/08/55171c54-40b3-11ec-9404-50a28a88b9cd_story.html.

5 *Id.*

6 *Id.*

7 *Id.*

8 HEATHER MAC DONALD, THE DIVERSITY DELUSION 205 (2018).

9 *Id.* As Amy Wax points out: "tenure protection, although important, is a weak reed and incapable of holding back the tide of enforced political correctness. It helps a relatively small number of privileged academics, and invoking it implies that if you don't have it, you are vulnerable to discipline or termination. Of course most people in academia – students, grad students, fellows, junior professors, adjuncts, administrative staff do NOT have tenure. Their head is potentially on "the chopping block" if they deviate from orthodoxy. Hence, heads are down and no one dares to speak out against the most absurd and destructive trends and developments."

short, they believe it is legitimate to censor and punish scholars whose ideas contradict the progressive agenda.

This totalitarian mindset proliferates in academia and threatens to transform the nature of the university. It is the clash of two visions: one that understands the university as the seat of science—and therefore committed to the search for truth—and another that understands the university as a political tool to advance Social Justice. These visions are irreconcilable. The commitment to truth requires a radical intellectual openness that is incompatible with the closed attitude of political activists.

The politicization of the university is a mistake. Many organizations can fulfill a political role, but only the university is devoted to truth-seeking. Twisting the university's nature to achieve political goals, however laudable they may be, will only impoverish humanity, weaken democracy, and even compromise the very social justice about which some students and faculty are so enthusiastic.

II. THE DIVERSITY OF OPINION PROBLEM

In "The Coddling of the American Mind," Greg Lukianoff and Jonathan Haidt argue that the academy has taken a sharp turn to the left since the 1990s.[10] Although the political preferences of the population have remained stable those of professors seem to have shifted to the left.[11] Indeed, the triennial survey of undergraduate teaching faculty that UCLA has been conducting for more than 25 years, which includes tens of thousands of professors, indicates that the ratio of professors on the left to professors on the right increased from 2 to 6 between 1990 and 2014. [12] As Sam Abrams put it, "between 1995 and 2010, members of the academy went from leaning left to being almost entirely on the left. Moderates declined by nearly a quarter, and conservatives decreased by nearly a third."[13]

Similarly, Klein and Western confirm the hypothesis of the "one-party university." Using voter registration data, they find that at UC-Berkeley, the Democratic-to-Republican ratio among faculty is 9.9:1, while at Stanford, this ratio is 7.6:1.[14] The bias is particularly strong in the humanities, arguably

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10 *See generally* GREG LUKIANOFF & JONATHAN HAIDT, THE CODDLING OF THE AMERICAN MIND (2018).

11 *Id.* at 110; The General Social Survey, *Get the Data*, NORC AT THE UNIVERSITY OF CHICAGO, https://gss.norc.org/get-the-data; Sam Abrams, *Professors moved left since 1990s, rest of country did not*, HETERODOX: THE BLOG (January 9, 2016), https://heterodoxacademy.org/blog/professors-moved-left-but-country-did-not/.

12 LUKIANOFF & HAIDT, *supra* note 10, at 110.

13 Sam Abrams, *Professors moved left since 1990s, rest of country did not*, HETERODOX: THE BLOG (January 9, 2016), https://heterodoxacademy.org/blog/professors-moved-left-but-country-did-not/.

14 Daniel B. Klein & Andrew Western, *How Many Democrats per Republican at UC-Berkeley and Stanford? Voter Registration Data Across 23 Academic Departments*, ACADEMIC QUESTIONS (2004), https://ssrn.com/abstract=664045 (forthcoming).

the 'heart' of the university. Indeed, using voter registration data from 40 leading U.S. universities, Langbert, Quain, and Kleinfind that in the history department, the ratio Democrat-to-Republican is 34:1.[15]

As a result of this trend, conservative professors have virtually disappeared on campus. Niall Ferguson describes his experience at Harvard:

> It became increasingly apparent over my 12 years at Harvard that conservative professors were not just a small minority but an endangered species that might go extinct. This skew to the left amongst faculty (and administrators) is now greater than ever, and academia should not be politically monochrome.[16]

Jonathan Haidt, a self-declared liberal, relates a similar experience. On January 27, 2011, Haidt polled his audience, consisting of approximately 1,000 psychologists, at the San Antonio Convention Center.[17] He began by asking how many considered themselves politically liberal. 80% of the 1,000 psychologists in the ballroom raised their hands. In contrast, when he asked for conservatives, he counted a grand total of three. Haidt points out, "this is a statistically impossible lack of diversity," given that polls show that 40% of Americans are conservative and 20% are liberal.[18]

This political skew may seem irrelevant since the ideological differences between left and right are mild in the United States (compared with international standards), and ideological preferences do not necessarily interfere with academic work. However, not only is the center-left over-represented on campus but also the radical-left. For example, using survey data from a representative sample of USA colleges and universities, Neil Gross and Solon Simmons find that, in the social sciences, 18% of the faculty identify as Marxist and 44% as Radical or Activist.[19] Today, the popularity of radical ideas on campus is confirmed by the humanities' enthusiasm for radical doctrines such as critical theory and postmodernism.

The causes of the ideological skew are complex and still debated.[20] But perhaps this phenomenon is natural: why would one expect campus ideology

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15 Mitchell Langbert, Anthony J. Quain & Daniel B. Klein, *Faculty voter registration in economics, history, journalism, law, and psychology* 13.3 ECON. JOURNAL WATCH 422 (2016).

16 Nathalie H. Kahn, *An Endangered Species: The Scarcity of Harvard's Conservative Faculty*, THE CRIMSON (April 9, 2021), https://www.thecrimson.com/article/2021/4/9/disappearance-conservative-faculty/.

17 John Tierney, *Social Scientist Sees Bias Within*, N.Y. TIMES, Feb. 7, 2011, at D1.

18 *Id.*

19 Neil Gross & Solon Simmons, *The Social and Political Views of Americans* 40-41 (Harv. U. Symposium: Professors and Their Politics, Working Paper, 2007).

20 The arguments that have been provided to explain the hegemony of the left on campus range from greater intelligence, education, and academic interest on the left, to hostility and discrimination against professors on the right. *See generally* José L. Duarte et al., *Political diversity will improve social psychological science*, 38 BEHAVIORAL AND BRAIN SCIENCES e130 (2015) (stating that "the underrepresentation of non-liberals in social psychology is most likely due to a combination of self-selection, hostile climate, and discrimination").

to be stable over time when the faculty themselves hire and promote their own colleagues? Faculty members can act as ideological gatekeepers, particularly in the social sciences and the humanities, where a faculty candidate's ideology is evident from their work. As expected, the data suggests that the ideological skew is stronger in the humanities than in STEM.[21] It's hard to imagine that a professor imbued with postmodernism and committed to the deconstruction of the West would willingly hire someone who professes respect and admiration for the Western canon and its institutions (and vice-versa).

Though the causes of this ideological skew are still unclear, it is worth thinking about its implications for the university. On the one hand, the lack of diversity of opinion impoverishes the academic debate. As a result, the quality of education suffers. In "On Liberty," John Stuart Mill wrote, "he who knows only his own side of the case knows little of that."[22] Stuart Mill asserted that "both teachers and learners go to sleep at their post as soon as there is no enemy in the field."[23]

The Left and Right have different (and rich) philosophical traditions. They differ in their views of history, their political philosophy, and their moral philosophy. The dialogue between these perspectives and their traditions deepens the intellectual environment on campus, and it is essential for a well-rounded (liberal) education. University students should read Marx, Nietzsche, Sartre, and Foucault. But they should also read Aristotle, Plato, Aquinas, Kant, Adam Smith, Stuart Mill, and even Hayek and Friedman.

Furthermore, a lack of diversity of opinion can compromise the very integrity of academic work.[24] A naive view of academia might assert that the political preferences of professors do not distort their research. And they should not, in principle. But research is an activity carried out by human beings who are subject to the same passions and psychological biases as everyone else. Those biases don't go away when a faculty member steps into his lab or the classroom. Nor do they disappear when a faculty member participates in the process of recruiting or evaluating his colleagues. Psychological anomalies and incentives to favor those who hold similar worldviews (i.e., "family and friends") are exacerbated in a monolithic culture.

Indeed, it is no accident that academic standards are particularly low precisely in those areas where diversity of opinion is inexistent (e.g., the so-called 'Grievance Studies'). To illustrate the deterioration of academic

21 Klein and Western, *supra* note 14.

22 JOHN STUART MILL, ON LIBERTY 61 (1909 ed. 2009).

23 *Id.* at 71.

24 Jonathan Haidt writes "I consider the rapid loss of political diversity, over the last 20 years, to be the second-greatest existential threat to the field of social psychology, after the replication crisis." Also, Duarte et al. (2015) writes "In the last few years, social psychology has faced a series of challenges to the validity of its research, including a few high-profile replication failures, a handful of fraud cases, and several articles on questionable research practices and inflated effect sizes (John et al. 2012; Simmons et al. 2011)."

standards in the humanities, the physicist Alan Sokal decided to perform the following hoax in 1994. He wrote a deliberately absurd article using postmodern jargon and submitted it to an important humanities journal called "Social Text."[25] The editors of the journal did not detect the hoax and quickly published the article in 1996.[26] That same day, Sokal revealed his hoax in another journal, titled *Lingua Franca*.[27] In Sokal's view, his article had been published for two reasons: it sounded good, and it flattered the ideological biases of the journal's editors. A similar hoax, on a larger scale, was performed by James Lindsay, Helen Pluckrose, and Peter Boghossian.[28] They wrote 20 hoax papers using post-modern jargon.[29] By the time they disclosed their experiment, seven of their articles had been accepted for publication by peer-reviewed journals. Seven more were still going through various stages of the review process. Only six had been rejected. One of the published articles included portions of Adolf Hitler's "Mein Kampf" rewritten through a feminist lens. This paper was accepted by Affilia: Journal of Women and Social Work.[30]

Not only the integrity of academic work is at stake when diversity of opinion disappears. Increasingly, the university is losing its credibility before the public. Comedians across the political spectrum make fun of the absurdity of life on campus and have refused to perform on campus (e.g., Bill Maher, Jerry Seinfeld and David Chappelle). Examples of such absurdity are countless: at Yale University, a group of students mob a professor and her husband for questioning the role of Yale's multicultural bureaucracy to determine which costumes are appropriate for Halloween.[31] At UCLA, a professor is attacked for correcting a student's capitalization of the word 'indigenous' to the lowercase.[32] Another example of this absurdity is the attempt to enforce a speech code to prevent 'microaggressions'.[33] The list of microaggressions includes statements such as: "the USA is a melting pot,"

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25 *See* Alan D. Sokal, *Transgressing the Boundaries: Toward a Transformative Hermeneutics of Quantum Gravity*, 46/47 SOCIAL TEXT 217-252 (1996).

26 Steven Weinberg, *Sokal's Hoax*, NEW YORK REVIEW OF BOOKS 13 (Aug. 8, 1996).

27 Alan D. Sokal, *A Physicist Experiments with Cultural Studies,* 6 LINGUA FRANCA 62-64 (1996).

28 *See generally* HELEN PLUCKROSE & JAMES LINDSAY, CYNICAL THEORIES (2020).

29 *Id.*; Laura Kennedy, *Hoax Papers: The Shoddy, Absurd and Unethical Side of Academia*, IRISH TIMES (Oct. 10, 2018), https://www.irishtimes.com/life-and-style/people/hoax-papers-the-shoddy-absurd-and-unethical-side-of-academia-1.3655500.

30 Maria Gonzalez and Lisa A. Jones (pseudonyms), *Our Struggle is My Struggle: Solidarity Feminism as an Intersectional Reply to Neoliberal and Choice Feminism*, AFFILIA. (Retracted).

31 LUKIANOFF & HAIDT, s*upra* note 10; Anemona Hartocollis, *Yale Lecturer Resigns After Email on Halloween Costumes*, N.Y. TIMES (Dec. 7, 2015) https://www.nytimes.com/2015/12/08/us/yale-lecturer-resigns-after-email-on-halloween-costumes.html#:~:text=The%20lecturer%2C%20Erika%20Christakis%2C%20an,Halloween%20costumes%20to%20institutional%20forces.

32 Heather Mac Donald, *The Microaggression Farce*, CITY JOURNAL (2014), https://www.city-journal.org/html/microaggression-farce-13679.html.

33 Stanford University, *Recognizing and Addressing Microaggressions*, YOUTUBE (July 2016), https://vpge.stanford.edu/resources/recognizing-and-addressing.

"the USA is a land of opportunity," or "the most qualified person should get the job," and even questions that in many cultures are considered necessary politeness such as "where are you from?"[34]

III. CAMPUS INTOLERANCE

The lack of diversity of opinion on campus is exacerbated by extensive self-censorship by faculty and students who fear career and social repercussions from expressing their views openly. Using survey data, Eric Kaufmann finds that 70% of right-wing professors and 40% of centrists self-censor in research and teaching in the USA.[35] Many (perhaps most) professors are not willing to share their opinions on a large array of topics for fear of retribution, both cultural and institutional.[36]

Indeed, there is a large (and growing) number of topics that one can't talk, teach, or research about without potentially facing negative career and personal repercussions. Here is a non-comprehensive list of taboos: affirmative action, DEI, marriage, abortion, climate change, sex differences, criminal justice reform, policing and crime, racial and gender discrimination, the biological basis of gender, colonialism, multi-culturalism, innate and cultural group differences, Islam, Israel, Covid 19.[37]

The cost of being politically incorrect is no longer social ostracism, as it used to be in the 2000s. Now the cost of dissent is higher; censorship is enforced by a minority, but still a sizable group, of loud student and faculty activists. These activists are ready to carry out (online and offline) attacks on people whose ideas violate orthodoxy. Consistent with previous forms of totalitarianism, these people justify their attacks by claiming that the ideas they reject are dangerous, offensive, or immoral (aka "problematic").

These attacks happen at all levels, both elite and non-elite schools, in the humanities and STEM, and the victims can be both progressives and conservatives.

There are many well-known examples. A couple of Yale professors, Erika Christakis and her husband Nicholas, were harassed, insulted, and humiliated by a group of students after Erika suggested in an email that Yale's multicultural bureaucracy did not need to oversee students' Halloween costumes.[38] This email prompted an open letter, signed by nearly

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34 *Id.*

35 ERIC KAUFMANN, CSPI CENTER, ACADEMIC FREEDOM IN CRISIS: PUNISHMENT, POLITICAL DISCRIMINATION, AND SELF-CENSORSHIP (March 1, 2021).

36 In fact this fear transcends the boundaries of the university. The Harper letter alerts us about the dangers of dissent: "Editors are fired for running controversial pieces; books are withdrawn for alleged inauthenticity; journalists are barred from writing on certain topics; professors are investigated for quoting works of literature in class; a researcher is fired for circulating a peer-reviewed academic study; and the heads of organizations are ousted for what are sometimes just clumsy mistakes."

37 These are taboos as I have found them.

38 Mac Donald, s*upra* note 32.

a thousand faculty, deans, and students, accusing her of racism and white supremacy and calling for her and her husband's immediate removal from their jobs and campus home.[39] A hundred students mobbed her husband Nick and, among other things (that can't be transcribed here), told him, "You should not sleep at night. You are disgusting; I want your job to be taken from you."[40] After that, students marched on their home and chalked hostile messages outside their bedroom window.[41] In the end, Erika decided to resign from teaching at Yale, and Nick canceled his Spring 2016 courses. They also resigned from their roles as college masters.[42]

Even more shocking than those Yale students' behavior is the reaction of some academic administrators. In response to these events, Yale's president, Peter Salovey, wrote, "In my thirty-five years on this campus, I have never been as moved, challenged, and encouraged by our community and the promise it embodies as in the past week. You offered me the opportunity to listen to and learn from you."[43] Two of the students who mobbed the Christakis received a graduation prize for accomplishment in the "service of race and ethnic relations."[44]

The attitude of academic administrators is, on some level, understandable given the pressure they face and their career concerns. But particularly sad is the silence of most tenured faculty. Erika Christakis revealed that many of her colleagues were very supportive privately, but none of them were willing to defend them publicly for fear of retribution.[45]

Another display of intolerance occurred at Evergreen State College's on its "Day of Absence" in 2017 when Bret Weinstein, considered a progressive professor of biology, was targeted by a large group of students.[46] Since the 1970s, Evergreen State College's staff and faculty members of color have spent one day off campus each year to make their contributions and interests felt.[47] Later in the tradition, students began to partake in this day as well, including individuals who were not people of color.[48] Consequently, the organizers of the 2017 event decided to redesign the day's plan: instead of supporting the opportunity for people of color to voluntarily absent themselves, this year, white students and faculty were asked to remove themselves from campus.[49] On March 15, 2017, Professor Weinstein emailed

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39 *Id.*

40 *Id.*

41 *Id.*

42 *Id.*

43 MAC DONALD, *supra* note 8, at 25.

44 *Id.*

45 LUKIANOFF & HAIDT, s*upra* note 10.

46 Bari Weiss, Opinion, *When the Left Turns on its Own*, N.Y. TIMES (June 1, 2017), https://www.nytimes.com/2017/06/01/opinion/when-the-left-turns-on-its-own.html.

47 Kyle Walsh, *Protests, Racism, and Threats at Evergreen State College*, WASH. STATE (June 2, 2017), https://washingtonstatewire.com/protests-racism-threats-evergreen-state-college/.

48 *Id.*

49 Weiss, *supra* note 46.

Rashida Love, the coordinator of the "Day of Absence," to express his concern about the day's plan.[50] He wrote, "There is a huge difference between a group or coalition deciding to voluntarily absent themselves from a shared space in order to highlight their vital and underappreciated roles . . . and encouraging another group to go away."[51] The professor saw this year's plan as discriminatory, unproductive and alienating in nature.[52]

Responding to these remarks, on May 23, 2017, fifty students marched through Professor Weinstein's classroom door in protest, cornering him into the hallway and holding him there to confront him about his comments.[53] They claimed the professor had made racist statements in the email, and they demanded that he not only apologize but also resign.[54] Concerned for the professor's safety, his biology students contacted the police, but the protestors physically prevented the police from reaching him.[55] The protestors then marched into the administration building, where they berated the college's president, President George Bridges.[56] They barricaded the main entrance to the building, gathered together the leadership of the college, including the president, and held them in an office for several hours, eventually presenting their demands.[57] These demands included mandatory bias training for faculty and an opening acknowledgement at every event stating that the land the college was built on was stolen from Native American tribes.[58]

Aside from his wife, only one professor of the entire faculty, Professor Mike Paros, a professor of veterinary science, publicly supported Professor Weinstein.[59] The professor later learned that several other professors were in support of him but were afraid to say so publicly for fear of being labeled bigots.[60] Unfortunately, on June 2, 2017, about sixty faculty members and thirty staff members signed a letter calling for the professor to be investigated, blaming him for provoking backlash from white supremacists due to his comments on the event during his appearance on Fox News and

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50 Walsh, *supra* note 47.

51 Andreas Rauch & Evan Ismail, *Evergreen State Riots Accomplished Nothing but Chaos, don't let it Spread*, HIGHLANDER (June 26, 2017), https://www.highlandernews.org/30257/evergreen-state-riots-accomplished-nothing-chaos-dont-let-spread/.

52 *Id.*

53 Weiss, *supra* note 46.

54 Walsh, *supra* note 47.

55 *Id.*

56 Rauch & Ismail, *supra* note 51.

57 *Id.*

58 Walsh, *supra* note 47.

59 Lisa Pemberton, *Evergreen Professor Shows Support for Weinstein. Now he Expects to be Called a Bigot*, OLYMPIAN (June 9, 2017), https://www.theolympian.com/news/local/education/article155203584.html; s*ee also*, Abspegman, *Evergreen Settles with Weinstein, Professor at the Center of Campus Protests*, OLYMPIAN (Sept. 18, 2017), https://www.theolympian.com/news/local/article173710596.html.

60 Pemberton, *supra* note 59.

other media outlets.[61] Eventually, Professor Weinstein did resign.[62] In addition, President Bridges agreed to many of the protestors' demands and announced that he was grateful for the passion and courage the protestors displayed.[63]

Every day we learn about new cases of intolerance on campus, but they all share a similar pattern. A small group of loud activists, including students and faculty, exert a disproportionate influence on campus by intimidating dissenters through personal attacks. In response to these attacks, academic administrators often take the attackers' side, even when the students' irrationality is self-evident. They sacrifice faculty members, even those who have devoted long careers to their institutions, successfully mentoring many generations of students. At the same time, the vast majority of colleagues remain silent, instead of publicly defending the victim, for fear of attracting the attention of the mobs.[64]

One may counter that these examples are mere anecdotes without any significance. But how does one measure the significance of these events? How many Weinstein cases are required to silence the entire faculty of Evergreen? Examples of serious (unjustified) intolerance can be found at Duke (e.g., Peter Arcidiacono, Paul Griffiths), Georgetown (Sandra Sellers, Ilya Shapiro), UCLA (Gordon Klein, Val Rust), Harvard (e.g., Lawrence Summers, Steven Pinker, Kevin 'Kit' Parker), Wharton (Amy Wax), the University of Chicago (e.g., Dorian Abbot, Harald Uhlig), Northwestern University (Laura Kipnis, Michael Bailey), Stanford (Joel Peterson, Michael McConnell, Rose Salseda), Princeton (Joshua T. Katz) and virtually all major universities in the USA.[65]

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61 Pemberton, *supra* note 59*; see also,* Lisa Pemberton, *Fear at Evergreen Causes Some Faculty to Hold Classes off Campus*, THE OLYMPIAN (June 9, 2017), https://www.theolympian.com/news/local/education/article154983124.html; *see generally*, Bradford Richardson, *Evergreen Faculty Demand 'Investigation' into Professor who Dissented From No-Whites Day*, WASH. TIMES (June 5, 2017), https://www.washingtontimes.com/news/2017/jun/5/evergreen-faculty-demand-investigation-professor-w/.

62 Abspegman, *supra* note 59.

63 Walsh, *supra* note 47; Weiss, *supra* note 46.

64 The faculty's silence is particularly perplexing given that professors in the USA enjoy tenure protection. Criticizing this silence at Cornell, during the 1969 "guns-on-campus" crisis, Allan Bloom wrote: "In Germany the professors who kept quiet had the very good excuse that they could not do otherwise. Speaking up would have meant imprisonment or death. The law not only did not protect them but was their deadly enemy. [But in America] there was essentially no risk in defending the integrity of the university, because the danger was entirely within it. All that was lacking was a professorial corps aware of the university's purpose, and dedicated to it. That is what made the surrender [in the 1970s] so contemptible. The official ideology became that there had been no danger to the threatened professors (thus no need for solidarity with them) and also that there was severe danger of violence and death (thus a need for capitulation)." ALLAN BLOOM, THE CLOSING OF THE AMERICAN MIND 318 (1987).

65 Martha Waggoner, *Black Students: Duke Study Shows Deeper Problems*, SAN DIEGO UNION-TRIB. (Jan. 19, 2012, 11:30 AM), https://www.sandiegouniontribune.com/sdut-black-students-duke-study-shows-deeper-problems-2012jan19-story.html; Anemona Hartocollis, *A New Battleground Over*

Campus intolerance is not simply measured by the personal costs it imposes on individual faculty members but also by how it affects the university's intellectual environment. As it enforces a de facto self-censorship, it compromises the truth-seeking mission of the university.

Political Correctness: Duke Divinity School, N.Y. TIMES (May 9, 2017), https://www.nytimes.com/2017/05/09/education/a-new-battleground-over-political-correctness-duke-divinity-school.html; Michael Levenson, *Georgetown Law Fires Professor for 'Abhorrent' Remarks About Black Students*, N.Y. TIMES (Mar. 11, 2021), https://www.nytimes.com/2021/03/11/us/georgetown-university-sandra-sellers.html; Anemona Hartocollis, *A Conservative Quits Georgetown's Law School Amid Free Speech Fight*, N.Y. TIMES (June 6, 2022), https://www.nytimes.com/2022/06/06/us/georgetown-ilya-shapiro.html; Caleb Parke, *UCLA Professor Suspended, Under Police Protection After Threats*, FOX NEWS (June 9, 2020, 3:55 PM), https://www.foxnews.com/us/ucla-professor-suspended-under-police-protection-after-threats; Colleen Flaherty, *In-Class Sit-In*, INSIDE HIGHER ED (Nov. 25, 2013), https://www.insidehighered.com/news/2013/11/25/ucla-grad-students-stage-sit-during-class-protest-what-they-see-racially-hostile; Alan Finder et al., *President of Harvard Resigns, Ending Stormy 5-Year Tenure*, N.Y. TIMES (Feb. 22, 2006), https://www.nytimes.com/2006/02/22/education/22harvard.html; Michael Powell, *How a Famous Harvard Professor Became a Target over His Tweets*, N.Y. TIMES (July 22, 2020), https://www.nytimes.com/2020/07/15/us/steven-pinker-harvard.html; Marianne Besas, *Harvard Cancels Class on Controversial Policing Strategy After Petition*, COLL. POST (Jan. 27, 2021), https://thecollegepost.com/harvard-cancels-policing-class/; Erum Salam, *US Law Professor Condemned for 'White Supremacist' Comments by Own Dean*, GUARDIAN (Jan. 5, 2022, 1:00 PM), https://www.theguardian.com/us-news/2022/jan/05/us-law-professor-racist-comments-amy-wax-condemned; Pamela Paresky, *'Moral Pollution' at the University of Chicago: The Case of Dorian Abbot*, FIRE (Dec. 11, 2020), https://www.thefire.org/moral-pollution-at-the-university-of-chicago-the-case-of-dorian-abbot/; Elyssa Cherney, *U. of C. Economist Facing Criticism for Black Lives Matter Tweets Is Now Under Review for Claims of 'Discriminatory Conduct' in Classroom*, CHI. TRIB. (June 12, 2020, 9:47 PM), https://www.chicagotribune.com/news/ct-university-of-chicago-economist-black-lives-matter-harald-uhlig-20200613-hjqqlox7wjbz5iosdxkgoe7ftq-story.html; Tyler Kingkade, *How Laura Kipnis' 'Sexual Paranoia' Essay Caused a Frenzy at Northwestern University*, HUFFPOST (May 31, 2015, 6:15 PM), https://www.huffpost.com/entry/laura-kipnis-essay-northwestern-title-ix_n_7470046; Joshua Rhett Miller, *Northwestern University Professor Defends Explicit Sex Toy Demonstration After Class*, FOX NEWS (Dec. 1, 2015, 2:31 AM), https://www.foxnews.com/us/northwestern-university-professor-defends-explicit-sex-toy-demonstration-after-class; Joel Peterson, *My Road to Cancellation*, DESERET NEWS (June 21, 2021, 12:00 AM), https://www.deseret.com/2021/6/20/22516382/my-road-to-cancellation; Erin Woo, *Law Professor Criticized After Reading Racial Slur in Class*, STAN. DAILY (May 30, 2020, 12:35 PM), https://stanforddaily.com/2020/05/30/law-professor-criticized-after-reading-racial-slur-in-class/; Melissa Loupeda, *Students Call for Accountability, Faculty Diversity After Professor Twice Uses Racial Slur*, STAN. DAILY (May 11, 2020, 1:08 AM), https://stanforddaily.com/2020/05/11/students-call-for-accountability-faculty-diversity-after-professor-twice-uses-racial-slur/; Princeton Alumni Weekly, *Princeton Trustees Fire Classics Professor Joshua Katz*, PRINCETON ALUMNI WEEKLY (May 23, 2022), https://paw.princeton.edu/article/princeton-trustees-fire-classics-professor-joshua-katz.

IV. THE SUBVERSION OF ACADEMIC STANDARDS[66]

Heather Mac Donald has argued that campus intolerance is not a psychological but a cultural phenomenon, "[a]t its center is a worldview that sees Western culture and its institutions as racist and sexist."[67] Unfortunately, this worldview is transforming American universities. As Anthony Kronman, former Dean of Yale Law School, writes, "Diversity is the most powerful word in higher education today. No other has so much authority. Older words, like excellence and originality, remain in circulation, but even they have been redefined in terms of diversity."[68]

Indeed, the new regime on campus is titled Diversity, Equity, and Inclusion (DEI) and is enforced by a large bureaucracy. Nearly every decision taken on campus, from admissions to faculty hiring, to course content, to teaching methods, is made through the lens of DEI.[69]

The words diversity, equity, and inclusion sound just and are often supported by well-intentioned people, but the effects of DEI are the opposite of noble sentiments. Most importantly, equity does not mean fair and equal treatment. DEI seeks to increase the representation of some groups through discrimination against members of other groups. The underlying premise of DEI is that any statistical difference between group representation on campus and national averages reflects systemic injustice and discrimination by the university itself. The magnitude of the distortions is significant for some job searches; discrimination rises to the level of explicitly excluding applicants from certain groups.

The DEI framework violates the legal and ethical principle of equality. It entails treating people as members of a group rather than as individuals. In some extreme cases, this requires being willing to tell a university applicant, "I will ignore your merits and qualifications and deny you admission because you belong to the wrong tribe."

Immanuel Kant argued against this perspective when he wrote, "Act in such a way that you treat humanity, whether in your own person or in the person of any other, never merely as a means to an end, but always at the same time as an end."[70] This idea has been fundamental to American society since the founding declaration that it is self-evident "that all men are created equal."[71] It was, in fact, the key aspiration of the civil rights movement, as

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66 This chapter is an extended version of an Op-ed that Dorian Abbot and I published in Newsweek. Dorian S. Abbot & Ivan Marinovic, *The Diversity Problem on Campus*, NEWSWEEK (Aug. 12, 2021), https://www.newsweek.com/diversity-problem-campus-opinion-1618419.

67 MAC DONALD, *supra* note 5, at 29.

68 ANTHONY T. KRONMAN, THE ASSAULT ON AMERICAN EXCELLENCE 105 (2020).

69 Dorian S. Abbot & Ivan Marinovic, *The Political Problem on Campus*, NEWSWEEK (Nov. 4, 2021), https://www.newsweek.com/political-problem-campus-opinion-1645065.

70 IMMANUEL KANT, GROUNDWORK OF THE METAPHYSIC OF MORALS 30 (James W. Ellington trans., 3rd ed. 1993) (1785).

71 THE DECLARATION OF INDEPENDENCE para. 2 (U.S. 1776).

captured by Martin Luther King Jr.'s words, "I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character."[72]

DEI is not only flawed on ethical grounds, but it compromises the university's mission. The core business of the university is the search for truth. A university's intellectual environment depends critically upon its commitment to hiring the most talented and best-trained minds. Any departure from this commitment will necessarily come at the expense of academic excellence and ultimately will compromise the university's contribution to society.[73]

Moreover, using race/gender preferences (in faculty hiring or student admission) often hurts those it purports to help. There is growing evidence[74] that, because of race preference, schools accept students whose academic credentials are significantly below the school's academic standards. As Peter Arcidiacono points out, "it is not clear that [for a student] increasing college quality always leads to better outcomes, as the match between the school and the student may be important."[75] For example, Arcidiacono, Aucejo, and Spenner document that, at Duke University, over 54% of Black men who express an initial interest in STEM or economics end up choosing a major in humanities or one of the other social sciences compared to less than 8% for white men.[76] The authors show that these large racial differences disappear once one accounts for differences in academic preparation.[77]

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[72] CORETTA SCOTT KING, THE WORDS OF MARTIN LUTHER KING JR. 95 (Newmarket Press 2nd ed. 2008) (1963).

[73] As with anything, there may be circumstances that could justify a violation of this principle. However, those exceptions should bear the burden of proof. Clearly at this point the opposite is true: those who want to uphold the principle of equality are asked to bear the burden of proof.

[74] Examining data from Harvard, Peter Arcidiacono reports:

To put the magnitude of affirmative action in context, the admissions bonus associated with being a Black applicant relative to being White is only slightly smaller than the admissions bonus for receiving the highest possible academic rating relative to receiving the median academic rating. The highest academic rating category is reserved for genuine scholar(s) with near-perfect scores and grades and evidence of original scholarship. The median academic rating is given to very good student(s) with excellent grades and mid-600 to low-700 [SAT] scores. Only 0.43 percent of all applicants receive the highest academic rating. Thus, belonging to an underrepresented minority group confers nearly the same benefit as being labeled an academic superstar or the equivalent of being among the one hundred academically strongest applicants to Harvard each year.

Peter S. Arcidiacono, Josh Kinsler & Tyler Ransom, *Affirmative Action, Transparency, and the SFFA v. Harvard Case*, U. CHI. L. REV. ONLINE (Oct. 30, 2020), https://lawreviewblog.uchicago.edu/2020/10/30/aa-arcidiacono/.

[75] Arcidiacono*, supra*, note 74.

[76] Peter Arcidiacono, Esteban Aucejo, & Kenneth Spenner, *What Happens After Enrollment? An Analysis of the Time Path of Racial Differences in GPA and Major Choice*, 1 IZA J. LAB. ECON. 1-24 (2012).

[77] Thomas Sowell relates his experience at Cornell in 1969:

At the time, I was sufficiently alarmed by the well-known fact that half of the black students were on academic probation that I went over to the administration building and checked the files. It was here that

These results are confirmed by Arcidiacono, Aucejo, and Hotz, who study the University of California system.[78] Attending a more selective U.C. school generally increases five-year graduation rates. But in the sciences, the match between the school and the student is important. Those with the strongest academic backgrounds are more likely to graduate in the sciences at the top schools, but this is not true for those with relatively weaker academic backgrounds. And the effects can be substantial. The authors estimate that underrepresented minority students (URMs) who attend Berkeley and are interested in the sciences would increase their probability of graduating in the sciences by 7.2% (off a base of 27.5%) if they attended U.C. Riverside instead of Berkeley. The large gains occur for those URMs at Berkeley with relatively weaker academic backgrounds.

Racial preferences also undermine the public's trust in universities and their graduates. Some on campus might be surprised to learn that, according to a recent Pew poll, 74% of Americans think only qualifications should be taken into account in hiring and promotion, even if this results in less diversity.[79] This should give pause to the academic bureaucracy promoting DEI, given that universities, even private ones, are financed by taxpayers.

Viewed objectively, American universities already are incredibly diverse. They feature people from all countries, races, and ethnicities. This is in stark contrast with most universities in Europe, Asia, and South America. American universities are diverse not because of DEI but because they have been extremely competitive at attracting talent from all over the world. Ninety years ago, Germany had the best universities in the world.[80] Then, an ideological regime obsessed with race came to power and drove many of the best scholars out, gutting the faculties and leading to sustained decay from which German universities never recovered. We should view this as a warning of the consequences of viewing group membership as more important than merit.

I first learned of a pattern that would prove to be all too common at elite colleges and universities across the country: Most of the black students admitted to Cornell had SAT scores above the national average but far below the averages of other Cornell students. They were in trouble because they were at Cornell and, later, Cornell would also be in trouble because they were there. One of the other omissions in Cornell 69 is that some academically able black applicants for admission were known to have been turned away, while those who fit the stereotype being sought were admitted with lower qualifications.
Thomas Sowell, *The Day Cornell Died*, HOOVER INST. (Oct. 30, 1999), https://www.hoover.org/research/day-cornell-died.

78 Peter Arcidiacono, Esteban M. Aucejo, & V. Joseph Hotz, *University Differences in the Graduation of Minorities in STEM Fields: Evidence from California*, 106 AMERICAN ECON. REV. 525-62 (2016).

79 Juliana Horowitz, *Americans See Advantages and Challenges in Country's Growing Racial and Ethnic Diversity*, PEW RESEARCH CENTER, (May 8, 2019), https://www.pewresearch.org/social-trends/2019/05/08/americans-see-advantages-and-challenges-in-countrys-growing-racial-and-ethnic-diversity/

80 *See generally* CONSTANCE REID, HILBERT (1977).

V. THE UNIVERSITY'S EVOLVING TELOS: FROM TRUTH-SEEKING TO SOCIAL JUSTICE

Some of the issues previously discussed stem from the politicization of the university. The University of Chicago's Kalven report, written in 1967, clarifies the political role of the university:

> The university is the home and sponsor of critics; it is not itself the critic. To perform its mission in the society, a university must sustain an extraordinary environment of freedom of inquiry and maintain an independence from political fashions, passions, and pressures. A university, if it is to be true to its faith in intellectual inquiry, must embrace, be hospitable to, and encourage the widest diversity of views within its own community. It is a community but only for the limited, albeit great, purposes of teaching and research . . . Since the university is a community only for these limited and distinctive purposes, it is a community which cannot take collective action on the issues of the day without endangering the conditions for its existence and effectiveness. There is no mechanism by which it can reach a collective position without inhibiting that full freedom of dissent on which it thrives. It cannot insist that all of its members favor a given view of social policy; if it takes collective action, therefore, it does so at the price of censuring any minority who do not agree with the view adopted. In brief, it is a community which cannot resort to majority vote to reach positions on public issues.[81]

The university should not have a unitary voice on the issues of the day. However, since the year 2020, university presidents have engaged, perhaps as never before, in intense political activity. Some university presidents have made public *mea culpas* for social problems and have espoused the notion that we live in an unjust society, specifically one that is 'systemically' racist and sexist. For example, in a letter addressed to the Princeton community, Princeton's president, Christopher Eisgruber, uses the terms "racism," "structural racism," and "racial justice" at least 15 times to describe both American society as a whole and Princeton University in particular.[82]

This is not an isolated example. Many elite university presidents have made similar statements about the fairness of American society in general and academia in particular. They made such statements as if these statements were self-evident, without expressing doubt or hesitation, and had committed their institutions to "urgent action."

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[81] KALVEN COMM., REPORT ON THE UNIVERSITY'S ROLE IN POLITICAL AND SOCIAL ACTION 1 (1967).

[82] Under his tenure, Princeton's president Eisgruber oversaw a campaign to destroy the reputation of Classics professor Joshua Katz. Princeton's bureaucracy created an online video describing Katz as a racist because Katz had written an article criticizing the tactics of a student organization named Black Justice League. Ultimately, Katz was stripped from his tenure and fired for a a previous university policy violation for which Katz had already been suspended without pay in 2018. Dorian S. Abbot & Ivan Marinovic, *The Political Problem on Campus*, NEWSWEEK (Nov. 4, 2021), https://www.newsweek.com/political-problem-campus-opinion-1645065.

Unfortunately, it is not only university presidents' rhetoric that has become political. Universities have committed to "urgent action."[83] For example, Stanford has launched an ambitious initiative titled IDEAL to increase racial and gender diversity on campus, both at the student and faculty levels.[84]

On its website, Stanford espouses an ideology referred to as "anti-racism." Stanford's 'anti-racism toolkit,' available online, tells its community members how they should view American Society, "In a society that privileges white people and whiteness, racist ideas are considered normal throughout our media, culture, social systems, and institutions."[85] The toolkit also invites the reader to "recognize your privilege, challenge 'colorblind' ideology, and stop saying I'm not a racist.'[86] It calls on faculty and students to "champion anti-racist ideas and policies" and to remember that "Free speech does not mean Free Reign."[87] Finally, it urges the reader to "be prepared to take needed action."[88] The reading list of this toolkit includes such authors as Ta-Nehisi Coates, Kimberlé Crenshaw, Ibram X. Kendi, Robin DiAngelo, and virtually nothing else.[89] Upon reading this material, one can't help but wonder whether Stanford has changed its mission as a university, from truth-seeking to social justice activism.

To understand how serious a departure from traditional university values this is, imagine for a moment that a university embraced, as its own, the philosophy of Ayn Rand or the catechism of the Catholic church. Would not this seem like a violation of the university's ideological neutrality, threatening its intellectual mission?

Identity politics is also spreading rapidly even within fields like mathematics and physics, which traditionally have been less political than others. Sergiu Klainerman writes, "I had naively thought that the STEM disciplines would be spared from this ideological takeover. I was wrong.

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83 *Anti-Racism Toolkit*, STANFORD UNIVERSITY MANAGER TOOLKIT, https://cardinalatwork.stanford.edu/manager-toolkit/engage/ideal-staff-manager-resources/anti-racism-toolkit

84 About, IDEAL.STANFORD.EDU, https://ideal.stanford.edu/about.

85 STANFORD UNIVERSITY HUMAN RESOURCES, ANTI-RACISM TOOLKIT 1 (2020) https://stanford.app.box.com/s/5lwrmad6ww2k7mkh8d7r5i3215on10p0 (quoting NATIONAL MUSEUM OF AFRICAN AMERICAN HISTORY & CULTURE, *Being Antiracist*, NMAAHC.SI.EDU, https://nmaahc.si.edu/learn/talking-about-race/topics/being-antiracist).

86 STANFORD UNIVERSITY HUMAN RESOURCES, ANTI-RACISM TOOLKIT 2 (2020) https://drive.google.com/file/d/1C9EZefhxLoUaNhwhzsNPAvsYkZBAnthc/view.

87 Id. at 3.

88 Id. at 4.

89 STANFORD UNIVERSITY HUMAN RESOURCES, *supra*, note 86; DiAngelo proposes "a theory of moral education according to which the best way to deal with systemic inequality is to confront its white beneficiaries with their privileges and encourage them to wrestle with their sins." Denial of racism is evidence of racism in DiAngelo's Kafkaesque world. Kendi advances a Manichean vision of policy, in which policymaking is either racist or antiracist, and all racial disparities are the result of structural racism. *See* Ross Douthat, Opinion, The Excesses of Antiracist Education, N.Y. TIMES (July 3, 2021), https://www.nytimes.com/2021/07/03/opinion/antiracist-education-history.html.

Attempts to 'deconstruct' mathematics, deny its objectivity, accuse it of racial bias, and infuse it with political ideology have become more and more common perhaps, even, at your child's elementary school."[90]

In some cases, this ideology is enforced in a totalitarian fashion. The vice president of the American Mathematical Society, Abigail Thompson, alerts us of a recent practice whereby faculty candidates in the University of California system are required to submit "a statement of contribution to diversity."[91] Such statements have to be consistent with the prevailing DEI ideology for a candidate to be eligible. Thompson quotes a rubric from Berkeley, available online, which specifies that "job applicants who describe [as their diversity contributions] only activities that are already the expectation of Berkeley faculty (mentoring, treating all students the same regardless of background, etc.) will score poorly (1 or 2 points out of 5). A low score in this or other areas will disqualify a candidate." As Thompson puts it, "this system specifically excludes those who believe in a tenet of classical liberalism that each person should be treated as a unique individual, not as a representative of an identity group. Rather than helping achieve inclusion, these DEI rubrics act as a filter for those with nonconforming views. This is a form of compelled speech and compelled thought, in a nutshell, a "loyalty oath."[92]

Such levels of politicization will surely have long-term consequences for the academy. University administrators may modify the university's mission, from truth-seeking to social justice, but they would be naive to think this will be innocuous. As Haidt and Lukianoff point out:

> If a university is united around a 'telos' of change or social progress, scholars will be motivated to reach conclusions that are consistent with that vision, and the community will impose social costs on those who reach different conclusions or who merely ask the wrong questions. There will always be inconvenient facts for any political agenda, and you can judge a university, or an academic field, by how it handles its dissenters.[93]

One could argue that truth-seeking and Social Justice could be reconciled as the university's new dual goals, but common sense and empirical evidence suggest this is impossible. When politicization is not restrained on campus, it tends to overwhelm truth-seeking.

Why is there such a strong tension between truth-seeking and politics? As Ellis puts it, "political motives will always stunt intellectual curiosity" because the political activist values politically desirable results more than the intellectual process by which conclusions are reached.[94] There is a stark

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90 Sergiu Klainerman, *There is no such thing as "White" Math*, Common Sense (Mar. 1, 2021), https://www.commonsense.news/p/there-is-no-such-thing-as-white-math.

91 Abigail Thompson, *The University's New Loyalty Oath*, WALL ST. J. (Dec. 9, 2019) https://www.wsj.com/articles/the-universitys-new-loyalty-oath-11576799749.

92 *Id*.

93 LUKIANOFF & HAIDT, s*upra* note 10, at 254.

94 ELLIS, *supra* note 2, at 22.

contrast between the academic mindset and that of a political activist. The political activist is driven by convictions about the truth (or the urgency of some policy)[95] but is not interested in exploring alternative hypotheses.[96] The genuine academic attitude, in contrast, is characterized by the humble Socratic conviction that "I only know that I don't know" and that only through a slow but collective process one can apprehend reality, always tentatively and partially.

Academic work requires a radical opening to truth that is hard (if not impossible) to find among political activists.[97] It requires a detachment from any hypothesis and a total commitment to truth-seeking incompatible with rigid political agendas.

James Otteson explains this tension eloquently:

> Because politics is so fraught with emotion and tribal loyalties, it is extremely dangerous in the context of higher education. It replaces a loyalty to the process of inquiry with a loyalty to one's tribe. We judge arguments and even people not on their merits but instead on the extent to which they conform to our prejudices or group identities. It therefore imperils our professional identities as academics if we allow politics to enter into our scholarship. We might have political allegiances in our capacities as citizens, but as academics, our loyalty should be to the process of inquiry alone. That means we should have no academic departments or institutes whose primary purpose is to inform, affect, or advocate public policy.[98]

Of course, I do not advocate a value-free university. Universities do (and should) have values. In fact, a commitment to truth-seeking is itself a fundamental value. Moreover, we all want our country to be better and more just (though we may disagree about the means to accomplish this). However, the university should remain ideologically neutral. Or else it will lose its

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[95] Some people argue that scientists should change their attitudes toward truth given the urgency of the challenges facing humanity. Mike Hulme, a professor at the University of East Anglia and a founding director of the Tyndall Centre for Climate Change Research, argues that when it comes to important problems with large uncertainties such as climate change "scientists and politicians must trade (normal) truth for influence. If scientists want to remain listened to, to bear influence on policy, they must recognize the social limits of their truth seeking and reveal fully the values and beliefs they bring to their scientific activity…Climate change is too important to be left to scientists – least of all the normal ones." *See* https://www.theguardian.com/society/2007/mar/14/scienceofclimatechange.climatechange; ELLIS, *supra* note 2, at 22; Mike Hulme, *The Appliance of Science,* Guardian (March 13, 2007), https://www.theguardian.com/society/2007/mar/14/scienceofclimatechange.climatechange.

[96] Trofim Lysenko was a prominent Soviet agronomist. Lysenko rejected Mendelian genetics because it was inconsistent with Marxist ideology. Dissent with Lysenko's ideas was outlawed in the Soviet Union, leading to the imprisonment of thousands of scientists. As a direct result of what became known as Lysenkoism, crop yields decreased dramatically and millions died of starvation. See Sam Kean, The Soviet Era's Deadliest Scientist is Regaining Popularity in Russia, THE ATLANTIC (Dec. 19, 2017), https://www.theatlantic.com/science/archive/2017/12/trofi m-lysenko-soviet-union-russia/548786.

[97] See ALICE DREGER, GALILEO'S MIDDLE FINGER: HERETICS, ACTIVISTS, AND ONE SCHOLAR'S SEARCH FOR JUSTICE (2016).

[98] James Otteson, Intellectual Diversity and Academic Professionalism, The James G. Martin Ctr. for Acad. Renewal (Feb. 21, 2018), https://www.jamesgmartin.center/2018/02/intellectual-diversity-academic-professionalism.

ability to search for truth and by doing so, will compromise its main contribution to society. Many organizations can be created to promote social justice, but only the university is devoted to truth-seeking. Turning the university into a second-rate NGO will entail a significant loss for our country and democracy.

VI. HISTORICAL AND PHILOSOPHICAL ROOTS OF UNIVERSITY DECLINE

The current crisis of the university is neither a psychological phenomenon stemming from bad parenting[99] nor a Gramscian takeover of the academy, planned by Marxist groups in the 1970s.[100] These issues may have contributed, but – as I argue below – they are mere symptoms of a cultural change with deep historical and philosophical roots.

To understand these changes, some historical perspective is in order. Since its creation in the 11th century, the university has undergone at least one deep transformation. The university was founded by the Catholic church in the Middle Ages as an institution devoted to knowledge but ultimately subordinated to faith.[101] The first European universities were created by monks via papal decree and developed under the protection of the church. Until the 19th century, religion played a significant role in the university's curriculum.

However, the crisis of the church leading to the Protestant Reformation in the 16th century and the emergence of modern science following the "Copernican revolution" brought about Modernity, eventually leading to the Enlightenment in the 18th century, as a cultural movement characterized by strong confidence in the sufficiency of reason, skepticism towards authority, and advocacy of individual freedom as the basis of political and moral order.[102]

The Enlightenment transformed the university, which became a secular project. The "search-for-truth" was adopted as the university's mission, and theology lost its importance. Also, in the 19th century, Alexander von Humboldt, the founder of the modern research university, established the principle of academic freedom (including the freedom to learn and freedom to teach), which later was embraced by all universities across the West. The

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99 LUKIANOFF & HAIDT, s*upra* note 10, at 163.

100 ELLIS, *supra* note 2, at 26-27; Similar phenomena can be verified everywhere in Western universities around the world. If this were a deliberate Gramscian takeover of the university by a Marxist group, why is it so global? Similar phenomena is observed all across the West and even in remote places like Chile. Second, as John McWhorter points out, the so-called Woke ideology has the features of a secular religion, confident of its moral superiority, and eager to punish heretics.

101 To these days, Catholic thinkers believe that faith and reason do not compete but complement and enrich each other. In his encyclical letter 'Fides et Ratio,' Jean Paul II argues that "[f]aith and reason are like two wings on which the human spirit rises to the contemplation of truth." John Paul II, *Fides et Ratio* (1998).

102 ROGER SCRUTON, MODERN CULTURE (2nd ed. 2006).

university, as we understand it today, is thus a child of the Enlightenment. Unfortunately, as Enlightenment values are challenged in the West, the university appears to experience a second wave of transformation, one in which the "search-for-truth" is losing its centrality, and the promotion of political and social goals is gaining traction as the university's alternate mission.

The weakening of Enlightenment values in the West goes back to the 19th century. Beginning in the late 19th century but specially after World War II, modernity entered a crisis whereby a radical skepticism about the ability of reason to foster intellectual and moral progress crept into our culture. In "The World Turn Upside Down," Melanie Phillips puts it eloquently:

> The experience of fascism, Nazism, and the Holocaust gave rise to an even more profound loss of optimism in man's innate goodness and faith in the power of reason. After all, had not prewar Germany been considered the natural home of enlightened learning? Had not the architects of the Jewish genocide dispatched their victims to the gas chambers to the accompaniment of Mozart played by string quartets? This deep demoralization made the West vulnerable to ideologies derived from a revolutionary cocktail of cultural Marxism and nihilism, which themselves drew deeply upon the antirational, antimodern thinking of the German Romantic.[103]

At the same time, the demoralization of the West caused by World War II created fertile ground for anti-Enlightenment philosophies. In the 1960s, following the footprints of Nietzsche, a group of French philosophers (e.g., Michel Foucault, Jacques Derrida, Jean Francois Lyotard, and others) began wielding a radical critique of the Enlightenment project, including the notion of objective truth. For the postmodern philosophers, knowledge, and language were, at a fundamental level, tools of power and oppression that needed to be 'deconstructed.'

Postmodernism, as a philosophy, proclaims a radical skepticism. For example, in "Knowledge and Power," Foucault repudiates the notion of truth as an illusion; he argues that there is no truth that can be rescued against systems of power:

> Contrary to a myth whose history and functions would repay further study, truth isn't the reward of free spirits . . . nor the privilege of those who have succeeded in liberating themselves. Truth is a thing of this world. It is produced only by virtue of multiple forms of constraint. And it induces regular effects of power. Each society has its own regime of truth, its "general politics" of truth, that is, the type of discourse which it accepts and makes function as true.'[104]

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103 MELANIE PHILLIPS, THE WORLD TURNED UPSIDE DOWN: THE GLOBAL BATTLE OVER GOD, TRUTH, AND POWER 273 (2011).

104 Charles Taylor, *Foucault on Freedom and Truth*, 12 POL. THEORY 152, 153 (1984); MICHEL FOUCAULT, POWER/KNOWLEDGE 131 (Colin Gordon eds., Colin Goron et al. trans., 1980).

Even the possibility of scientific progress came under the assault of postmodernism. For example, Feyerabend, a provocative thinker, likened science to voodoo, witchcraft, and astrology.[105]

Though this extreme form of relativism started in academic circles, it is now widespread. Back in 1987, Allan Bloom wrote:

> There is only one thing a professor can be absolutely certain of almost every student entering the university believes, or says he believes, that truth is relative. If this belief is put to the test, one can count on the students reaction they will be uncomprehending. That anyone should regard the proposition as not self-evident astonishes them, as though he were calling into question 2+2=4.[106]

The idea of objective truth accessible, in principle, to every human being has thus been replaced by the notion that knowledge (as well as morality) are, to a large extent, social constructs –and likely oppressive ones, consistent with the view of Nietzsche in "The Genealogy of Morals."[107] The possibility of universal claims about the physical and moral worlds, accessible to all human beings, is an illusion. Everything can be reduced to subjective experiences and a 'will of power.'

Instead of emphasizing our common ground (e.g., the rational nature of human beings), the postmodern attitude highlights subjective (often innate) differences. The human race is conceived fundamentally as a multiplicity of identities, experienced subjectively, whose rights clash with one another in a zero-sum game. Communication between (identity) groups is limited –if at all possible– because there is a fundamental discontinuity between people who belong to different identity groups. Reason is no longer viewed as a universal bridge connecting people of different backgrounds.

This nihilistic mindset has multiple implications which we verify routinely. On and off-campus debate is losing its status as a way to settle a disagreement, and in some circles, it has been replaced by *ad hominem* attacks seeking to suppress opposing views. There is a victimhood hierarchy defined upon innate characteristics (i.e., identity). The notion of due process (and the presumption of innocence) has become less relevant, since what matters is the subjective experience of the victim (the 'lived experience') rather than objective facts.

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105 *See* PAUL FEYERABEND, AGAINST METHOD (Verso, 3rd ed. 1993).

106 ALLAN, BLOOM, CLOSING OF THE AMERICAN MIND: HOW HIGHER EDUCATION HAS FAILED DEMOCRACY AND IMPOVERISHED THE SOULS OF TODAY'S STUDENTS 25 (2012).

107 Hillary Putnam wrote:

While Kuhn has increasingly moderated his views, both Feyerabend and Foucault have tended to push it to extremes. There is something political in their minds: both Feyerabend and Michel Foucault link our present institutionalized criteria of rationality with capitalism, exploitation and even sexual repression. Clearly there are many divergent reasons why people are attracted to extreme relativism today, the idea that all existing institutions and traditions are bad being one of them.

HILLARY PUTNAM, REASON, TRUTH AND HISTORY 126 (1981).

In the last two decades, postmodernism has lost some of its influence on campus. But paradoxically, it prepared the ground for the expansion of more dogmatic doctrines. Indeed, neo-Marxist doctrines such as Critical Theory have become influential. These doctrines also conceive society as an insidious power struggle between identity groups. However, unlike postmodernism, Critical Theory is not radically skeptical as it asserts that oppression is the one overarching truth: interlocked systems of domination are deeply ingrained in our culture, language, and institutions. As Haidt and Lukianoff explain in "The Coddling of the American Mind," a member of the School of Frankfurt–Herbert Marcusse– is one of the most relevant thinkers for understanding the current illiberal campus climate.[108] In "Repressive Tolerance," Marcusse argues that tolerance and free speech benefit society under conditions that never exist, namely absolute equality."[109] When power differentials between groups exist, tolerance exacerbates the power structure at the expense of the oppressed. A truly liberating tolerance is, thus, for Marcusse, one that favors the weak and restrains the strong.

These theories are affecting our universities and have already infected STEM. But the situation on campus is only a reflection of a cultural movement that is transforming all our institutions, including the family, government, the media, and corporations. And this movement has global manifestations. It is present to different degrees in Europe, North America, and Latin America.

The following question thus arises, if the West is drifting away from Enlightenment values, can one expect academia to retain its truth-seeking telos? Cultural change is not deterministic and ultimately requires that we, individually and collectively, embrace it. But it seems likely that these cultural movement will continue to exert pressure on our society in general and the academy in particular, potentially weakening the university's truth-seeking telos.

CONCLUSION

What then shall we do to preserve the integrity of our universities? The answer begins by recalling George Steiner's words:

> What is a true university? It's libraries; it is a custodian, and engagement with the living past. It strives to advance knowledge and clarify critically the processes of thought. A true university serves neither political purpose nor social programs [which are] necessarily partisan and transitory. Above all, it rebukes censorship and correctness of any kind. What we have done through political correctness! The lies we are teaching, or having to accept. The questions we are not allowed to ask. Not even to ask. No question of answering. A university

108 LUKIANOFF & HAIDT, s*upra* note 10, at 64.

109 HERBERT MARCUSE, *Repressive Tolerance* in A CRITIQUE OF PURE TOLERANCE 81 (1970).

> should house and it should honor anarchic provocation and the passion of uselessness… The notion that the useless is the highest form of human activity.[110]

We should begin by recovering extensive free expression rights on campus, for faculty and students, and recalling, in the spirit of the Chicago Principles, that "it is not the **proper** role of the University to attempt to shield individuals from ideas and opinions they find unwelcome, disagreeable, or even deeply offensive."[111] Clearly, ideas can offend people; and even serve evil causes. But the lessons of history prove that silence and censorship are even more dangerous and that 'the only remedy for bad ideas is `more speech not enforced silence.'

The temptation to censor and discipline speech to ensure that academics behave "responsibly" or that they "stay on their lanes" has always been around.[112] But the search-for-truth is a slow collective (try and error) process which can't be replaced by a centralized mechanism without hurting its nature and outcome. History is clear. Many intellectual breakthroughs (perhaps most of them) have been resisted as heterodox by the status-quo. But there can only be intellectual progress if heterodox ideas are allowed to challenge the status quo and compete in the market of ideas.[113]

Compelled speech practices should be strongly rejected. There should be no room for mandatory training with ideological content on campus.

Nor should people anywhere, but specially on campus, be required to make mandatory statements of any kind to apply for or preserve a job. Such totalitarian practices should be rejected forcefully by students, faculty, alums, and legislators alike. This is a line nobody should be forced to cross in a democratic country!

Speech on campus should be evaluated based on its truth content and always using the principle of charity (i.e., ideas should be interpreted in their best possible form) rather than through the lens of the micro-aggression philosophy. The micro-aggression doctrine is censorious, divisive, and goes against traditional university values. All ideas can be potentially offensive to someone, but taking offense is not the same as giving offense.

Finally, preserving a free and open intellectual environment should be the university's top priority, given how delicate this equilibrium is. Adopting

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110 George Steiner, Lecture at the Nexus Institute on How To Reform The Humanities (Nov. 6, 2012).

111 COMMITTEE ON FREEDOM OF EXPRESSION, CHICAGO PRINCIPLES: REPORT OF THE COMMITTEE ON FREEDOM OF EXPRESSION 2 (2015).

112 Lysenkoysm is one of those extreme examples. Sam Kean, *The Soviet Era's Deadliest Scientist Is Regaining Popularity in Russia*, THE ATLANTIC (Dec. 19, 2017), https://www.theatlantic.com/science/archive/2017/12/trofim-lysenko-soviet-union-russia/548786/.

113 Furthermore, there is no such thing as a well-defined "scientific lane," because scientific boundaries overlap and change constantly (e.g, it's almost impossible to distinguish the domain of economics from the domain of sociology). Moreover, when it comes to policy recommendations, almost by definition, scientists should 'not stay on their lanes': it is important to integrate insights from multiple disciplines to make sensible policy recommendations.

an institutional ideology or embracing political and social goals at the institutional level will necessarily come at the expense of open inquiry and academic freedom by making it more costly for faculty and students to take dissenting positions. University administrators should endorse the Kalven report principles and remember that the university is and should continue to be "the house of critics, not the critic itself."

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FORWARD DOWN THE ROAD TO SERFDOM: INTERNATIONAL TAX LAW AS A MEANS OF CENTRAL PLANNING

Andrew P. Morriss•

INTRODUCTION

As World War II was ending, Friedrich Hayek published *The Road to Serfdom* as a warning to the British electorate over the dangers of the steps toward economic planning being proposed by the Labour Party.[1] Today the threat comes not from the British Labour Party but from international bureaucracies. The Organization for Economic Cooperation and Development (OECD) and European Union (EU) are dominated by high tax jurisdictions (many of which belong to both and have *dirigiste* approaches to economic policy issues).[2] These jurisdictions have different interests in designing tax codes from the rest of the world and from less-well-off groups within their own states. In particular, their efforts to export high-tax policies to developing countries is especially problematic.[3] As William Vleck has

• Professor, Bush School of Government and Public Service & School of Law, Texas A&M University, and Research Fellow at the Law & Economics Center, George Mason University Antonin Scalia Law School. Thanks to the participants at the Law & Economics Center's September 2021 Research Roundtable on Capitalism and the Rule of Law (particularly Ivan Marinovic, Casey Mulligan, and Murat Mungan who served as formal commenters), Carolina Arlota, Don Boudreaux, Roger Meiners, Dan Mitchell, and Julia Woislaw for comments on earlier drafts. Thanks are also due to my coauthors on the larger project on which this draws, Jakub Bartoszewski, Charlotte Ku, and Jesse Sowell. The views expressed here are my own and do not represent the official position of the Law & Economics Center, George Mason University, Texas A&M University, or any other organization, my coauthors on the larger project, or the commentators acknowledged above. Research support from the Law & Economics Center is gratefully acknowledged.

1 FRIEDRICH A. HAYEK, THE ROAD TO SERFDOM (Routledge Classics 1976) (1944) [hereinafter ROAD].

2 *See* Andrew P. Morriss & Lotta M. Moberg, *Cartelizing Taxes: Understanding the OECD's Campaign against Harmful Tax Competition,* 4 COLUM. TAX J. 1 (2012) (describing OECD); ANU BRADFORD, THE BRUSSELS EFFECT: HOW THE EUROPEAN UNION RULES THE WORLD 7 (2020) (describing the EU as "a global regulatory hegemon").

3 *See, e.g.,* Roger H. Gordon & Jeffrey K. MacKie-Mason, *The Importance of Income Shifting to the Design and Analysis of Tax Policy*, *in* TAXING MULTINATIONAL CORPORATIONS (Martin Feldstein, James R. Hines, Jr. & R. Glenn Hubbard eds.) 30-31 (1995) ("One clear finding from the theoretical literature . . . is that a capital income tax should exempt foreign owners if the country is small enough to be a price taker in world capital markets. If the country is a price taker, then any tax on income earned by foreign-owned capital. In the country will not be borne by foreigners—foreigners will invest in the country only if the net-of-tax return they earnt here is at least as high as what they can get elsewhere. . . . This implies that the corporate tax is ultimately borne by domestic workers and landowners. If so, even

observed, "the core is erecting a governance structure that operates as a form of 'financial colonialism.'"[4]

These groups and jurisdictions have launched various international tax initiatives over the past thirty years under a variety of names and acronyms: harmful tax competition,[5] blacklisting of non-compliant jurisdictions,[6] base erosion and profit shifting (BEPS),[7] anti-tax avoidance directive (ATAD),[8] the sixth directive on administrative cooperation (DAC6),[9] multilateral instrument (MLI),[10] transfer pricing rules,[11] the common reporting standard (CRS),[12] the EU savings directives,[13] the EU's insurance solvency directive,[14] campaigns to establish public beneficial ownership registers,[15] an economic

these groups would be better off if the corporate tax were replaced by direct taxes on wage and rental income. With direct taxes on wage and rental income, capital investment in the country is no longer discouraged, making the country more competitive in world markets."). More generally, one reason states engage in tax competition is to attract capital: "factors of production are what states compete for (most often capital investment) and in exchange they offer reduced taxes, or more attractive public goods and regulation (or an optimal mix of the two)." BARBARA GABOR, REGULATORY COMPETITION IN THE INTERNAL MARKET: COMPARING MODELS FOR CORPORATE LAW, SECURITIES LAW AND COMPETITION LAW, 15-16 (2013). Restricting developing economies from competing effectively for capital needed for development retards their economic development.

4 William Vleck, *A Semi-Periphery to Global Capital: Global Governance and Lines of Flight for Caribbean Offshore Financial Centers,* in GLOBALIZATION AND THE 'NEW' SEMI-PERIPHERIES (Owen Worth & Phoebe Moore, eds.) 196 (2009).

5 *See* Org. for Econ. Coop. & Dev. [OECD], *Harmful Tax Competition: An Emerging Global Issue*, at 43 (Apr. 23, 1998), https://read.oecd-ilibrary.org/taxation/harmful-tax-competition_9789264162945-en#page1.

6 *See* Jakub Bartoszewski & Andrew P. Morriss, *An Archipelago of Contrasts: Blacklists, Caribbean Autonomy, and the New Tax Colonialism,* IFC REV. (June 17, 2020), https://www.ifcreview.com/articles/2020/june/an-archipelago-of-contrasts-blacklists-caribbean-autonomy-and-the-new-tax-colonialism/; Milton Grundy, ESSAYS IN INTERNATIONAL TAXATION 4 (2001) (OECD ultimately relies on "the iron fist of sanctions").

7 *See* Org. for Econ. Coop. & Dev. [OECD], *BEPS Inclusive Framework on Base Erosion and Profit Shifting*, at 1 (Nov. 4, 2021), www.oecd.org/tax/beps.

8 *See* Council Directive 2016/1164, ¶ 2, 2016 O.J. (L 193) 1, 1-2 (EU). The ATAD requires EU Member States to adopt minimum standards with respect to controlled foreign corporations, hybrid mismatches, exit taxation, and interest deduction limitation. Jonathan Schwarz, SCHWARZ ON TAX TREATIES 428 (2021).

9 *See* Council Directive 2018/822, art. 1, 2018 O.J. (L 139) 1, 4–9 (EU).

10 *See* Andrew P. Morriss & Charlotte Ku, *MLI Rewiring of Global Treaty Networks Sets a Disturbing Precedent,* IFC REV. (May 26, 2021), https://www.ifcreview.com/articles/2021/may/mli-rewiring-of-global-treaty-networks-sets-a-disturbing-precedent/.

11 *See* John McKinley & John Owsley, *Transfer Pricing and Its Effect on Financial Reporting,* J. ACCOUNTANCY (Oct. 1, 2013), https://www.journalofaccountancy.com/issues/2013/oct/20137721.html.

12 *See* Council Directive 2014/107/EU, ¶ 4, 2014 O.J (L 359) 1, 1 (EU). As Schwarz explains, "The CRS owes much to the intergovernmental approach to the U.S. FATCA reporting, which in turn, was based on the EU Savings Directive." Schwarz, *supra* note 8, at 634.

13 *See* Council Directive 2003/48/EC, ¶ ¶ 2,8, 2003 O.J. (L 157) 38, 38 (EU) (repealed by Council Directive 2014/107/EU, *supra* note 12)

14 *See* Council Directive 2009/138/EC, ¶ 14, 2009 O.J. (L 335) 1, 3 (EU).

15 *See* Basel Inst. on Governance, *Beneficial Ownership Transparency Is a Pillar of Anti-Money Laundering Systems* (Sept. 20, 2021).

substance initiative,[16] and, most recently, an effort to create a global minimum corporate tax.[17] The argument here is that these represent a step down Hayek's road to serfdom because they require governments to implement tools that will increase the degree of central planning in economies around the globe.

While each initiative has different details, collectively they seek to transform the international tax system to conform to the views of a group of tax officials, left-wing NGOs, and international bureaucrats. Over many decades, bilateral tax treaties and provisions in national tax codes have emerged to allow countries and private parties the freedom to structure business entities and transactions to take advantage of differences in jurisdictions' tax, regulatory, and business law regimes. This enables jurisdictions to vary treaty terms to accommodate their particular interests.[18] This would be replaced by a centralized regulatory system that constrains jurisdictions' ability to shape their own tax policies and economic actors' ability to structure their operations and transactions across multiple jurisdictions.[19] As several coauthors and I have written elsewhere, this is destructive for a variety of reasons, including a significant democratic deficit by allowing, essentially, tax authorities in France and Germany to dictate tax policy to the world. It would choke off existing legal innovations and future

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16 *See* Anthony Travers, *The EU, Economic Substance, and Other Complete Nonsense,* IFC REV. (June 27, 2019), https://www.ifcreview.com/articles/2019/june/eu-economic-substance/.

17 *See* Leigh Thomas, *130 Countries Back Global Minimum Tax at 15%,* REUTERS (July 1, 2021), https://www.reuters.com/business/countries-backs-global-minimum-corporate-tax-least-15-2021-07-01/. The introduction of anti-money-laundering efforts in the 1970s added additional tools to government's repertoires. Richard Gordon and I analyzed these efforts in Richard Gordon & Andrew P. Morriss, *Moving Money: International Financial Flows, Taxes, and Money Laundering,* 37 HASTINGS J. INT'L & COMP. L. 1 (2014).

18 In general, deciding how international activities by a country's firms requires some judgment of the desirability of those activities, since taxes affect firms' decisions about where to produce. *See, e.g.,* Robert E. Lipsey, *Home-Country Effects of Outward Direct Investment,* in TAXING MULTINATIONAL CORPORATIONS 7 (Martin Feldstein, James R. Hines, Jr., & R. Glenn Hubbard, eds., 1995). Reuven Avi-Yonah, one of the most prolific international tax scholars, argues that the treaties in the network are sufficiently similar in policy and language to constitute an international tax regime. *See* REUVEN S. AVI-YONAH, INTERNATIONAL TAX AS INTERNATIONAL LAW AN ANALYSIS OF THE INTERNATIONAL TAX REGIME 4–5 (2007). More controversially, he also argues this regime bars "undertaxation" of income. Even the OECD has not been this audacious and is seeking formal agreement to its proposed minimum corporate tax. Practically, the current difficulties in persuading just developed countries to adopt this suggests there is not yet sufficient consensus to see it as an element in an international legal order. *See* Paul Hannon, *Already Stalled in U.S., Global Minimum Tax Hits European Roadblock,* WALL ST. J. (April 5, 2022), https://www.wsj.com/articles/already-stalled-in-u-s-global-minimum-tax-hits-european-roadblock-11649173956.

19 As there are a number of small-in-physical-size-but-large-in-economic-impact jurisdictions with less than full sovereignty which play a role in many of these transactions (e.g. Aruba, Bermuda, the British Virgin Islands, the Cayman Islands, Curaçao, Gibraltar, Guernsey, Hong Kong, the Isle of Man, Jersey) as well as fully sovereign jurisdictions (the Bahamas, Barbados, Cyprus, Ireland, Malta, the Maldives, the Netherlands, the Seychelles, Vanuatu), I will refer to "jurisdictions" rather than "states" in most instances, reserving "states" for references to fully sovereign jurisdictions.

ones we cannot now envision by regulatory competition among jurisdictions.[20] Here, I focus on a separate malignant effect of these initiatives taken as a whole: they create the apparatus to allow (and at times *require*) governments to engage in an unprecedented degree of central economic planning via international tax bureaucracies. As Hayek predicted in *The Road to Serfdom,* the extent of these tools will grow and governments will expand their use to implement policy goals that go well beyond collecting taxes.

The control capability created by these tax initiatives stems from the imposition of requirements for national tax authorities to collect extensive information from firms and to use that information to recharacterize transactions to fit a centrally dictated view of what the transactions should be structured to increase the tax due.[21] These powers – initially aimed at preventing international tax arbitrage transactions and targeting jurisdictions with low or zero direct corporate tax systems in particular – will have effects on all firms, not just those with cross-border operations. Once global rules are in place, their impact on purely domestic transactions and firms will follow. The initiatives collectively seek to shape and constrain firms' abilities to structure their operations through the administrative recharacterization of transactions and entities. While there have been complaints about various aspects of these initiatives,[22] to my knowledge there has not been an assessment of their collective impact on cross-border economic transactions and entities or consideration of the extent of central planning the initiatives enable.

This Article proceeds in five parts. First, I briefly describe Hayek's work. Next, I provide a brief description of the evolution of cross-border taxable transactions and the role that arbitrage across jurisdictions' tax systems has played in that evolution. Third, I provide a short overview of the evolution of international tax rules. Fourth, I describe the pertinent features of these efforts and explain why they facilitate economic planning, thus taking the world's economies several steps forward down the road to serfdom. Finally, I conclude by discussing alternative approaches to the problems of meshing national tax systems with respect to multijurisdictional transactions that would not facilitate central planning.

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20 *See* Morriss & Ku, *supra* note 10; Gordon & Morriss, *supra* note 17; Bartoszewski & Morriss, *supra* note 6.

21 Many of these initiatives also affect individuals and reduce opportunities for individual tax arbitrage. Those opportunities were already significantly constrained by earlier anti-avoidance measures and are less important as tools for central planning than the impact on business entities.

22 *See, e.g.,* Travers, *supra* note 16.

I. HAYEK'S ROAD TO SERFDOM

Dismayed by the turn he saw British politics taking, Hayek published *The Road to Serfdom* in 1944, expanding on his 1938 article "Freedom and the Economic System."[23] Hayek dedicated the book "To The Socialists of All Parties" and framed it as "a warning to the socialist intelligentsia of England."[24] Although he did not persuade the British left to abandon its commitment to expanding the state in time for the 1945 general election (which brought the Labour Party to power to create a welfare state and expanded state ownership of key industries) the book had lasting intellectual impact.[25] Published soon after in the United States, it had a similar lack of political effectiveness with more substantial intellectual impact. Although Hayek commented that "the kind of people to whom this book was mainly addressed seemed to have rejected it out of hand as a malicious and disingenuous attack on their finest ideals,"[26] it sold well and was published in condensed form by *Readers Digest* (a version that was a Book of the Month Club selection) and was made into a short, illustrated version by *Look* magazine, distributed by General Motors.[27]

Hayek developed his ideas in considerable detail in the book, often using specific examples based on Nazi Germany which he thought would be more persuasive to his British audience.[28] For our purposes, the core argument can be summarized in five key points:

1. *Price signals are critical the functioning of the market economy:* Hayek's initial premise is the point he and others developed in the 1930s socialist calculation debate: only the price system is capable of allowing individuals to act with knowledge of the relevant economic conditions.[29] Markets price signals are fundamental to the proper functioning of the economy. Efforts by planners to set prices (as in Soviet-style planning) is doomed to failure as a result.

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23 Friedrich A. Hayek, *Freedom and the Economic System,* 153 CONTEMP. REV. 434 (April 1938).

24 HAYEK, ROAD*, supra* note 1, at iii. Note that Hayek is not arguing against choosing "intelligently between the various possible organizations of society" or "employ foresight and systematic thinking in planning our common affairs." HAYEK, ROAD*, supra* note 1, at 35.

25 *See id.* at iv.

26 *Id.* at v.

27 *See id.*; LOOK MAGAZINE, *Hayek's Road to Serfdom in Five Minutes,* READER'S DIGEST (April 1945). The publication's history is discussed in *The Illustrated Road to Serfdom,* REFLECTIONS ON LIBERTY AND POWER (June 20, 2012), http://davidmhart.com/blog/C20111228141034/E20120629095727/index.html.

28 *See* HAYEK, ROAD*, supra* note 1, at iii.

29 *See id.* at 49. On the socialist calculation debate, see *Only* individuals can "fully know these circumstances [of time and place] and adapt their actions to them." *Id.* at 75. He developed this further in *The Use of Knowledge in Society,* 35 AM. ECON. REV., 519 (1945). The more complex the world, the more Hayek contended this was true. HAYEK, ROAD*, supra* note 1, at 49-50.

Although based in part on his earlier work critiquing socialist economic ideas, *The Road to Serfdom* is not simply a rewrite of Hayek's earlier critique of the flaws of Soviet-style central planning. While he predicted that an authoritarian state engaged in extensive manipulation of the economy lay at the end of the road, the road to serfdom was long and off-ramps and turnarounds were possible. The book was thus not simply a broadside against imitating the Nazis (or Soviets, whose economic policies Hayek identified as similar to the Nazis') but a warning that the lesser measures proposed by the Labour Party were the first steps along the road to a bad destination.

2. *Governments must avoid interfering indirectly and directly in price signals:* Governments can undermine the price mechanism and prevent it from functioning properly through steps far short of Soviet-style planning.

This was more than a warning that Labour's interference in the price mechanism by nationalizing various industries[30] or that its proposals for expanded social welfare policies would reduce economic efficiency (although Hayek's analysis pointed in those directions). Rather, Hayek's point was that avoiding driving up the on-ramp to the road to serfdom requires governments to refrain from measures that interfere with the price mechanism's ability to transmit information.

3. *Only measures that set general conditions avoid interfering in the transmission of information through prices:* Governments must be "bound by rules fixed and announced beforehand—rules which make it possible to foresee with fair certainty how the authority will use its coercive powers in given circumstances and to plan one's individual affairs on the basis of this knowledge."[31] That is, governments need to be confined "to creating conditions under which the knowledge and initiative of individuals are given the best scope so that *they* [individuals] can plan most successfully"[32] so that "within the known rules of the game the individual is free to pursue his personal ends and desires, certain that the powers of government will not be used to frustrate his efforts."[33]

When governments follow Hayek's advice, they set the "rules of the game" or the "Highway Code" that tells us on which side of the road to drive,

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30 The Labour Government nationalized the Bank of England, British European Airways, the coal industry, the natural gas industry, the electricity industry, the railroads, the iron and steel industry, the telecommunications industry, the water industry, the railroads, the weapons industry, the raw cotton industry, and the forestry industry in the 1940s. (Additional nationalizations followed later). *See* Robert Millward, *The 1940s nationalizations in Britain: means to an end or the means of production?,* 50(2) ECON. HIST. REV. 209, 215 (1997).

31 HAYEK, ROAD*, supra* note 1, at 72. The "known rules of the game" are "*formal rules* which do not aim at the wants and needs of particular people" but are "merely instrumental in the pursuit of people's various individual ends. And they are, or ought to be, intended for such long periods that it is impossible to known whether they will assist particular people more than others." HAYEK, ROAD*, supra* note 1, at 73.

32 *Id.* at 36.

33 *Id.* at 73.

but they do not seek to influence the outcome of the game or tell people which road to take.[34] As he later developed in greater detail in *The Constitution of Liberty* and *Law, Legislation, and Liberty*, a government's role is to enable the formation of an extended order, whose ends no one intends or knows, that evolve out of the free interactions of individuals in society.[35] These first three parts of Hayek's analysis thus set out the map on how to avoid getting on the road to serfdom in the first place.

But what happens when the people elect – as they did in 1945 in Britain – a government which does not take Hayek's advice and sets out to alter the outcomes produced by the market? The election of the post-war Labour government did not immediately destroy economic or political freedom in Britain. Hayek never contended it would. The question he raised was whether Labour's policies, which were far from comprehensive economic planning, started down the road, not whether they would reach the end immediately. To answer that, we need to know what the first miles of the road to serfdom look like. Hayek argued that the process of selecting which plan will itself advance a society on to the road to serfdom:

> 4. *The conflicts inherent in planning advance society further down the road to serfdom:* Even where there is general agreement (even unanimous agreement) on the need for planning, there will not be agreement on the particulars of the plan to be adopted.[36] These disagreements "will evoke stronger and stronger demands that the government or some individual should be given powers to act on their own responsibility."[37]

Once a particular plan is selected, implementation requires abandoning generality and allowing planners to make choices among individuals and

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34 *Id.* at 74. Hayek argued that exceptions to rules must also be limited as it "is more important that there should be a rule applied always without exceptions than what this rule is." *Id.* at 80. The key is the ability to predict others' behaviour, which requires that a rule apply "to all cases—even if in a particular instance we feel it to be unjust." *Id.* at 80.

35 *See* FRIEDRICH A. HAYEK, THE CONSTITUTION OF LIBERTY 1-22 (1960); FRIEDRICH A. HAYEK, LAW, LEGISLATION AND LIBERTY: RULES AND ORDER 35-71 (1973). In international tax rules, an example is the clarification of when U.K. law would treat an offshore company owned by a U.K. resident as itself resident in the U.K. This area of the law was uncertain for many years until the judgment in *Wood v. Holden* set out a clear rule that an offshore company is resident where its board meets so long as the board meets regularly and gives genuine and properly informed consideration to the business it transacts. Wood and another v. Holden (Inspector of Taxes), [2006] 1 W.L.R. 1393 (C.A. (Civ. Div.)). On the history of uncertainty, *see* GILES CLARKE, OFFSHORE TAX PLANNING 17 (26th ed., 2019). By setting clear rules, the U.K. courts – in this instance, anyway – enabled individuals to plan their affairs. On the other hand, the 1955 U.K. Royal Commission on tax found income tax rules *then* to be "voluminous, complicated and obscure." ROYAL COMMISSION ON THE TAXATION OF PROFITS AND INCOME, FINAL REPORT, 1955-56, HO 244/902, at 330 (U.K.). They have not improved since.

36 *See* HAYEK, ROAD, *supra* note 1, at 62.

37 *Id.* at 67.

firms based on something other than the general rules. In short, if we're going to make an omelet, some eggs are going to be cracked.[38] Therefore:

> 5. *Planning requires that planners have the ability to act outside of general rules:* Governments implementing plans must go beyond general rules as a planning authority cannot "tie itself down in advance to general and formal rules which prevent arbitrariness. It must provide for the actual needs of people as they arise and then choose deliberately between them." In short, to direct economic life, the authorities must have "powers to make and enforce decisions in circumstances which cannot be foreseen and on principles which cannot be stated in generic form"[39] and so cannot be reduced to rules.

As governments take actions outside of the general rules to force market outcomes by implementing *any* plan, then they inevitably undermine the rule of law, speeding the trip toward serfdom.[40] Acting outside the general rules requires planners to take discriminatory actions. Implementing a plan requires delegating to "some authority" the "power to make with force of law what to all intents and purposes are arbitrary decisions."[41] That authority

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[38] The egg/omelette metaphor is often attributed to Lenin, Stalin, or New York Times reporter and Stalin apologist Walter Duranty. However, it originated much earlier with Robert Louis Stephenson in 1897. Stephen J. Dubner, *Quotes Uncovered: Making Omelettes,* Freakonomics (Feb. 3, 2011), https://freakonomics.com/2011/02/03/quotes-uncovered-making-omelettes/.

[39] HAYEK, ROAD, *supra* note 1, at 83. Gabor points to discretion as enabling bureaucracies "to arrive at legal solutions which are 'not necessarily predictable from the scrutiny of legal rules.' By exercising discretion, these legal actors may influence the content of the law, further develop policies and arrive at solutions that were not envisaged by, and may even be contrary to, the intention of the legislature." Gabor, *supra* note 3, at 35.

[40] Although he never mentions Hayek, administrative law expert Jerry Mashaw made a similar point in his in-depth analysis of the functioning of the Social Security Disability Insurance system, an administrative bureaucracy whose caseload is roughly that of the federal judiciary (More than 431,000 claims were filed for disability benefits in 2019; the federal courts of appeal and district courts had just over 426,000 filings that year.) *Federal Judicial Caseload Statistics 2019,* https://www.uscourts.gov/statistics-reports/federal-judicial-caseload-statistics-2019; Social Security Administration, *Annual Statistical Report on the Social Security Disability Program, 2019,* Table 33, https://www.ssa.gov/policy/docs/statcomps/di_asr/2019/sect02.pdf.) Mashaw concluded that a bureaucrat in an administrative agency (at least in the United States) "continually face decisions for which external standards provide no biding, perhaps no relevant, guidelines. Administration goes on, not just in terms of technical rules and bureaucratic routines but within some structure of guiding norms or salient images of the appropriate means for wielding legal power." Jerry L. Mashaw, BUREAUCRATIC JUSTICE: MANAGING SOCIAL SECURITY DISABILITY CLAIMS 16 (1983).

[41] HAYEK, ROAD, *supra* note 1, at 66. This delegation is necessarily more than simply ministerial. Hayek argues that Parliament can, of course, control the execution of tasks where it can give definite directions, where it has first agreed on the aim and merely delegates the working-out of the detail. The situation is entirely different when the reason for the delegation is that there is no real agreement on the ends, when the body charged with the planning has to choose between the ends of whose conflict parliament is not even aware, and when the most that can be done is to present to it a plan which has to be accepted or rejected as a whole.

Id. at 68-69. The restriction of "conscious control" to "the fields where true agreement exists" is "the price of democracy." *Id.* at 69.

must constantly decide questions that cannot be answered by formal principles only, and in making these decisions, "it must set up distinctions of merit between the needs of different people."[42] This "necessarily involves deliberate discrimination between particular needs of different people, and allowing one man to do what another must be prevented from doing."[43] Once governments acquire these powers, the "Rule of Law cannot hold" because "the use of the government's coercive powers will no longer be limited and determined by preestablished rules."[44] A better description of a modern industrialized country tax authority applying a twenty-first century tax code's provisions is hard to imagine.

Some of the power of Hayek's argument is because it does not allow for half-measures. He argued that there was no "middle way between 'atomistic' competition and central direction," that it was impossible to have "a judicious mixture" of "free competition" and "complete centralization." Planning is not "a medicine, which taken in small doses, can produce the effects for which one might hope from its thoroughgoing application."[45] The simplest way to avoid arriving at the terminus of the road to serfdom was thus not to get on the road in the first place.[46] Once on it, the only remedy was to exist as quickly as possible.

Hayek's road to serfdom thus begins well short of Soviet-style comprehensive central planning and its essence is the progressive corrosive impact on the rule of law of choosing and implementing economic planning. The implementation of any plan inevitably replaces general rules of conduct (the 'rules of the road') with the exercise of discretion by a government actor to select one economic actor over another in ways that are unconstrained and so arbitrary. The cumulative impact of such actions expands the need for more such exercises of discretion, so that what may have begun as a limited intervention expands its scope.

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42 HAYEK, ROAD, *supra* note 1, at 74.

43 *Id.* at 78.

44 *Id.* at 82. As planning becomes more extensive, "it becomes regularly necessary to qualify legal provisions increasingly by reference to what is 'fair' or 'reasonable'," leaving "more and more to the discretion of the judge or authority in question." HAYEK, ROAD, *supra* note 1, at 78. As Hayek noted, "[o]ne could write a history of the decline of the Rule of Law, the disappearance of the *Rechstaat,* in terms of the progressive introduction of these vague formulas into legislation and jurisdiction, and of the increasing arbitrariness and uncertainty of, and the consequent disrespect for, the law and the judicature, which in these circumstances could not but become an instrument of policy." *Id.*

45 *Id.* at 42. Hayek elaborates on this point later in the book, commenting that "[m]any kinds of planning are indeed practicable only if the planning authority can effectively shut out all extraneous influences; the result of such planning is therefore inevitably the piling-up of restrictions on the movements of men and goods." *Id.* at 220.

46 Hayek did not deny that there were exit ramps off the road to serfdom; that is, he did not argue that taking a single step on the road (nationalizing the steel industry or establishing a national health service, as Britain did after the Labour Party took power in 1945 when British voters rejected Hayek's advice) would soon turn a country into an authoritarian tyranny. And, as we have seen since 1989, many jurisdictions have at least reversed course along the road, if not exited it entirely.

How do we know when we have stepped on to the road to serfdom? Economic planning runs the gamut from the "indicative planning" of 1950s and 1960s France and the relatively ineffectual plans of the British government (partly in imitation of France) until the Thatcher government put a stop to these exercises (and reversed many of the nationalizations), to the brutally enforced central plans of the Hitler, Stalin, and Mao regimes and North Korea today.[47] Certainly, the relatively care-free bureaucrats of the OECD and EU, the former enjoying Parisian cafes on their tax-free salaries and the latter enjoying the largesse of the EU as an employer in Brussels and Strasburg (and while moving back and forth between the two cities) bear little resemblance to Hitler, Stalin, Mao, or Kim Jong Il. The best indicator is whether we can see violations of points 4 and 5.

Of course, to make the case that the changes in international tax law are a step down the road to serfdom requires more than that governments take more money from businesses in taxes.[48] A better definition of the first miles is when governments acquire the power to implement plans "by adjusting certain economic regulators (e.g. prices, taxes, the rules governing enterprise behaviour, the rate of exchange, etc.)"[49] The core of central planning in Hayekian terms is thus when there exists a "total body of government actions to determine and coordinate direction of national economic development."[50] As noted earlier, when this "total body" exists, the rule of law has been undermined by the zone of arbitrary action granted to planners to secure conformity with their plan. One important test for whether we are on the

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47 *See* Michael Ellman, Socialist Planning, in PROBLEMS OF THE PLANNED ECONOMY 13, 13 (John Eatwell, Murray Milgate & Peter Newman eds., 1990) (outlining range of planning regimes).

48 One argument that this is not such a step is based on planning proponent Przmyslaw Palka's arguments against Hayek's position: "It is possible to have a heavily regulated, heavily taxed economic order, where large-scale redistribution takes place and numerous social services are provided, that is still a liberal market economy. This paradigm is not a planned economy." Palka defines a planned economy as one where activities of individuals result not from their decision to engage in them, but directly from the command of a legitimate entity, such as the government. In such a system, individuals engaging in production and consumption do so in response to legitimate normative orders or instructions, Regulation, within the market paradigm, equalizes the opportunities available to players, or corrects the outcomes of the game. Planning gets rid of the game entirely.

Przemyslaw Palka, *Algorithmic Central Planning: Between Efficiency and Freedom,* 83 L. & CONTEMP. PROBS. 125, 130 (2020). For Palka, so long as we do not "get rid of the game entirely" by keeping markets in place for at least some aspects of the economy, there is not central planning. To respond to Palka, we need to distinguish some levels of regulation from planning as Hayek did. HAYEK, ROAD*, supra* note 1, at 36 (noting the necessity of "a carefully thought-out legal framework"). And as Hayek noted, the road to serfdom need not be completed in a single step. Nonetheless, Palka's definition contains important elements of what planning is, even if it is not necessary to "get rid of the game entirely" to *start* down the road to serfdom. Palka's hypothetical has people eating what an algorithm chooses for them, wearing clothes chosen by the algorithm, going to work in jobs chosen by the algorithm, etc. Palka, *supra* note 48, at 140-41.

49 Ellman, *supra* note 47, at 16.

50 Tadeusz Kowalik, Central Planning, in PROBLEMS OF THE PLANNED ECONOMY 42, 42 (John Eatwell, Murray Milgate & Peter Newman eds., 1990).

initial stretch of the road to serfdom will be whether the zone of arbitrary decisions and actions has been expanded.

We thus need to determine if we are on the road to serfdom by examining whether laws and regulations are establishing the rules of the road or are making arbitrary distinctions among economic actors to advance a plan's goals. One key indicator is the degree to which the government relies on long-lived rules which enable individuals' plans to be formulated and put into effect or whether the 'rules' are constantly changing to obtain the planners' desired outcomes. Another would be whether government decisions are capable of being reviewed through objective standards or if the zone of discretion allowed government actors is broad and difficult or impossible to review.

I now turn to describing the environment in which multi-jurisdictional businesses and transactions occur. To mix metaphors, these businesses and transactions serve as the canaries in the coal mine for our journey down the road to serfdom in an assessment of international tax rules. This environment has changed in recent decades but there are strong elements of continuity. To evaluate if international tax law is leading us further down the road to serfdom, we need to understand the demand and supply of multijurisdictional business entities and transactions, as these are the entities and transactions to which these rules apply.

II. THE EVOLUTION OF MULTI-JURISDICTIONAL BUSINESSES AND TRANSACTIONS

International tax is the term applied to coping with the complexities of meshing two or more national tax systems that potentially share jurisdiction over an entity, individual, or transaction. When jurisdictions define income differently, tax at different rates, or provide different credits or deductions, allocating the authority to tax among them becomes important.[51] Once rules are set, tax consequences can influence the form that international transactions and investment take.[52] This may create opportunities to arrange transactions so as to reduce the tax owed.[53] How tax systems' rules mesh has

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[51] *See* CLARKE, *supra* note 35, at 1457 ("Often the U.K. and the other contracting state have very different tax systems, linguistic usages and approaches to the interpretation of statutes and contracts.").

[52] *See* BARRY SPITZ, INTERNATIONAL TAX PLANNING 89 (2d ed., 1983) ("The tax consequences of operating through a subsidiary, through a branch office or through an independent agent are frequently quite different. These differences may be crucial in determining the manner in which a proposed operation is to be conducted.").

[53] A classic example is the use of a "stepping stone," a popular structure in the 1970s and 1980s. Royalties or interest are to be paid from a high tax country (H) (where they are a deduction from the income of the payor) to a low tax (L) one. To avoid the withholding tax imposed by H, an entity in a Stepping Stone (S) jurisdiction is inserted. To qualify as a Stepping Stone, there must a tax treaty between H and S reducing or eliminating the withholding tax and no liability to tax (income or withholding) in S.

long had a significant impact on the economic returns to an international investment. For example, a 1967 study found that the after-tax return to a Dutch investment in different countries varied in the proportion of pre-tax income received by shareholders from 29% to 75%.[54] A brief review of the evolution of the role of multi-jurisdictional entities and transactions is necessary to understand the major issues and the arguments used to justify driving on to the road to serfdom.

Businesses have long engaged in multi-jurisdictional transactions and created families of related entities in multiple jurisdictions. Almost by definition, "[i]nternational business constitutes a web of inter-firm collaboration and contracts, alongside the intra-firm organization of finance, production and marketing within multinationals."[55] In the 1920s and 1930s, for example, large enterprises such as Unilever and Royal Dutch/Shell already had hundreds of legal entities scattered across the globe, which bought and sold products and services both within business families and with outsiders.[56] These networks of entities were often geographically based and motivated by the need to have locally based management to address local needs or to adapt to individual jurisdictions' regulatory environments. For example, in 1936 Unilever struck a deal with the German government to purchase (through its Canadian subsidiary to avoid Dutch restrictions on dealings with Germany) two ships from a German shipyard to be paid for with a combination of palm oil (35% of the price) and "blocked marks," i.e. German currency it had earned from German operations but which it was not allowed to take out of the country due to exchange controls implemented as part of Nazi economic planning (65% of the price).[57] As the palm oil likely came from a Unilever subsidiary in Dutch Indonesia or Africa, these transactions to move profits from the sale of margarine and other edible fats

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See MILTON GRUNDY, THE WORLD OF INTERNATIONAL TAX PLANNING 72-73 (1984). As Grundy noted, different jurisdictions qualified as a stepping stone depending on their treaties' provisions. He recommended locating stepping stones in the Netherlands for interest and royalties, in Luxembourg for interest on short-term borrowing but not royalties, in the U.K. for interest and some royalties, in Denmark for royalties but not interest. *Id.* at 72.

54 *See* SPITZ, PLANNING, *supra* note 52, at 93-94.

55 ROBERT FITZGERALD, THE RISE OF THE GLOBAL COMPANY: MULTINATIONALS AND THE MAKING OF THE MODERN WORLD 14 (2015).

56 BEN WUBS, INTERNATIONAL BUSINESS AND NATIONAL WAR INTERESTS: UNILEVER BETWEEN REICH AND EMPIRE 1939-45, at 23 (London: Routledge 2008) (describing Unilever as a "typically European" holding company, a "conglomerate of hundreds of operating companies"); JOOST JONKER & JAN LUITEN VAN ZANDEN, FROM CHALLENGER TO JOINT INDUSTRY LEADER, 1890-1939: A HISTORY OF ROYAL DUTCH SHELL, VOLUME 1, at 160-61 (Oxford University Press 2007) (two page organization chart of related entities in 1914, with more than 120 identified). *See also* FITZGERALD, *supra* note 55, at 56 (describing how European and American firms were "replicating mini-versions of themselves, founding subsidiaries in foreign markets, transplanting the organizational capabilities and systems intrinsic and internal to a manufacturing firm.").

57 The company ultimately bought more than sixty ships in this fashion before the German insistence on increasing amounts of hard currency payments for ships brought the practice to an end just prior to the German invasion of the Netherlands. WUBS, *supra* note 56, at 49.

in Germany to the Netherlands involved entities in at least four jurisdictions. During this same period, governments pressured foreign automobile firms to create local production facilities, which often began as assembly plants and grew into manufacturing.[58] While the interwar period is often characterized as one of reduced globalization, it was actually a time of 'multinationalization' for many firms operating across borders.[59]

There is a similarly long history of business owners moving themselves and/or their businesses out of high tax jurisdictions. For example, Canadian mining entrepreneur Harry Oakes (ironically, originally a United States citizen) moved from Canada to the Bahamas to escape Canadian income taxes, sparking a bitter Canadian newspaper headline: "*MULTIMILLIONAIRE CHAMP TAX DODGER, Santa Claus to Bahamas. But Heart Like a Frigidaire to the Land that Gave Him Wealth*."[60] On a grander scale, Royal Dutch/Shell organized local operating companies "nearly everywhere" to avoid double taxation.[61] As early as the 1930s there were guides published on how to avoid U.K. income tax, surtax, and death duties.[62]

Jurisdictional arbitrage for special purposes also began before World War II. In the 1920s, multinational structuring was sufficiently common for

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58 *See* FITZGERALD, *supra* note 55, at 179-80.

59 *See id.* at 255-56.

60 MICHAEL CRATON, A HISTORY OF THE BAHAMAS 256 (3d ed. 1986).

61 JONKER & VAN ZANDEN, *supra* note 56, at 289. The problem was described as follows:

In the Dutch East Indies, for example, Asiatic dictated the local market and made huge profits. The company traded through a local branch office which did not have a separate legal identity from the U.K. head office. The Dutch East Indies government therefore threatened to tax Asiatic itself, on the basis of its worldwide profits. Consequently, the Group's marketing operations in the Indonesian archipelago were reorganized into a separate company by resurrecting the Handelszaken department of the dormant Dordtsche Petroleum Company. In this way Asiatic gradually acquired dozens of subsidiaries to manage local marketing operations, and sometimes refining as well.

In some respects, international tax issues were less important before World War II then than they are today, as much of the world was contained within the British, French, Dutch, and Portuguese Empires, making internal-to-an-empire transactions less "international" than a current transaction between Angola and Portugal, Nigeria and Britain, or Algeria and France would be today. For example, the U.K. Finance Act 1920 made the taxes paid in a British dominion able to be used as a credit against U.K. tax up to half the rate of U.K. income tax (including super tax) as well as full relief up to the lower of the dominion or U.K. tax. PEGGY BREWER RICHMAN, TAXATION OF FOREIGN INVESTMENT INCOME AN ECONOMIC ANALYSIS 39-40 (1963). Moreover, taxes on business income were less prevalent prior to decolonization; most colonial tax systems in the British and French Empires focused on indirect taxes (e.g. customs duties) rather than income taxes, in part because much of the colonies' economies was informal. *See* LEIGH A. GARDNER, TAXING COLONIAL AFRICA: THE POLITICAL ECONOMY OF BRITISH IMPERIALISM 5-8 (2012) (noting reliance on trade taxes and poll taxes). In the French Empire in particular there was considerable reliance on requiring physical labor from colonial subjects rather than efforts to tax their income. Forced labor was not abolished in the French Empire until 1946. Elikia M'Bokolo, *French Colonial Policy in Equatorial Africa in the 1940s and 1950s in* THE TRANSFER OF POWER IN AFRICA: DECOLONIZATION 1940-1960, at 193 (Prosser Gifford & Wm. Roger Louis eds., 1982).

62 *See* Philip Baker, *A Book Review of 'The Saving of Income Tax, Surtax and Death Duties' by Jasper More, in* 2 STUDIES IN THE HISTORY OF TAX LAW 225 (John Tiley ed., 2007).

Liechtenstein to launch an effort to attract foreign businesses to use the principality as a neutral base for the many Austro-Hungarian companies that suddenly found themselves multijurisdictional after the breakup of the Empire at the end of World War I. The Principality passed the groundbreaking *Personen-und Gesellschaftsrecht* (PGR) statute in 1926, adding the *anstalt, stiftung*, and civil law trusts to the usual range of corporate and partnership structures.[63] Similarly, the resolution of the bankruptcy of the gigantic International Match Company (IMC), a company owned by Swedish "Match King" Ivar Kreuger, which collapsed upon his death in 1932, involved use of a Bermuda entity to hold 90 percent of the bondholders' claims against the IMC estate and helped launch Bermuda as a platform for international business.[64] The entity successfully recovered much of the bondholders' money; Bermuda's tax neutrality ensured the creditors received the funds without the distribution being taxed there.[65] Another example was the use by Dutch businesses of the Dutch Caribbean territory of Curaçao to cope with the imminent threat of German occupation in 1939. Tanks on the border motivated Dutch multinationals to seek a way to keep the ownership of their non-European assets out of German hands. Dutch law was hastily amended to allow the transfer of the seat of Dutch corporations to non-European territories of the Kingdom of the Netherlands and Royal Dutch (the Dutch portion of the Anglo-Dutch entity Royal Dutch/Shell). As there were organizational resources (accountants, managers, lawyers, notaries) in Curaçao because of the company's massive refinery operations there, the support services necessary were in place. As Craig Boise and I

63 *See* DAVID BEATTIE, LIECHTENSTEIN: A MODERN HISTORY 72 (2004) ("The 1926 legislation offered then widest possible range of instruments for business people and financiers to manage their funds and investments, including various forms of companies and trusts."); *see also* Marcus Wyler, *The New Civil Law of the Principality of Liechtenstein,* 8(4) J. COMP. L. & INT'L L. 197, 204 (1926). Liechtenstein continued to succeed in this field, earning praise in a 1957 Harvard Law School guide to establishing tax avoidance arrangements for U.S. firms, which noted "The small principality of Liechtenstein, well known in Europe as a base country, has long derived a significant share of its tax revenues from fees paid by foreign businessmen for the privilege of using the country as a corporate domicile. Foreign-owned businesses have chosen Liechtenstein as a corporate seat because the country grants preferential tax treatment to enterprises doing business abroad and because the formalities of incorporation and operation of business have been reduced to a minimum." WILLIAM J. GIBBONS, TAX FACTORS IN BASING INTERNATIONAL BUSINESS ABROAD 95 (1957).

64 *See* GORDON PHILLIPS, FIRST, ONE THOUSAND MILES …: BERMUDIAN ENTERPRISE AND THE BANK OF BERMUDA 92 (1992).

65 *See* Ian R.C. Kawaley, *Cross-Border Insolvency Law in Bermuda: A Common Law, Common Sense Approach* 4 (Sept. 28, 2015) (unpublished manuscript) (available at https://ncbjmeeting.org/2019/archive/2015/edmaterials/Cross-Border%20Insolvency%20Law%20in%20Bermuda-%20a%20Common%20Law%20and%20Common%20Sense%20Approach.pdf)

have written elsewhere, this led directly to the development of Curaçao as a major offshore financial center in the 1960s and 1970s.[66]

At least for transactions involving operations in at least two industrialized countries, the problem of double taxation was recognized and addressed at least from 1899, when Prussia and the Austro-Hungarian Empire signed the first comprehensive bilateral tax treaty.[67] In the 1920s, the League of Nations developed a model tax treaty in an effort to encourage efforts to address the problem of double taxation.[68] Nevertheless, the pre-World War II network of tax treaties was relatively sparse. By 1950, there were only 28 bilateral income tax treaties in effect. For the most part, double taxation matters at that time were dealt with via national law through unilateral credits for foreign taxes paid or exemptions of foreign source income. The organization of most of the world into a few colonial empires contributed to the lack of demand for treaties: there was no need for a U.K.-Nigeria or France-Mali treaty in 1950 as the metropolitan powers could simply legislate solutions.[69]

After World War II, multijurisdictional transactions became increasingly important for several reasons.[70] First, decolonization expanded the number of jurisdictions with independent tax authority and those jurisdictions began to implement direct income taxation of business entities and individuals.[71] At that time, most of the value of cross-border economic

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66 *See* Craig M. Boise & Andrew P. Morriss, *Change, Dependency, and Regime Plasticity in Offshore Financial Intermediation: The Saga of the Netherlands Antilles,* 37 TEXAS INT'L L. J. 377, 384 (2009).

67 The Austro-Hungarian-Prussian treaty was the first "comprehensive" one but there is an extensive earlier history addressing double taxation problems. *See* Sunita Jogarajan, *Prelude to the International Tax Treaty Network: 1815-1914 Early Tax Treaties and the Conditions for Action*, 31(4) OXFORD JOURNAL OF LEGAL STUDIES 679, 684 (2011).

68 *See* Morriss & Moberg, *supra* note 2, at 17.

69 *See, e.g.,* FITZGERALD, *supra* note 55, at 33 ("It helped, therefore, that colonial regimes could install governance rules and business systems with which European multinationals were familiar, and the guaranteed protection of property rights lowered the risks for international investors."); *see also* ANTHONY J. PAYNE, THE POLITICAL HISTORY OF CARICOM 160 (2008) (noting use of "empire relief" arrangements for intra-colonial tax matters).

70 Some analysts suggest that using multinational transactions to reduce tax burdens is a more recent phenomenon. *See, e.g.*, Joseph Guttentag & Reuven Avi-Yonah*, Closing the International Tax Gap, in* BRIDGING THE TAX GAP: ADDRESSING THE CRISIS IN FEDERAL TAX ADMINISTRATION 99, 100 (M.B. Sawicky ed., 2005) ("The ability to use the Caymans and other offshore tax havens to evade income taxes is a relatively recent phenomenon. Since about 1980 there has been a dramatic lowering of both legal and technological barriers to movement of capital, goods, and services."). While lower communications costs have certainly made it easier in more recent times, both the interest in double tax treaties that predates World War I and the long history of multinational business structures suggest that these practices were common well before 1980.

71 *See* Esteban Ortiz-Ospina & Max Roser, *Taxation,* OUR WORLD IN DATA (2016), https://ourworldindata.org/taxation#taxes-started-growing-in-early-industrialised-countries-after-the-first-world-war; Esteban Ortiz-Ospina & Max Roser, *Government Spending,* OUR WORLD IN DATA (2016), https://ourworldindata.org/government-spending#public-spending-growth-in-early-industrialised-countries-was-largely-driven-by-social-spending.

transactions continued to be in transactions between industrialized countries, and the vast majority of cross-border capital flows continued to originate from a small number of industrialized countries. However, multi-jurisdictional investments and transaction flows between local entities with at least partial foreign ownership and foreign entities began to grow in number. As taxes on individuals and businesses increased during and after World War II as governments sought resources first for the war effort and then for the post-war welfare states, the motivation for businesses to find ways to use tax arbitrage to reduce their tax burden grew. This demand spurred a supply from lawyers and accountants. For example, a 1957 Harvard Law School publication advised companies on how to use a diverse array of jurisdictions (including, surprisingly for the modern reader, Canada, Haiti, and Venezuela, as well as jurisdictions recognizable as IFCs today) to create a "base company" to hold non-U.S. assets that would be exempt from U.S. taxation.[72]

Tax avoidance aside, there were many reasons why the post-World War II era saw an increasing number of multi-jurisdiction business structures emerge. First, separate business entities in different jurisdictions enabled satisfying demands for local entities to be given roles and for cross-border business transactions to go beyond importing finished goods from a foreign manufacturer. Second, legally separating the business in a jurisdiction from the global organization enabled local investors to gain a stake in the business in their jurisdiction without inviting their participation in the entire global business. Third, creating legal barriers between local entities and the foreign parent provided a degree of protection against potentially hostile efforts to extract rents from the foreign parents. These incentives combined to vastly increase the scale of cross-border operations. For example, foreign subsidiaries of U.S. firms grew from 7,500 in 1950 to 23,000 in 1966, and while there were just three U.S. manufacturing firms with subsidiaries in twenty or more countries in 1950, by 1975 there were at least forty-four such firms.[73] By 2000, affiliates of multinationals of all countries accounted for 40% of international commerce.[74] "Since multinationals increasingly organized and coordinated the flow of exports and imports, the role of multinationals in the global economy became even more pronounced."[75]

Of course, taxes influenced business structures as well. As business tax rates increased in the industrialized economies in the 1950s and 1960s, business structures were sometimes designed to reduce the overall tax burden by shifting income to low- or zero-direct tax jurisdictions or to take advantage of specific tax rules in particular jurisdictions. For example, the Netherlands has long had a "participation exemption" for holding companies

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72 *See generally* WILLIAM J. GIBBONS, TAX FACTORS IN BASING INTERNATIONAL BUSINESS ABROAD 8–14, 55, 83, 168 (1957).

73 FITZGERALD, *supra* note 55, at 301.

74 *Id.* at 423-25.

75 *Id.* at 487.

that significantly reduces the tax burden for business structure that includes an operating company in a jurisdiction other than the Netherlands and a holding company in the Netherlands.[76] Such structures were also used to protect against future exchange controls.[77] More generally, exchange control regimes (both formal, as with the United Kingdom's elaborate rules, and incentive-based, as with the United States' 1960s Interest Equalization Tax, which penalized payments to foreign entities and individuals in an effort to prevent the outflow of capital) played an important role in influencing international business structures, forcing firms to develop a means of moving money across exchange control regions.[78]

Further, the development of the eurocurrency and eurobond markets in London created a demand for multinational structures to enable businesses to tap into this lower cost market for funds. Briefly – ignoring many nuances – a pool of U.S. dollars accrued in Europe beginning in the 1950s.[79] These dollars were held in banks not subject to U.S. banking regulations (in particular, U.S. reserve requirements and Regulation Q's limitations on interest rates).[80] Some of these dollars came from governments reluctant to deposit funds in U.S.-regulated institutions (the Soviet Union and, after the OPEC oil embargo, Arab oil exporters) because those governments feared depositing their funds in U.S.-regulated banks risked the U.S. government seizing the funds.[81] London developed into the center of eurocurrency/eurobond markets in part because the Bank of England credibly committed to not regulate financial institutions' non-sterling activities and in part because the City of London had a deep pool of financial talent

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76 *See* GILES CLARKE, OFFSHORE TAX PLANNING 130-31 (3rd ed. 1994); The Netherlands chooses this approach because of "the international character of the Dutch economy. Traditionally, the Netherlands has had strong international investment, trade and transportation, and gradually the internationalization has permeated other sectors of the Dutch economy. Tax policy makers acknowledge the advantage of the internationalization of the private sector to the Dutch economy as a whole. This awareness is reflected in two cornerstones of Dutch tax policy: i) capital import neutrality, and ii) strong reservations in respect of withholding taxes on dividends, interest and royalties." STEF VAN WEEGHEL, THE IMPROPER USE OF TAX TREATIES 108 (1998).

77 *See* E. R. BARLOW & IRA T. WENDER, FOREIGN INVESTMENT AND TAXATION 245 (1955) (describing use of holding companies to protect against the imposition of exchange controls in the 1950s, as where one non-U.S. subsidiary sought to loan another non-U.S. subsidiary money, making it "preferable to have the loan made by a holding company in a third foreign country" as a protective measure).

78 *See* HEATHER D. GIBSON, THE EUROCURRENCY MARKETS, DOMESTIC FINANCIAL POLICY, AND INTERNATIONAL FINANCIAL INSTABILITY 11-12 (1989); RICHARD O'BRIEN, GLOBAL FINANCIAL INTEGRATION: THE END OF GEOGRAPHY 20-21 (1991).

79 *See* Tony Freyer & Andrew P. Morriss, *Creating Cayman as an Offshore Financial Center: Structure & Strategy since 1960*, 45 ARIZ. ST. L.J. 1297, 1323 (2013).

80 *See* Catherine R. Schenk, *The Origins of the Eurodollar Market in London: 1955-1963*, *in* 35 EXPLORATIONS ECON. HIST. 221, 223, 227-28 (1998).

81 *Id.* at 223; PAUL EINZIG & BRIAN SCOTT QUINN, THE EURO-DOLLAR SYSTEM: PRACTICE AND THEORY OF INTERNATIONAL INTEREST RATES 22 (6th ed. 1977); STUART W. ROBINSON, JR., MULTINATIONAL BANKING 30 (1972).

experienced in multi-jurisdictional financial structures. Further, English company law offered a sophisticated and widely accepted framework for organizing legal entities for implementing financial arrangements, and English courts (particularly the Judicial Committee of the Privy Council) combined widely respected for the quality of its judges and the extensive body of English law (both common law and statutes) on business organizations and financial transactions.[82] This produced extraordinary innovations in finance.[83]

After World War II, industrialized economies extended newly signed tax treaties to the colonies and other jurisdictions associated with one of the metropolitan power treaty partners. Thus, the post-World War II United States-Netherlands tax treaty was extended to the Netherlands Antilles (including both Curaçao and Aruba, which developed offshore financial centers) until its extension was cancelled in 1987. This extension enabled U.S. business entities to access the eurocurrency markets (and pay lower interest rates) despite U.S. efforts to restrict U.S. businesses' access to capital markets for foreign operations.[84] Similarly, the post-World War II United States-United Kingdom tax treaty was extended to the British Virgin Islands (and many other British territories) until its extension to B.V.I. was cancelled effective January 1, 1983.[85]

We can summarize the post-World War II demand for business structures that involved entities in multiple jurisdictions as follows. Many jurisdictions, particularly newly independent ones but also long-established

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82 EINZIG & QUINN, *supra* note 81, at 8 (quoting a French financial commentator from 1961 that "London was in the best position to benefit by the higher degree of monetary freedom, thanks to its excellent technical organization and to the abundance of specialized personnel which were lacking in other markets."); ROBINSON, *supra* note 81, at 188-89 ("The indifference of the British exchange control laws in this lending sector has allowed—indeed, encouraged—banks in London to utilize it. It is not surprising, then, to note that by far the major part of the Euro-dollar lending from London has been to non-resident borrowers."); ANTHONY SAMPSON, THE MONEY LENDERS: THE PEOPLE AND POLITICS OF THE WORLD BANKING CRISIS 142 (1981) ("London still had its traditional skills and stability in looking after other people's money. As Wriston says, 'The Eurodollar market exists in London because people believe that the British government is not about to close it down. That's the basic reason, and that took you a thousand years of history.'"); Philip Wood, Why English law? 2-4 (29 January 2019) (unpublished manuscript) (available at https://primefinancedisputes.org/files/2019-03/why-english-law-philip-wood-cbe-qc-hon-.pdf?439c9efb7f) (describing advantages of certainty provided by English law over French, German, and U.S. law).

83 CATHERINE R. SCHENK, INTERNATIONAL ECONOMIC RELATIONS SINCE 1945 18 (2011) ("During the 1990s and 2000s the skills of financial engineering and the integration of markets allowed ever more complex products to be developed.").

84 Boise & Morriss, *supra* note 66, at 407-08.

85 *See* Omri Marian, *Unilateral Responses to Tax Treaty Abuse: A Functional Approach*, 41 BROOK. J. INT'L L. 1157, 1169–71 (2016) (on the U.S. cancellation of treaties with Caribbean territories); *see also Tax Evasion through the Netherlands Antilles and Other Tax Haven Countries: Hearing Before Subcommittee of the Committee on Government Operations*, 98th Cong. 53 (1983) (statement of Dir. William J. Anderson, General Government Division, General Accounting Office) ("Treasury sent a meaningful signal to the international tax community").

jurisdictions, wanted international investment to flow into them via local entities to bring more high-value-added activities into the jurisdiction and to give local entrepreneurs opportunities to participate in the businesses, and used regulatory measures to encourage the establishment of such entities. Some jurisdictions, like the U.K., sought to discriminate against earnings from abroad as a matter of policy,[86] incentivizing those receiving such earnings to restructure them to avoid the disincentive taxes. Businesses in one jurisdiction often organized legal entities in other jurisdictions when they entered those markets, and businesses were increasingly likely to do so as their involvement in a particular foreign market developed. For example, the Minneapolis-Honeywell Regulator Company invested in a U.K. factory in the late 1940s to avoid import restrictions that would apply to a U.S. entity exporting to the U.K. but not to a U.K.-entity-owned U.K. factory.[87] This required multi-jurisdictional businesses to develop expertise in managing multi-jurisdictional business networks of entities.

Not surprisingly, many of these businesses discovered (or had service providers who flagged opportunities) that they could reduce their overall tax burdens by allocating income and expenses among these networks of entities to take advantage of differences in tax systems. These included differences in rates but were much more than that, taking advantage of varied incentive provisions, treatments of investments, and other details of the increasingly complex business tax systems created everywhere.[88] For example, British international tax expert Milton Grundy advised in his 1984 book *The World of International Tax Planning* that "much international tax planning is based upon the principle of taking a deduction in a high-tax jurisdiction and reaping the corresponding reward in a law-tax jurisdiction."[89] Similarly in the 1993 edition of his guide to tax havens, Grundy advised that even Denmark, "a highly-taxed country," might be useful in tax reduction strategies given the

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86 A BANKER'S WORLD: THE REVIVAL OF THE CITY 1957-1970: SPEECHES AND WRITINGS OF SIR GEORGE BOLTON 12 (Richard Fry ed. 1970).

87 FITZGERALD, *supra* note 55, at 289.

88 Local business tax regimes grew more complex in part as a result of the rent-seeking activities of local businesses, leading to divergences in the details of tax law among industrialized economies in particular. As an early guide to tax havens noted, "Tax havens exist because taxation is not uniform from country to country. The very notion of what is taxable and how to define it varies. Further, international double tax agreements take varying forms. It is this lack of uniformity which opens up possibilities for tax avoidance." EDOUARD CHAMBOST, USING TAX HAVENS SUCCESSFULLY 20 (1978). This article is not about the efficiency of particular tax regimes, but I would be at risk of losing my standing as an economist if I did not at least note that many, and possibly most, tax incentives are inefficient economically. *See* Charles E. McClure, Jr., *Appraising Tax Reform*, *in* WORLD TAX REFORM CASE STUDIES OF DEVELOPED AND DEVELOPING COUNTRIES 284 (Michael J. Boskin & Charles E. McClure, Jr. eds., 1990) ("The income tax systems of most countries have been cluttered with a variety of tax incentives ostensibly intended to encourage such 'worthy' goals as saving and investment, the production of selected goods, and the development of the poorer regions. Actually, incentives encourage rent-seeking behavior and thereby create inequities, undermine the perception of fairness, distort the allocation of resources, and complicate tax administration and compliance.").

89 Grundy, INTERNATIONAL TAX PLANNING, *supra* note 53, at 21.

terms of the Denmark-Swiss tax treaty and the treaty's "surprisingly gentle" company taxation.[90] The crucial point is that rates are one, but not the only, factor in designing tax arbitrage transactions and jurisdictions that might seem at first glance to be unlikely tax havens (e.g. Denmark) can serve as one in specific circumstances.[91] Many of the specific strategies businesses adopted involved the use of tax treaties with particular provisions relevant to specific transactions.

In addition, the post-war international economy began as one dominated by the United States and a shortage of U.S. dollars with which to buy American goods.[92] The need to husband dollars led many governments to continue war-time currency controls, often including complex systems for allocating access to foreign currencies according to government priorities (including the rent-seeking such controls facilitated).[93] Britain, associated states and colonies, and some of their economic partners developed a particularly complex system of controls, known as the Sterling Area, which continued in various forms from until the 1970s, although its centrality to British economic policy declined rapidly after 1960.[94] As the United States shifted from creditor to debtor, and as Lyndon Johnson faced growing economic strains from the massive spending increases required by his

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90 GRUNDY'S TAX HAVENS: A WORLD SURVEY 109 (Milton Grundy, ed., 6th ed., 1993). Chambost also recommended Denmark – "the kingdom of royalties" – for its absence of taxation on royalties and its multiple tax treaties. CHAMBOST, *supra* note 88, at 164-165.

91 Among the jurisdictions whose inclusion might be surprising that were covered in one or more edition of Grundy's guide are Belgium, Hungary, Israel, Jordan, Montenegro, Russia, and South Africa. *See also* Malcom J. Finney, *Tax Havens: Measures to Prevent Abuse by Taxpayers*, *in* TOLLEY'S INTERNATIONAL TAX PLANNING, 27-01, ¶ 27.1 (Malcolm J Finney & John Dixon eds., 3rd ed. 1996) (**"**Clearly, any country might be a tax haven to a certain extent, and there are many instances where otherwise relatively 'high tax' countries provide opportunities or devise policies to attract, by means of incentives, economic activities of certain types or in certain locations.").

92 Andrew R. Blair, *The Dollar Shortage in Retrospect,* 19 REV. SOC. ECON. 166, (1961) ("The dollar shortage was the central international economic problem of the post-war period. Foreign countries as a group wanted to buy in the United States a volume of goods and services larger than they were able to finance from their sales of goods and services to this country and from other 'normal dollar receipts.'"); Robert O. Keohane, *The United States and the Postwar Order: Empire or Hegemony?,* 28 J. PEACE RES. 435, 436 (1991) ("During the late 1940s and early 1950s, the United states was economically dominant, producing 40% of world product in 1950 and responsible (in the decade of the 1940s) for 82% of major inventions, discoveries, and innovations. Its businesses controlled 59% of the world's oil reserves.").

93 P. T. BAUER, REALITY AND RHETORIC: STUDIES IN THE ECONOMICS OF DEVELOPMENT 18 (1984) ("By the late 1950s the principal measures included state monopoly of major branches of industry and trade, including agricultural exports; official restrictive licensing of industrial and other activities; controls over imports, exports, and foreign exchange; and the establishment of many state-owned and state-operated enterprises including state-supported and state-operated so-called cooperatives. Several of these individual measures gave governments close control over the livelihood of their subjects. When applied simultaneously, these measures conferred even greater powers on the rulers.").

94 Britain abruptly shrank the Sterling Area to the United Kingdom, Crown Dependencies, and (somewhat belatedly) Gibraltar in 1972, and its relevance declined accordingly. CATHERINE R. SCHENK, BRITAIN AND THE STERLING AREA: FROM DEVALUATION TO CONVERTIBILITY IN THE 1950S 130-32 (1994).

simultaneous prosecution of the Vietnam War and his domestic "Great Society" programs, American efforts to restrict capital outflows became increasingly intrusive, evolving from voluntary restraints to formal restrictions and the Interest Equalization Tax.[95] These restrictions spurred the development of capital markets outside the United States for those excluded from the New York market.[96] Exchange controls generally spurred additional creativity in facilitating international business.

As decolonization proceeded, newly independent states often carried over exchange controls and multiple exchange rate regimes from the colonial era and/or adopted complex currency controls and multiple exchange rates in an effort to enrich local elites or promote development goals, depending on one's view of the strategies.[97] The Soviet bloc had its own complex system of exchange regulations.[98] Firms operating across borders thus faced multiple challenges in getting funds in and out of many jurisdictions, just as Unilever had faced with Germany in the 1930s.[99] Unsurprisingly, financial professionals developed expertise in structuring business entities and transactions to minimize the costs imposed by these controls.

The collapse of the Bretton Woods system (created in 1944) between 1968 and 1973 added exchange rate volatility to the problems of cross-border business; markets responded by developing methods to mitigate such risks.[100] The appearance of significant inflation in multiple major economies in the

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95 ERIC HELLEINER, STATES AND THE REEMERGENCE OF GLOBAL FINANCE: FROM BRETTON WOODS TO THE 1990S 86 (1994).

96 A BANKER'S WORLD, *supra* note 86, at 91.

97 Development economist P.T. Bauer summed up how colonial policies were repositioned in newly independent states this way:

In the concluding years of colonial rule, especially between the mid-1930s and the mid-1950s, policies were introduced in many colonies, notably in British Africa, which have left a fateful legacy in their wake. A wide range of economic controls was introduced, including the establishment of state trading monopolies; extensive licensing of industrial and commercial enterprises, as well as of imports, exports, and foreign exchange; and the creation of many state-owned and operated enterprises, including state-supported and operated so-called cooperatives. The introduction of state monopolies over all agricultural exports produced by Africans was particularly important, since it gave governments close and direct control over the livelihood of the producers, and has served as a powerful source of patronage and finance for the rulers.

PETER T. BAUER, DISSENT ON DEVELOPMENT: STUDIES AND DEBATES IN DEVELOPMENT ECONOMICS 153-54 (1972); *see also* Alec Nove, *Planned Economy, in* THE NEW PALGRAVE: PROBLEMS OF THE PLANNED ECONOMY 196 (John Eatwell, Murray Milgate, & Peter Newman eds., 1990) ("Planning foreign trade in a number of countries, especially in the Third World, has been a means of personal enrichment for those entitled to issue import licenses. Development plans have sometimes been grandiose and wasteful.").

98 Morriss & Moberg, *supra* note 2, at 18.

99 *See* FITZGERALD, *supra* note 55, at 179-80.

100 *See* Richard Sylla, *United States Banks and Europe: Strategy and Attitudes, in* EUROPEAN BANKS AND THE AMERICAN CHALLENGE: COMPETITION AND COOPERATION IN INTERNATIONAL BANKING UNDER BRETTON WOODS 67 (Stefano Battilossi & Youssef Cassis eds., 2002).

late 1960s and 1970s also sparked innovations in financial markets as firms and individuals sought to cope with it.[101]

By the 1970s, businesses with interests in multiple jurisdictions were developing sophisticated strategies for structuring entities and transactions to accomplish multiple goals. Indeed, "in a globalized world, there will often be no one single State constituting the economic centre of the taxpayer's activities."[102] Business entities in jurisdictions with relevant treaty networks and/or low- or zero-direct business income taxes or particular tax regimes (e.g. the Dutch "participation exemption," various nations' investment tax credits and tax incentives) that could reduce business income taxes were in use by many firms, not just the largest and most sophisticated. High business income tax rates in many industrialized jurisdictions motivated the search for tax-efficient structures and transactions; falling communication and travel costs made doing business out of foreign jurisdictions increasingly feasible.[103] Considerable expertise in such structures and transactions developed in both onshore and offshore jurisdictions and offshore jurisdictions began to develop increasingly sophisticated legal regimes that increased the attractiveness of using jurisdictions such as the Bahamas, Bermuda, the Cayman Islands, Curaçao, Guernsey, Hong Kong, the Isle of Man, Jersey, Liechtenstein, Panama, and Singapore. Additional jurisdictions began to develop their own legal regimes as they were attracted to the financial sector by these pioneers' successes.[104]

These early movers began to move up the value chain and go beyond merely registering entities.[105] For example, Jersey launched a coordinated effort to build its existing trust and banking businesses into a financial center following a plan set out by an economic consultant hired to review the island's economy in 1969 and who helped steer the financial center in various

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101 *See, e.g.*, KEITH S. ROSENN, LAW AND INFLATION 170-79 (1982) (describing innovations in the bond market to adapt to inflation), 179-90 (describing innovations in loans to adapt to inflation).

102 Juliane Kokott, *European Court of Justice, in* COURTS AND TAX TREATY LAW 107 (Guglielmo Maisto ed. 2007).

103 *See* FRANCES CAIRNCROSS, THE DEATH OF DISTANCE: HOW THE COMMUNICATIONS REVOLUTION WILL CHANGE OUR LIVES 3-4 (1997) ("The death of distance loosens the grip of geography. Companies will have more freedom to locate a service where it can be best produced, rather than near its markets. … Barriers and borders will break down. … Companies will become looser structures, held together mainly by their cultures and their communications networks.").

104 Just how many offshore jurisdictions there are depends a great deal on who is counting. The seven editions of leading offshore lawyer Milton Grundy's guide to jurisdictions cover fifty-four jurisdictions at least once. If we do not count those mentioned only once, have exited the sector, or are useful only for very specific transactions, the most generous count is forty-five. On the other hand, the IMF lists seventy in its *Background Paper on Offshore Financial Centers,* IMF, Offshore Financial Centers (June 23, 2000), Table 1, which is an implausibly large number.

105 *See* Andrew P. Morriss & Charlotte Ku, *The Evolution of Offshore: From Tax Havens to IFCs,* IFC REV. (Feb. 3, 2020), https://www.ifcreview.com/articles/2020/february/the-evolution-of-offshore-from-tax-havens-to-ifcs/.

roles until his death in 2019.[106] Similarly, Bermuda successfully positioned itself as a center for the insurance industry in the 1960s, an effort led by American expatriates at the Bank of Bermuda.[107] Likewise, the Cayman Islands began its efforts to create a financial sector through collaboration between the local government, British authorities, and expatriate legal and financial professionals.[108] It developed expertise in medical industry captive insurance in the late 1970s when it secured the Harvard hospital network's captive business, in part by creating an insurance regulatory framework.[109]

As this overview demonstrates, the post-World War II globalization of the economy led to a vast expansion of demand for international business structures and entities. Building on pre-war experience with these, businesses and individuals began to develop increasingly complex means of segregating assets, governing collective ventures, meeting demands for varied levels of participation in ventures, and minimizing their total tax bills. This expansion in complexity of international business arrangements – together with the vast increase in the number of jurisdictions created by decolonization – put considerable stress on the existing means of meshing tax systems to minimize the friction they created for such transactions. Governments were anxious to do so because they wanted their firms to have the greatest possible access to markets for their goods and to sources of raw materials and energy. The result was an explosive growth in double tax agreements, investment treaties, and trade agreements.[110] We now turn to the evolution of the international tax environment.

III. THE MODERN EVOLUTION OF INTERNATIONAL TAX RULES

We can summarize the environment in which businesses organized multi-jurisdictional structures and transactions in the 1970s and 1980s as follows: Most industrialized economies had tax treaties with one another that set out frameworks for the treatment of cross-border financial transactions. In contrast, relatively few developing economies had access to a similarly dense network of such formal connections and some had virtually none. Thus, access to international capital markets and foreign investment was either through the treaty network – which, for former colonies of European

106 *See* G.C. Powell, Economic Survey of Jersey (1971); *see also* Charlotte Ku & Andrew P. Morriss, IFCs Act as Regulatory Capacity Builders, IFC Review (August 11, 2020), https://www.ifcreview.com/articles/2020/august/ifcs-act-as-regulatory-capacity-builders/.

107 *See* PHILLIPS, *supra* note 64, at 146-148 (1992).

108 *See* Freyer & Morriss, *supra* note 79 at 1308-09.

109 *See id.* at 1343-44.

110 *See* RAYMOND ROBERTSON, ANDREW P. MORRISS, CHARLOTTE KU & JAKUB A. BAROSZEWSKI, REDUCING TRANSACTION COSTS: DOUBLE TAX AGREEMENTS & BILATERAL TRADE (2022); *see also* Charlotte Ku & Andrew P. Morriss, *International Financial Centers as a Model: Facilitating Growth and Development by Connecting International Legal Frameworks,* 14 LAW & DEVELOPMENT REV. 429 (2021).

powers, tended to center on the former colonial power – or required use of a third jurisdiction, preferably one that did not add an additional layer of direct taxation to the transaction. Figures 1 and 2 show the double tax treaty network in 1970 and 1980 respectively.[111]

By 1980, there was also a developing network of specialist practitioners in multiple offshore financial centers who were well-connected in major world financial centers. For example, the Caymanian law firm Maples and Calder – a major multijurisdictional offshore law firm – had multiple partners with Oxbridge degrees and City experience prior to joining the firm.[112] Such professionals were able to structure businesses and transactions to meet multiple goals for their clients, including tax reduction, often making use of treaties.

Bilateral tax treaties are generally based on one of a limited set of model treaties. Most developed economy-developed economy treaties follow the OECD model treaty, unless one of the treaty partners is the United States, in which case the U.S. model treaty is almost always the basis for the treaty.[113] In addition, the United Nations has a model treaty which tends to favor source countries over residence countries, thus favoring developing countries by allocating more of the right to tax to them than the OECD model.[114] Over time, the UN and OECD models have significantly converged, as the OECD devotes considerably more resources to updating its model treaty than the UN does.[115]

Bilateral treaties start with one of the models but deviate from the model to address issues relevant to specific pairs of treaty partners.[116] All income

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111 The figures are based on data from the IBFD treaty database and were generated in joint work with Jakub Bartoszewski, Charlotte Ku, and Jesse Sowell.

112 *See* Freyer & Morriss, *supra* note 79, at 1333.

113 *See* Doron Narotzki, *Tax Treaty Models—Past, Present, and a Suggested Future,* 50 AKRON L. REV. 383, 386-388 (2016) (highlighting that the OECD model was first issued in 1963 and has been regularly updated since).

114 *See* Eric Neumayer, *Do Double Taxation Treaties Increase Foreign Direct Investment to Developing Countries?* in THE EFFECT OF TREATIES ON FOREIGN DIRECT INVESTMENT: BILATERAL INVESTMENT TREATIES, DOUBLE TAXATION TREATIES, AND INVESTMENT FLOWS 663 (Karl P. Sauvant & Lisa E. Sachs eds., 2009).

115 *See* Willem F.G. Wijnen, *Towards a New UN Model?* IBFD BULLETIN 135, 143 (1998) ("The [UN] Group [of Experts] does not have the financial means to carry out substantive research, and therefore it has no choice but to await the results of the OECD's work on these subjects."). *See also* Elliott Ash & Omri Marian, *The Making of International Tax Law: Empirical Evidence from Natural Language Processing,* 24 FLORIDA TAX REV. 151, 180 (2020) (noting data "suggests a convergence over time of newly concluded treaties to the OECD Models."); Vanessa Dias Teixeira, *The UN Model: Favoring Source Country Taxing Rights,* in Special Features of the UN Model Convention 33 (Anna Binder & Viktoria Wohrer eds., 2019) (first UN model based on 1977 OECD model). *But see* Ash & Marian, *supra* note 115, at 177 (arguing from text analysis that "existing treaty practices, as well as the OECD Model, very slowly converge towards UN legal language").

116 *See Various Tax Treaties: Hearing before the Comm. on Foreign Rels., U.S. Sen., 97th Cong.* 29 (1981) (statement of John Chapoton, Asst. Sec. of Treasury, Tax Policy, and Alan Granwell, International

tax treaties operate by allocating the right to tax particular income streams between the treaty partners, with the goal of avoiding double taxation. (More recently the OECD and UN have amended their models to add assisting in tax enforcement to the goals.)[117] Absent a treaty, double taxation occurs when two jurisdictions with income taxes tax income generated by sources in one jurisdiction and received by residents of the other. Thus, income earned by a business located in Jurisdiction S from its activities in S and paid as a dividend, royalty, or interest to a parent company resident in Jurisdiction R could be taxed by both S and by R.

Double taxation can also result where jurisdictions use different criteria to determine who owes income tax. The United States taxes its nationals on their worldwide income, while virtually all other jurisdictions tax their nationals only if they are resident within the jurisdiction.[118] Different types of income are subject to different tax rules.[119] For example, passive income (dividends, interest, or royalties) is often taxed differently than active income. Double taxation can arise because more than one jurisdiction seeks to tax a particular stream of income or because of mismatches between two tax systems, with different definitions or rules causing the same income stream to be taxed twice.[120] Different jurisdictions may also provide different forms of relief from double taxation, ranging from full or partial credits for tax paid elsewhere to various forms of exemption of income already taxed. Double tax treaties generally allocate the exclusive right to tax some income streams to either the source or resident jurisdiction;[121] sometimes they provide restrictions on the amount of tax which can be levied (e.g. the OECD Model Treaty limits the source state to a 10% tax of the gross amount of

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Tax Counsel, Dept. of Treasury) ("there is no question that when you negotiate tax treaties it is a give and take process, and indeed there are circumstances under which we forego taxes and make concessions that are not otherwise provided in the code and the other country does likewise.").

117 *See* SCHWARZ, *supra* note 8, at 23 (Jonathan Schwarz's important treatise on tax treaties terms the development of information exchange treaties a "radical departure from the traditional use of treaties to avoid double taxation.").

118 Huge caveats are needed here because residence for tax purpose is a complex area in many countries.

119 *See, e.g.,* SPITZ, PLANNING, *supra* note 52, at 7 ("Terms which are constantly employed in treaties and domestic laws (such as 'income tax', 'total income', 'residence', 'domicile', 'immovable property', 'permanent establishment') may vary considerably according to the context."); *see also id*. at 11 ("The nature of the transaction or operation may determine whether it is subject to tax at all and if so whether expenditure incurred in connection with it is deductible from the taxable base. In many tax systems the crucial distinction is between income and capital. These notions are often not defined in the tax legislation, and their precise meaning must be obtained from judicial and administrative decisions and rulings.").

120 *See, e.g.,* BARRY SPITZ, OFFSHORE STRATEGIES 77 (2001) ("Problems may arise in determining the definitional content of terms, either within the context of the legal system or in relation to another onshore or offshore system or a tax treaty. The meaning of terms that are constantly employed in treaties and domestic laws (such as *income tax, total income, residence, domicile, immovable property,* and *permanent establishment*) may vary considerably according to the context.").

121 *See* SCHWARZ, *supra* note 8, at 251 ("The distributive provisions of income tax treaties constitute the heart of the treaty system.").

interest paid to a non-resident) and sometimes they provide for shared taxing rights.[122] There are many more complications, particularly with respect to the determination of when a business (or a person) has a "permanent establishment" – "a question of enormous financial significance"[123] and "the cornerstone of treaty rules relating to the taxation of cross-border business"[124] – in a source jurisdiction that justifies it obtaining taxing rights.[125]

Determining the tax owed by a business operating in multiple jurisdictions through one or multiple entities is complex and, if arranged properly, can produce significant tax savings either by shifting income from jurisdictions where it would be highly taxed to jurisdictions where rates are lower (or even zero).[126] There are well-known cases of the American tech companies that arranged to take advantage of a combination of Irish, Bermuda, and Dutch tax laws that can significantly reduce the taxes owed by shifting income (via payments for intellectual property rights, for example) to a low tax jurisdiction.[127] The now infamous (and now theoretically foreclosed) "double Irish with a Dutch sandwich" is just one example of such a transaction that can result in "double non-taxation," with income escaping income tax entirely (at least for the year in which it is earned) through the arbitrage of differences in tax rules.[128]

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122 *See* Art. 11(2) of the OECD Model Treaty contains the limitation on taxing interest payments; Article 23 requires the residence state to grant double tax relief to the recipient.

123 JOHN HUSTON & LEE WILLIAMS, PERMANENT ESTABLISHMENTS: A PLANNING PRIMER 2 (1993).

124 SCHWARZ, *supra* note 8, at 217.

125 *See* PricewaterhouseCoopers (PWC), *Permanent establishment risk review – what it means for you?* (2015), https://www.pwc.co.uk/assets/pdf/permanent-establishment-risk-what-it-means-for-you.pdf (notes that "The risk of inadvertently creating a PE is therefore a key risk area for multinational corporations and the effective control of PE risk, including a PE risk review, can form an essential part of a multinational corporation's wider tax control framework."). The company goes on to helpfully explain that it can help through "Full scope reviews," which help determine if a business has acquired a permanent establishment:

Interviews and discussions with relevant issues, alongside desktop reviews, are used to drill down into the operational practice of documented policies and procedures and to assess and challenge the methodology of each business unit and the approach to governance of operational risk against current tax standards applied by the business. (Lower levels of review ("Desktop review" and "Focused scope") are available as well). *Id.*

126 *See Fitzgerald, supra* note 54.

127 *See* Chloe Taylor, *Silicon Valley giants accused of avoiding over $100 billion in taxes over the last decade,* CNBC (Dec. 2, 2019), https://www.cnbc.com/2019/12/02/silicon-valley-giants-accused-of-avoiding-100-billion-in-taxes.html. *See also*, NIGEL FEETHAM, TAX ARBITRAGE: THE TRAWLING OF THE INTERNATIONAL TAX SYSTEM 81 (2011) (Nigel Feetham points out that Ireland has been willing to allow such transactions in order to gain the employment taxes and other revenue from hosting such transactions).

128 Essentially this scheme involved two Irish entities, one of which was managed and controlled from Bermuda, a Bermuda entity, and a Dutch entity. The U.S. company transfers intellectual property to the Bermuda entity, which then licenses the IP to the Irish-controlled Irish entity. That entity markets the use of the IP and collects revenue, which it pays to Dutch entity. The Dutch entity then pays the Bermuda-controlled Irish entity, which in turn pays the Bermuda entity a royalty. The U.S. tax code views both entities as Irish, while Ireland views only the entity managed and controlled from Ireland as Irish and the

Tax authorities were never blind to the potential revenue losses that the growth in tax-efficient business structures and transactions could entail.[129] Industrialized country tax authorities had been advancing anti-avoidance rules since before World War II.[130] The United States' development of ever-

other as a Bermuda entity. The Bermuda-controlled Irish entity would then pay the funds to the Bermuda entity. A further complication historically included the use of a Dutch entity to avoid the Irish withholding tax that would have normally applied to the dividends sent to the Bermuda entity (Ireland did not charge withholding on intra-EU transfers) and Dutch withholding tax on the transfer back to the second Irish entity (Note the income will be taxed if it is ever repatriated to the corporate parent in the United States. Deferral of tax for an extended period is economically equivalent to not having to pay taxes.)

129 This dynamic is illustrated in Spitz's description of the evolution of U.K. measures to control tax avoidance through the use of trusts:

No sooner had the trust come to fulfil its major vocation of income tax and estate tax avoidance than it inevitably became a target of anti-avoidance measures, first in the U.K., then in the U.S. and then everywhere. But since the early moves to restrict the free operation of the trust were domestic, the wealthy simply moved their trusts offshore. … On the one hand, fiscal anti-avoidance measures have come to be aggressively directed at the offshore trust. In current U.S. and U.K. tax law it may be far more onerous to have an offshore trust than an onshore trust. So much so, that many offshore trusts are simply being brought back home.

SPITZ, STRATEGIES, *supra* note 120, at 4 (punctuation added to countries).

130 *See* GILES CLARKE, OFFSHORE TAX PLANNING 6 (17th ed., 2010) (In the U.K., "[s]ince the 1930s successive Finance Acts have employed a powerful body of anti-avoidance legislation."). Further back, Germany passed a statute requiring reporting and repatriation of assets held abroad (with a temporary amnesty if funds were returned to Germany promptly) in 1933 (the *Das Gesetz gegen den Verrat der deutschen Volkswirtschaft* (Law against betrayal of the German economy)) and within a few months Sfr 100 million left Switzerland for Germany. *See* BRENDAN BROWN, THE FLIGHT OF INTERNATIONAL CAPITAL: A CONTEMPORARY HISTORY 40-41 (1988). This is roughly the equivalent of $1.1 trillion today. On CFCs, *see* U.S. DEPARTMENT OF TREASURY, OFFICE OF TAX POLICY, DEFERRAL OF INCOME EARNED THROUGH U.S. CONTROLLED FOREIGN CORPORATIONS: A POLICY STUDY, 105-110 (2000) (describing pre-1962 rules) https://home.treasury.gov/system/files/131/Report-SubpartF-2000.pdf. *See also* SPITZ, STRATEGIES, *supra* note 120, at 95 ("Sometimes loopholes in anti-avoidance provisions offer comparatively simple solutions to tax problems. These loopholes are frequently plugged as soon as the tax authorities become aware of their potential for abuse, and most anti-avoidance provisions become progressively more comprehensive as taxpayers grow more ingenious."). At times incompetence made these measures less successful than they might have otherwise been. For example, the former director of the IRS' intelligence division testified at a 1976 congressional hearing that forms reporting Americans' Canadian income sent by the Canadian government to the United States "were not processed by the service and therefore were not retrievable" and so could not be used for their intended purpose. *Oversight Hearings into the Operations of the IRS (Income Information Document Matching Program) Before the H. Comm. on Gov. Ops., Subcomm. on Commerce, Consumer and Monetary Affairs,* 94th Cong. 4 (1976) (statement of John J. Olszewski, Former Director, Intelligence Division, Internal Revenue Service). Committee investigators confirmed that such forms were simply arrive at the Philadelphia Service Center and then are shipped off without examination to a Federal records center." *Id*. at 17. The IRS official also noted that some offices had made separate deals with Canadian authorities to receive their own copies of the forms or to be notified by the Canadians when they saw a form they thought "could be of significance." *Id*. at 4. Similarly, a withholding tax of 15% rather than the correct rate of 30% was applied to payments of $16 million in dividends to East German recipients in 1978. Excerpts from IRS Internal Audit Report Entitled "Review of Service Programs Relating to International Transactions," Dated August 25, 1981 *in Improper Use of Foreign Addresses to Evade U.S. Taxes*: *Hearing Before H. Subcomm. of Comm. on Gov. Ops.*, 97th Cong. 60 (1982).

more-complex controlled foreign corporation (CFC) legislation that produced Subpart F of the Internal Revenue Code in 1962 (although there were earlier efforts to control the use of foreign entities to reduce U.S. taxes) is one example;[131] U.S. adherence to "the doctrine of treaty override, which appears to authorize United States Revenue authorities to disregard the terms of a double tax agreement in a wide range of circumstances"[132] and American cancellation of the extensions of the U.K.-U.S. and Netherlands-U.S. tax treaties to the British Virgin Islands and Netherlands Antilles, respectively, in the 1980s to stop "treaty shopping" are others.[133]

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131 *See* MELISSA REDMILES & JASON WENRICH, A HISTORY OF CONTROLLED FOREIGN CORPORATIONS AND THE FOREIGN TAX CREDIT (2007), https://www.irs.gov/pub/irs-soi/historycfcftc.pdf; *see also Finney, supra note 91, at* 27-15, ¶27.28 ("the most significant type of tax legislation directly aimed at counteracting the tax advantages derived from the deferral possibilities offered by the use of tax haven subsidiaries. Broadly, this is achieved by taxing the subsidiary's income in the hands of its domestic shareholders.").

132 TOLLEY'S TAX HAVENS: A PRACTITIONER'S GUIDE TO THE LEADING TAX HAVENS OF THE WORLD 4 (Adrian Ogley ed., 1st ed. 1990).

133 Boise & Morriss, *supra* note 66, at 419-26; SCHWARZ, *supra* note 8, at 482 ("The exact meaning of the term is unclear and is often taken to have a pejorative meaning."). As Schwarz notes, "Lack of clarity and conflation of colloquial and any possible legal meaning are inevitably a source of disputes." *Id*. at 483. "Treaty shopping" was a term coined in the 1970s to describe the use of business entities created in a jurisdiction with a tax treaty with a source jurisdiction by people from another jurisdiction that did not have a treaty with the source jurisdiction, in order to take advantage of the treaty. *See, e.g, Various Tax Treaties: Hearing before the Comm. on Foreign Rels., U.S. Sen., 97th Cong.* 9 (1981) (statement of John Chapoton, Asst. Sec. of Treasury, Tax Policy, and Alan Granwell, International Tax Counsel, Dept. of Treasury) ("this Administration regards a tax treaty as a contract between two countries designed to benefit directly the residents of those two countries, and not indirectly the residents of third countries."); *Tax Evasion through the Netherlands Antilles and Other Tax Haven Countries: Hearings Before H. Subcomm. Of Comm. On Gov. Ops.,* 98th Cong. 29 (1983) (statement of William J. Anderson, Director, General Government Division, General Accounting Office) ("The United States is opposed to treaty shopping because treaty benefits are intended to accrue only to bona fide residents of the treaty country. But, in many cases, the United States is hard-pressed to detect or deter treaty shopping. This is because many treaty havens liberally define who qualifies as a 'resident' and have bank secrecy laws that prevent IRS from identifying individuals who, in the eyes of the United States, are not bona fide residents of the treaty haven."). When, as it did in the 1970s and early 1980s, the IRS determined treaty applicability based on the address reported by the payee, it seems unreasonable to complain that other jurisdictions lacked sufficient control over who was claiming treaty benefits. *See Improper Use of Foreign Addresses to Evade U.S. Taxes*, *Hearing Before H. Subcomm. of the Comm. on Gov. Ops.*, 97th Cong. 10 (1982) (statement of Dean T. Scott, Subcommittee Staff, Commerce, Consumer and Monetary Affairs Subcommittee, Committee on Operations on assignment from GAO). The treaty shopping concern went back to at least 1962. *See id*. at 18. Eliminating treaty shopping became a "primary focus" of developed country treaty policy in the 1990s. *See* Bruce A. Blonigen & Ronald B. Davies, *Do Bilateral Tax Treaties Promote Foreign Direct Investment?* in THE EFFECT OF TREATIES ON FOREIGN DIRECT INVESTMENT BILATERAL INVESTMENT TREATIES DOUBLE TAXATION TREATIES AND INVESTMENT FLOWS 465 (Karl P. Sauvant & Lisa E. Sachs eds., 2009).

Note that the same Congressional hearing cited above heard testimony that the United States was the only nation relying on the address system for determining treaty benefits and that it provided certification of eligibility for Belgium, France, Luxembourg, and the U.K. (statement of Alan W. Granwell, International Tax Counsel, U.S. DOT in Improper Use, *supra* note 133, at 31.). Interestingly, at least some trade policy

Similarly, starting in the 1980s, the United States pressured many smaller jurisdictions to sign "Mutual Legal Assistance Treaties" to increase information flows about potential tax evasion.[134] The United Kingdom's Inland Revenue also vigorously developed anti-avoidance legislation from at least the 1960s (when spiraling tax rates made shifting income out of the U.K. increasingly attractive for both businesses and individuals). By 2019, a leading tax treatise was warning that the U.K.'s anti-avoidance measures "are in practice deterring taxpayers from entering into arrangements which, viewed objectively, are reasonable planning and are very far from the kind of scheme that such measures are seeking to attack."[135] Australia launched particularly aggressive countermeasures against the nascent offshore industries in the Anglo-French Condominium of the New Hebrides in the early 1970s, going so far as to sever the communications cable linking the islands to Australia in 1974 (ironically prompting protests from the high-tax Labour government in Britain).[136] More generally, the increasingly

analysts find treaty shopping under investment treaties not only proper but a desirable feature. *See, e.g.,* STEPHAN W. SCHILL, THE MULTILATERALIZATION OF INTERNATIONAL INVESTMENT LAW 21 (2009) ("Instead of remaining under the BIT of their original home jurisdiction, corporate structuring often effectively allows them to choose the governing investment treaty for their investment activity. By channeling an investment through a corporate vehicle that is set up in another jurisdiction an investor can opt into the investment treaty it considers most suitable for its purposes independent of the operation of an MFN clause."). This has been recognized as a legitimate move in arbitrations under BITs. *See id*. at 225-26 (discussing Aguas del Tunari arbitration in which claimant deliberately migrated business into a structure containing Dutch holding companies to take advantage of Dutch-Bolivian BIT; majority of tribunal accepted this as legitimate: "the majority thus accepted that corporate structuring could be legitimately used in order to come under the protection of a specific BIT" except in cases of fraud or abuse.).

134 Since MLATs generally required the requesting law enforcement agency to still comply with some procedures in the jurisdiction from which they were requesting information, they did not provide "automatic" exchange of information. *See* Julian Morris, *When It Comes to Money Laundering, Cayman Is Not The Problem,* IFC REV. (May 22, 2022), https://www.ifcreview.com/articles/2022/may/when-it-comes-to-money-laundering-cayman-is-not-the-problem/ (at n. *ii* noting that while Cayman signed a Mutual Legal Assistance Treaty with the United States (through the United Kingdom) in 1986, the U.S. Senate did not ratify it until 1989. This delay suggests a lack of urgency to actually request information from the Caymanian government.

Other government agencies regarded the IRS as at times unhelpful in negotiating tax treaties, taking the position that they will not provide any foreign country any information except for tax prosecution in that country. As a consequence, other countries such as the Netherlands which would otherwise provide us financial information for any use we would want to make here in a prosecution of either a tax or a nontax case, say, 'As a matter of reciprocity, we won't give you information except for use in a tax case.'" *Illegal Narcotics Profits*: *Hearings before the Sen. Permanent Subcomm. on Investigations of the Comm. on Governmental Affairs*, 96th Cong. 31 (1979) (testimony of Irvin B. Nathan, Deputy Assistant Att'y Gen., Criminal Division, U.S. DOJ).

135 CLARKE, *supra* note 35, at 844.

136 *See* Morriss & Moberg, *supra* note 2, at 31-32. Industrialized economies also launched products to compete with offshore jurisdictions, as with the U.S. "International Financial Center" facility. Cutting onshore tax rates also reduced demand for tax-based structuring.

aggressive anti-avoidance measures created new complexities as countries' anti-avoidance measures increasingly diverged.[137]

These efforts succeeded in reducing the ability to use relatively simple structures to relocate income but did little to stop the development of more sophisticated strategies and likely even increased them.[138] By the 1990s, high tax jurisdictions in Europe, Australasia, and North America were looking for additional measures to combat tax avoidance and tax evasion. For example, corporate inversions (in which a U.S.-based multinational restructures so that the U.S. parent is replaced by a parent in a zero- or low-tax jurisdiction and the original U.S. parent becomes a subsidiary of the foreign parent, lowering the U.S. tax bill for the multinational) started in 1982 but really took off in the 1990s and early 2000s.[139] As an example of this type of response, the American Jobs Creation Act (AJCA) of 2004 added a provision to the tax code to try to prevent inversions by treating the new foreign parent as a U.S. taxpayer if the original U.S. shareholders still owned at least 80% of the new parent. Unsurprisingly, companies seeking to lower their tax bills found ways around this provision and at least thirty additional inversions occurred between 2009 and 2014.[140] The Treasury Department issued further regulations in 2014 and 2016 aimed at "closing loopholes" in the AJCA and blocking efforts to reduce taxes via earnings stripping and "hopscotch" loans.[141]

Similarly, jurisdictions around the world that had direct taxation systems began to develop methods of sharing information. Many offshore jurisdictions had relatively stringent confidentiality laws that restricted information sharing even with foreign tax authorities. For example, the principle of "dual criminality" required that information be provided only where the behaviour alleged was a crime in both jurisdictions, eliminating income tax offenses in jurisdictions with no income tax.[142] Similarly, the international norm against assisting other jurisdictions in enforcing fiscal

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137 *See* WEEGHEL, *supra* note 176, at 23. This is not a new problem. *See* RICHMAN, *supra* note 61, at 3 ("Much of this complexity is due to the nature of the crediting system itself, which requires the integration of widely differing national tax structures in computing the credit. The U.S. foreign tax credit law is further complicated by special preferential benefits conferred on certain groups of investors from time to time.").

138 *See, e.g.*, Max B. Sawicky, *Do-it-Yourself Tax Cuts: The Crisis in U.S. Tax Enforcement*, *in* BRIDGING THE TAX GAP 1, 7 (Max B. Sawicky ed., 2005) ("Complexity and ambiguity in tax law facilitate tax shelter abuse.").

139 Michelle Clark Neely & Larry D. Sherrer, *A Look at Corporate Inversions, Inside and Out*, THE REGIONAL ECONOMIST (Feb. 13, 2017), https://www.stlouisfed.org/publications/regional-economist/first_quarter_2017/a-look-at-corporate-inversions-inside-and-out#fig2.

140 Neely & Sherrer, *supra* note 139.

141 *Id.*

142 *See, e.g.*, EDOUARD CHAMBOST, BANK ACCOUNTS: A WORLD GUIDE TO CONFIDENTIALITY 207 (1983) (quoting Financial Secretary Vassel Johnson on dual criminality); ROSE MARIE ANTOINE, TRUSTS AND RELATED TAX ISSUES IN OFFSHORE FINANCIAL LAW 343 (2005).

laws blocked cooperation.[143] In addition to Switzerland's strict banking secrecy laws, many British jurisdictions codified the English common law of financial privacy.[144] For example, the Cayman Islands criminalized revealing financial information in the 1976 Confidential Relationships (Preservation) Law, in part in reaction to U.S. pressure on Caymanian bank employees transiting through the Miami airport.[145]

Eventually, offshore jurisdictions' need for access to larger economies for business meant the gradual erosion of financial privacy. In particular, the United States effectively leveraged Caribbean jurisdictions' dependence on the U.S. financial systems by subpoenaing records from the U.S. agencies of banks with Cayman operations.[146] These pressures secured Mutual Legal Assistance Treaties, which smoothed information exchange in cases where the onshore jurisdiction could identify persons or firms of interest. This still limited tax investigations since the onshore tax authority needed evidence of wrongdoing by a taxpayer before requesting information, which prevented "fishing expeditions" requesting information for all "U.S. taxpayers."[147] Over time, onshore governments began to demand "automatic" information exchange, culminating in the OECD's threat of a blacklist to coerce agreement to Tax Information Exchange Agreements which eliminated dual

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143 *See* Brenda Mallinak, *The Revenue Rule: A Common Law Doctrine for the Twenty-First Century*, 16 DUKE J. COMP. L. & INT'L L. 79, 81 (2006) (quoting Lord Mansfield's "famous utterance, 'no country ever takes notice of the revenue laws of another'" from Holman v. Johnson, (1775) 98 Eng. Rep. 1120, 1121 (KB).).

144 Tournier v. National Provincial Bank [1924] 1 KB 461 (UK); ANTOINE, *supra* note 142, at 98 ("The duty of confidentiality in offshore financial affairs has been codified in most offshore jurisdictions.").

145 Alan C. Hudson, *Reshaping the Regulatory Landscape: Border Skirmishes Around the Bahamas and Cayman Offshore Financial Centres*, 5 REV. INT'L. POL. ECON. 534, 546-49 (1998) (describing Castle Bank case).

146 Hudson, *supra* note 145, at 550-53 (describing Bank of Nova Scotia case).

147 *See, e.g.*, *Illegal Narcotics Profits: Hearings Before the Permanent Subcommittee on Investigations of the Committee on Governmental Affairs, U.S. Senate*, 96th Cong., 1st Sess. 476 (1979), (Exhibit No. 33, Richard H. Blum, *Offshore Banking: Issues with Respect to Criminal Use*) (noting problem of foreign governments requiring too much from the U.S. before releasing evidence). How a foreign government would know if someone was a U.S. taxpayer is unclear, of course. As reported at 1979 congressional hearings, the Swiss government explained it was only interested in statistics that it needed itself. *Id.* at 484. Similarly, the Swiss were reported to have objected to doing what they viewed as U.S. law enforcement's job for it: "If the U.S. can provide us with information about criminal funds sources and the Swiss lawyers or banks they use, then we can act. Unless the U.S. tells us, how can we know? Is it not easier to learn in the U.S. who the criminals there are and how they export funds, than to come here after the black has been dyed white?" *Id.* at 487. The lengths to which tax authorities sometimes went to gather such information included the IRS' "Project Swiss Mail Watch" in 1967, in which the IRS monitored mail received at a U.S. post office from Switzerland, thus identifying 8,500 taxpayers receiving mail from Swiss banks. The IRS audited 168 of them, and found approximately 20% were using the foreign bank account as a depository for unreported income or to avoid the interest equalization tax. The program was repeated in 1970-71, identifying 21,500 additional taxpayers but it did not pursue audits to avoid disrupting ongoing negotiations with Switzerland over a tax treaty. Anderson, *supra* note 85, at 31-32.

criminality and made information automatically available rather than by request.[148]

By the end of the twentieth century, the post-World War II international business tax environment was a composite of national tax code provisions aimed at restricting efforts to avoid domestic taxes via the use of international structures and/or transactions in some cases and bilateral tax treaties that specified how to interconnect the increasing complexity of these national tax systems.[149] It would be difficult to argue that any developed or developing jurisdiction's business income tax system was particularly efficient in economic terms, with most riddled with provisions that can only be described as the product of rent-seeking, with the exception of jurisdictions that provided tax-neutral (or nearly so, with extremely low tax rates) platforms for businesses operating outside their borders.[150] Of course, even these jurisdictions' governments extracted value from those using them (via indirect taxes and fees, as well as by taxing the professionals who provided services to foreign businesses), but they did so in ways that enabled their use in business structures and transactions. Although, as today, occasional estimates of "lost" tax revenue were issued by revenue authorities or pressure groups seeking changes in tax laws, the "easy" ways to avoid taxes by businesses (and individuals) were regularly addressed through treaty provisions, national tax laws of ever-increasing complexity, and occasional treaty cancellations.

While those lost revenue estimates might have only tenuous connections to real world data, they created a demand for a policy response. In the 1990s, in an impressive feat of institutional entrepreneurship (albeit one with negative consequences for the global economy), Jeffrey Owens, then a relatively minor official at the OECD, used the organization's members' concern with tax avoidance to elevate the OECD tax program into a significant power within the organization, which launched him into a prominent position at the organization. (To the surprise of no one who has read any public choice literature, he used it as a platform to become a

148 Guttentag & Avi-Yonah, *supra* note 70, at 105; Ku, Sowell, Bartoszewski, & Morriss, *supra* note 110.

149 The importance of specific treaty language, despite the prevalence of model treaty language (from the OECD, UN, or individual jurisdictions) which homogenizes treaty content, is a regular feature of the tax literature. *See, e.g.*, CLARKE, *supra* note 76, at 128 ("In evaluating such structures the first and most basic point to remember is that each treaty must be looked at separately. Although the basic forms are similar, no two treaties are identical, and it is often the detail which is essential to a successful planning exercise.").

150 Donald Morris aptly calls the tax code's complexity "accretive," capturing the consequence of the haphazard way in which it is constructed. DONALD MORRIS, TAX CHEATING: ILLEGAL—BUT IS IT IMMORAL? 73 (2012) ("The complexity of the Tax Code is what I call *accretive complexity* caused by the patchwork approach used by legislators. As if filling potholes after the winter's onslaught, the congressional approach to tax legislation frequently involves no more than adding a subsection here or extending or modifying another one over there.").

consultant on tax matters when he left the OECD.)[151] Owens launched a "harmful tax competition" initiative, one which created blacklists of "noncompliant" jurisdictions, which turned out to be largely those not relying on direct taxation of businesses and not affiliated with an OECD member.[152] Not only were the criteria for blacklist inclusion vague, but the initial blacklist managed to target a number of smaller jurisdictions without addressing virtually identical tax practices among OECD members.[153] For example, the United States' exemption from federal income tax of interest on bank deposits by foreigners was not condemned, although the blacklist criteria included having a ring-fenced tax regime.[154] After a vigorous campaign by offshore centers against the initiative, objections by China to a process in which it had no voice but which affected Hong Kong, and the 2000 change in U.S. administrations, the harmful tax competition initiative failed to achieve any significant increase in tax rates by low-tax jurisdictions.[155]

The initiative advanced Owens's career; whether it did anything else is questionable.[156] By this point, the international network of bilateral tax

151 Morriss & Moberg, *supra* note 2, discusses this in detail. Hayek offered another explanation for the attraction of central planning to experts that may apply to Owens and his compatriots as well:

[T]here is little question that almost every one of the technical ideals of our experts could be realized within a comparatively short time if to achieve them were made the sole aim of humanity. There is an infinite number of good things, which we can all agree are highly desirable as well as possible, but of which we cannot hope to achieve more than a few within our lifetime, or which we can hope to achieve only very imperfectly. It is the frustration of his ambitions in his own field which makes the specialist revolt against the existing order. We all find it difficult to bear to see things left undone which everybody must admit are both desirable and possible. . . . .

The illusion of the specialist that in a planned society he would secure more attention to the objectives for which he cares most is a more general phenomenon than the term 'specialist' at first suggests. In our predilections and interests we are all in some measure specialists. And we all think that in a free discussion among rational people we would convince the others that ours is the right one.

HAYEK, ROAD, *supra* note 1, at 53-54. As Hayek notes, this single-minded focus makes "the very men who are most anxious to plan society the most dangerous if they were allowed to do so—and the most intolerant of the planning of others." *Id.* at 55.

152 Morriss & Moberg, *supra* note 2, at 45-46.

153 Forthcoming work with Jakub Bartoszewski will discuss this in detail.

154 I.R.C. §§ 871(h), 881(f), 1441(c)(9) (exempting interest payments on portfolio debt instruments from the withholding tax). On complaints about the U.S. role as a tax haven in general, see Kara Scannell & Vanessa Houlder, *U.S. Tax Havens: The New Switzerland*, FINANCIAL TIMES, May 8, 2016.

155 Morriss & Moberg, *supra* note 2, at 53-54. *See also* William Vleck, *Governing the Offshore-Non-Independent Caribbean Jurisdictions, the EU and the International*, *in* GOVERNANCE IN THE NON-INDEPENDENT CARIBBEAN: CHALLENGES AND OPPORTUNITIES IN THE TWENTY-FIRST CENTURY 98, 109-10 (Peter Clegg & Emilio Pantojas-Garcia eds., 2009).

156 Sir Ronald Sanders, *The Benefits of Being Neither Fish nor Fowl: The UK Caribbean Overseas Territories in the International Community*, *in* GOVERNANCE IN THE NON-INDEPENDENT CARIBBEAN: CHALLENGES AND OPPORTUNITIES IN THE TWENTY-FIRST CENTURY 87, 87 (Peter Clegg & Emilio Pantojas-Garcia eds., 2009) (describing OECD effort as based on "arbitrarily devised and unilaterally" enforced rules which "collapsed on the demand of some of the non-OECD jurisdictions for a level playing field with some OECD countries such as Switzerland, which had opposed it from the outset."). Milton Grundy was particularly dismissive of the OECD's efforts, noting that the OECD effort made "the basic

treaties had changed significantly from the relatively sparse network that existed into the 1970s and 1980s. Figure 3 shows the network in 2000, revealing a dense core of treaty pairs as well as a periphery of jurisdictions relatively unconnected via treaties. Treaties increasingly incorporated (particularly after 1977) provisions requiring information exchange to be more "automatic" between treaty partners (although the United States hypocritically usually declines to exchange information with many of the jurisdictions for which the United States might be suspected of serving as a tax haven, such as Latin American countries whose citizens banked extensively in Miami and received interest payments free of U.S. income or withholding taxes).[157]

Over the next twenty years, the treaty network grew increasingly dense, as Figure 4, which shows the network in 2020, demonstrates. For jurisdictions within the core, most business structures and transactions would likely be covered by their treaty networks, as there are relatively few of either involving jurisdictions on the periphery. Even jurisdictions on the periphery are now generally connected via at least one jurisdiction in the core, enabling them to access treaty networks by routing transactions through entities in the connected treaty partner. For example, former U.K. and French colonies in Africa can route transactions through entities in Britain or France, potentially resolving double taxation problems at the cost of a degree of dependency on the former colonial power. While their continued dependency on the former metropolitan powers was troubling in terms of neocolonialism,[158] their access to global capital markets via those routes meant that even the periphery was not without the potential to access markets with relatively low transactions costs, at least with respect to double taxation issues.

Jurisdictions with treaty networks that solved particular problems sometimes played important roles in cross-border transactions. For example, Cyprus had an extensive network of double tax treaties with Eastern European countries developed during the era of Soviet domination of that region. When the Soviet Union collapsed and Eastern European countries opened their economies to Western businesses, many transactions and

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logical error of assuming what you set out to prove"; "the project in the hands of individuals who could write fluently but – to put it rather bluntly – did not appear to know very much about the subject. Nor did they find out very much about the subject: they made no enquiries and heard no evidence, but simply made the assumptions commonly made by the man in the street"; and adopted "a high-handed and dictatorial approach to the 47 jurisdictions. This was much the most serious mistake – not least because many of the 47 were dependent territories or former dependent territories, where anything resembling the *diktat* of the imperial power is calculated – and it is astonishing that the OECD did not realize this – to give rise to hostility and resentment." Grundy, ESSAYS IN INTERNATIONAL TAX PLANNING, *supra* note 6, at 4-5.

157 *See* Lee A. Shepherd, *Our Hypocrisy on Tax Havens*, FORBES (Jul. 22, 2010), https://www.forbes.com/2010/07/22/tax-finance-havens-economy-opinions-columnists-lee-sheppard.html?sh=3113be725f49.

158 Bartoszewski & Morriss, *supra* note 6.

structures were routed through Cyprus to avoid double taxation.[159] Over time, the Eastern European and former Soviet republics negotiated their own treaties with other countries. The rapid progression of both groups from the periphery to the core (as can be seen by comparing Figures 2, 3, and 4) is a dramatic illustration of how quickly treaty networks can develop. Thus, while there were frictions in the international movement of capital, the problem of double taxation from investors' perspective could be solved by creative lawyering and the use of a treaty network.

Further, jurisdictions that did not have direct taxes on business income (or have *de minimis* levels) offered an alternative platform for structuring businesses across jurisdictional boundary. No double taxation treaty was necessary with the Cayman Islands, because it does not impose direct taxes on individuals or businesses.[160] Using a Caymanian entity to invest in a country with a business income tax would thus result in tax in only the source state (although the non-Caymanian investors in the Cayman entity could be subject to income tax at home when they received the profits of their investment). The problem with such arrangements from the point of view of high tax jurisdiction tax authorities is that they did not have any information on what their taxpayers might be doing in the Caymans (which, sensibly enough, did not collect information on business income, because the Caymanian government had no need for this information). A firm or individual might be up to no good (i.e. evading taxes or being engaged in "aggressive tax avoidance") and there would be no way for the home jurisdiction authorities to know it.

From the point of view of businesses, by the early 2000s the global network of double tax treaties plus the opportunities to route transactions through third country treaty networks (where not foreclosed by anti-treaty shopping provisions) or use tax neutral jurisdictions enabled businesses to avoid double taxation in most instances.[161] Annoyingly for high-tax

159 CHRYSANTHOU & CHRISTOFORO, CYPRUS OFFSHORE COMPANIES AND INTERNATIONAL TAX PLANNING 61 (1999) ("The unique network of Cyprus double tax treaties with almost all Central and Eastern European countries in conjunction with the tax advantages offered to Cyprus international business and shipowning companies, make Cyprus an ideal stepping stone for western investors intending to do business or invest in Central and Eastern Europe."); GRUNDY, *supra* note 90, at 90 ("Offshore companies are excluded from some of the benefits of some treaties, but they have all the benefits of treaties with the former Communist states of Eastern Europe and are now in an unrivalled position to take advantage of the growth of business activity in those countries.").

160 Finney, *supra* note 91, at 27-06 ("most tax havens have either no or a very limited treaty network").

161 Not all taxes imposed on business income are covered by a typical double tax treaty. For example, social security charges are not covered by the OECD Model Treaty because there is a direct (in theory, at least) connection between the "premiums" paid by individuals through these taxes and the benefits they receive. On the other hand, payroll taxes are covered (Art. 2 specifically so provides). Turnover taxes on a base that is similar to the income tax base are particularly problematic. Whether they are covered by a treaty often depends on whether the tax base is close enough to an income tax base and the function of the tax in the tax system. Thus, when a turnover tax is imposed as a simplification measure and plays the role

jurisdiction governments, however, the treaty network also sometimes enabled businesses to achieve double non-taxation through clever exploitation of particular provisions in national tax laws and/or treaties, although many such opportunities were limited to specific circumstances.[162] High tax jurisdiction tax authorities also waged a relentless campaign to close "loopholes" that permitted what they viewed as excessive tax avoidance, such as by continually tightening the regulations governing controlled foreign corporations. There was also at least sporadic renegotiation of treaty provisions that proved particularly problematic.[163]

Particularly frustrating for tax authorities was that they viewed many double tax treaties as "out of date" because they had been negotiated decades earlier. In particular, while treaties began to include more extensive exchange of information provisions after 1977, many treaties in force predated the inclusion of such provisions. Because renegotiating an extensive treaty network would require significant government resources and would also open the door to the treaty partner wanting other changes made, these tax authorities viewed treaty-by-treaty adjustment as inadequate as a means to "update" the network.[164] (For most jurisdictions, a renegotiated treaty would also require ratification by the relevant legislature, a costly process.) Tax authorities in high-tax jurisdictions thus perceived a need to find a way around their governments' unwillingness to commit the resources necessary to "update" their treaty networks to include the latest in anti-avoidance and information exchange measures.[165]

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of an income tax, it is more likely to be covered. However, a turnover tax adopted in addition to a net profits tax as a means of raising revenue is less likely to be covered. Moreover, treaties sometimes use different boundaries for treaty purposes than common usage suggests are part of a particular treaty partner. For example, the French-U.S. treaty excludes from coverage Puerto Rico, Guam, the U.S. Virgin Islands, and other U.S. possessions but includes French overseas departments such as Réunion, Mayotte, Martinique, and Guadeloupe.

162 Christoph Marchgraber, *Double Non-Taxation: Not only a Policy but also a Legal Problem*, KLUWER INTERNATIONAL TAX BLOG (Jan. 5, 2018), http://kluwertaxblog.com/2018/01/05/double-non-taxation-not-policy-also-legal-problem/. *See also* Finney, *supra* note 91, at 27-06 ("From the taxpayer's point of view, it is important to collect the income derived from such intangible assets in a low-tax country without being subject to high withholding taxes in the source country. In this context, understanding the network of tax treaties between various fiscal jurisdictions is of utmost importance. The royalty income which arises in a country can be routed through another or several other jurisdictions before ending up at the final destination, i.e. a tax haven. In order for such a system to work, the intermediary or conduit company has to qualify for the application of the double tax treaties involved.").

163 CLARKE, *supra* note 76, at 130 (To a large extent, most highly taxed states either have or will renegotiate their treaties with the Netherlands and other stepping-stone territories to prevent tax leakages via stepping-stone companies.).

164 *See* BRADFORD, *supra* note 2, at 83 (noting that treaties generally are "not only hard to conclude but are also difficult and expensive to enforce.").

165 As Schwarz notes, the EU has struggled with whether to prioritize the single market or addressing tax avoidance is more important. *See* Schwarz, *supra* note 8, at 87-92. In Case C-196/04, Cadbury Schweppes plc. v. Comm'rs of Inland Revenue, 2006 E.C.R. I-07995, ¶ 55, the European Court of Justice

IV. ACCELERATING DOWN THE ROAD TO SERFDOM: THE OECD MULTILATERAL INSTRUMENT

The OECD created a clever means around the need to renegotiate the thousands of tax treaties that make up the global network: the Multilateral Instrument (MLI).[166] "The MLI easily represents the single greatest change to the business of concluding double taxation conventions … since the first tax treaty signed by Prussia and the Austro-Hungarian Empire in 1899."[167] This solution to the problem of persuading nations to amend their treaty networks "solved" the problem by dispensing with costly and time consuming negotiations and ratifications, also eliminating any democratic check on the OECD's activities (presumably a feature, not at a bug, to the bureaucrats).

By signing up for the MLI, countries agree that relevant text from the MLI would replace the treaty text for covered treaties without the messy business of securing legislative ratification or any of the other time-consuming procedures that formally amending a treaty requires.[168] This

determined that "in order for a restriction on the freedom of establishment to be justified on the ground of prevention of abusive practices, the specific objective of such a restriction must be to prevent conduct involving the creation of wholly artificial arrangements which do not reflect economic reality, with a view to escaping the tax normally due on the profits generated by activities carried out on national territory." This at least cabins the discretion of tax authorities to disregard establishments in other EU members. The ECJ's rejection of a French anti-treaty shopping provision which excluded from a treaty's withholding tax exemption payments from a French subsidiary to a parent company in another Member State as a disproportionate restriction on the freedom of establishment. Case C-6/16, Eqiom SAS v. Ministre des Finances et des Comptes publics, ECLI:EU:C:2017:641 (Sept. 7, 2017).

Commendably, the U.S. Treasury identified renegotiating treaties with what it viewed as inadequate information exchange as a priority in the 1980s. Anderson, *supra* note 85, at 8 ("Treasury is seeking to include strong exchange of information and antiabuse measures in all new and renegotiated treaties.").

166 Morriss & Ku, *supra* note 10. In 1992, the OECD Model Convention had suggested a multilateral tax convention would be impracticable. *See* WEEGHEL, *supra* note 76, at 22.

167 Benjamin Walker, *Reservations to the Multilateral Instrument, in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS, 165, 165 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch, & Claus Staringer, eds., 2018).

168 In brief, the MLI operates in the following manner: Each country decides if it wants to commit to the MLI. (Once it has committed, it cannot withdraw that commitment with respect to any treaty to which the MLI operates; it can only prospectively withdraw for future treaties.) The MLI signatory then designates to which of its treaties it wishes the MLI to apply. If two MLI signatories have a treaty with each other and each designates the treaty, the MLI applies and the treaty is a covered treaty. In addition, for each section of the MLI, countries choose whether to completely adopt, adopt with reservations, or opt out of the provision for all treaties to which it might apply (i.e. they cannot pick and choose reservations or opt outs for particular treaties). If the two countries that have signed a covered treaty "match" on their acceptance/reservation/opt out of a particular section, that section replaces the relevant text in the covered treaty. Thus, without amending the treaty, the treaty is now read as if the original language had been deleted and the new language from the MLI inserted. With some understatement, Zöhrer cautions that "in order to know which modifications occurred and to properly evaluate the valid legal position, taxpayers, who are often trained in neither tax nor in legal matters, will now have to

poses challenges. For example, "that provisions with novel wording are being injected into existing treaties between contracting states that many have had no experience with such provisions" creates "great uncertainty as to how the measures will play out."[169] The insertion of French and English

carefully examine the options chosen by each of the treaty partners. The complexity thus created poses a serious threat to legal certainty and could significantly increase the risk of misinterpretation and misapplication of the MLI." Christiane Zöhrer, *Notifications According to the Multilateral Instrument and Consolidated Versions of Tax Treaties*, *in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS, 191, 204 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch, & Claus Staringer, eds., 2018).

Officially, the MLI is read not to modify the treaty language as a treaty amendment by the parties would. "However, as the MLI uses language such as 'in place of' and 'replaced' in the compatibility clauses, which in turn are specific provisions meant to avoid a subjective *lex posterior* approach, and the notification provisions, the legal effect of the MLI may be unclear in the hands of tax authorities or the courts. It remains plausible that a court would consider that the MLI provision actually modifies the provisions of a bilateral tax treaty and not just their application. This would particularly be so if States chose to create consolidated versions where the MLI provisions are inserted within the tax treaty. If this approach were to be followed, there are several issues in relation to how a particular provision would be positioned in the tax treaty." Sriram Govind & Pasquale Pistone, *The Relationship Between Tax Treaties and the Multilateral Instrument*, *in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS, 111, 124 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch, & Claus Staringer, eds., 2018).

There are many interesting wrinkles to this. For example, treaties between countries generally have authoritative texts in the two treaty partners' official languages and sometimes a third (often English), to which the parties resort to break impasses where the text in language A is inconsistent with the text in language B. The MLI provisions are only in English and French. For the 10% or so of double tax treaties without either of those languages, the treaty now incorporates provisions in a language that is not otherwise used in any authoritative texts. Josef Schuch & Jean-Phillipe Van West, *Authentic Languages and Official Translations of the Multilateral Instrument and Covered Tax Agreements*, *in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS, 67, 81 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch, & Claus Staringer, eds., 2018) ("tax treaties that are modified by the MLI can have complex language structures. The MLI will add provisions in French and English to tax treaties which have neither French nor English as an authentic language. The modifications by the MLI to tax treaties will be authentic in French and English only, even if the tax treaty concerned did not stipulate that (one of) these languages are authentic."). The OECD provides a matching engine on the web, which enables taxpayers and their lawyers and accountants to see the status of particular MLI provisions in particular treaties but cautions that it is not a substitute for reading the actual text of the treaties, the MLI, and the adopting instruments.

A second problem is that, because the MLI applies to so many treaties, it does not refer to specific articles and paragraph numbers in the treaties it alters. "Not knowing which specific articles and paragraphs were modified by the MLI and to what extent the modification happened, may present a formidable challenge for all parties involved, and in order to avoid infringements of the existing treaty must be absolutely clear." Zöhrer, *supra* note 168, at 205.

169 Peter H. Blessing, *Limitations on Treaty Access by or Through Commercial Entities*, *in* CURRENT TAX TREATY ISSUES: 50TH ANNIVERSARY OF THE INTERNATIONAL TAX GROUP 237, 238 (Guglielmo Maisto ed., 2020).

text (the official languages of the MLI) into treaties which may not be written in either French or English pose many potential problems of interpretation.[170]

The new provisions inserted by the MLI essentially implement the OECD's Base Erosion and Profit Shifting (BEPS) project.[171] This project involved fifteen action items, a "potpourri of issues" which BEPS proponent Yariv Brauner says "reflect the opportunistic and unprincipled upbringing of the BEPS project."[172] These include substantive norms requiring strengthening CFC rules, reducing interest deductibility, preventing "treaty abuse," changing PE rules, changing transfer pricing rules, increasing information gathering and exchange, and requiring more disclosures by taxpayers and financial professionals.[173] In short, the BEPS project requires those jurisdictions signing on to it to dramatically change their international tax rules. Brauner (who likes the idea) says it is creating a new "universal, collaborative international tax regime."[174] The clever bit is that it deals with the inconvenient global treaty network by creating the means to alter their impact without requiring them to be renegotiated one by one. This is an impressive trick – to launch a new international tax regime without requiring countries to negotiate, and their legislatures to ratify, new treaties. It is not particularly legitimate in terms of governance, but it is remarkably crafty. And since it is a boring tax issue that is hard to explain and is promised to yield a staggering amount of new revenue for governments – the OECD claims that the practices BEPS will curtail "cost countries 100-240 billion USD in lost revenue annually"[175] – who would possibly object? (Unsurprisingly, the OECD is already working on "BEPS 2.0" to focus on digital economy tax issues. BEPS 3.0 is undoubtedly already being planned over drinks at Paris cafes).[176]

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170 Schuch & Van West, *supra* note 168, at 67-68 ("As a result, it is possible that some paragraphs of a certain provision of the [Austria-Italy] tax treaty are authentic only in German and Italian, while some other paragraphs are authentic only in French and English.").

171 *See* Morriss & Ku, *supra* note 20; OECD, *Explanatory Statement to the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting*, https://www.oecd.org/tax/treaties/explanatory-statement-multilateral-convention-to-implement-tax-treaty-related-measures-to-prevent-BEPS.pdf ("The mandate [from the OECD] provided that the *ad hoc* Group should develop a multilateral instrument to modify existing bilateral tax treaties in order to swiftly implement the tax treaty measures developed in the course of the OECD/G20 BEPS Project."); Robin Damberger, *Scope of the Multilateral Instrument*, *in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS 18 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch & Claus Staringer eds., 2018). ("Summing up, the MLI has the potential to considerably change international taxation. With one modification of the treaty network, the MLI implements the income tax treaty-related BEPS Actions into the treaty network.").

172 Yariv Brauner, *What the BEPS*, 16 FLA. TAX REV. 55, 69 (2014).

173 *Id.*

174 *Id.*

175 OECD, *International Collaboration to End Tax Avoidance*, https://www.oecd.org/tax/beps/.

176 Barbara Angus & Luis Coronado, *Agreements on BEPS 2.0 provides needed breakthrough on the future of international tax*, INT. TAX REV. (Aug. 12, 2021),

As examples of the radical changes the MLI brings to pre-existing treaties, it contains two articles "designed to fundamentally alter the allocation of taxing rights between the parties to Covered Tax Agreements":[177] MLI Article 3 (on mismatches) and Article 11 (a savings provision). Schwarz terms the latter a "radical departure from the overarching scheme of double tax treaties" that would "inevitably permit double taxation."[178] Similarly, although "a majority of Supreme Courts in European civil law countries have ruled that commissionaires are not agency permanent establishments," the MLI includes them within the definition of a permanent establishment.[179]

The OECD maintains the fig-leaf that the MLI provisions were "negotiated" by the close to one hundred jurisdictions that signed on to it.[180] However, the negotiations were similar to "negotiating" over which piece one would use in playing the game Monopoly™: the essential provisions (akin to the Monopoly™ rules that govern the game) were the BEPS provisions which the MLI provisions *had* to implement.[181] For example, the MLI requires adoption of limitation of new treaty access provisions, "a remarkable occurrence in the history of tax treaties, especially considering

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https://www.internationaltaxreview.com/article/b1t3lxx66mm0cl/agreements-on-beps-20-provides-needed-breakthrough-on-the-future-of-international-tax.

177 Schwarz, *supra* note 8, at 535.

178 *Id*. at 535-36.

179 *Id*. at 538-39.

180 OECD, *Explanatory Statement, supra* note 171, at 2 (noting ninety-nine countries participated in the *ad hoc* Group to draft the MLI and that Group was "open to all interested countries").

181 *See, e.g.*, Damberger, *supra* note 171, at 5 ("The MLI was drafted by the ad hoc group in order to implement tax treaty measures that were developed by the OECD."); Bertil Wiman, *Constitutional Issues in Developing International Tax Norms: A Swedish Perspective, in* CURRENT TAX TREATY ISSUES: 50TH ANNIVERSARY OF THE INTERNATIONAL TAX GROUP 158 (Guglielmo Maqisto ed., 2020) ("the speed with which the BEPS Project went on was unprecedented and left no or very few chances for legislators to intervene or interact."); Svetlana Wakounig, *Interpretation of the Terms Used in the Multilateral Instrument, in* OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS 35 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch & Claus Staringer eds., 2018) ("Keeping in mind that the purpose of the MLI is the modification of existing tax treaties to implement the tax treaty-related measures developed through the BEPS project, one can question whether the interpretation of terms governed by individual covered tax agreements or even domestic law was intended. The MLI can properly fulfill its purpose only if tax authorities of both contracting jurisdictions understand terms the same way. A fall-back to domestic law when interpreting undefined terms (that are used in the MLI) would definitely conflict with this purpose."). It gets even worse, however. The MLI uses terms not defined within it, which are likely to be imported from the OECD Model whether or not the parties stated an intent to do so explicitly. *See* Wakounig, *supra* note 181, at 29 ("The OECD Model is also part of the context of the MLI as sketched out above. For example, although the term 'permanent establishment' is used in the MLI, the term is not defined therein. The provision regarding permanent establishments was drafted with regard to Article 5(1) and (2) of the OECD Model. The provision of the MLI corresponds to the provision of the OECD Model. Thus, consultation of the OECD Model can be required because of the context of the MLI. When recourse is had to the OECD Model out of the context of the MLI, there could still be some terms that cannot be defined by the context. In this case, the consultation of domestic law can be necessary.").

that such provisions had not been widely embraced to that point and considering the disparate conclusions of countries as regards such provisions," which Blessing attributes to political pressures.[182] What is clear is that the countries negotiating whether to apply the treaty access provisions in the MLI had no choice on the major issue of substance, because it was included in BEPS.

Despite an initial victory in the early 2000s in stopping the OECD's harmful tax competition initiative by proponents of jurisdictional competition and economic freedom,[183] bad ideas are never completely defeated. Despite getting their noses bloodied in the harmful tax competition debate, the OECD, the EU, and other entities opposing tax competition and the existing system of tax treaties developed alternative approaches to restricting tax competition that they have successfully promoted over the last three decades.[184] This new campaign developed around ten main themes:

- *An expansion of information collection with an exchange of information.* The combination of BEPS, CRS, the MLI, and other initiatives means that a vast array of internal data will be provided to national tax authorities in a standard format. This is different from earlier information exchange requirements because it forces businesses to disclose much more than what would be included on a standard income tax return, providing detailed information on their internal operations to every participating tax authority. Not only are the transaction costs of complying with these measures high (accountants are not cheap!) but competitors will undoubtedly seek to use the information that becomes public or leaks.

- *Expansion of obligations of intermediaries.* The EU's DAC6 directive requires financial intermediaries to report a wide range of their clients' financial information with substantial penalties for failing to correctly report it. An unprecedented amount of internal financial information – well beyond what is normally provided on tax returns – will be widely disseminated to tax authorities around the globe.

- *Creation of coercive blacklists.* The OECD's blacklisting threats, taken up by many individual jurisdictions, included as a criteria whether a jurisdiction had signed at least 12 tax information

182 Blessing, *supra* note 169, at 248-49. Blessing argues that a regulatory approach that allowed "at least some sense of its boundaries" would have increased certainty and improved administrability and compliance. *Id.* at 257.

183 *See* Morriss & Moberg, *supra* note 2, for an extended discussion of the battle over the "harmful tax competition" initiative.

184 Note that the EU is engaged in efforts to change tax laws despite the European Commission lacking competency over taxes. As a result, it resorts to subterfuges such as its "state aid" investigations into Apple and Starbucks. BRADFORD, *supra* note 2, at 35.

exchange agreements (TIEAs) with other jurisdictions.[185] Together with the inclusion of information provisions in DTAs, a global database of internal financial information on businesses is beginning to take shape.

• *Extensive powers in tax authorities to recharacterize transactions and entities.* Many national tax laws have long given tax authorities powers to recharacterize transactions or entities based on the "economic substance" (to use the phrase from U.S. law) of the transaction.[186] An entity's separate legal existence may be disregarded, for example, or an interest payment taxed as if it were a dividend or vice versa.[187] These powers are vastly expanded

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185 This quickly led to rapid signing of agreements, often between jurisdictions with zero-rate direct taxes to make their quotas. The Scandinavian jurisdictions (including the Faroe Islands) signed 235 TIEAs, over 28% of all TIEAs. Numbers calculated from the IBFD database. The Scandinavian jurisdictions included are Denmark, the Faroe Islands, Finland, Iceland, Norway, and Sweden. The Faroe Islands alone has twenty-four TIEAs! Figure 5 shows the TIEA network in 2020; virtually all TIEAs were signed after the OECD blacklisting campaign began in 2002.

186 26 U.S.C. § 7701(o) (2012) provided statutory codification of the "economic substance" doctrine, finding that where a transaction "changes in a meaningful way (apart from federal income tax effects) the taxpayer's economic position" and "the taxpayer has a substantial purpose (apart from federal income tax effects) for entering into such transaction." If it does not meet this test, the transaction can be recharacterized. Notably, the IRS announced that it would not be issuing general administrative guidance as to the transactions to which the doctrine applied or does not apply and will not issue private letter rulings on whether it is relevant to any transaction or whether a transaction complies with § 7701(o). Internal Revenue Service, Notice 2010-62, *Interim Guidance under the Codification of the Economic Substance Doctrine and Related Provisions in the Health Care and Education Reconciliation Act of 2010,* 5, 7. This violates Point 5.

187 For example, there are restrictions on interest deductibility that authorize significant recharacterization of transactions. The EU Anti Tax Avoidance Directive (ATAD) limits the deductibility of interest payments in several stages. In 2019, borrowing costs that exceed 30% of the taxpayer's earnings before interest, tax, depreciation, and amortization were made nondeductible. *See* Council Directive 2016/1164, art 4(1), 2016 O.J. (L 193) 1, (EU), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L1164&from=EN. The United States has a similar rule on earnings stripping and in the new BEAT tax. Similarly, there is now going to be taxation of unrealized capital gains: The EU ATAD requires taxation of capital gains created in a jurisdiction even if the gain has not been realized if a business exits a jurisdiction. It is worth remembering that the 1955 U.K. Royal Commission on the Taxation of Profits and Income rejected capital gains taxation on the grounds that "they could not well be taxed without raising a number of points of principle which are both difficult in themselves and of which the solution would remain debatable." ROYAL COMMISSION, *supra* note 35, at 33.

On disregarding of entities, *see* SPITZ, STRATEGIES, *supra* note 120, at 97 ("Where a corporation is merely a conduit or a dummy that does not carry on substantial activity, courts frequently refuse to treat it as having legal personality for tax purposes."). Similar problems arise in determining the nature of an entity from a different legal system. For instance, in a 1999 case, the French tax authorities determined that a Dutch entity, which was legally and fiscally transparent under Dutch law, would be treated as nontransparent because it was most closely analogous to a non-transparent French entity. The *Conseil d'État* overruled them, applying Dutch law on the entity status. *See* Philippe Martin, *Courts and Tax Treaties in Civil Law Countries, in* COURTS AND TAX TREATY LAW 94-95 (Guglielmo Maisto ed. 2007).

by the BEPS provisions then being put into treaties by the MLI. In addition, the 2017 update to the OECD Model treaty greatly expands the powers of the contracting jurisdictions to recharacterize transactions, adding a specific anti-abuse rule aimed at treaty shopping, another aimed at permanent establishments in third states, and an extraordinarily vague general anti-abuse rule, the principal purpose test (PPT).[188]

• *Increasing discretion will increase uncertainty, thus increasing transactions costs.* As firms and individuals will be less able to predict how structures will be taxed, they will be forced to resort to seeking expert opinions from consulting firms, law firms, and accounting firms.[189]

However, in another case involving a Canadian corporation with a Canadian subsidiary, the French court applied French law and disregarded Canadian (Ontario) law on the existence of a capital gain when the subsidiary was dissolved and absorbed by the parent. *Id.* at 95. In general, ensuring income accrues to an entity for tax purposes is critical to planning, but "The question of when an entity is opaque and when it is transparent is of some difficulty." GILES CLARKE, OFFSHORE TAX PLANNING, 5 (7th ed. 2000). The leading U.K. case, *Memec plc v IRC* [1998] STC 754 (UK), dealing with a German "silent partnership" (held not to be a partnership under U.K. law) is an excellent example of the difficulties in this area.

188 *See* Blessing, *supra* note 167, at 238 (the PPT is "in effect a treaty general anti-abuse rule (GAAR)"). The principal purpose test, which under BEPS Action 6 must be equivalent to that included in the 2017 OECD Model Tax Convention, includes a subjective element under which tax administrators need to reasonably conclude that – after taking into account all of the facts and circumstances – that obtaining a tax treaty benefit was one of the principal purposes of the transaction. This violates Point 5. Historically, note that in 1981 testimony to a House committee, the U.S. Assistant Secretary for Tax Policy stated that Treasury has "no model limitation of benefits provision" and doesn't think "a single model would be appropriate" because of the "wide range of international economic relationships and the diversity of foreign tax systems, we must approach each treaty relationship separately." *Tax Evasion through the Netherlands Antilles and Other Tax Haven Countries*: *Hearing Before the Commerce, Consumer, and Monetary Affairs Subcomm. of the H. Comm. on Government Operations*, 98th Cong. 261 (1983) (statement of John E. Chapoton, Assistant Secretary for Tax Policy, Department of the Treasury). More generally, while there is considerable agreement that there is abuse of tax treaties, there is much less agreement on what constitutes abuse. *See* WEEGHEL, *supra* note 76, at 96. Equally important is the question of who sets the standard to determine what is abuse. "Is it the OECD, one or both contracting states, or is the standard based on general principles of good faith? And is the standard clear and precise enough to demand the taxpayer to live up to that standard?" *Id.* at 97.

189 One measure of the increasing complexity of tax matters is the amount of time courts must devote to addressing tax disputes. In 2005, there were seventy-seven reported cases handled by the U.K. Special Commissioners, which produced a total of 881 pages of print in *Simon's Tax Cases,* an average of eleven printed pages per decision. *See* John F. Avery Jones, *Tax treaties: The perspective of common law countries, in* COURTS AND TAX TREATY LAW 53 (Guglielmo Maisto ed. 2007). This is a not-inconsequential amount of material for tax counsel to digest annually. Moreover, important aspects of tax law are sometimes being dealt with by tax authorities extralegally. For example, the U.K. and Liechtenstein negotiated a memorandum of understanding over disclosure of accounts held in the latter by U.K. taxpayers in August 2009. The agreement did not result in any U.K. legislation, leaving its legal status in the U.K. "somewhat questionable" which is "probably best regarded" as enforceable by taxpayers based on their reliance on it. Its terms are set out for taxpayers in a FAQ, some of which is "garbled, and there are significant omissions in the scenarios covered by the FAQs." Taxpayers instead had to rely on

• *Increasing incentives for tax authorities in multiple jurisdictions to seek to tax the same transactions/entities*. As the rules become murkier, the incentive to grab larger shares of international business revenue will increase.

• *Weakening of the rule of law*. The rule of law will become increasingly fragile as the MLI promotes the sidelining of judicial processes and the OECD's blacklists promote threats over negotiation.[190]

• *Homogenization of international tax treaties.* The OECD Model Treaty's dominance creates a baseline for tax treaty provisions. While the treaties were negotiated between treaty partners, variations crept in to address specific interests and circumstances relevant to particular treaty partners. The MLI is homogenizing the treaty network by effectively amending critical provisions, with a one-way ratchet.[191]

"oral and, if required, written guidance on the operation of the LDF from the skilled staff on HMRC's 'Liechtenstein Desk'." CLARKE, OFFSHORE TAX PLANNING 1097-99 (20th ed. 2013). This is hardly the rule of law.

190 Clarke's U.K. tax treatise notes that tax penalties for disallowed transactions with disfavored jurisdictions are more substantial than those for transactions with favored ones. *See* CLARKE, *supra* note 35, at 858 ("the current penalty regime is one of sheep and goats insofar as jurisdictions are concerned. Errors involving the sheep are mostly treated in the same way as those involving purely domestic matters. But the goats are more harshly treated, in some cases much more so. Given the risk of error, any tax planning strategy should factor in the penalty implications of using a particular jurisdiction if something goes wrong.").

191 Govind and Pistone note that:

Surprisingly, there is no formal provision providing for termination. However, the right to termination may be implied from the nature of the treaty itself, allowing termination under Article 56 of the Vienna Convention. Under Article 70 of the Convention, the termination of a treaty releases parties from further obligations to apply the treaty, but does not affect legal situations created by the treaty prior to termination. This is similar to the withdrawal mechanism set out in Article 37 as well. Therefore, a termination of, or withdrawal from the MLI under this process, may allow parties to enter into future treaties without the issue of conflict with the MLI.

Govind & Pistone, *supra* note 168, at 135. Moreover, reservations may be only withdrawn or limited, not expanded. *See* Alexandra Miladmovic & Alesander Rust, *Options under the Multilateral Instrument*, *in* OECD MULTILATERAL INSTRUMENT, *supra* note 171, at 161. *See also* Benedikt Hörtenhuber, *Consequences of Withdrawal from or Termination of the Multilateral Instrument*, *in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS, 220 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch, & Claus Staringer, eds., 2018) ("A withdrawal from the MLI would not modify covered tax agreements retroactively which have been modified by the MLI. These MLI provisions that have entered into force pursuant to Article 34 thereof to a covered tax agreement shall remain unaffected by the withdrawal, even if these modifications have not entered into effect pursuant to Article 35 of the MLI."). The ratchet might even prohibit future changes that relax MLI/BEPS provisions in treaties. *See* Nathalie Bravo, *Future Changes to Covered Tax Agreements and of the Multilateral Convention to Implement Tax Treaty-Related Measures to Prevent BEPS*, *in* THE OECD MULTILATERAL INSTRUMENT FOR TAX TREATIES: ANALYSIS AND EFFECTS, 246 (Michael Lang, Pasquale Pistone, Alexander Rust, Josef Schuch, & Claus Staringer, eds., 2018) ("Hence, although not expressly established

• *The sidelining of normal judicial processes in international tax disputes.* As there is no overarching international tax authority (yet, anyway), disputes over the application of double tax treaties end up in court proceedings in national courts and, sometimes, in treaty-based dispute resolution procedures (such as the Mutual Agreement Process in the OECD Model Treaty).[192] The MLI's insertion of binding arbitration processes into many treaties will shift tax treaty issues out of national courts and into arbitration processes, which the OECD is in a position to influence.[193] This is particularly important since the OECD is seeking to have its Commentaries on the Model Treaty be treated as a source of authority for interpreting even treaties agreed prior to any particular text now in the Commentaries.[194]

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in the wording of Article 30, an interpretation of this provision based on the context and the object and purpose of the MLI as a whole would permit the conclusion that only subsequent modifications to the provisions of the covered tax agreements as modified through the MLI with a similar or a more far-reaching scope in the fight against BEPS may be accepted.").

[192] *See* Edward Morris, Janelle Sadri, & Jennifer Breeze, *The Rise and Rise of mutual agreement procedures in the EU,* INT. TAX REV. (Sept. 24, 2020), https://www.internationaltaxreview.com/article/b1nj4cnb41sl0h/the-rise-and-rise-of-mutual-agreement-procedures-in-the-eu.

[193] One significant innovation in the MLI's arbitration provisions is the introduction of final offer arbitration, in which the two states each make an offer and the arbitrators choose between them. As a commentary from the international law firm Freshfields noted, this means that "[t]here is no need to substantiate the decision or supplement it with any reasoning." *International tax arbitration: OECD and EU developments,* Freshfields (Jan. 31, 2018), https://www.freshfields.us/insights/knowledge/briefing/2018/01/international-tax-arbitration-oecd-and-eu-developments-3704/. Moreover, the procedural characteristics of dispute resolution influence the legal culture, suggesting a long-term impact on how disputes involving the application of tax treaties are handled. *See* Andrea Giussani, *Some Comparative Notes on Tax Litigation, in* COURTS AND TAX TREATY LAW, *supra* note 102, at 29-30 ("When procedural rules derive from structural features of the judiciary, they influence the legal culture so deeply that they tend to apply even in cases dealt with by special judges: as well as the common law tax proceedings are similar to jury trials, from the Continental perspective, even when no jury is empaneled – so that judges seem to spend their time in lengthy discussions over useless hypothetical points – Italian tax litigation follows the procedural rules of the hierarchical bureaucracy even when lay judges participate in the panel."). Arbitration is also likely to increase reliance on the OECD Commentaries, further divorcing tax treaty law from the control of national institutions and shifting it to the bureaucrats drafting the endlessly revised Commentaries. *See* Jacques Sasseville, *Court decisions and the Commentary to the OECD Model Convention,* in COURTS AND TAX TREATY LAW 196 (Guglielmo Maisto ed. 2007) ("The emergence of arbitration as a means to ensure that tax treaty disputes are solved consistently by the two countries involved is likely to increase reliance on the Commentary as an interpretation tool.").

[194] *See* Michael Lang & Florian Brugger, *The Role of the OECD Commentaries in Tax Treaty Interpretation,* 23 AUSTRALIAN TAX FORUM 95 (2008). Use of the Commentaries has become routine, at least in the U.K. *See* Avery Jones, *supra* note 189, at 69. This seems to be a general trend. *See* David A. Ward, *Use of foreign court decisions in interpreting tax treaties,* in COURTS AND TAX TREATY LAW 166 (Guglielmo Maisto ed. 2007) (increasing references by courts to Commentaries). The OECD Committee on Fiscal Affairs argues that:

- *Prioritizing threats over negotiations.* The OECD's record with respect to blacklisting uses opaque criteria that may be inconsistently applied because OECD members and affiliated jurisdictions appear to escape scrutiny for tax provisions identical to those resulting in blacklisting for non-affiliated, non-member jurisdictions.[195] No appeal process for listing exists.[196]

The new world of international tax thus differs from the old one in three crucial ways, all of which are on-ramps to the road to serfdom. First, it is built around authorizing governments to rearrange the legal organization of business entities and transactions as they see fit, guided only by vague provisions which are themselves subject to constant reinterpretation by an unaccountable international bureaucracy. While firms and individuals remain nominally free to organize their affairs, the actual legal structure of an organization will be merely one consideration in determining how governments will treat the organization. In turn, the legal representation will determine how the transaction or structure is taxed, making deviation from the tax authorities' view of appropriate transactions and organizations financially painful.

Second, individuals' and businesses' abilities to plan by relying on fixed rules is eliminated or greatly reduced. Whether an entity or transaction is subject to tax is no longer determined by tolerably clear rules but is subject to arbitrary (in the Hayekian sense) determinations by more powerful tax authorities. The increasing deployment of what tax expert Barry Spitz termed the "administrative control approach" to tax arbitrage ("the grant of wide powers to an official or an administrative tribunal in order to counteract tax avoidance transactions") and the "shotgun approach" (" the enactment of some general provision which imposes tax on transactions which are defined in a general way" with a "conscious rejection of certainty") over what he called "sniper approach" ("the enactment of specific provisions which identify with precision the type of transaction to be dealt with and prescribes with precision the tax consequences of such a transaction") is an example of

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[A]mendments to the Articles of the Model Convention and changes to the Commentaries that are a direct result of these amendments are not relevant to the interpretation or application of previously concluded conventions where the provisions of those conventions are different in substance from the amended Articles. *However, other changes or additions to the Commentaries are normally applicable to the interpretation and application of conventions concluded before their adoption, because they reflect the consensus of the OECD member countries as to the proper interpretation of existing provisions and their application to specific situations*.

ORG. FOR ECON. COOP. & DEV. [OECD] COMM. ON FISCAL AFFS., MODEL TAX CONVENTION ON INCOME AND ON CAPITAL 16 (Condensed Version, 2003) (emphasis added). The OECD noted in its Commentaries it did not approve of an Italian Supreme Court decision. Italy then insisted that the Commentaries be amended to state that Italian jurisprudence was not to be ignored. *See* Guglielmo Maisto, *Judicial Errors Under Tax Treaties and Their Remedies,* in COURTS AND TAX TREATY LAW 377 (Guglielmo Maisto ed. 2007). Interestingly, Maisto objected to the OECD action not because it reflected an unaccountable bureaucracy attempting to override a national court but because it provoked Italy to reaffirm its commitment to its position and to the non-mandatory nature of the Commentaries. *See* id. at 378.

195 *See* Bartoszewski & Morriss, *supra* note 6.

196 *See id.*

this.[197] Indeed, a core problem with the OECD approach is that "the difference between what is considered tax avoidance/evasion and legitimate tax planning in respect of treaty benefits is not clear and the weight given to certain factors in different states can be dependent on cultural differences."[198] Thus administrators are no longer subject to the rule of law in many dimensions.

Third, decisions about tax policy are removed from national governments and shifted to the OECD, a group dominated by a few high income, high tax jurisdictions. The disciplinary effect of international tax competition is diminished significantly (and perhaps eliminated if the OECD is successful). We now turn to the details of how these policies drive us down the road to serfdom.

V. ANTI-AVOIDANCE EFFORTS AS A STEP DOWN THE ROAD TO SERFDOM

The rules of international tax have changed significantly since World War II. The rules now give governments, particularly high-tax industrialized jurisdictions' governments (France and Germany) sweeping powers to require submission of information, secure additional information, and recharacterize transactions and entities based on those governments' view of the circumstances. Previously, concern over privacy led to restrictions on information sharing even within governments. For example, the U.S. Tax Reform Act of 1976 restricted the IRS' ability to cooperate with federal law enforcement agencies because of concerns growing out of political use of the IRS by the Nixon administration.[199] Such concerns are no longer at the forefront and financial privacy is subordinated to a demand for transparency. (While some information will at least nominally remain filed only with governments, the demands for a public beneficial ownership register will make public many previously private details). That this creates a situation ripe for abuse is difficult to contest. The failure of many jurisdictions to

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197 SPITZ, PLANNING, *supra* note 53, at 34-35.

198 Blessing, *supra* note 169, at 244. Note that Schwarz's treatise is critical of the equation of avoidance and evasion, noting that "[t]he casual equation of evasion and avoidance does not assist the interpretation [of treaties] process, nor does it found a general principle to explain the operation of the treaty." SCHWARZ, *supra* note 8, at 127.

199 Sen. William Cohen (D. Me.) explained that members voted for the 1976 law:

Most of whom, perhaps myself included, being unaware of the provision dealing with this particularly measure because of the nature in which tax reform bills are enacted on Capitol Hill" and that the cooperation-limiting measures were directly related to disclosures of abuses that occurred during the so-called Watergate era. It was my own personal opinion at that time that the use of Federal agencies, neutral instruments of public policy, for acts of private vengeance or vindictiveness amounted to high crimes and misdemeanors and, in fact, so contravened our fundamental notions of what the Constitution was all about that it would have warranted prosecution, certainly under the circumstances, of even those allegedly vindictive individuals who came about and turned over information concerning their activities.

Illegal Narcotics Profits: *Hearings before the Sen. Permanent Subcomm. on Investigations of the Comm. on Governmental Affairs*, 96th Cong. 84 (1979).

control the activities of even criminal politically connected persons domestically or internationally is cause for pessimism about the effectiveness of these measures in actually stopping tax evasion or other financial crimes.[200]

The new international tax regime being implemented by the OECD, the EU, and their collaborators in various national bureaucracies constitutes an advance further down the road to serfdom because it provides public officials with broad powers to alter the fiscal consequences of private decisions. As a result, those officials will have the power to steer businesses in determining how to structure transactions and entities. Much as the rider of a horse can direct the horse's course through skillful use of the reins and application of pressure from the legs while never using spurs or riding crop, tax authorities can 'steer' the economy through their application of their bureaucratic tools to recharacterize transactions and entities. To see how this is occurring, we examine next how these relate to the *Road to Serfdom* points above, focusing on their status under Point 5.

Consider, for example, the International Bureau for Fiscal Documentation (IBFD)'s – a respected provider of tax information and education located in the Netherlands – analysis of how to a "functional analysis" conduct under the new system as required in a transfer pricing case (i.e. a case involving internal pricing by a set of related entities, which could be used to shift profits from one entity to another in a lower tax jurisdiction). (My impression from earning the international tax certification from it is that many of its staff generally think complicated tax rules are a good thing and so, if anything, this understates the process's complexity):

In practice, undertaking a functional analysis generally requires a review of external company information like websites, brochures, annual reports along with a review of internal company information such as organizational charts, internal policies/guidance and an understanding of product flows, for example, legal title, physical flow etc. Conducting interviews of key company personnel, including, in particular, those with operational roles, is considered good practice for ensuring a thorough understanding of the economically significant functions, assets and risks

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200 *See* Carlos Porterfield, *Auction of Super Cars Seized from Son of Equatorial Guinea's Dictator Nets $27 Million,* Forbes (Sept. 30, 2019) https://www.forbes.com/sites/carlieporterfield/2019/09/30/auction-of-super-cars-seized-from-son-of-equatorial-guineas-dictator-nets-27-million/?sh=4cffc9e79f74 (describing seizure and sale); *France: Equatorial Guinea Vice President's Conviction Upheld*, HUMAN RIGHTS WATCH (July 28, 2021) https://www.hrw.org/news/2021/07/28/france-equatorial-guinea-vice-presidents-conviction-upheld# (describing seizure and sale of assets and noting that "However, because Nguema Obiang remains in a position of power, and corruption in the country remains endemic, there is a high risk that those assets will be misused once returned."); Emma Vickers, *His Bugatti is Gone, But Dictator's Son Still Flaunts Riches,* BLOOMBERG (Oct. 24, 2019) https://www.bloomberg.com/news/articles/2019-10-24/they-took-his-supercars-but-dictator-s-son-still-flaunts-riches (despite forfeitures, still "showcasing his latest prized possessions and adventurous exploits on Instagram).

performed in relation to the controlled transactions.[201] Further, analysts (and tax authorities) will compare pricing decisions to business strategy decisions:

> Business strategies adopted by enterprises can also impact how the parties to the transactions are compensated, and therefore need to be taken into consideration when assessing comparability. . . . [I]t is important to ensure that the conduct of the parties is consistent with the purported business strategy and that there is a reasonable expectation that the strategy will produce a sufficient return within a period of time that would be acceptable in an arm's length arrangement.[202]

Moreover, these analyses are just a small part of the complex methodologies that transfer pricing alone requires. The OECD has *five* separate methods for determining appropriate transfer prices: comparable uncontrolled price, resale price, cost plus, transactional net margin, and transactional profit split, which it applies in a *nine*-step analysis. Each has its own data requirements and difficulties in application, all available in conducting a "broad based analysis of the taxpayer's circumstances," including a "thorough analysis of the industry" in which a business operates.[203] For example, the transactional profit split method, which has the advantage of not requiring finding outside-the-transaction data, requires examination of the relevant costs and revenue for "all the associated enterprises participating in controlled transactions, which could require stating books and records on a common basis and making adjustments in accounting practices and currencies."[204] The OECD cautions that no one method is always preferred and that the tax authority and taxpayer must consider which to apply on a case-by-case basis. This process generally yields not a single price but a range of estimates, from which the taxpayer and tax authority must select an appropriate figure for calculating taxes. This is a textbook illustration of violation of Point 5 above.

It gets worse.[205] Once a range of possible comparable prices is calculated, four different types of adjustments may be made to the prices reflected on the taxpayer's books. First, the taxpayer may make a compensating adjustment to bring the price it recorded into compliance the hypothetical arms' length price it selected from the range of possible prices it calculated. Some OECD members allow these adjustments to be made before filing a tax return; others do not. Taxpayers making adjustments need to consider how the adjustments themselves are treated under the relevant

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201 *See* Handout from Lesson 3a of ITA 109 Fundamentals of Transfer Pricing, 27.

202 Handout from Lesson 3a of ITA 109 Fundamentals of Transfer Pricing, 32.

203 Handout from Lesson 5 of ITA 109 Fundamentals of Transfer Pricing, 4.

204 Handout from Lesson 3b of ITA 109 Fundamentals of Transfer Pricing, 40.

205 It gets a lot worse for smaller firms. Big multinationals will be able to treat this as a cost of doing business, but for smaller firms the added costs will be much more significant. Since many of those smaller firms are in less developed economies, this is yet another aspect through which the OECD disadvantages those jurisdictions.

national tax laws; they could trigger additional tax obligations themselves. Again, this is exactly the sort of conduct Hayek warned against (Point 5).

Next, primary adjustments are those made by tax authorities to bring transactions into line with their vision of the arms'-length price. Such adjustments are made under the authority of domestic law; Article 9 of both the OECD and UN Model Treaties protect the authority to do so. The OECD Guidelines suggest that tax authorities must examine whether the transaction has commercial rationality before making such adjustments. This is a violation of Point 5.

The tax authority in the other jurisdiction may then make a corresponding adjustment in light of the first tax authority's actions. As the IBFD notes, "it is not uncommon that the tax administration in the state in which the corresponding adjustment is being sought does not agree with the primary adjustment made by the other tax administration."[206] Some, but not all, tax treaties require such adjustments. Some jurisdictions provide in their tax laws for what the OECD terms secondary adjustments. These cover situations such as where a primary adjustment has recharacterized a payment to be a constructive loan, subjecting the constructive transaction to withholding or other taxes. Again, we can see a violation of Point 5.

Transfer pricing disputes are expensive for the parties. As a result, many tax authorities are willing to enter into advance pricing arrangements under which they approve "in advance of controlled transactions, an appropriate set of criteria (e.g. method, comparables and appropriate adjustments thereto, critical assumptions as to the future events) for the determination of the transfer pricing for those transactions over a fixed period of time."[207] This is a classic violation of Point 5.

These details are merely part of the larger process, including country-by-country reporting (CbCR) added by the OECD's 2017 update. In this process, multinational enterprises with a group turnover of EUR750M or more (for now) must provide a CbCR report, including:

- Tax jurisdictions
- Revenues divided into related and unrelated party revenues
- Profit or loss before income tax
- Income tax paid and accrued
- Stated capital
- Accumulated earnings
- Number of employees
- Tangible assets other than cash and cash equivalents
- Jurisdictions of tax residence and jurisdictions of incorporation or organization; and

206 Handout from Lesson 6 of ITA 109 Fundamentals Transfer Pricing, 14.

207 Org. for Econ. Coop. & Dev. OECD], *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, at 213 (Jan., 2022), https://read.oecd-ilibrary.org/taxation/oecd-transfer-pricing-guidelines-for-multinational-enterprises-and-tax-administrations-2022_0e655865-en#page1.

- Main business activities.

These reports are then exchanged among those tax authorities that have agreed to do so. (As of March 2021, 90 jurisdictions have done so).[208] The rules are complex – one expert summed them up by saying, "we could go on for hours and days and still not know the answer" to how they apply.[209] This is a clear illustration of the dangers of violating Point 5. In addition, the enterprise must prepare a "Master File" providing a high-level overview of the group's transfer pricing policies, structure, operations, nature of activities, and global allocation of income. Finally, a Local File provides a detailed description of local entities within each jurisdiction and its material transactions. In addition to the OECD approach, the EU has adopted a Code of Conduct on Transfer Pricing Documentation for Associated Enterprises in the European Union.[210] By the time all of this is done, the tax authority will be in a position to reorganize the legal representation of virtually all of the firm's international business transactions.

Further, the OECD is pushing a new definition of "permanent establishment" (PE), which is, as noted earlier, a key term in determining whether or not a business has a taxable presence in a jurisdiction through the MLI.[211] The BEPS process requires a multistep process to attribute profits to a PE that begins with a functional and factual analysis looking at the functions performed, the assets owned, the risks borne, the rights and obligations, the capital, and other funding, and the dealings of the PE. The second step requires a comparability analysis. These steps are of comparable complexity to those described in the transfer pricing example above and have similarly vague criteria for guiding their application. Once again, these violate Point 5.

Is this central planning? While it lacks the coherence planning advocates often mistakenly attribute to central plans,[212] if, as Chief Justice

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208 *See* Org. for Econ. Coop. & Dev. [OECD], *Signatories Of The Multilateral Competent Authority Agreement On The Exchange Of Country-By-Country Reports (Cbc Mcaa) And Signing Dates*, (Jan. 31, 2022), https://www.oecd.org/tax/beps/CbC-MCAA-Signatories.pdf.

209 Barry Larking, Rewriting International Taxation and Transfer Pricing: Pillar One and Pillar Two 25 (Nov. 21, 2019).

210 *See* Council Resolution (EU) No. 2006/C of 27 June 2006, 2006 O.J. (C 176) 1, 2, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:42006X0728(01)&from=EN.

211 As of April 2019, 39 of the 87 jurisdictions which had adopted the MLI by that point had adopted Article 12 (restricting commissionaire arrangements); 53 had adopted Article 13 (restricting specific activity exemptions to preparatory or auxiliary activities); 83 had adopted Article 13(4) (adding an antifragmentation rule); and 31 had adopted Article 14 (restricting the ability to split up contracts).

212 For example, Rajiv Vohra argues:

Formally, planning in an economic context can be identified with a constrained maximization problem. The objective, whether it is simply social welfare or multiple individual utilities, is maximized subject to the resource and technological constraints. It needs to be emphasized that the planning problem is not simply one of characterizing the solution to the maximization problem but also of defining a computational procedure to obtain the solution. A planning process can be defined as an interactive procedure which, through successive approximations, finds a solution to the maximization problem.

John Marshall said, the power to tax is indeed the "power to destroy,"[213] then the new international tax order being constructed by the OECD, EU, and high tax jurisdictions is making tax authorities into planners whose approval needs to be sought for cross-border transactions unless those involved wish to risk finding that what they thought was a loan was really a sale, what they believed was a separate entity was not legally separate, etc. This is well past the on ramp and possibly moving into an express lane on the road to serfdom.

One way to understand the difference between the OECD's approach and one that does not veer onto the road to serfdom is to compare how taxpayers react to the characterization of their activities as an office, factory, place of management, or dependent agency (and so a PE) with the characterization of activities as a branch (and so a PE). As Huston and Williams describe, taxpayers resist the former group of characterizations because such characterizations are "an activity in which government agencies engage"[214] and do so via arbitrary decisions.[215] However, taxpayers do not resist characterization as a branch, which they attribute to branches being:

> creatures of taxpayers. A foreign corporation announces that, at a given place and time, it shall be present in the source jurisdiction for the purpose of doing business operating under the same trade name that it uses in its country of residence. It is said to 'open a branch.' In the process, it signals to the source jurisdiction taxing authorities that it has opted in favour of being taxed as a permanent establishment in the source jurisdiction. Given a fixed place of business, 'a certain degree of permanence, and the conduct of business through that fixed place,' a permanent establishment in the nature of a branch may be said to exist. And it exists in fact because the taxpayer has planned that it exist and has executed that plan.[216]

In Hayekian terms, the former characterizations involve the imposition of arbitrary decisions while the latter reflects the taxpayer's own plans.

How will the transformation of tax law in which the OECD is engaged be accomplished? There are three key features that distinguish the new international regime from how cross-border tax problems have been handled previously and which further advance us down the road to serfdom. First, no

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Rajiv Vohra, *Planning,* in THE NEW PALGRAVE: PROBLEMS OF THE PLANNED ECONOMY 198 (John Eatwell, Murray Milgate, & Peter Newman eds., 1990). The conglomeration of tax rules I have described can hardly be described as a constrained maximization problem but only because they are so vague and poorly specified that they would be impossible to reduce to a formal expression.

213 McCullough v. Maryland, 17 U.S. 316, 431 (1819).

214 HUSTON & WILLIAMS, *supra* note 123, at 23.

215 Huston and Williams spend considerable time in their treatise exploring these particular classes of PEs and find little clarity. For example, in discussing the term "factory" which appears in the "vast majority" of DTA definitions of a PE (as of 1983), they conclude that after a lengthy discussion of ambiguities inherent in the term that it "seems to have all but escaped definition." *Id.* 124 at 29-30.

216 *Id.* at 23. Disturbingly, the U.K. HMRC *International Tax Manual* gives what Schwarz terms "a rather crude view" of the concept of a branch: "Most people recognize a branch of a foreign business when they see one and the impression given the public is helpful in deciding whether or not a branch exists." SCHWARZ, *supra* note 8, at 230 (quoting the HMRC *International Tax Manual* INTM264090).

longer will the rules be set in negotiations between jurisdictions. Instead, a growing proportion of the world's economic activity will be taxed by rules created by unelected bureaucrats at the OECD and EU. Tax authorities, faced with the demands of processing and reviewing the mass amounts of data, will provide guidance documents on the permissible characteristics for receiving approval. These documents will provide governments with the means to encourage favored transactions. Implementing these policies will require building up "regulatory capacity;" previous EU efforts at developing such capacity have led to a bureaucracy that is "distinctly skilled and mission driven."[217] Imagining how these powers and resources will be used to shape things well beyond firms' tax bills is not hard. Further, because there is an "iterative process between models and actual tax treaties" in which "[e]xisting treaties influence models which in turn influence future treaties," the MLI process will push the global network towards the problematic vision of a few states.[218] For those not in the driver's seat, the rules of the network will be a given, and domestic law will then be shaped to fit.[219]

Second, these organizations' democratic deficits are severe, even for their own members.[220] Moreover, their efforts to extend their vision of tax policy to others relies heavily on coercion (through the threat of blacklists based on vague criteria and implemented without regard to due process). This is a new feature: coercion replacing consent, a clear violation of Point 5. While we may imagine that small jurisdictions had difficulty resisting the pressures applied by larger jurisdictions, the rules and norms of international law did constrain larger jurisdictions from bullying smaller ones to some extent. Indeed, it was the success of small jurisdictions, often ones with less than "full sovereignty," such as the Channel Islands or Britain's Overseas Territories, in navigating international law that has led the high-tax jurisdictions to seek to exert raw power to hamstring those jurisdictions as competitors.

Finally, the interpretation of treaties is being shifted away from national courts and mutual agreement procedures involving the two states involved to arbitration processes designed by the OECD. This will have profound consequences. One will be greater reliance on non-treaty materials from the OECD and UN in interpreting treaties. Both the OECD and the UN publish commentaries on their model treaties. These are extensive and change

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217 BRADFORD, *supra* note 2, at 33.

218 Richard Vann, *Writing Tax Treaty History,* in CURRENT TAX TREATY ISSUES: 50TH ANNIVERSARY OF THE INTERNATIONAL TAX GROUP, 21 (Guglielmo Maisto ed., 2020).

219 *See id.* at 23.

220 Bertil Wiman, who is generally supportive of the OECD's efforts – praising the BEPS project as being "[d]riven by an energetic Director of the OECD Centre for Tax Policy and Administration" and "made possible through the hard work of OECD officials, officials from OECD Member countries and other interested parties" – nonetheless cautions that "One can assume that very few of them, if any at all, were elected members of the relevant legislative bodies in the countries concerned. This raises issues as to who were in the driver's seat with respect to the process as a whole" as well as some constitutional issues in some countries. Wiman, *supra* note 181, at 157.

frequently. For example, the OECD commentary expanded from 500 to 650 pages and the UN commentary from 500 to 800 pages to address the BEPS-related changes to the models.[221] National courts – correctly from the point of view of the rule of law – often resist the use of commentary text issued after a treaty is signed to interpret a treaty.[222] Disturbingly, Schwarz notes that "the Commentary has taken on a new role as a vehicle for attempting shifts in treaty policy. Drafters of the Commentary are frequently officials in tax administration with policy considerations in mind rather than seeking further clarity or elaboration as an interpretative function."[223] The arbitrators will be less likely to do so. Enabling the OECD and UN to retroactively change the meaning of a treaty through recognition of post-treaty commentaries as authority in interpreting a treaty or MLI provision will further erode the rule of law.[224]

The combination of changes in international tax regimes will induce behaviour changes among firms. Transactions and business structures will need to pass muster with tax authorities in all jurisdictions in which any of the activities occur. The high cost of uncertainty will push firms to pre-negotiate deals to ensure they avoid double taxation, a violation of Point 5. The cost of gathering the relevant data will be high, and redesigning transactions or entities discouraged. Financial innovation will be reduced. Tax authorities will amass data on the details of firm structures and strategies; international transactions will require the submission of massive data files covering a wide range of information. Firms will adapt to tax authorities' preferences to gain approval of transactions and structures. Thus, over time, the combined impact of the measures sketched above will push firms into a

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221 *See* Jan J.P. de Goede, 2017 Update to the OECD and UN Model Tax Conventions, 13 (Feb. 21, 2019). Disturbingly, the comments of national governments on drafts are kept secret. *See* SCHWARZ, *supra* note 8, at 133.

222 *See* Maarten van der Weijden, *OECD Commentaries – How They Affect Interpretation of Double Tax Treaties After Adoption,* DE BRAUW BLACKSTONE WESTBROEK, (Apr. 15, 2021), https://www.debrauw.com/articles/oecd-commentaries-how-they-affect-interpretation-of-double-tax-treaties-after-adoption (noting rejection by German, Spanish, and Italian courts). Even contemporary commentary may be transformed by national courts. *See, e.g.,* CARLO GARBARINO, JUDICIAL INTERPRETATION OF TAX TREATIES: THE USE OF THE OECD COMMENTARY 12-14 (2016) (describing "hybrid" transplant of OECD commentaries by national courts).

223 SCHWARZ, *supra* note 8, at 137. A troubling example is given by Schwarz, where the Commentaries' text on permanent establishments – unamended from 1977 to 1992 – were then amended in 2000, 2003, 2005, 2008, and 2010. Despite it being clear from the OECD's own documents that 'only changes in the definition in treaties could achieve the reforms proposed by the OECD," the MLI includes "significant changes." *Id.* at 218-19. More generally, digital technology has "raised fundamental questions about whether the current physical and agency PE rules are fit for purpose in the digital economy." *Id.* at 227. Rather than calling for renegotiation of treaties on this fundamental issue, the OECD has sought to address it via BEPS Action 1. *See id.*

224 In addition, as "the MLI is the product of the BEPS project, a wealth of supplementary material is available as an aid to its interpretation," all of which Schwarz concludes is appropriate under the Vienna Convention as an aid to interpretation. *Id.* at 559.

situation where they will be seeking pre-approval from tax authorities for international transactions and their business structure.

CONCLUSION

Hayek argued in *The Road to Serfdom* that:

> Nothing distinguishes more clearly conditions in a free country from those in a country under arbitrary government than the observance in the former of the great principles known as the Rule of Law. Stripped of all technicalities, this means the government in all its actions is bound by rules fixed and announced beforehand—rules which make it possible to foresee with fair certainty how the authority will use its coercive power in given circumstances and to plan one's individual affairs on the basis of this knowledge.[225]

He further argued that:

> The distinction we have drawn before between the creation of a permanent framework of laws within which the productive activity is guided by individual decisions and the direction of economic activity by a central authority is thus really a particular case of the more general distinction between the Rule of Law and arbitrary government. Under the first the government confines itself to fixing rules determining the conditions under which the available resources may be used, leaving to the individuals the decision for what ends they are to be used. Under the second, the government directs the use of the means of production to particular ends.[226]

The new world of international tax is the opposite of governments "fixing rules." It becomes a world in which governments are *required* by the international infrastructure of the MLI, BEPS, etc., to make up rules *ex post.*[227] *After* parties enter into transactions and *after* businesses create entities through legal procedures set out by governments, these initiatives will enable those same governments will decide what the tax consequences of those actions are without being limited by their own rules governing establishing entities or transactions. This ever-increasing erosion of the rule of law is driven in part by many governments' refusals to recognize that the complexity of tax law itself is a significant cause of tax avoidance:

> [A]ny differential treatment of two related economic activities gives rise to an opportunity for avoiding, and therefore, opportunities for avoidance are naturally a function of complexity in the tax code. A natural way of reducing avoidance opportunities is therefore a simplification

225 HAYEK, ROAD, *supra* note 1, at 72.

226 *Id.* at 73.

227 A particularly disturbing example concerns the MLI's provision for handling dual residence issues. As Schwarz notes, its approach is unsatisfactory because taxpayers are unable to self-assess their status, there is no obligation on the states involved to actually resolve the issue, and there "are no criteria specified to provide guidelines forany possible agreement." SCHWARZ, *supra* note 8, at 207. As he concludes, this "is an invitation to arbitrary and intransigent behaviour, compounded by the secrecy of the process, which even if on the part of one contracting state can have profound consequences and no remedy for the taxpayer." *Id.* at 207-08.

> of the tax code. To reduce complexity, such a simplification must involve reducing the number of special tax treatments. Since special tax treatment most often takes the form of tax preferences (deductions, credits, and exclusions from income), the corresponding expansion of the tax base allows for reduced rates and may have a side-effect of further reducing opportunities to avoid taxes.[228]

In its 1955 report, the U.K. Royal Commission on the Taxation of Profits and Income cautioned that:

> The tax law is already complicated and elaborate. It merits this description not merely because of the varieties of circumstances and condition in which it is applied but also because of the refined distinctions that have been grafted on to what was originally a simple structure. Yet many of the adjustments which we were invited to consider could only be made by the addition of yet another set of new complications. We had continually to remind ourselves that even in a time of high taxation there is a limit beyond which the refinements of a tax system cannot be allowed to go; otherwise it would be in danger of drifting altogether out of sight of two principles that ought to guide it, that it should be simple and that it should be intelligible.[229]

The OECD and the EU have sacrificed these important principles in their desperate pursuit of revenue and control over American technology companies.[230]

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228 Wojciech Kopczuk, *Tax simplification and tax compliance: An economic perspective,* in BRIDGING THE TAX GAP: ADDRESSING THE CRISIS IN FEDERAL TAX ADMINISTRATION 118 (M.B. Sawicky ed., 2005). Former U.K. Chancellor of the Exchequer Dennis Healey noted this problem in 1974, when he said "The more powerful the armoury of the Revenue becomes and the more it seems to be directed towards 'squeezing the rich until the pips squeak' than to exacting the necessary contribution for the state, the more will the tax-payer be tempted to feel himself morally entitled to redress the balance by means which his lawyer cannot condone." CHAMBOST, *supra* note 88, at 24. Tax law in general has a problem with the rule of law because of its inherent arbitrariness. For example, Donald Morris argues that "private letter rulings," which may not be cited or used as precedent, "represent an administrative workaround in response to the problem of Congress's own creation: the Code's complexity", may violate the rule of law because they result in unequal treatment of taxpayers. MORRIS, *supra* note 151, at 126-128.

229 Royal Commission, *supra* note 35, at 5.

230 *See, e.g,* Silvia Amaro, *Tech giants are the 'winners' of the coronavirus crisis and should pay more tax, Europe official says,* CNBC (Sept. 5, 2020), https://www.cnbc.com/2020/09/05/big-tech-needs-to-pay-more-tax-eus-gentiloni-says.html. The European desire to leave no dollar (in particular) untaxed is problematic. Philip Baker notes that:

> it cannot be a valid basis for claiming that tax jurisdiction, or claiming a form of nexus that would otherwise be inadequate, that particular income (or supplies or transactions or inheritances etc.) would otherwise escape taxation. In the case of income having its source in a state and derived by a resident of that state, it is not unacceptable double non-taxation if that state chooses not to tax that income: the fact that the income is not subject to tax is not a warrant for any other state to make an (otherwise inadequate) claim to taxation. Double non-taxation is not like piracy or genocide: it does not give rise to some form of universal jurisdiction permitting any state that has direct or indirect access to the taxpayer to impose taxation.

Philip Baker, *Some Thoughts on Jurisdiction and Nexus,* in CURRENT TAX TREATY ISSUES: 50TH ANNIVERSARY OF THE INTERNATIONAL TAX GROUP, 463 (Guglielmo Maisto ed. 2020). Schwarz notes critically that the U.K. HMRC does not appear to accept this interpretation, pointing out that "'the

Foreshadowing this brave new world, in 2013, then-U.K. Prime Minister David Cameron demanded that foreign businesses pay their "fair share" of U.K. taxes no matter whether their current tax payments were "within the law." In response, Starbucks made substantial payments above its legal obligations to the U.K. government.[231] It is hard to imagine a clearer example of the lack of the rule of law than the chief executive of a jurisdiction announcing that being "within the law" was irrelevant to whether a business had paid its "fair share" of taxes. Cameron is not alone. Getting on the road to serfdom? We're sprinting down it.

There are potential remedies available. In the "take the foot off the accelerator" category, the United States (which has – as of this writing – not adopted the BEPS framework or signed on to the MLI, perhaps because it accurately assesses these as measures primarily aimed at U.S. technology companies such as Alphabet, Amazon, and Apple),[232] is hindering the spread of these policies. International financial centers affiliated with metropolitan powers, such as Bermuda, BVI, Cayman, Gibraltar, Guernsey, Hong Kong, the Isle of Man, Jersey, and Labuan, could lobby their metropolitan partner to stand up for their interests. Independent IFCs, such as the Bahamas, Barbados, Cyprus, Liechtenstein, Malta, Singapore, and Switzerland, can demand seats at the table in further negotiations over such measures. As noted earlier, these jurisdictions have had some success in the past in blocking some of the more egregious OECD initiatives. Unfortunately, merely decelerating will not be enough to alter our trajectory on the road to serfdom.

More radical measures include major powers withdrawing from the OECD or pushing to severely prune its role in tax issues.[233] Shifting

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objective is not to ensure that tax is paid in neither State' as the exhaustive explanation of object and purpose of treaties has become a mantra of HMRC who contend that the fact of non-taxation in the other contracting state should imply taxation in the UK." Schwarz, *supra* note 8, at 127.

231 *See* Christopher Hope, *David Cameron: Tax avoiding foreign firms like Starbucks and Amazon lack 'moral scruples',* THE TELEGRAPH, (Jan. 4, 2013), http://www.telegra ph.co.uk/news/politics/david-cameron/9779983/David-Cameron-Tax- avoidingforeign-firms-like-Starbucks-and-Amazon-lack-moral-scruples.html. The arbitrariness of these "negotiations" is highlighted by a former offshore advisor's comment on the U.K.'s extraction of additional revenue from Amazon: "The UK has attracted Amazon's business because of the treaty. Now, because Amazon have been very successful, the UK seem to have decided that they would prefer not to apply the rules and just come up with a figure of money that they would like to receive instead." HARRY MORGAN, SUNNY PLACES FOR SHADY PEOPLE: FEAR AND LOATHING OFFSHORE – A MEMOIR 199 (2018). Morgan notes that the proper solution, if the government feels more tax is needed from businesses, is to "change the rules, but they must be applied across the board and not just arbitrarily aimed at multinationals who are successful. The rules would have to be agreed by the treaty partners. They cannot be changed unilaterally to the disadvantage of the treaty partner without risking retaliation, which might penalize UK companies doing business in the US." *Id.* at 200.

232 *See* BRADFORD, *supra* note 2, at 141 (noting EU resentment of these firms plays a role in its efforts to regulate them generally).

233 *See* Dan Mitchell, *Defend the market economy, defund the OECD,* CAYMAN COMPASS (June 19, 2018), https://www.caymancompass.com/2018/06/19/mitchell-defend-the-market-economy-defund-the-oecd/.

international discussion of tax issues to a more inclusive forum – as is done for insurance (over 200 members in the International Association of Insurance Supervisors) and securities (the International Organization of Securities Commissions has 231 members) would improve the process. The brief interest in creating "Singapore on the Thames" in the post-Brexit U.K. might have provoked some steps like this, but that strategy seems to have been abandoned.[234] A future U.S. administration might figure out that many of these measures are aimed at U.S. economic dominance and take steps to dismantle the most egregious, although that seems unlikely in the near term.[235] In any event, the first step is recognizing that we are on the wrong road.

We should not be without hope. Nigel Farage successfully and almost single-handedly changed British public opinion about the European Union by regularly denouncing EU policies on the floor of the European Parliament in short, clever speeches which he circulated through social media.[236] Admittedly, demanding the abolition of the BEPS framework does not have quite the same populist ring to it ("Hey ho, BEPS has got to go"?), but Farage's success was not due only to the comparatively simple message he offered. The arrogance of the OECD and EU bureaucracies provides a tempting target even if the details of tax policy do not. And if the French are willing to take to the streets over post-Brexit fishing rights in British waters and the equalization of diesel and gasoline taxes, even efforts as technical and tedious as BEPS and the MLI may eventually provoke a reaction.

Hayek's insight that the journey down the road to serfdom involves the progressive destruction of the rule of law means that this process will inevitably clash with what people do believe are fundamental liberties. It may be that it does so by so slowing eroding those liberties that – like lobsters in water slowing heating to a boil[237] – we do not notice until too late. Tax-related protests have yielded significant policy changes in the past, such as

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234 Samantha Subramanian, *The dream to turn Britain into Singapore-on-the-Thames is dead,* QUARTZ (May 26, 2021), https://qz.com/2013296/how-covid-19-killed-the-uks-dream-to-become-singapore-on-thames/.

235 As Bradford notes, the EU has leveraged market access to extend its regulatory hegemony. *See* BRADFORD, *supra* note 2, at 26. The United States has similar potential clout but generally has failed to take advantage of it in the same way as the EU has its.

236 *See* Ahmed Sokrno & Abdel-Hafiz Hussein, *Rhetorical Devices in Political Speeches: Nigel Farage's Speeches at the European Parliament,* 7 TECHNIUM SOCIAL SCIENCES J. 107 (2020).

237 Ironically, lobsters may be better protected from the slow increase in temperature in cooking pots, unlike taxpayers from slow erosion of liberties, by proposed legislation in the U.K. which would bar cooking live lobsters. *See* Helena Horton, *Boiling of live lobsters could be banned in the UK under proposed legislation,* THE GUARDIAN (19 Nov. 2021), https://www.theguardian.com/world/2021/nov/19/boiling-of-live-lobsters-could-be-banned-in-uk-under-proposed-legislation.

Britons' protesting the Thatcher Government's poll tax in 1990.[238] But time is running out.

238 *See* Joseph D. Reid, Jr., *Tax Revolts in Historical Perspective*, 32 NATIONAL TAX J. 67 (1979); Paul Bagguley, *Protest, Poverty, and Power: A Case Study of the Anti-Poll Tax Movement,* 43 SOCIOLOGICAL REV. 693 (1995).

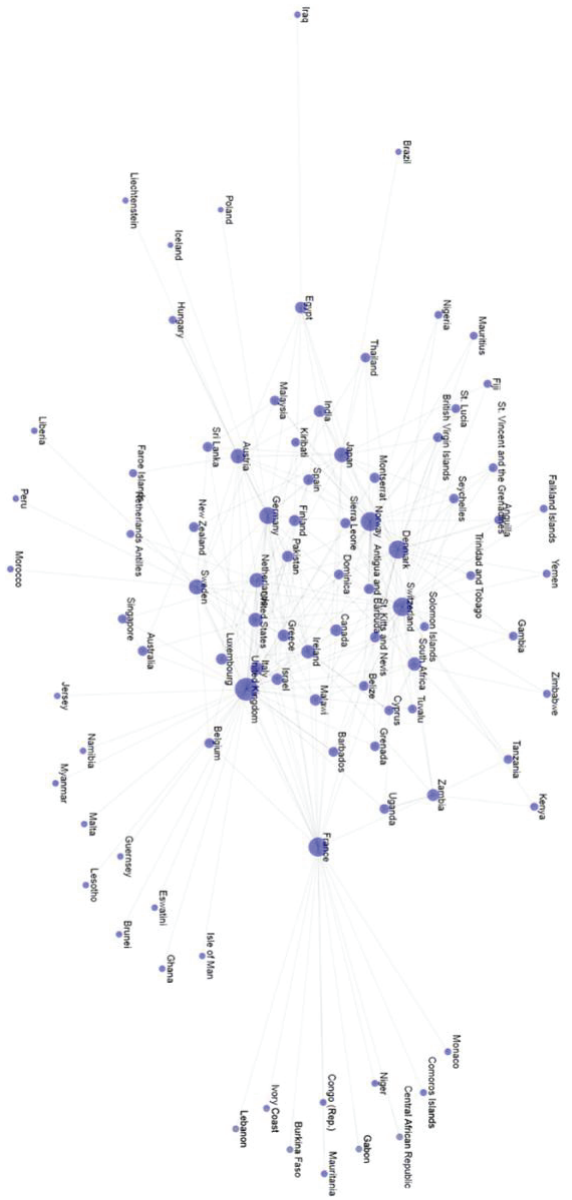

Figure 1 – Global DTA Network in 1970

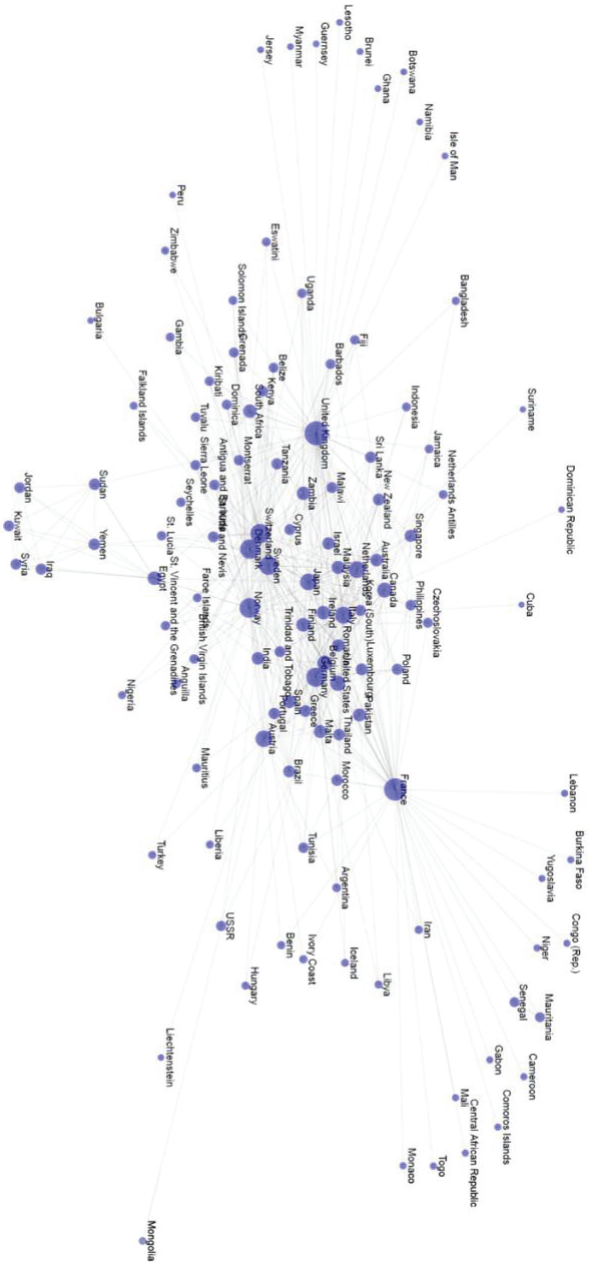

FIGURE 2 – GLOBAL DTA NETWORK IN 1980

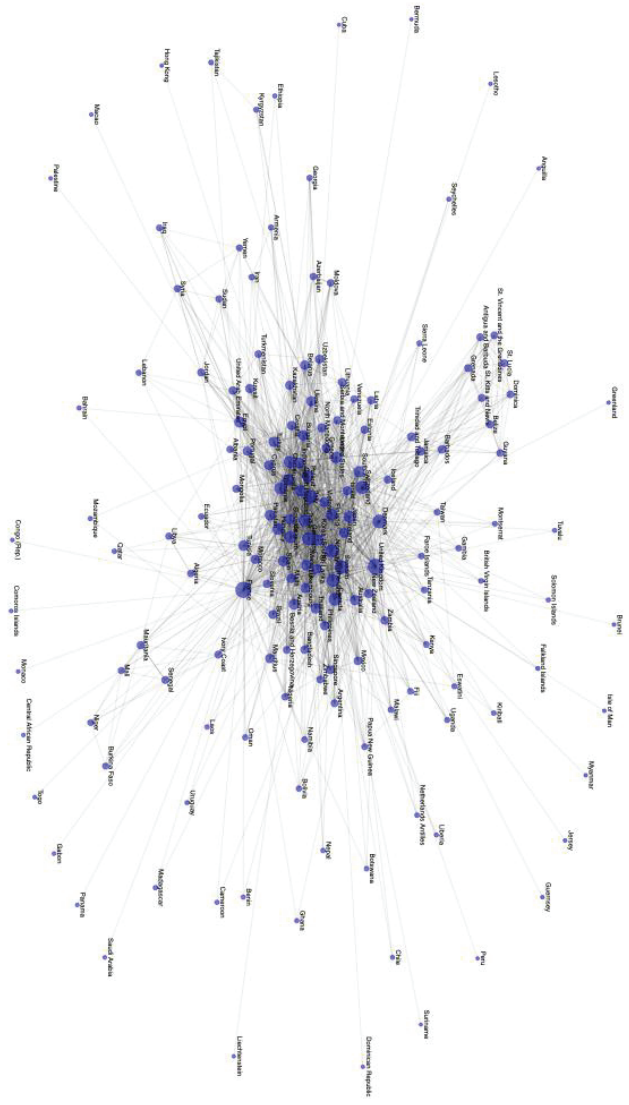

FIGURE 3 – GLOBAL DTA NETWORK IN 2000

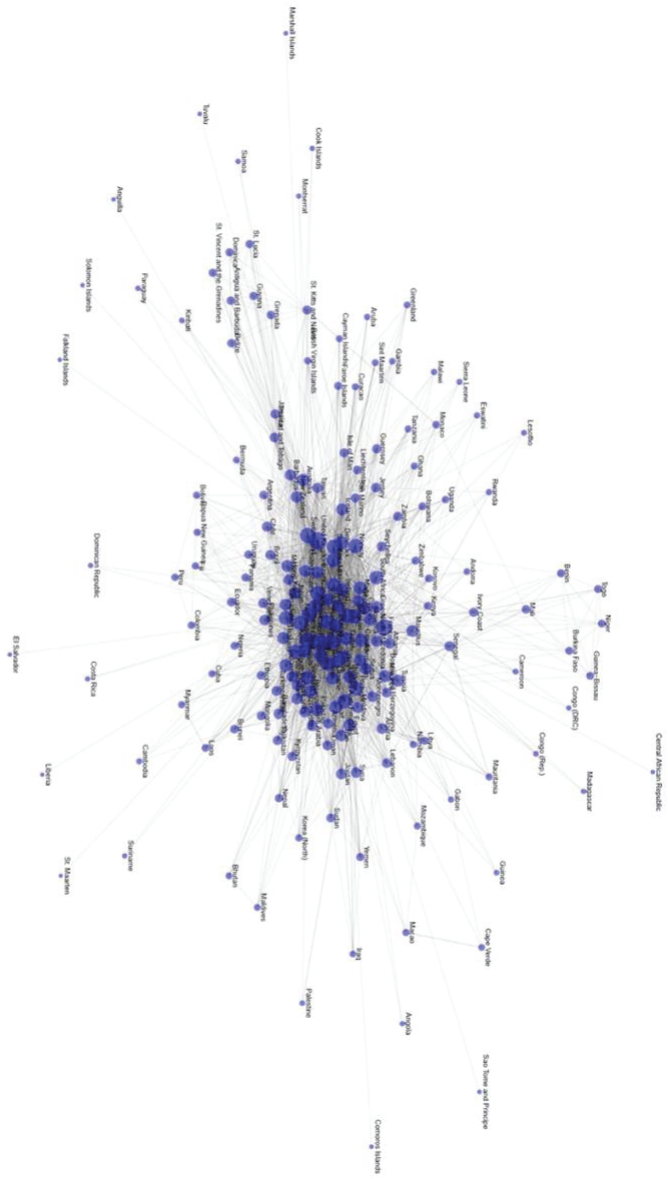

FIGURE 4 – GLOBAL DTA NETWORK IN 2020

A "GOOD" INDUSTRIAL POLICY IS IMPOSSIBLE: WITH AN APPLICATION TO AB5 AND CONTRACTORS

Michael Munger
Duke University

INTRODUCTION

Industrial "policy" in capitalism is automatic and self-correcting, animated by the logic of profit and loss.[1] But the "market failure"[2] rationale for government direction of resources and provision of goods and services rests on the claim that the profit test cannot provide public goods, discipline natural monopolies, solve problems of asymmetric information, or internalize social externalities. Progressive political operatives would go much further, arguing that the direction of the economy requires a "hand on the tiller," with the conscious and intentional direction of investment to ensure that growth occurs in the areas of maximum social benefit and efficiency.[3]

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[1] Marshall and Marshall is the earliest, clearest mathematically complete argument for this position. In a competitive system, profits should be transitory, but the signal given by profits (or losses, which should also be transitory) is essential for the system to function effectively. *See* MARY P. MARSHALL AND ALFRED MARSHALL, THE ECONOMICS OF INDUSTRY, (MacMillan & Co. ed. 1881). Mises argued not only that profit and loss was the best industrial policy, but that no other politically selected "policy" was even feasible. *See* LUDWIG VON MISES, *Profit and Loss* in PLANNING FOR FREEDOM (Libertarian Press ed. 1952); *see also* Walter Block et al., *No Policy is Good Policy: A Radical Proposal for U.S. Industrial Policy*, 17 GLENDALE LAW REV. 47 (1999). Smith and Cannan sought to give moral authorization to profit, and commercial society, precisely so the system could carry out this function. *See* ADAM SMITH AND EDWIN CANNAN, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS (Ixia Press ed. 2019) (1776).

[2] For foundations, s*ee generally* A.C. PIGOU, THE ECONOMICS OF WELFARE 331 (4th ed. 1932); Francis M. Bator, *The Anatomy of a Market Failure*, 72 THE QUARTERLY J. ECON. 351, 357 (1958). For modern syntheses, *see* A. W. Brian Simpson, *Coase v. Pigou Reexamined*, 25 J. LEGAL STUDIES 53 (1996); J. O. LEDYARD, *Market Failure* in THE NEW PALGRAVE DICTIONARY OF ECONOMICS (S. N. Durlauf & L. E. Blume eds., 2nd ed. 2008); Roger E. Backhouse & Steven G. Medema, *Economists and the Analysis of Government Failure: Fallacies in the Chicago and Virginia Interpretations of Cambridge Welfare Economics*, 36 CAMBRIDGE J. ECON. 981, 982 (2012) (quoting James M. Buchanan, *Politics, Policy, and the Pigovian Margins*, 29 ECONOMICA 17 (1962)); Iain Marciano and Steven G. Medema, *Market Failure in Context*, 47 HISTORY OF POLITICAL ECONOMY 1 (2015).

[3] Describing in detail the enthusiasm for industrial plans in the Roosevelt administration. *See* IRA C. MAGAZINER AND ROBERT B. REICH, MINDING AMERICA'S BUSINESS (Harcourt, Brace, and Jovanovic ed. 1982); *see generally* A. BADGER, FDR: THE FIRST HUNDRED DAYS, (Hill and Wang ed. 2008); AMITY SHLAES, THE FORGOTTEN MAN: A NEW HISTORY OF THE GREAT DEPRESSION, (Harper ed. 2008).

The "public choice"[4] counterargument to claims that market failure and social suboptimality are sufficient conditions for state action were spelled out in the 1960s; the argument was later incorporated into and elaborated on by the "law and economics" tradition.[5] The counterargument centers on two problems:

- *Information*—knowledge of the relative scarcity of resources is not possessed by anyone, and without prices, such knowledge literally does not even exist.
- *Incentives*—public officials act on their own goals, and according to their own purposes, rather than automatically acting in the public interest, even if the public interest were known by all.

More simply, the so-called "public choice objection" argues that while emergent market orders organized by the profit test fail to implement conceptually ideal social outcomes, the alternative of top-down planned industrial policies cannot reliably do better and may do much worse, either because (1) government officials cannot access the dispersed knowledge that would be required, or (2) because the incentives and collective action costs that face state actors prevent the implementation of the ideal policy if it could be identified.[6]

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[4] Originally, the critique of market failures focused on public goods and externalities. *See* PETER J. BOETTKE AND JAMES M. BUCHANAN, *The Rebirth of Political Economy* in ECONOMICS AND ITS DISCONTENTS: TWENTIETH CENTURY DISSENTING ECONOMISTS 21-39 (Richard P.F. Holt, Steven Pressman ed. 1998); R.H. Coase, *The Problem of Social Cost*, 3 J. LAW & ECON. 1 (1960); R.A. Epstein, *Law and Economics: Its Glorious Past and Cloudy Future*, 64 THE UNIV. OF CHICAGO L. REV. 1167 (1997). More recently, the process of state implementation itself has been highlighted. *E.g.*, CLIFFORD WINSTON, MARKET FAILURE VS. GOVERNMENT FAILURE, (Brookings Institution ed. 2006); William R. Keech & Michael C. Munger, *The Anatomy of Government Failure*, 164 PUBLIC CHOICE 1 (2015). For a recent review of "behavioral public choice" *see* W. Kip Viscusi and Ted Gayer, *Behavioral Public Choice: The Behavioral Paradox of Government Policy*, 38 HARV. J.L. & PUB. POL'Y 973 (2015).

[5] *See* DANIEL FARBER AND PHILIP FRICKEY, LAW AND PUBLIC CHOICE, (University of Chicago Press ed. 1991). For the origins of law and economics in industrial planning, *see* HENRY G. MANNE, INSIDER TRADING AND THE STOCK MARKET (Free Press ed. 1966).

[6] George Stigler summarized the argument this way:

For some, market failures serve as a rationale for public intervention. However, the fact that self-interested market behavior does not always produce felicitous social consequences is not sufficient reason to draw this conclusion. It is necessary to assess public performance under comparable conditions, and hence to analyze self-interested political behavior in the institutional structures of the public sector. Our approach emphasizes this institutional structure--warts and all--and thereby provides specific cautionary warnings about optimistic reliance on political institutions to improve upon market performance. We may tell the society to jump out of the market frying pan, but we have no basis for predicting whether it will land in the fire or a luxurious bed.

GEORGE STIGLER, *The Economists' Traditional Theory of the Economic Functions of the State* in THE CITIZEN AND THE STATE: ESSAYS ON REGULATION 103 (University of Chicago Press ed. 1975). Francis Fukuyama noted that:

An industrial policy worked in Taiwan only because the state was able to shield its planning technocrats from political pressures so that they could reinforce the market and make decisions according to criteria of efficiency—in other words, worked because Taiwan was not governed democratically. An American

Historically, both Public Choice and Law and Economics critiques of industrial policies have focused on the first category of objection, that state officials and bureaucrats have no access to the dispersed and unorganized knowledge that would be required to make accurate assessments of "winners" and "losers," directing resources toward the good industries, and then politely but firmly ushering the soon-to-be (in the minds of experts) obsolescent industries off the stage.[7]

Surprisingly, or so I will argue in this paper, the main internal concern of the advocates for interventionist industrial policy has been a forthright admission that political incentives in a democracy make "good" industrial policy difficult to implement or maintain. The key feature, a necessary condition for success, *according to the advocates themselves*, is that *industrial plans be insulated from democratic and political influences, precisely because* industrial planners openly concede that *the Public Choice objections are correct*.[8] A close reading of the interventionist literature reveals that the incentive problem is the key obstacle standing in the way of successful industrial policy because "helpful" government action will be distorted and coopted by political power, and the public interest will be given short shrift.[9] My method is to grant, for the sake of argument, the "perfect information" assumption made by the dirigistes to focus on the incentive problem.

Analytically, there are three categories of industrial policy:

(1) The pattern of investment and economic growth resulting from "the profit and loss test," which is simply the "industrial plan" of unfettered capitalism

(2) The pattern of investment and economic growth resulting from "political capitalism," or cronyism, the result of allowing powerful political interests and rent-seeking to direct taxes and subsidies toward industries

(3) The pattern of investment and economic growth envisioned by advocates of a socially optimal industrial plan, assuming an omniscient despot

For the sake of argument, I grant that the benevolent despot solution to the "knowledge problem;" all participants actually know the three outcomes

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industrial policy is much less likely to improve its economic competitiveness, precisely because America is more democratic than Taiwan or the Asian NIEs. The planning process would quickly fall prey to pressures from Congress either to protect inefficient industries or to promote ones favored by special interests.

FRANCIS FUKUYAMA, THE END OF HISTORY AND THE LAST MAN 125 (Free Press ed. 1992).

[7] *See* DON LAVOIE, NATIONAL ECONOMIC PLANNING: WHAT IS LEFT? 123 (Mercatus Center ed. 2016).

[8] PIGOU, *supra* note 2, at 331.

[9] Dani Rodrik, *Green Industrial Policy*, 30 OXFORD REV. ECON. POL'Y 469, 472 (2014).

(profit test, political outcomes, optimal plan) and the path that leads to them.[10] The point is not that this is true (it isn't), but rather that even granting an absurd premise is insufficient to rescue comprehensive industrial plans from the ash heap of policy history, at least in a liberal democracy.[11]

My conclusion is that, in a democracy, a "good" (i.e., socially optimal) industrial policy is impossible, even supposing (counterfactually) that planners had all the information required to identify the appropriate policies. The form of the argument, then, is to accept the premise of the proponents of industrial policies—good policies fail the political viability test—and use it to show that no good industrial policy can be produced or sustained in a democracy. The problem is government failure, not market failure.[12]

The paper's outline is as follows. Section I is a review of the arguments for industrial policy and "public choice" information and incentive objections to politically-selected activist intervention in the economy. Section II is a more technical argument for why "good" industrial policy is impossible. Section III considers the case of the management of "contractors" and "employees" in California under Assembly Bill 5. The final section offers some conclusions.

I. THE PROFIT TEST AND POLITICAL INDUSTRIAL POLICY

1. Overview of the Naïve Argument for Industrial Policy

An "industrial policy" is the set of government actions that encourage or directly subsidize the expansion of some economic sectors.[13] The motivation of such state actions can range from a narrow focus on "balancing" economic growth to a broader focus on the economy-wide expansion (in the case of general education subsidies) to an even broader rejiggering of market outcomes to achieve social objectives of environmental protection, empowering labor, or redistributing wealth to achieve notions of social justice.[14]

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[10] Boettke, *supra* note 4, at 21-39 (describing this as the "thermostat" model of public policy, where all is required is to use experts to select the optimal level of budget or policy—in this case, industrial policy of taxes, subsidies, and regulations to select winners and losers—and then enter the setting into a machine, where it will be implemented perfectly and without cost).

[11] This does raise the question of whether an industrial plan might be viable in an a relatively small, highly authoritarian state such as Singapore. That is beyond the scope of this paper, though s*ee* Denis Binder, *The Deceptive Allure of Singapore's Urban Planning to Urban Planners in America*, 3 J. COMPAR. URBAN L. & POL'Y 155 (2019).

[12] *See* William R. Keech & Michael C. Munger, *The Anatomy of Government Failure*, 164 PUBLIC CHOICE 1, 2 (2015).

[13] Robert B. Reich, *Why the U.S. Needs an Industrial Policy*, HARV. BUS. REV., Jan.-Feb. 1982, at 74, https://hbr.org/1982/01/why-the-us-needs-an-industrial-policy.

[14] Dani Rodrik, *Industrial Policy: Don't Ask Why, Ask How*, 1 MIDDLE E. DEV. J. 1, 2–21 (2014).

The benchmark "industrial policy," in a market system at least, is the *profit test*.[15] If an entrepreneur negotiates voluntary contracts with owners of materials, capital, and labor, each of those input suppliers is better off as a result of the exchange. If the entrepreneur sells the resulting product in voluntary exchanges with buyers of the product, then each of those consumers is better off as a result of the exchange. The sum of those benefits—seller surplus to suppliers and consumer surplus to buyers of the product—is the social benefit resulting from the entrepreneurial mediation of the firm. Without that firm, each seller would be worse off because they would have sold to the next best buyer; each consumer would be worse off because they would have paid more or bought something else that was not as desirable.

But the entrepreneur requires a signal that gives information about whether the activity is valuable and gives an incentive that it should be abandoned, cut back, continued, or expanded. The signals of profit and loss provide both of these data in a way that is decentralized and requires no centralized management.[16] If the sum of the revenues from consumers exceeds the sum of the costs of the contracts paid out to suppliers, this is a profit, and the activity should be continued or expanded; if not, that's a loss, and the activity should be cut back or suspended entirely. Without externalities or artificial market power, non-negative profits are a necessary and sufficient condition for the social justification of the activity. The correct industrial policy is then simply ensuring conditions in which entrepreneurial intermediation is encouraged: a stable money supply, predictable and consistent tax and regulatory policies, and a judicial system for defining, exchanging, and adjudicating disputes over property rights.

In fairness, the caveats in the "correct industrial policy" story above are not innocuous. Externalities can render profits neither *necessary* (in the positive case) nor *sufficient* (in the negative case) to indicate that an activity is socially desirable. Market power can create artificial protections of profits from entry or competition, implying that the social impact is not positive but may be a (possibly unjust) transfer from suppliers or consumers to firm owners. It is just this kind of "yes, but…" argument that is the foundation of the "market failure" approach to justifying an active industrial policy that substantially changes the outcomes observed under the profit test alone.[17] Markets are not perfect, the argument goes, so the state should act. As has been pointed out in the public choice response, this is not a logically coherent

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15 Mises, *supra* note 1, at 7.

16 There are defenders of markets who base the argument for capitalism on the natural property rights of the firm owners, claiming that the ownership of productive resources is a per se justification for protection of profits from state action or interference. That argument is interesting, but it has been explored elsewhere. For my purposes, the social welfare claim is sufficient; I take no position here on the stronger moral claim.

17 Bator, *supra* note 2; Ledyard, *supra* note 2.

claim because the imperfection of markets does not imply the perfection, or even the relative superiority, of the state.[18]

In practical terms, the political pressure for an activist industrial policy goes far beyond market failures. Progressive activists think of industrial policy as a cure for the "failure" of the market to deliver the entire vector of outcomes that match the desires of political elites in every dimension. It is easy to see why the active direction of resources is seductive to political elites because observed economic outcomes could never be "ideal." It is tempting to want a little more of this and less of that; further, "more of everything, for everyone!" is hard to oppose. Of course, the record of industrial policies in actually delivering "more of everything, for everyone!" is not very hopeful, but promises and ostensible intent are powerful political tools. After all, if it didn't work, the only explanation is that we didn't spend enough! And even if the results are disappointing in this instance, doing something is still better than not trying at all, isn't it?

There is an opposing view; rather, there are two opposing views that are not mutually exclusive: the *information* objection and the *incentives* objection.[19] The information objection holds that the state, or experts appointed by the state, lack detailed information about resources, and local workings of particular production processes, to be able to select an industrial policy that would improve over the profit test. The strong form of this claim holds that no "better" allocation of resources exists, and anything done by the state that differs from the allocation chosen by the market system will be socially inferior. But it is not necessary to take a strong position for this argument to work; the fact that state actors are making top-down choices from a centralized vantage point ensures that "good" industrial policies—policies that improve on the profit test--are a set of measure zero, and the chances of stumbling onto an improvement are negligible.

The incentive objection does not deny the importance of the information problem but extends it. Suppose that state-appointed experts *could* identify an allocation of investments and subsidies that would improve on the profit test and implement that policy instantaneously. Then the political incentives would cause the replacement of that optimal policy in favor of another allocation that benefits those in power. In technical terms, the "win set" of the optimal policy is always non-empty, and in the real-world political incentives will prevent the implementation of the optimal policy in the first place.

It is tempting, particularly for those innocent of economic knowledge, to think that the argument for an active, directive "industrial policy" is straightforward: why not take what nature gives us and improve on it? We'll get our smartest, best people and make things better in short order. In 1982, Robert Reich summarized the argument in terms so plain that it would seem

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[18] Keech, *supra* note 12.

[19] Michael Munger*, 30 Years After the Nobel: James Buchanan's Political Philosophy*." REV OF AUSTRIAN ECON. 31, 6 (2018).

any rational person would agree. U.S. industrial policy should combine "supply side" measures to raise the level of investment and "investment policies" in infrastructure to raise the return on investment, to "smooth" employment losses in declining industries, and to subsidize the vigorous expansion of industries that would help the economy grow. Industrial policy "by balancing regional growth and by assisting workers forced to retrain or relocate, seeks to defuse the resistance to economic change likely to come from those who would be the hardest hit." [20]

Of course, the rationale behind the "profit test" for expansion and contraction is that profit and loss give accurate and granular feedback for each separate activity in the economy. The argument for *laissez-faire* is the fast, useful, and decentralized information about the *social* value of what is being created, and what resources would be better employed elsewhere. Joseph Schumpeter famously gave a more dynamic description of the animated profit test.

The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism.[21]

Industrial policy is conscious and explicitly intended to deny the essential fact about capitalism.[22] If anything, the idea of industrial policy, from mercantilism in the 18th century to "balance through finance" in the late 19th and early 20th centuries, predates the clear articulation of the profit test.

This story is told vividly by Glock.[23] After the Panic and Depression of 1873-1878, an energetic "new movement declared it the government's duty to keep all sectors of the economy in a grand balance with one another."[24] From the profit test/creative destruction perspective, the expansion of productivity and mechanization in farming meant that too much land, and far too much labor, was being devoted to an industry that had "mutated."[25] Resources *should* have been moving out of farming. In some countries,

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20 Robert B. Reich, *Why the U.S. Needs an Industrial Policy*, HARV. BUS. REV., Jan. 1982, at 74.

21 Joseph A. Schumpeter, Capitalism, Socialism & Democracy, 83 (George Allen & Unwin 3rd ed., 1981) (1942).

22 With thanks to Thomas Sowell, who said, "The first lesson of economics is scarcity: There is never enough of anything to satisfy all those who want it. The first lesson of politics is to disregard the first lesson of economics." Thomas Sowell, *Is Reality Optional? And Other Essays*, HOOVER INST. (Nov. 1, 1993), https://www.hoover.org/research/reality-optional-and-other-essays. If creative destruction is the essential fact about capitalism, then industrial policy denies the essential fact about capitalism.

23 Judge Earl Glock, The Dead Pledge: The Origins of the Mortgage Market and Federal Bailouts, 1913-1939 (Devin Fergus, Louis Hyman, Bethany Moreton, and Julia Ott eds., 2021).

24 *Id.* at 1.

25 R.T. McMillan, *Effects of Mechanization on American Agriculture*, 70 SCIENTIFIC MONTHLY 23, 26 (1949).

particularly Stalinist Russia, this was achieved by massive programs of resettlement and starvation, wreaking enormous destruction and suffering.[26]

The same process of creative destruction in the U.S. was signaled by falling profits in the agricultural sector. But the industrial policy of the Progressive reformers, beginning in the 1890s and continuing to . . . well, the present day, was to "balance" the sectors by subsidizing agriculture and implicitly taxing the more productive sectors to raise funds.[27] The idea of using subsidies and government investments to assist under-performing sectors directly contradicts the logic of the profit test, but it has been a foundational trope of Progressive industrial policy.

But modern Progressive industrial policy is seen by its supporters as forward-looking and creative. It is not necessary for industrial policy to be perfect, after all, the politically-selected policy need only be an improvement over the status quo, where that status quo reflects market failure. It is at this point that the Public Choice counterargument can go astray, in my view, because Public Choice scholars have simply (and possibly tendentiously) reversed the burden of proof. The market failure paradigm alleges that market imperfections justify state action, but that is only true if state action improves the situation. Likewise, the Public Choice counterargument would seem to allege that any government failure justifies sticking with markets alone. Each of these two arguments is an oversimplification.[28]

The problem is that there are *three* alternatives to consider: the results produced by the profit test, the results produced by political processes in which rent-seeking is rampant, and the results produced by an expert-driven industrial plan *if that plan can be insulated from both market and political pressures*. In an earlier book, I claimed that these three broad categories—markets, politics, and experts—are the only alternative sources of legitimate authority in a liberal society.[29] Through constitutional, conventional, or other means, any liberal society divides the domain of choices into (1) individual choice or voluntary action (markets); (2) collective choice using voting or other "choosing in groups" institutions (politics); (3) technical, scientific, religious, or other top-down commands or direction (experts). My argument in that book was that in such a system of "separation of powers," policy will always be conflictual as these different authorities vie for dominance.

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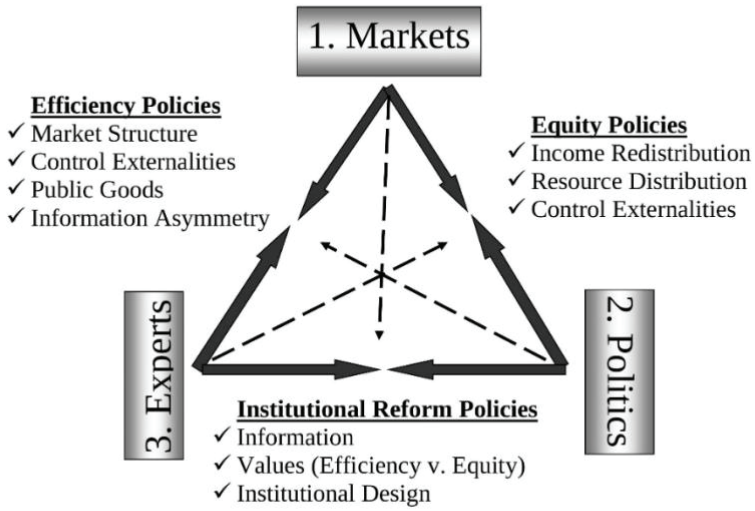
[26] ROBERT CONQUEST, THE HARVEST OF SORROW: SOVIET COLLECTIVIZATION AND THE TERROR-FAMINE. (1987).

[27] GLOCK, *supra* note 23, at 4

[28] The author thanks Murat Mungan for suggestions that helped clarify the argument in this section.

[29] The definition of legitimate is problematic, and sometimes seems circular. The use of the word in this context dates at least from Weber, who defined a state this way: "[A] state is a human community that (successfully) claims the monopoly of the *legitimate* use of physical force within a given territory." MAX WEBER, ESSAYS IN SOCIOLOGY 77 (H.H. Gerth, C. Wright Mills eds. & trans., 1946) (1921) (emphasis added)); *see generally* MICHAEL MUNGER, ANALYZING POLICY: CHOICES, CONFLICTS, AND PRACTICES (Stephen Dunn ed., 2000).

Figure 1: The Policy Conflicts Among Three Sources of Legitimate Authority



As the figure suggests, each binary "policy conflict" will also be influenced by the excluded power source. For our purposes, the key policy conflict segment—industrial policy—will be characterized by a debate between markets and experts (with politics exercising influence through budget authority and oversight by Congressional committees).[30] The "experts" could range from economics authorities, who seek to direct market structure and investment, to environmental scientists seeking to control pollution, to welfare specialists seeking to manipulate taxes and subsidies in ways that generate greater total welfare or social justice, since all of these goals (and more) have been mentioned as targets of industrial policy.

My claim is that advocates of industrial policy have set themselves a "to-do list," which goes something like this:

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[30] Gary W. Cox & Mathew D. McCubbins, *Bonding, Structure, and the Stability of Political Parties: Party Government in the House*, 19 LEG. STUDIES QUARTERLY 215, 216 (1994); Barry R. Weingast & William J. Marshall, *The Industrial organization of Congress: or, Why Legislatures, Like Firms, Are Not Organized as Markets*, 96 J. POL. ECON. 132, 144 (1988); Barry R. Weingast & Mark J. Moran, *Bureaucratic Discretion or Congressional Control? Regulatory Policymaking by the Federal Trade Commission*, 91 J. POL. ECON. 765, 770 (1983).

- Gain control of the technocratic authorities so that the "right people" head the relevant regulatory agencies
- Select the best policies to achieve a dog's breakfast of diverse social goals
- Exclude both politics and markets so that only correct-thinking technocrats have the standing to decide or even to make public statements about industrial policy.

Lest the reader dismiss my caricature as tendentious, consider a serious statement of the problem by one of its most vocal and competent advocates, the economist Dani Rodrik:

> The case against industrial policy comes in two forms. The first . . . is that governments do not have the information needed to make the right choices as to which firms or industries to support . . . The second . . . is that once governments are in the business of supporting this or that industry, they invite rent-seeking and political manipulation by well-connected firms and lobbyists. Industrial policy becomes driven by political rather than economic motives . . .
>
> I contend . . . that the first [claim] is largely irrelevant, while the second—*about political influence—can be overcome with appropriate institutional design*. Good industrial policy does not rely on the government's omniscience or ability to pick winners. Mistakes are an inevitable and necessary part of a well-designed industrial policy program; in fact, too few mistakes are a sign of underperformance.[31]

To Rodrik's credit, he correctly identifies each of the two central arguments against technocratic industrial policy: information and incentives.[32] My charter in this paper is not to consider the information claim, which has been argued at length elsewhere.[33] The question is whether the incentives problem, the problem of creating a technocratic elite with absolute power over the economy and completely free from all political influence, "can be overcome with appropriate institutional design."[34]

Progressive economists emphasize the precariousness of capitalist growth and the tendency shown by market systems toward cronyism. The "market failure" model is then deployed to justify state action, which really comes to the claim that capitalism will work better if it is planned and directed by a technocratic elite of the right background and mindset. If this technocratic elite could just be released from the strictures of democratic accountability, growth would skyrocket, poverty would disappear, and all the roads would run downhill in both directions. The problem is democracy; those who favor "good" industrial policy must somehow explain how their

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31 Rodrik, *supra* note 9, at 472 (emphasis added).

32 *Id.*

33 Bruce Caldwell, *Hayek and Socialism*, 35 J. ECON. LITERATURE 1856 (1997); Pedro Bento, *Competition as a Discovery Procedure: Schumpeter Meets Hayek in a Model of Innovation*, 6 AM. ECON. JOURNAL MACROECONOMICS 124 (2014). *See generally* Friedrich Hayek, *The Use of Knowledge in Society,* 35 AM. ECON. REV. 519 (1945).

34 Rodrik*, supra* note 9, at 472.

"experts" will be able to prevent the *third source of power—politics*—from wresting control over the process of direction.

It is always a delight for political scientists to hear economists dismiss problems of fundamental constitutional reform as a problem of "appropriate institutional design," so it is worth something to keep analysts like Rodrik around.[35] But only for amusement value. There is no "we" at all, much less a "we" who agree on appropriate institutional reforms that will elevate unaccountable technocrats to the role of dictator. Ginsburg put it this way: "[Planning agencies] would work closely with representatives of business and labor, minorities and women, consumers and environmentalists, regional and community organizations, and other groups which have a vital interest in the successful functioning of our economy."[36] As Don Lavoie asked about this view, "In other words, representatives of the very same special interests who now struggle for government favor will still do so under national planning. Why these representatives are expected to reflect the democratic will of the people any better than they do now is not explained."[37]

To be fair, it is common for advocates of industrial policy to include a throw-away line caveating their optimism that, for some reason, *this time* politics will be different. Carnoy and Shearer simply assert that it is obvious that the authority that makes and enforces plans "should be the government—our democratically elected legislature and executive."[38] But then, in what should be a whiplash-inducing turn, Carnoy and Shearer (rightly) warn that "This is one of the many dilemmas we face: how to move the government to restrict corporate power instead of aiding abetting it." [39] So the reason that industrial policy is needed is precisely that "the government is heavily influenced (if not controlled) by" economic interests. But the mechanism by which corporations are to be controlled is . . . just the political process that is producing the Pareto inferior industrial policy in the first place.

Of course, it is at least conceivable that a particular, ephemeral coalition of interests might select a "good" industrial policy at a point in time. But there is, by definition, no mechanism for locking in such a design once it is arrived at. The reason this is a problem is that there is a tension between the de facto distribution of power and rents and the de jure selection of institutions to try to "correct" that distribution. As Cox, North, and Weingast point out, there is no means of making credible commitments to secure the rents now controlled by the existing configurations of political elites.[40] Cox and his co-authors advance what they call the "proportionality theorem,"

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35 *Id.*

36 WOODROW GINSBURG, AN ECONOMIC RECOVERY PLAN 8 (Americans for Democratic Action ed. 1982).

37 Lavoie, *supra* note 7.

38 Martin Carnoy & Derek Shearer, Economic Democracy: The Challenge of the 1980s 5 (5th ed. 1980).

39 *Id.*

40 Gary W. Cox, Douglass C. North & Barry R. Weingast, *The Violence Trap: A Political-Economic Approach to the Problems of Development*, 34 J. OF PUB. FIN.& PUB. CHOICE 3, 9 (2019).

which holds that institutions that enforce differences between de facto power and de jure rules are fatally unstable and cannot be expected to survive.[41]

Reformers assume will current "owners" of politically enforced assets will simply consent to have their valuable rent extraction rackets dismantled. In terms of the triangle in Figure 1, Rodrik's dismissive claim that all we need is "appropriate institutional design" assumes that political actors are altruistic and that market rent-holders are passive.[42] Without these assumptions, one cannot arrive at the docile acceptance of the vector of sectoral policies calculated by the shamans of industrial planning.

2. The Public Choice Response

Public Choice originated in the late 1950s and early 1960s partly in response to this superficial and unreflective assertion that state action should be thought of as the implementation of ideal plans by an omniscient, omnipotent dictator. The Public Choice counterargument followed the Austrian economics line in the "calculation debate."[43] The problem is that, far from being omniscient, the state would lack essential basic information because it would not have access to prices formulated in a competitive discovery process. If the state proposes to abandon the profit test and manage prices, then the required *information* would never be available to policymakers, and so the policy that would be selected, while different from the set of outcomes observed under markets, could not possibly be the ideal outcome.[44]

Soon, Public Choice developed a parallel critique, focused on the perverse *incentives* created by concentrated political power. Elected officials pursuing their own policy and reelection goals could not be expected to select the socially optimal policy, and in fact, the more likely result of imbuing state actors with the power to "pick winners and losers" would be the corrupt practice simply of rewarding supporters (in exchange for votes, promises of future employment, or other benefits) and punishing opponents and dissenters. Worse, collective action problems meant that a pluralist system—far from solving the problem—would generate political impulses that would

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41 *Id.* at 6.

42 Rodrik, *supra* note 9, at 472.

43 Boettke, *supra* note 4, at 21-39; Peter J. Boettke & Edward J. Lopez, *Austrian Economics and Public Choice*, 15 REV. OF AUSTRIAN ECON. 111, n.4 (2002).

44 F. A. Hayek, *The Use of Knowledge in Society*, 35 AMERICAN ECONOMIC REVIEW 519 (1945); JAMES M. BUCHANAN, COST AND CHOICE: AN INQUIRY IN ECONOMIC THEORY (Liberty Fund ed. 1999) (1969); James M. Buchanan, *Market Failure And Political Failure*, 8 THE CATO JOURNAL 1 (1988); F. A. HAYEK, *Competition as a Discovery Procedure* in NEW STUDIES IN PHILOSOPHY, POLITICS, ECONOMICS AND THE HISTORY OF IDEAS (University of Chicago Press 1969); WILLIAM NISKANEN, BUREAUCRACY AND REPRESENTATIVE GOVERNMENT (Aldine Atherton Press ed. 1971); FRIEDRICH A. HAYEK, LAW, LEGISLATION, AND LIBERTY (1973); James M. Buchanan & Viktor Vanberg, *The Market as a Creative Process*, 7 ECON. AND PHIL. 167 (1991).

actually *benefit* powerful organized interests at the expense of the mass public.[45]

One key way that this agenda control by elites was found to work was (in the U.S., at least) the interaction between partisan control of the legislative process and the committee system.[46] The process of self-selection among committees based on conformity of regulatory and budgetary jurisdictions with district-specific electoral goals has been exhaustively documented empirically.[47] Together, these two objections to the information problems and the incentive problems of political solutions were seen by many Public Choice scholars as having put "paid" to the notion of political improvement on market outcomes.

But this view is mistaken; looking through the history of advocacy for industrial plans, in fact, one finds something that the standard Public Choice narrative might not lead one to expect. The central justification for many industrial policy analysts is not the failures of *markets and capitalism* but in *politics*! Further, Progressive proponents of industrial plans fully recognize (in their lucid moments) the difficulty in obtaining accurate and timely information. The central conundrum in industrial planning is precisely the Public Choice objection: *even if planners knew what to do, politics would prevent them from doing it*.[48] The barrier to "good" industrial policy is that concentrations of economic power can acquire political influence and power; worse, political authorities actually welcome this expansion of power because politicians themselves benefit electorally or through the promise of future employment.

Rodrik's warning about "political influence" is thus not a throw-away line or an aside;[49] in fact, for every Ginsburg or Carnoy and Shearer who think democracy can be fixed, there other advocates who see the suppression of politics is seen by some planning advocates as the main *advantage* of industrial plans.[50] As an illustration, it is useful to go back to the same era of the early 1980s and consider several passages from one of the stalwarts of the Progressive industrial plan movement, Robert Reich.[51]

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45 Schattschneider famously said that in "the pluralist heaven... the heavenly chorus sings with a strong upper-class accent." E.E. SCHATTSCHNEIDER, THE SEMISOVEREIGN PEOPLE: A REALIST'S VIEW OF DEMOCRACY IN AMERICA 35 (1960); MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION 35 (1965).

46 Marshall, *supra* note 30; Cox, *supra* note 30.

47 Kevin B. Grier & Michael C. Munger, *Comparing Interest Group PAC Contributions to House and Senate Incumbents 1980-1986*, 55 J. OF POL. 615 (1993); Eleanor Neff Powell & Justin Grimmer, *Money in Exile*, 78 J. OF POL. 974 (2016).

48 If one allows that the two assumptions, information and incentives, can be treated as separable. Buchanan is skeptical of this claim, since the problems are in fact created by the same institutions of political failure. James M. Buchanan, *Market Failure And Political Failure*, 8 THE CATO JOURNAL 1 (1988).

49 Rodrik, *supra* note 9, at 472.

50 Ginsburg, *supra* note 36; Carnoy, *supra note 38*.

51 Reich, *supra* note 20, at 76.

Reich decries the lack of any rational (by which he means social optimality) basis for the set of policies that fix taxes, subsidies for research, and trade protection:

> [The pattern of subsidies and trade protection] are largely the result of special interest pressure and not of a coherent industrial policy, they have no rhyme or reason…. [These] subsidies have for the most part channeled capital toward industries…that are sheltered from international trade…industries such as footwear and apparel that depend on low-wage labor; and industries such as ship building that have no advantage over foreign competitors. In effect, these programs have taken capital away from emerging industries or growing segments of established industries—semiconductors, say, or specialty steel—with a real chance to obtain a competitive edge in world markets and increase the real wages of U.S. workers.[52]

Frankly, this is Public Choice 101, at least to this point. Instead of a forward-looking policy and plan for development, the politically-influenced industrial policy will seek to "balance" growth and the costs of creative destruction. The problem for Reich is that this is not a side effect of industrial policy but as Glock showed has always been the essence of Progressive doctrine, trying to ease the transition for those displaced by economic change.[53]

To his credit, Reich then goes on to explain why "politics" and "public good" are rarely coincident:

> This perverse result is largely a function of politics. Established industries usually gain political power as communities and regions become dependent on them for jobs, tax support, and the purchase of locally produced goods and services. This power often translates—with the help of mayors, governors, congressional representatives, and White House political operatives—into special government subsidies. Emerging industries, of course, lack such power.[54]

Again, it's hard to argue with Reich's logic. In fact—and I already said it was surprising—there is a strong tradition of sensitivity to Public Choice concerns among Progressive economic planning advocates. The "market failure" program, in which the failure of markets to select Pareto optimal allocations of resources is taken as grounds for state action, is usually thought of as the core of the rationale for industrial policy. One of the founders of the market failure approach, Bator, explicitly recognized the work done earlier by theorists who had raised questions about the capacity of decentralized price mechanisms to signal the relative scarcities and full social costs (or benefits) of particular transactions accurately.[55]

He highlights, in particular, the contributions of A. C. Pigou. Bator points out that the harmony of marginal cost pricing with efficiency is broken: the cost is different from marginal cost as perceived by the seller

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52 Reich, *supra* note 20, at 76.

53 Glock, *supra* note 23.

54 Reich, *supra* note 20.

55 Bator, *supra* note 2, at 357.

(buyer), and so marginal cost pricing was not Pareto efficient.[56] The difference between marginal social cost and prices accounting only for private costs would need to be corrected by some industrial plan, including, at a minimum, a system of taxes and subsidies.[57] And this is hardly a misreading of Pigou, who, after all, had said:

> In any industry, where there is reason to believe that the free play of self-interest will cause an amount of resources to be invested different from the amount that is required in the best interest of the national dividend, there is a *prima facie* case for public intervention.'[58]

This passage later led R. H. Coase and others to call the market failure approach "naïve."[59] But Backhouse and Medema point out that it would behoove critics to attend to what Pigou meant by *prima facie*.[60] He had been quite clear about it twenty years earlier, in 1912:

> The case . . . cannot become more than a *prima facie* one, until we have considered the qualifications, which governmental agencies may be expected to possess for intervening advantageously in this class of matter…
>
> *It is not sufficient to contrast the imperfect adjustments of unfettered private enterprise with the best adjustments that economists in their studies can imagine. For we cannot expect that any State authority will attain, or even whole-heartedly seek, that ideal. Such authorities are liable alike to ignorance, to sectional pressure, and to personal corruption by private interest. A loud-voiced part of their constituents, if organized for votes, may easily outweigh the whole.*[61]

Later, in State Action and Laissez-Faire, Pigou again sounded a note of caution:

> In order to decide whether or not State action is practically desirable, it is not enough to know that a form and degree of it can be conceived, which, if carried through effectively, would benefit the community. We have further to inquire how far, in the particular country in which

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56 *Id.*

57 *Id.*

58 PIGOU, *supra* note 2, at 331; R.H. Coase, *The Lighthouse in Economics*, 3 J. OF LAW & ECON. 357, 357–60, 372–76 (1974).

59 Roger E. Backhouse & Steven G. Medema, *Economists and the Analysis of Government Failure: Fallacies in the Chicago and Virginia Interpretations of Cambridge Welfare Economics*, 36 CAMBRIDGE J. ECON. 981 (2012). Backhouse and Medema identify the criticism of the "Cambridge" school, but since the Marshall-Pigou synthesis of welfare economics is essentially the mainstream view we will not make this distinction. However, Backhouse and Medema give useful examples of what they see as a caricaturing of the "Cambridge" view, in Buchanan. *Id.* at 982 (quoting James M. Buchanan, *Politics, Policy, and the Pigovian Margins*, 29 ECONOMICA 17 (1962)); R.H. Coase, *The Problem of Social Cost*, 3 J.LAW & ECON. 1, 28-42 (1960).

60 Backhouse and Medema, *supra* note 59, at 982.

61 Backhouse and Medema, *supra* note 59, at 984 (quoting A.C. PIGOU, THE ECONOMICS OF WELFARE 331, 247-48 (4th ed. 1932) (1912)).

> we are interested, and the particular time that concerns us, the government is qualified to select the right form and degree of State action and to carry it through effectively.[62]

Far from naïve, this is a nuanced and careful case for intervention, recognizing the potential for *government* failure on the grounds of inaccurate information, inconsistent incentives, and majoritarian dysfunction.[63] These are all themes that were later raised by Public Choice scholars in protest against the naïve Pigouvian view, of course, but it seems unfair to claim that Pigou himself was unaware of the problems. In fact, Pigou should be seen as ur-texts of the Public Choice movement.[64]

Another insight on this subject comes from John Kenneth Galbraith, who made a pithy—and, given his place in the pantheon of planning advocates, surprising—observation about the contrast between markets and politics. It goes like this: "In economics, the majority is always wrong."[65] When it comes to innovation, there is a fundamental difference between market innovation, which happens at the margin, and political innovation, which by definition must persuade the median voter to have any effect on policy.[66]

As Munger argued, this means that the personal computer would simply not exist if it had been left up to majorities, since for nearly a decade, only a small margin of relatively wealthy enthusiasts subsidized the development of something that all the technocrats, even those in computer firms such as DEC or IBM, considered to be useless.[67] Consequently, there is an entirely different burden of proof in innovations, depending on whether they must appeal to marginal investors and consumers based only on the profit test or whether a single policy, based on the (frankly uninformed) views of the median voter will pick winners and losers. Worse, the political process not only fails the information test since the median voter is simply not qualified to make such choices, but also the incentive test since politics will be dominated by the concentrated power of existing industrial and labor organizations. There is no hope for innovation if politics is in charge.

Rather than denying this consequence of applying the Public Choice apparatus, modern industrial policy advocates embrace it and follow the logic through to its institutional implication: *politics must be removed from the process*. Reich gives the (plausible) argument for why this is true:

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62 *Id.*; A.C. PIGOU, *State Action and Laissez-Faire* in ECONOMICS IN PRACTICE: SIX LECTURES ON CURRENT ISSUES 107 (Macmillan and Co. ed. 1935).

63 Backhouse and Medema, *supra* note 59, at 985; Keech, *supra* note 12.

64 PIGOU, *supra* note 2; PIGOU, *supra* note 62.

65 This "quotation" is widely attributed, but I cannot find a direct source in anything Galbraith wrote or said. An example of the attribution is Foroohar (2019). Rana Foroohar, *Old Economists Can Teach Us New Tricks*, THE FINANCIAL TIMES (Jun. 2, 2019), https://www.ft.com/content/ece567f4-83c1-11e9-b592-5fe435b57a3b.

66 MICHAEL C. MUNGER & KEVIN M. MUNGER, CHOOSING IN GROUPS 86 (2015).

67 Michael Munger, *Two Steves and One Soichiro: Why Politicians Can't Judge Innovation*, ECONLIB (Oct. 2, 2006), https://www.econlib.org/library/Columns/y2006/Mungercollectivism.html.

> So long as these [subsidies, favorable tax policies, and trade protections] are one way or another hidden from public view, there can be no public debate about their wisdom or consequences. It is the claim of industrial policy, therefore, that the only alternative to formulating an explicit program for improving the nation's competitive performance is to cede effective responsibility for policy to groups with back-door political influence.[68]

Of course, this only follows if it must be true that there will be subsidies, favorable tax policies, and trade protections on offer in the first place. The reason politics is corruptible is that politicians have put themselves in the business of selling off policy to the highest bidder. The "profit test" version of an industrial plan would require a constitutional straitjacket, constraining subsidies and differential tax rates to zero. The configuration of political rent-seeking we now observe in the industrial economy is not what happens when the profit test is used but rather is what happens when corporate interests are allowed, and in many cases actively invited, to go shopping for artificial rents. Once rents are for sale, it is no great leap to predict that they will go to the highest bidder.

In short, advocates of rational industrial policy are quite right to decry the political capture of these rents and the corruption of the process. The problem is that their solution, preserving all the rents and, in fact, adding dramatically to the politically distributed boodle while removing the power of economic interests to command those rents, smacks of fantasy.

3. Intervention in Economics but Not in Politics: Is it Possible?

I claimed above that Pigou should be an ur-text of Public Choice. But Pigou thought that what we now call the "Public Choice Problem"—information and incentives—though difficult, could be solved. The claim of the Cambridge industrial policy scholars was always that, unlike markets, governments could "learn" through *institutional* innovation, whereas markets can only "learn" *product* innovation through the profit test. In this view, good industrial policy is the consequence of informed analysis and correct (public-spirited) motivations. Just as Rodrik said, then, the difference does not come down to perfection; pro-intervention welfare economists never believed the government was perfect.[69] Instead, the difference lies in the difference in the prospects for learning and guided improvement.[70] As Backhouse and Medema put it, this difference is important:

> What emerges, then, is that the difference between the Cambridge welfare economists and their modern counterparts at Chicago and Virginia was not that the former was guilty of committing the 'nirvana fallacy' or that they were naive about political processes. *Political processes were as central to the policy conclusions of the Cambridge welfare economists as they are to modern public choice theory and the literature on law and economics—indeed,*

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68 Reich, *supra* note 20, at 76.

69 Rodrik, *supra* note 9, at 469, 472.

70 *Id.* at 485.

> *because they did not see government as a homogenous entity, it was even more important for them to examine such processes than it is for modern economists who work with a simplified conception of government* . . . The rational choice approach, with its assumption of stable preferences, is central here, for it effectively rules out the evolutionary view of human improvement that was central to the Cambridge vision.[71]

So, the best version of the industrial policy argument should be taken seriously. It does *not* assume the perfection of the state, and proponents are not ignorant of basic Chicago "capture" theories of regulation. Nor do proponents deny Public Choice problems of incentives. If anything, the Cambridge welfare/planning school was out in front of recognizing and highlighting these problems. In fact, "politics and democracy" is precisely the *problem* that a technocratically controlled industrial policy was supposed to solve.

In the next section, I discuss the problem of "cronyism" and the challenges it presents to "good" industrial policy. There are two core claims to be addressed: first, rational political actors will never choose a "good" industrial policy. Second, rational political actors will likewise never a set of institutions that would lead to the selection or stability of such a policy if it exists. I will argue that combining these two conclusions implies that "good industrial policy" is impossible.

II. THE IMPOSSIBILITY OF "GOOD" INDUSTRIAL POLICY

1. Capitalism is Not Sustainable

In a recent book, I concluded that "pure" capitalism is not sustainable in a democracy.[72] This conclusion has been summarized as "doing Public Choice on Public Choice" because it starts with the standard public assumptions of self-interested politicians, self-interested corporate elites, and poorly informed voters subject to problems of voluntary ignorance and collective action problems. Under these conditions, at some point in the process of maturing as a firm or industry, the marginal rate of return for the pursuit of honest profit must fall below the first-dollar return of lobbying and rent-seeking.

The arguments for capitalism, as Klein argues, give a powerful justification for the "pursuit of honest profits."[73] But there is nothing in the logic of self-interest that will restrict rational actors from pursuing the legal but immoral course of securing rents, subsidies, and artificial protections

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71 Backhouse and Medema, *supra* note 59, at 993.

72 *See generally* MICHAEL C. MUNGER, TOMORROW 3.0: TRANSACTION COSTS AND THE SHARING ECONOMY 20 (2018).

73 DAN KLEIN, KNOWLEDGE AND COORDINATION: A LIBERAL INTERPRETATION 258 (2012).

from competition. Saying "that's not real capitalism!" misses the point. *The point is that real capitalism is not sustainable in a democracy*.

To summarize, my argument had three stages: *First*, at a given firm, a manager with ethical values might refuse to undertake legal but unscrupulous (in terms of capitalist morality) resort to rent-seeking. But given that there is a competitive market for managers, it should be easy to find someone not so encumbered by morality. Given that rent-seeking is more profitable than honest competition, there is a tendency toward cronyism. The only check on this legal but immoral impulse to annex the coercive powers of the state for private gain is moral character, which is just what Public Choice tells us that we cannot invoke as a solution.[74] Logically, sauce for the goose—we can't assume benevolence by state officials—is sauce for the gander—we can't make capitalism sustainable by assuming benevolent CEOs.

Still, moral action is *possible*, let's grant that. Suppose that the firm holds out, retaining the morally scrupulous manager. The *second* problem is the market for mergers and acquisitions: The firm's capital is underperforming compared to the legal return it could be earning if it were engaging in corrupt, exploitative rent-seeking and lobbying for special favors. But by definition, this means that an outside raider could borrow against the increased post-acquisition return and tender a takeover offer. Stockholders might be willing to support the scrupulous manager in principle, but cash-on-the-table tender at 20% over the current price would likely get their attention. The firm is acquired, rent-seeking commences, and cronyism triumphs. Good people are not enough, just as Public Choice predicts.

Of course, even the stockholders *might* hold out and refuse to sell their shares at the higher price. What then? The previous two steps have assumed that the state and its elected and appointed officials are passive bystanders. But this is not true; in fact, much of the impetus for rent-seeking is extractive, as was clear in the aftermath of the Great Recession, where banks were pressured to accept TARP funds.[75] So the *third* problem is that in a democracy, the state is free to design and redesign institutions to the benefit of the ruling elites. It is possible that such reforms will be consistent with "the public good," but that would be only an accidental coincidence. It is in the self-interest of elected officials and bureaucrats to attract or—if necessary—coerce private interests into a state of dependence).[76] This allows control and affords many choke points where permission or licenses can be held up until state officials can extract favors and submission.

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74 Randall Holcombe, *Make Economics Policy Relevant: Depose the Omniscient Benevolent Dictator*, 17 INDEP. REV. 165 (2012); Milton Friedman, *Make It Politically Profitable For the Wrong People To Do the Right Thing*, YOUTUBE (2013) https://www.youtube.com/watch?v=MEVI3bmN8TI.

75 *See* Fred McChesney, *Rent Extraction and Rent Creation in the Economic Theory of Regulation*, 16 J. LEGAL STUDIES 101, 102–105 (1987).

76 Holcombe, *supra* note 74, at 169.

My conclusion was that the long-term pursuit of "honest profits,"[77] the sine qua non of capitalism, is not possible in a democracy.[78] The rational self-interest of elites who recognize that they can manipulate the fundamental "rules of the game" to their benefit will distort and corrupt capitalism into cronyism.[79]

2. Good Industrial Policy is Not Sustainable, Either

The first-level critique of the viability of industrial policy to solve problems of market failures is well-known.[80] The critiques take the form of highlighting the "knowledge problem" [81] and connect those difficulties with the incentive problems the Public Choice show is created by a powerful state.[82] According to this view, if there is a tendency toward cronyism, it *is the fault of the state*, not of markets, because the distortion of the workings of markets violates the information and incentive justifications for using markets in the first place. Capitalism, without state meddling, is a stable and self-sustaining position.

My claim is that this is not true in a democracy if politicians are self-interested. This is not "self-interest properly understood" or some other legerdemain designed to eliminate the Prisoner's Dilemma problem through changing the payoffs. The Nash strategy of "defect to cronyism" is the dominant play for any individuals, even though it makes the system worse off. Blaming democracy for the problem of "selling rents" may be accurate, but unless the critic is willing to say, "And therefore, no democracy!" and propose an alternative then we are stuck with democracy and elections, with all the problems that come with them.

The reason I have developed the argument this way is to show that Reich, Rodrik, and advocates of industrial policy are not confused about this problem. They fully understand—as I argued in the previous section—that "politics" in Figure 1 will not select the ideal industrial policy (again,

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77 *See* DAN KLEIN, KNOWLEDGE AND COORDINATION: A LIBERAL INTERPRETATION 15–16 (Oxford University Press ed. 2011); s*ee generally* VERNON SMITH & BART WILSON, HUMANOMICS: MORAL SENTIMENTS AND THE WEALTH OF NATIONS FOR THE TWENTY-FIRST CENTURY 10 (Cambridge University Press 2019).

78 Smith & Wilson, *supra* note 77.

79 *See* Douglass North, *Economic Performance Through Time*, 84 AM. ECON. REV. 359, 361 (1994).

80 *See* Walter Block, *Crony Capitalism versus Pure Capitalism*, 23 INDEP. REV. 379, 381–82 (1994); *see* Scott Lincicome, Industrial Policy: A Bad Idea Is Back, CATO POLICY REPORT (July 2021), https://www.cato.org/policy-report/july/august-2021/industrial-policy-bad-idea-back.

81 LUDWIG VON MISES, SOCIALISM: AN ECONOMIC AND SOCIOLOGICAL ANALYSIS 98–111 (J. Kahane trans., 2d ed. 1969); Hayek, *supra* note 44, at 519–521.

82 It is misleading to conflate the Misesian and Hayekian views in this way, because Mises thought the problem was the absence of private property, and Hayek thought it was the absence of the discovery process of generating prices in a competitive environment. But for present purposes the conflation will just have to do. *See* Joseph T. Salerno, *Ludwig von Mises as Social Rationalist*, 4 REV. OF AUSTRIAN ECON. 26, 31–37 (1990).

assuming that such a thing exists and can be discovered). And "discovered" is the right word: proponents of industrial policy never imagine that there is sufficient information *ex ante* simply to identify and implement the ideal industrial policy. Their claim is that public-spirited technocrats can discover, through earnest trial and error updating of expanding success, and eliminating failing, programs an outcome that is better than would be observed under the market system.[83]

The core of the argument is that "good" industrial policy is not *difficult*; it is literally *impossible*. Either a "good" policy will fail to pass in the first place, or a good policy will not be sustainable if, by lucky accident, it is implemented. The reasons were outlined long ago in the Public Choice literature, but apparently, the argument must be spelled out again. First, elected officials are far from passive and have shown themselves perfectly capable of rewriting rules and "reforming" bureaucracy for their own benefit, even if this is harmful to the "public good."[84]

Second, if legislators would not vote for the "right" policy if it is presented as part of an agenda where a politically preferable alternative is available, they would not vote for creating an independent body that will select the right policy because the *implied agenda inherits the properties of the original choice*.[85]

To fix ideas, let us make some assumptions. I understand these assumptions are not innocuous, but they allow us to focus on the subject of this essay rather than a more general consideration of epistemology and collective action.

(1) There exists an allocation P_m of all of society's resources that would be the known result of allowing *market* processes to follow their course.

(2) There exists an allocation P_p of resources that would be the known result of *politically* motivated taxes and subsidies to play out through legislation in a democracy.

(3) There exists an optimal allocation P_I of resources that would be the predictable result of an *industrial* policy that solves the market failure problems of P_m but is immune to the Public Choice problems of P_p.

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[83] The idea of "trial and error" in industrial policy and economic planning dates to Oskar Lange, *On the Economic Theory of Socialism: Part One* 4 REV. ECON. STUDIES 53, 60–68 (1936).

[84] Moran, *supra* note 30, at 792 (discussing how officials can benefit from writing the rules); *see* MORRIS FIORINA, CONGRESS: KEYSTONE OF THE WASHINGTON ESTABLISHMENT 48, 52 (Yale University Press 2nd ed., 1989); *see* M. MCCUBBINS, R. NOLL, & B. WEINGAST, *Political Economy of Law* in HANDBOOK OF LAW AND ECONOMICS: VOLUME 2 1687, 1687–1689 (A. Mitchell Polinsky & Stephen Shavel, eds., 2007).

[85] See William Riker, *Implications from the Disequilibrium of Majority Rule for the Study of Institutions*, 74 AM. POL. SCI. REV. 432, 444 (1980) (discussing legislators creating issues that benefit themselves); s*ee* Brian Humes, *Majority Rule Outcomes and the Choice of Germaneness Rules*, 75 PUB. CHOICE, 301, 304 (discussing legislators choosing between two different sets of rules).

(4) From the perspective of the functioning of the economy and ignoring problems of liberty and takings of property rights, it is agreed that:

$$P_I \succcurlyeq P_M \succcurlyeq P_P \quad (1)$$

and

$$P_I \neq P_M \neq P_P \quad (2)$$

Where "$\succcurlyeq$" means "at least as good as" for the society.

In words, the technocratic ideal industrial policy, the market outcome, and the political outcome are all materially different from each other (hence (2)), and socially it is understood and agreed that the technocratic ideal is best, and the market outcomes are worse. But market outcomes are still better than political cronyism, where the state acts to exaggerate and protect inequalities in market power.

Now, one might object that the particular ordering $P_I \succcurlyeq P_M \succcurlyeq P_P$ is incorrect or that the very idea of a social ordering is incoherent because of the Arrow problem.[87] But I wanted to give the fairest and clearest case in favor of the industrial policy, and the argument so far makes clear why this ordering best embodies the logic of that claim. Proponents of industrial policy are fully cognizant (following Pigou and the Cambridge School economists who later moved their intellectual headquarters to the American Cambridge, housed at Harvard and MIT) that politics will supply sub-optimal solutions to market failures.

Cronyism (P_p), in this view, is the logical implication of developing a politically-directed industrial policy: concentrated economic power will always win rent-seeking contests. Having a "policy" of auctioning rents is worse than enforced government inaction (P_M), where the power to pick winners and losers is constitutionally or legislatively taken off the table. In other words, Pigou, Reich, Rodrik, et al. agree with the Public Choice critique and incorporate it into their analysis: political processes are no better and are likely worse than market processes.

The *disagreement* is about the existence and sustainability of a third possibility: P_I, or "Ideal industrial planning by technocrats." To make things simpler, we stipulate that:

(a) P_I exists

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[86] There is nothing very important about the $P_M \succcurlyeq P_P$ part of this assumed social ordering. Note that there is no claim that the ordering holds in matters of pure public goods, or legitimate market failures. The only claim is that political meddling in markets, by fostering rent-seeking, results in concentrated market power and corruption, *in commerce*.

[87] *See generally* KENNETH J. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES (1951); *see* RUSSELL HARDIN, MORALITY WITHIN THE LIMITS OF REASON 112–197 (1988); *see* Sean Ingham, *Why Arrow's Theorem Matters for Political Theory Even If Preference Cycles Never Occur*, 179 PUB. CHOICE 97, 2–5 (2019) (discussing social ordering); *see* Munger, *supra* note 66, at 140-142.

(b) P_I can be reliably identified given information that can be obtained by technocrats, using trial and error, if technocrats are given a free hand to experiment with taxes, subsidies, and different forms of property rights [88]

These claims are debatable, but allow me to focus on three provable results:

Proposition I: Even if P_I exists and could be identified *ex ante*, it will not be selected in a democracy.

Proposition II: If for some reason P_I is selected, it is not an equilibrium and so will not survive in a democracy. The only way this conclusion is wrong is if PI = P_P, in which case industrial policy is worse than the laissez faire market outcome P_M.

Proposition III: Suppose that P_I is a structure-induced equilibrium (SIE) of some institutional rules S_I. For example, structure S_I might be a setting where technocrats are insulated from majoritarian influence. In other words, S_I produces P_I as an SIE. Then S_I would never be adopted by a legislature if the status quo structure S_P produces P_P as an SIE.

It is useful to sketch a proof of the propositions:

Proof of Proposition I: There are two cases:

a. A majority rule equilibrium (MRE) exists, and it is P_P. (No outcome other than P_P can by an MRE, by assumption (1) above).

b. No majority rule equilibrium exists.

In case (a), P_P will be chosen over P_I

In case (b), some arbitrary stopping rule will result in an outcome, but it is unlikely to be P_I, unless legislative leaders are irrational or incompetent at agenda control.

[88] As noted above, the advocates of industrial planning do not claim that state planners would have, or could have, full ex ante information about the economy or ideal policy. Their "discovery process" is informed experimentation, or "evidence-based" policy. Further, there is no claim by advocates that there is a unique "best" industrial policy, or that experimentation would discover it if there were. I am "solving" all that by simply positing the existence of a "best" industrial policy and assuming it is known. If this is not true, the case for industrial policy is even weaker. Of course, I am trying to show it is impossible in the first place, and so that's not really relevant. *See* Rodrik, *supra* note 14, at 2–21.

Proof of Proposition II: Suppose that there is no Condorcet winner in the set of policy choices, and that for some reason P_I is selected by some agenda and becomes the status quo. Assuming that any member of the majority whose preferences hold that $P_P \succcurlyeq P_I$ has proposal power, then P_P will be proposed, and will defeat P_I and become the new status quo. Consequently, P_I is not sustainable even if it were briefly the status quo, without institutions that declare P_P out of order.

Proof of Proposition III: P_P is majority preferred to P_I. Rational anticipation of professional politicians means they can forecast that a vote for S_P results in policy P_P and vote for S_I results in policy P_I. As the work building on "structure-induced equilibrium" demonstrates, assuming that the preferences being expressed are on the ultimate results, not intrinsic preferences over procedure, it must be true that S_P is majority preferred to S_I. To put it another way, S_I is not an institutional equilibrium.[89]

The following section presents the case of a recent attempt at a particular kind of industrial policy, imposing a definition of the legal framework of labor contracts. My claim is that state technocrats chose a P_I they believed to be ideal but were immediately overwhelmed by P_P, leaving a situation where things would have been better off at P_M.

III. CALIFORNIA AND AB5: CONTRACTORS VS. EMPLOYEES

The conclusion of the previous section granted the dubious preference that "good" industrial policy exists and is known by technocrats. But (again following proponents of industrial policy) that "good" policy is different from the outcome of majoritarian political processes, filtered through a system where lobbying and influence affect outcomes. I claimed three things followed this logic:

(1) good industrial policy will likely never be chosen in the first place

(2) if for some reason, the good industrial policy is chosen, it is not stable and will be replaced quickly

(3) if supporters try to change the structure of the institution to prevent a majority-based replacement of the good policy, the proposal for that institutional change will fail to command a majority because members understand that a vote for the new institutional arrangement is a vote for a less-preferred policy.

89 *See* Riker, *supra* note 85, at 444 (discussing legislators creating issues that benefit themselves); K. Shepsle, *Studying Institutions: Some Lessons from the Rational Choice Approach*, 1 J. THEORETICAL POL. 131 (1989).

The institutional problem is this: Legislatures prefer a policy other than the socially best policy for political reasons. But then, that same legislature's members can anticipate the consequences of institutional reforms that would result in that less-preferred policy. Thus, good industrial policy is not an equilibrium, and institutions that would force the selection of good industrial policy cannot be implemented by legislative majorities.

This appears actually to have happened in California in 2019 and 2020.[90] For many kinds of "jobs," there are two distinct modes of employment: the *employee* and the *contractor*. The employee is someone who is entangled in a longer-term relationship. A contractor is different, at least conceptually. The Latin verb *contraho* is "to draw different things together"; a *contractor* is someone who draws together, in their own person or activity, their own tools or skills for a relatively brief time.

The "test" for whether a worker was an employee or contractor had long been a matter of tax classification because the position in the hard binary had substantial implications for whether the employer was responsible for withholding payroll taxes, paying Social Security, and other matters of state and federal law.[91] This analytical distinction is blurred in practice, however, particularly in many parts of the new sharing economy.[92]

Unsurprisingly, given the importance of the sharing economy and new Silicon Valley "unicorns" in developing "gigs" as employment relations, combined with an atmosphere of pro-intervention political progressivism, the issue was most truly joined in California.[93] In 2018, the California Supreme Court sought to establish relatively clear guidelines on the classification based on the "ABC" or three-pronged test.

> Unless the hiring entity establishes (A) that the worker is free from the control and direction of the hiring entity in connection with the performance of the work, both under the contract for the performance of the work and in fact, (B) that the worker performs work that is outside the usual course of the hiring entity's business, and (C) that the worker is customarily engaged in an independently established trade, occupation, or business, *the worker should be considered an employee and the hiring business an employer under the suffer or permit to work standard in wage orders*; the hiring entity's failure to prove *any one of these three prerequisites will be sufficient in itself to establish that the worker is an included employee*, rather than an excluded independent contractor, for purposes of the wage order.[94]

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90 Kate Conger, *Uber and Lyft Drivers in California Will Remain Contractors*. NEW YORK TIMES. November 4, 2020. https://www.nytimes.com/2020/11/04/technology/california-uber-lyft-prop-22.html.

91 26 U.S.C. § 3509.

92 *See* Munger, *supra* note 72, at 54; *see* ELIZABETH TIPPET, *Employee Classification in the Sharing Economy* in CAMBRIDGE HANDBOOK OF THE LAW OF THE SHARING ECONOMY 291–95 (N.M. Davidson, et al. eds., 2018); *see* ADAM DAVIDSON, THE PASSION ECONOMY 258-59 (2020).

93 *See* Davidson, *supra* note 92, at 258-259.

94 Dynamex Operations W. v. Superior Ct., 416 P.3d 1, 32-33 (2018) (emphasis added).

The California Assembly, believing (plausibly) that the matter should be codified in legislation rather than relying on "guidance" from a court decision, passed Assembly Bill 5 (AB5). Part of the Bill text reads:

> The court cited the harm to misclassified workers who were with significant workplace protections, its unfairness to employers who must compete with companies that misclassify . . . and misclassification to avoid obligations such as payment of payroll taxes, social security, unemployment, and disability insurance . . . The misclassification of workers as independent contractors has been a significant factor in the erosion of the middle class and the rise in income inequality, nothing in this act is intended to diminish the flexibility of employees to work part time or intermittent schedules or to work for multiple companies.[95]

The goal was apparently to reverse the "erosion" of the middle class while recognizing that the flexibility of contract work for many people was attractive and could even be part of the essential definition of the work relation, as in the case of a plumber or free-lance writer.

One might question whether there has, in fact, been a substantial "erosion" of the middle class.[96] Even if there is, one might question whether the sharing economy is a "significant factor" in that erosion. But, as in the previous section, I am willing to stipulate that the policy in question was actually P_I, the ideal industrial planning solution.

The law codifies the three-prong test, establishing a strong presumption that all workers are employees. Since the prongs are not actually as clear in real-world work relations as they seem on paper, this presumption puts a substantial burden on prospective employers. If 'I'm trying to start a company, and I'm trying to decide if I'm going to have employees or contractors, the presumption is heavily in favor of the relationship being an employment relationship; this relationship (particularly in California) entails expensive benefits, restrictions on the nature of work, substantial paperwork, and compliance requirements.

The prospective contractor must be free from the control and direction of the hiring entity. The task has to be outside the usual course of the hiring entity's business. And the prospective contractor has to be customarily engaged in an independently established trade occupation or business of the same nature. In response to AB5, Uber and other sharing economy firms in California either cut back operations or defied the law.[97] Given the nature of "gigs," this was perfectly predictable: the opposite of "contractor" is not "employee," it's "unemployed." The law's protections were inconsistent with the distribution of economic bargaining power, and the creation of value, in the economy.

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95 Assemb. B. 5, 2019–2020 Leg., Reg. Sess. (Cal. 2019) (enacted).

96 James Heckman & Rasmus Landersø, *Lessons for Americans from Denmark about inequality and social mobility*, 77 LAB. ECON. 13-4 (forthcoming 2022).

97 Eli Rosenberg, *Can California Rein in Tech's Gig Platforms? A Primer on the Bold State Law That Will Try*, WASH. POST (Jan. 14, 2020), https://www.washingtonpost.com/business/2020/01/14/can-california-reign-techs-gig-platforms-primer-bold-state-law-that-will-try/.

The ideal industrial plan for the California Assembly seems to have been based on their notion of the just distribution of income between companies and employees. AB5 was implemented to rebalance the difference in power by preventing companies from exploiting workers by classifying them as contractors.[98] There seemed to have been three premises for the members of the Assembly who passed AB5:

- The corporations in question were huge amounts of money and should give more of that "surplus" to the workers.
- The business model could clearly withstand being forced to have workers serve full-time and receive benefits.
- The workers, who were now contractors, would want to be reclassified as employees. More specifically, most workers now employed by sharing economy firms would prefer to have defined hours, be forced to work 40 hours per week, and be subject to direct and constant control by supervisors.

Remember, I am trying to credit the proposed industrial policy as being socially ideal. By this, I mean that the legislature thought it could simply change the rules and remake the industry by issuing commands. However, each of the three bulleted premises listed above is problematic. First, Uber, particularly but not solely, was losing very substantial amounts of money, even under the existing model.[99] Second, much of the sharing economy is based on "two-sided markets" or platforms, where the notion of employment is simply misplaced, to begin with.[100] Third, this legislation surprisingly resulted in many, and perhaps most, of the workers from whom the legislature expected to garner political gratitude being upset, even angry, in response to being denied contractor status.[101]

The main sponsor of AB5, Rep. Lorena Gonzalez, was honestly surprised that there was even another view; she clearly expected something along the lines of "this is an ideal industrial policy, thanks!" But a substantial portion of the affected workforce was offended by Rep. Gonzalez's apparent lack of knowledge of how that part of the economy worked.[102] There were

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[98] Samantha J. Prince, *The AB5 Experiment - Should States Adopt California's Worker Classification Law?*, 11 AM. UNIV. BUS. L. REV. 49, 49-52 (2021).

[99] Mike Issac, *How Uber Got Lost*, N.Y. TIMES (Aug. 29, 2019), https://www.nytimes.com/2019/08/23/business/how-uber-got-lost.html.

[100] Michael C. Munger, The Sharing Economy: Its Pitfalls and Promises 98-99 (2021). Many observers claimed that the point of AB5 was partly to "protect" taxi drivers from Uber, and in fact many taxi drivers were ardent supporters. Bizarrely, very few taxi drivers in California were, or are, employees. Almost all are contractors. *See* Carolyn Said, *California's Gig Law Targets Uber and Lyft*, S.F. CHRON., 2019.

[101] Augusta Saraiva & Ngai Yeung, *California Throws 70,000 Truckers in Gig-work Legal Limbo, Risking Supply Chains*, BLOOMBERG (July 8, 2022), https://www.bloomberg.com/news/articles/2022-07-08/california-truckers-in-gig-work-law-limbo-risking-supply-chains.

[102] According to a story in the San Francisco Examiner:

lawsuits seeking either to nullify or seek an exemption from the Bill, which were all filed by workers the Bill was supposed to "help," including free-lance journalists, writers, truckers, delivery drivers, and others.[103]

The protests against the restrictiveness of the law and its negative impact on the ability of workers to contract for flexible hours and conditions led to the filing of Proposition 22, which, even by the standards of referendum-mad California, was unusual.[104] The Proposition was effectively a substitute bill—more than 6,000 words, in fact—replacing or augmenting much of the language of AB5. There was considerable monetary spending by both supporting and opposing parties, but most of the spending was done by the supporting party, with millions spent by Uber, Lyft, and other sharing economy giants.

In a frankly cynical attempt to derail the Proposition, the Assembly passed AB2257, which legislated many of the changes that Prop. 22 would have required by referendum. In particular, AB2257 exempted several broad classes of workers, including free-lance writers, photographers, translators, musicians, and several categories of service contractors, from the strictures of AB5.[105] The new bill was passed in September 2020, two months before the referendum vote.

One person asked Gonzalez to address the concerns that freelance workers have that there would be "a shortage of good jobs" in California once the law goes into effect, as employers look for workers in other states. Vox media, publisher of the sports blog network SB Nation, has announced that it would break with its California freelancers because of the law.

"These were never good jobs. No one has ever suggested that, even freelancers. We will continue to work on this next year," Gonzalez wrote in response.

"Wow, you really suck at this," another person wrote in response.

There were other exchanges:

Gonzalez got into a testy exchange with one Twitter user, who wrote that people won't be able to have "2-3 side hustles" anymore because of AB 5.

"They shouldn't f——- have to. And until you or anyone else that wants to b—— about AB5 puts out cognizant policy proposals to curb this chaos, you can keep your criticism anonymous. Good God," Gonzalez wrote, later adding that the account she was responding to belongs to somebody who works in the Legislature.

Gonzalez has invited people to offer suggestions for changing the law.

"Advocate for ongoing work," she wrote. "But stop saying this is a bad bill. It's not. It's a great structural reform we've needed since the 1940s. I'm not going to repeal it. We will continue to refine it. But educate yourself."

Remarkably, it seems literally never to have occurred to Gonzalez or AB5's other supporters to ask the affected workers what they thought of it.

Tribune News Services, *Gonzalez gets profane in Twitter battle with AB5 critics*, S.F. EXAM'R, Dec. 24, 2019.

103 Rosenberg, *supra* note 97.

104 Prop. 22, 2020 (Cal. 2020) (enacted); Erin Mulvaney & Maeve Allsup, *Millions at Stake for Gig Companies as Prop. 22's Reach Debated*, BLOOMBERG L. (July 1, 2021), https://news.bloomberglaw.com/daily-labor-report/millions-at-stake-for-gig-companies-as-prop-22s-reach-debated.

105 Assemb. B. 2257, 2021–2022 Leg., Reg. Sess. (Cal. 2022).

But, Proposition 22 still passed easily, with 58 % of the vote.[106] This could be read simply as a victory for the large corporations that spent heavily on advertising, messaging on social media, and paid staff; this is certainly the way the supporters of AB5 depicted it.[107] But, there were also large and self-organized groups of contractor/workers themselves who canvassed neighborhoods and worked at precincts handing out literature in support of Prof 22 and against AB5.[108]

One view of this process is to argue that planners, and their attempt to modify the relative power positions of participants in the economy, will have to experiment. Trial and error necessarily implies *error*, after all. It is the ability to learn from errors that was the hallmark of the Cambridge-bred optimism about technocratic "learning." But that view is mistaken, or, at least, it is not entirely correct.

To see why remember that the premise of the "new" industrial planning advocates is actually the same as the old planning advocates: political outcomes are the *problem*. These advocates have never claimed that political "discovery" through voters, filtered through democracy or representative assemblies, is the solution. Their solution is to *insulate* the industrial plan from any ability to interfere by corporations or, for that matter, by labor.

The example of AB5 / AB2257 / Proposition 22 is distinctly important because it shows that trial and error cannot solve the information problem faced by industrial planners. Either (a) the plan, for the "good of all," is insulated from democratic pressure to such an extent that it will result in a legal insurrection to reform the rules and thus violate the Cox, North, Weingast "proportionality theorem," or (b) it is not insulated from democratic pressure and politics will quickly block its passage.[109] The only workaround, which is institutional reform to prevent effective challenge, will be vetoed by political elites because they can forecast that the outcome is less preferred than the status-quo institutions.

CONCLUSION

The quote at the outset of this paper, from Francis Fukuyama, raises an important point. I have fleshed out a more extensive version of an argument that accepts Fukuyama's claim as true. The debate over industrial policy has pitted political leaders who wish to use public resources to reward their friends and harm their enemies against Public Choice scholars who deploy an argument based on the self-interest of politicians and the lack of

106 Kate Conger, *Uber and Lyft Drivers in California Will Remain Contractors*, N.Y. TIMES (Nov. 9, 2020), https://www.nytimes.com/2020/11/04/technology/california-uber-lyft-prop-22.html.

107 Rosenberg, *supra* note 97.

108 Conger, *supra* note 106.

109 Gary Cox et al., *The Violence Trap: A Political-Economic Approach to the Problems of Development*, 34 J. OF PUB. FIN. & PUB. CHOICE 3, 3-9 (2019).

information required to make valid judgments about winners and losers. My argument in this paper is that it is not the best version of the argument for an industrial policy and opponents of industrial policy need to credit supporters who have a more sophisticated and better-informed view than the naïve political argument.

Proponents of industrial policy are fully aware that politics, at least democratic politics with elections in which organized groups can be pivotal, is a problem. In fact, for many supporters, politics may be the most important problem. As Robert Reich put it, "It is the claim of industrial policy… that *the only alternative to formulating an explicit program* for improving the nation's competitive performance is to cede effective responsibility for policy to groups with back-door political influence."[110]

So, advocates of industrial policy do not see their program working *in spite of politics*; their claim is that their policy will be implemented *instead of* politics. All that will be necessary, according to the (typical) view of Rodrik, will be to select an "appropriate institutional design."[111] All we need to do is get the rules right, and the results will be a good industrial plan, better than the results we would obtain under market processes alone. But it is understood, and often explicit, that getting the rules right will require the suspension of democratic accountability.

It is thus an open secret, understood by both proponents such as Reich and Rodrik and opponents such as Fukuyama, that a necessary, but not sufficient, condition for "good" industrial plans is an authoritarian state. Authoritarian states might choose good or bad industrial policies, of course, but only an authoritarian state can sustain what planning advocates consider to be a good industrial policy.

The contribution of the present paper is to examine more closely the actual intellectual history of the idea of industrial policy. That examination demonstrates that, far from ignoring what would later come to be known as the "Public Choice objection," the problems of political sustainability were the central concern for industrial planners. If anything, advocates for industrial plans, from Pigou onward, were *primarily* concerned with controlling politics, even more than markets.

Nonetheless, Public Choice and Constitutional Political Economy have taught an important lesson, one that planning advocates have either missed or ignored: it is impossible to sustain a "good" industrial policy in a democracy. The problem is not a simple choice of "appropriate institutional design," unless by appropriate institutional design one means the suspension of democracy and due process. I have demonstrated that political actors (1) will never vote for a "good" industrial policy; (2) will always overturn a "good" industrial policy if by chance one is selected; and (3) will vote against institutional rules that would select and protect a "good" industrial policy. This last point, in particular, is important: legislators can look down the

110 Reich, *supra* note 20, at 76 (emphasis added).

111 Rodrik, *supra* note 14, at 1-29.

agenda tree and see that the rules being voted on today will result in outcomes over which they have preferences in the future.

All of this grants a dubious premise, of course: I have simply assumed, for the sake of argument, that the "knowledge problem" does not obtain here. I have granted that the trial and error, or economic expertise, claims of proponents are correct. The point is not that the assumption is correct; rather, even if one grants the heroic assumption that the information problem can be solved in its entirety, the incentives problem of political equilibrium cannot be solved as long as we accept the constraint that we are guaranteed by Article IV, Section 4's stipulation of "a Republican Form of Government."[112]

112 U.S. CONST. art. IV, § 4.

PRECAUTIONARY ANTITRUST: THE CHANGING NATURE OF COMPETITION LAW

Dr. Aurelien Portuese[1]

INTRODUCTION

An underlying craze over the last few years surfaced abruptly. In a matter of months, the United States techlash has come to the fore with great vigor. On October 6th of, 2020, David Cicilline (D-RI), chairman of the House Judiciary antitrust subcommittee, issued a 450-page report aiming at big tech companies vilipending their market power and calling for corporate breakups.[2] A few days later, on the 20th of October 2020, the Department of Justice (DoJ) launched a lawsuit against Google[3] for allegedly violating antitrust laws, which appears to be the most crucial antitrust lawsuit in a generation since the Microsoft case in 2000. In December 2020, the Federal Trade Commission sued Facebook.[4] Since then, several antitrust bills have been introduced,[5] and key political appointments have revealed a dramatic

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[1] Director, The Schumpeter Project on Competition Policy, Information Technology and Innovation Foundation; Adjunct Professor, Global Antitrust Institute, George Mason University.

[2] *See* Majority Staff of H. Subcomm. on Antitrust, Com. & Admin. Law of the Comm. on the Judiciary, 116th Cong., Investigation of Competition in Digital Markets: Majority Staff Report and Recommendations, 320, 378 (2020), https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf ("the Subcommittee recommends that Congress consider legislation that draws on two mainstay tools of the antimonopoly toolkit: structural separation and line of business restrictions."). The European decisional practice highly influences the Report. It calls for anti-monopoly actions beyond sheer antitrust laws. It embraces a prohibition of abuses of dominant positions in a language mimicking Article 102 of the Treaty on the Functioning of the European Union (TFEU). Thus, the Report foreshadows the coming to the fore of the precautionary antitrust in Europe, as evidenced in this Article.

[3] *See* Press Release, U.S. Dep't of Just., Justice Department Sues Monopolist Google for Violating Antitrust Law, (Oct. 20, 2020), https://www.justice.gov/opa/pr/justice-department-sues-monopolist-google-violating-antitrust-laws.

[4] FTC v. Facebook Inc., 560 F. Supp. 3d 1 (D.C. Cir. 2021). This case was refiled after the District Court, James E. Boasberg, J., dismissed the initial complaint. *See* FTC, LEGAL LIBRARY CASES AND PROCEEDINGS FACEBOOK, INC. V. FTC (Nov. 17, 2021), https://www.ftc.gov/legal-library/browse/cases-proceedings/191-0134-facebook-inc-ftc-v.

[5] *See* Aurelien Portuese, *The House's Antitrust Legislative Package: An Innovation Perspective*, INFO. TECH. & INNOVATION FOUND. (Aug. 2, 2021), https://itif.org/publications/2021/08/02/houses-antitrust-legislative-package-innovation-perspective; Aurelien Portuese, *Five False Claims Underscore the Case Against the Senate's Leading Antitrust Bills*, INFO. TECH. & INNOVATION FOUND. (Apr. 4, 2022), https://itif.org/publications/2022/04/04/five-false-claims-underscore-case-against-senate-antitrust-bills; Aurelien Portuese, *How Congress Got It Wrong on Tech Industry Competition*, INSIDESOURCES (Feb. 16, 2022), https://insidesources.com/how-congress-got-it-wrong-on-tech-industry-competition/; Aurelien

shift in antitrust policy toward a more aggressive enforcement, especially regarding markets characterized by innovation and disruptions.[6] More critically, the new Federal Trade Commission has announced rulemaking activity on unfair methods of competition, thereby signaling "a shift from ex -post judicial enforcement toward ex-ante rules of competition."[7] Such a shift illustrates a precautionary approach to competition matters.[8]

The sudden antitrust activism in the United States follows an aggressive stance in the European Union. Europeans have pioneered the techlash with numerous lawsuits.[9] Announced in December 2020, the E.U. will soon adopt the Digital Markets Act (DMA).[10] This new regulation inherently endorses the precautionary logic: With the reversed burden of proof and a shift from ex-post to ex -ante rules of competition aimed at prohibiting potentially pro-innovation conduct, the DMA prioritizes regulation over innovation.[11] In other words, it ensures precaution on disruption, hence inhibiting innovation incentives and capabilities at the expense of consumers and progress and the benefit of more incremental competition and of the preservation of an idealized market structure.

As we discuss and evidence in this article, the underlying logic for this transatlantic approach for a more aggressive antitrust enforcement and

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Portuese, *Is Congress Committed to Making American Consumers' Lives Costlier?,* WASH. LEGAL FOUND. (Jan. 12, 2022), https://www.wlf.org/2022/01/12/wlf-legal-pulse/is-congress-committed-to-making-american-consumers-lives-costlier/.

6 *See* Tara L. Reinhart & David P. Wales, *Biden's Broad Mandate Has Altered Antitrust Landscape, Making Merger Clearance Process Less Predictable*, SKADDEN (Jan. 19 2022), https://www.skadden.com/insights/publications/2022/01/2022-insights/regulation-enforcement-and-investigations/bidens-broad-mandate-has-altered-the-antitrust-landscape.

7 *See* Duane C. Pozza et al., *'An Avalanche of Rulemakings' – The FTC Gears Up for an Active 2022*, WILEY (Jan. 2022), https://www.wiley.law/newsletter-Jan-2022-PIF-An-Avalanche-of-Rulemakings-The-FTC-Gears-Up-for-an-Active-2022.

8 *See* Aurelien Portuese, *American Precautionary Antitrust: Unrestrained FTC Rulemaking Authority*, INFO. TECH. & INNOVATION FOUND (Jan. 31, 2022), https://itif.org/publications/2022/01/31/american-precautionary-antitrust-unrestrained-ftc-rulemaking-authority.

9 *See* Mark Scott, *Margrethe Vestager's second chance*, POLITICO (Sept. 18, 2019, 7:19 PM), https://www.politico.eu/article/margrethe-vestager-competition-digital-europe-tax-privacy-data-european-commision/ (referring to European Competition Commissioner Margrethe Vestager as the "Silicon Valley's tormentor-in-chief").

10 Proposal for a Regulation of the European Parliament and of the Council on contestable and fair markets in the digital sector, COM (2020) 842 final (Dec. 15, 2020).

11 *See* Aurelien Portuese, *The Digital Markets Act: European Precautionary Antitrust*, INFO. TECH. & INNOVATION FOUND. (May 24, 2021), https://itif.org/publications/2021/05/24/digital-markets-act-european-precautionary-antitrust/; Aurelian Portuese, *The Digital Markets Act: Precaution Over Innovation*, EPICENTER (June 9, 2021), https://www.epicenternetwork.eu/research/briefings/the-digital-markets-act-precaution-over-innovation/; Aurelian Portuese, *Precautionary Antitrust: A Precautionary Tale in European Competition Policy*, 11 L. AND ECON. OF REGUL. 203 (2021); Aurelien Portuese, *European Competition Enforcement, and the Digital Economy: The Birthplace of Precautionary Antitrust*, in REPORT ON THE DIGITAL ECONOMY 597 (Glob. Antitrust Inst. Ed., 2020), https://gaidigitalreport.com/2020/08/25/antitrust-enforcementactivity-in-digital-markets-europe/.

reforms signal a precautionary approach to competition: the risk-averse precautionary principle takes hold on antitrust enforcement. Indeed, the precautionary principle is core to Europe's regulatory philosophy.[12] When regulating innovative companies, Europe has adopted a precautionary approach toward disruptions in the name of competition.[13] One example among many others: the creation of new markets through disruptive innovations is systematically labeled as "market tipping," although such "tipping" is the very motive for innovating and creating niche markets by entrepreneurs.[14] A veil of fears prevents entrepreneurs from disrupting markets due to the regulators' preference toward incremental changes, if not the status quo.

Precautionary antitrust as a paradigmatic change of antitrust has Europe as its birthplace.[15] But, given the Brussels' effect and the attraction that European regulations generate, especially for the so-called "Neo-Brandeisians," European precautionary antitrust has now enabled American precautionary antitrust to emerge autonomously.[16] While European precautionary antitrust has mainly materialized in Europe with a shift from ex-post to ex-ante rules of competition with the Digital Markets Act, American precautionary antitrust has mainly materialized through some antitrust bills, but most importantly through the use of Section 5 of the Federal Trade Commission Act which may be weaponized to adopt ex-ante rules of competition.

With the precautionary approach to antitrust, the relationship between antitrust and innovation is dramatically changed. Traditionally, innovation is antitrust's problem: while antitrust laws aim at fostering both the competitiveness and the innovativeness of our economies, the enforcement of antitrust laws regularly clashes with innovation processes and their inherently fragile and hardly decipherable environments. More competition

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12 *See* Joined Cases T-429/13 & T-451/13, Bayer CropScience AG v. Comm'n, ECLI:EU:T:2018:280 ¶ 109 (May 17, 2018) ("The precautionary principle is a general principle of E.U. law requiring the authorities in question, in the particular context of the exercise of the powers conferred on them by the relevant rules, to take appropriate measures to prevent specific potential risks to public health, safety and the environment, by giving precedence to the requirements related to the protection of those interests over economic interests."). *See also* DIRECTORATE-GENERAL FOR ENV'T, EUROPEAN COMM'N, ISSUE 18, FUTURE BRIEF: THE PRECAUTIONARY PRINCIPLE: DECISION-MAKING UNDER UNCERTAINTY (2017), https://ec.europa.eu/environment/integration/research/newsalert/pdf/precautionary_principle_decision_making_under_uncertainty_FB18_en.pdf.

13 *See* Aurelien Portuese*, Precautionary Antitrust: A Precautionary Tale in European Competition Policy,* 11 L. AND ECON. OF REGUL. 203 (2021).

14 See Aurelien Portuese, Antitrust and the Internet of Things: Addressing the Market Tipping Fallacy, 3 CONCURRENCES 28 (2021).

15 *See* Aurelien Portuese, European Competition Enforcement and the Digital Economy: *The Birthplace of Precautionary Antitrust*, *in* Report on the Digital Economy 597–651 (Glob. Antitrust Inst. ed., 2020), https://gaidigitalreport.com/2020/08/25/antitrust-enforcement-activity-in-digital-markets-europe/.

16 *See* Portuese*, supra* note 8.

may not automatically bring about more innovation since some profitability levels must recoup the necessary innovative investments. After outlining the enduring tension between innovation and antitrust (I), we shall outline the prevalent framework's pitfalls and the need for an alternative explanatory framework (II). Thus, we shall sketch out the fundamental premises upon which our *Precautionary Antitrust* explanatory hypothesis rests upon (III) before concluding (IV).

I. THE NATURE OF THE PROBLEM

A. Innovation and Antitrust – A Revived Tension

Inherently, antitrust embroils tension with innovation. Antitrust pursues efficiency in the marketplace so that a competitive and innovative environment can be fostered and preserved. To that extent, antitrust partakes to an innovation objective. However, innovation cannot arise in the perfect competition model, according to which prices are set at a marginal cost with no profit.[17] Innovation entails risky and costly investments rendered possible only when some profits, hence savings, are made.[18] Innovation arises from risky investments made by firms following a rationally minded calculus: the expected returns post-innovation are weighed out with the probability of achieving innovative outcomes together with the cost of capital (human, material, and financial capital).[19] Because the cost of capital is necessarily

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[17] The perfect competition theoretical model holds that firms do not have power over price. They will not find it profitable to raise prices above the prevailing price–they are price-takers rather than the price-makers monopolists are. For firms in perfectly competitive markets choose their profit-maximizing output by finding the quantity at which their marginal costs equal the market price. Absent entry barriers, the perfect competition model as a theory provides guidance on how firms face extreme competitive constraints make little to no profits and thereby are inapt to provide investments for innovation. *See, e.g.,* Alan J. Daskin & Lawrence Wu, *Observations on the Multiple Dimensions of Market Power* (2005), *reprinted in* ECONOMICS OF ANTITRUST: COMPLEX ISSUES IN A DYNAMIC ECONOMY 137–54 (Lawrence Wu ed., 2007).

[18] These are resources, or "capabilities," which are the prerequisite for firms to innovate through risky investments. *See* J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 J. COMPETITION L. & ECON. 581 (2009).

[19] *See* Mario Amendola, Jean-Luc Gaffard & Patrick Musso, *Innovation and Competition: The role of Finance Constraints in a Duopoly Case*, 16 REV. AUSTRIAN ECON. 183, 187 (2003), for a discussion of the necessary sunk costs incurred by risky investments for innovation objectives. The authors argue "[t]he characteristic of the sunk costs of the investment in a process which implies a structural change is that they will only be recovered when (and if) the process itself is actually established. This means not only to take into account the whole period of construction of the new productive capacity—which is likely to have a considerable length as, before construction in a proper sense, it implies experimenting, pilot plans, and so forth—but to go further beyond that point, until the stream of receipts from the new output has reached a certain size and the change has thus proved viable."

more significant for smaller firms, their ability to innovate is reduced.[20] Their increased capital cost lowers the probability of expecting innovative outputs, diminishing the expected returns from risky investments.[21] In other words, the smaller firms' costlier access to capital prevents them from engaging in risky investments and thus deter them from innovating.[22]

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[20] *See* Daniel Shefer & Amnon Frenkel, *R&D, Firm Size and Innovation: An Empirical Analysis*, 25 TECHNOVATION 25 (2005) (demonstrating the rate of R&D expenditures are greater in large firms than in small firms due to the large firms' export orientation); Reddi Kotha, Yangfeng Zheng & Gerard George, *Entry into New Niches: The Effects of Firm Age and the Expansion of Technological Capabilities on Innovative Output and Impact*, 32 STRATEGIC MGMT. J. 1011 (2011) (finding firm age and size positively impact the quantity of innovative output from entering niche markets); Wesley M. Cohen & Daniel A. Levinthal, *Absorptive Capacity : A New Perspective on Learning and Innovation,* 35 ADMIN. SCI. Q. 128 (1990) (arguing the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends is critical to its innovative capabilities which are a function of firm size); Don Jyh-Fu Jeng & Artur Pak, *The Variable Effects of Dynamic Capability by Firm Size: The Interaction of Innovation and Marketing Capabilities in Competitive Industries*, 12 INT'L ENTREPRENEURSHIP & MGMT. J. 115 (2016) (demonstrating large firms prosper from dynamic capabilities deployment in highly competitive sectors of the economy while small firms' innovativeness are hampered by limited resource endowments). *But see* Tengjan Zou, Gokhan Ertug & Gerard George, *The Capacity to Innovate: A Meta-analysis of Absorptive Capacity*, 20 INNOVATION: ORG. & MGMT. 87 (2018) (concluding that, although capacity to innovate increases together with the increase of firm size, the Schumpeterian view is challenged since large firms may face coordination difficulties dampening their capacity to innovate. Nevertheless, in times of enormous capital needs for high tech firms, these results discount the resources endowment's advantage of large firm over small firms to materialize innovations).

[21] For discussions of the financial constraints small firms face and their impacts on firms' innovative performance, *see* Hanna Hottenrott & Bettina Peters, *Innovative Capability and Financing Constraints for Innovation: More Money, More Innovation?*, 94 REV. ECON. & STAT. 1126 (2012); Frédérique Savignac, *Impact of Financial Constraints on Innovation: What Can be Learned from a Direct Measure?*, 17 ECON. INNOVATION & NEW TECH. 553 (2008); Bronwyn H. Hall, *The Financing of Research and Development*, 18 OXFORD REVIEW OF ECONOMIC POLICY 35 (2002); Fabio Bertoni & Tereza Tykvová, *Does Governmental Venture Capital Spur Invention and Innovation? Evidence from Young European Biotech Companies*, 44 RSCH. POL'Y 925 (2015).

[22] This does not imply that smaller firms may not be innovative. *See* Zoltan J. Acs & David B. Audretsch, *Innovation in Large and Small Firms: An Empirical Analysis*, 78 AM. ECON. REV. 678 (1988) (finding the number of innovations increases with increased industry R&D expenditures but at a decreasing rate and that industry innovation tends to decrease as the level of concentration rises); Tengjan Zou, Gokhan Ertug & Gerard George, *The Capacity to Innovate: A Meta-analysis of Absorptive Capacity*, 20 INNOVATION: ORG. & MGMT. 87 (2018); Marlon F.R. Alves, Jessamine T.S. Salvini, Ana C. Bansi, Elio G. Neto & Simone V.R. Galina, *Does the Size Matter for Dynamics Capabilities? A Study on Absorptive Capacity*, 11 J. TECH. MGMT. & INNOVATION 84 (2016) (finding that, although large firms can improve innovation performance from potential absorptive capacity, small firms can more effectively convert realized absorptive capacity into innovation performance. Our point only suggests that smaller firms' limited access to capital prevent them from reaping off the benefits of innovation especially in highly capital-intensive industries); COMMITTEE OF INQUIRY ON SMALL FIRMS, THE ROLE OF SMALL FIRMS IN INNOVATION IN THE UNITED KINGDOM SINCE 1945, 1971, H.M. Stationery Off. (UK) (evidencing small firms have only marginally contributed to innovations in highly capital intensive industries); Roy Rothwell, *Small Firms, Innovations and Industrial Change*, 1 SMALL BUS. ECON. 51 (1989) (finding a "new large/small firm dynamic in which small firms provide state-of-the-art technical expertise to large firms which in turn have the resources for development, manufacturing and marketing

Consequently, innovation is empirically fostered through a market structure that may not represent the perfectly competitive market model. Instead, Schumpeter has classically hinted, some market power enjoyed by larger firms is necessary to advance economic and technological progress through innovations.[23] According to the Schumpeterian view, large firms and imperfectly competitive market structures promote innovation more strongly than small firms and unstable market structures. Schumpeter indeed argued:

> What we have got to accept is that [the large-scale enterprise] has come to be the most powerful engine of [economic] progress and in particular of the long-run expansion of total output not only in spite of but to a considerable extent through, the strategy that looks so restrictive when viewed in the individual case and from the individual point in time. In this respect, perfect competition is not only impossible but inferior and has no title to being set up as a model of ideal efficiency.[24]

To that extent, antitrust comes at tension with innovation: antitrust tackles market power while innovation can arise through the enjoyment of market power.[25] Economies of scale are inherent to innovation but conducive to market power, which is the antitrust policy target.[26] For, capital

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and the know-how and resources to handle stringent and costly regulatory requirements." More specifically, the nature of the digital industry, as a highly capital-intensive industry with strong network effects, encourages big firms with scalability capacities with respect to innovations); Alessandra Capena & Paul Stoneman, *Financial Constraints to Innovation in the UK: Evidence from CIS2 and CIS3*, 60 OXFORD ECON. PAPERS 711 (2008) (demonstrating that financial constraints faced by small firms impede their digital innovation). *See generally* ROBERT D. ATKINSON & MICHAEL LIND, BIG IS BEAUTIFUL: DEBUNKING THE MYTH OF SMALL BUSINESS (2018).

23 The neo-Schumpeterian view of economic change has been magisterially elaborated within the dynamic capabilities framework developed notably by David Teece. This framework argues that the firm's competitive advantages in fast-paced environments, such as digital markets, consist not so much in possessing specific assets but in the firm's evolutionary capacity to seize new market opportunities through its knowledge, experience, and skills. The integration process of these intangible assets, i.e., dynamic capabilities, is essential in adapting to changing business environments. *See* David J. Teece, *Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy*, 15 RSCH. POL'Y 285 (1986); David J. Teece, Gary Pisano & Amy Shuen, *Dynamic Capabilities and Strategic Management*, 18 STRATEGIC MGMT. J. 509 (1997) (defining "dynamic capabilities" as "new forms of competitive advantage" through timely responsiveness and swift redeployment of internal and external competences); David J. Teece, *Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance*, 28 STRATEGIC MGMT. J. 1319 (2007); David J. Teece, *The Foundations of Enterprise Performance: Dynamic and Ordinary Capabilities in an (Economic) Theory of Firms*, 28 ACAD. MGMT. PERSP. 328 (2004).

24 Joseph A. Schumpeter, Capitalism, Socialism, and Democracy 106 (3rd ed. 1950).

25 On the notion of market power as inimical to consumer welfare, *see* William M. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981); John Vickers, *Abuse of Market Power*, 115 ECON. J. 244 (2005); John Vickers, *Market Power in Competition Cases*, 2 EUR. COMPETITION J. 3 (2006).

26 *See* DON E. WALDMAN, THE ECONOMICS OF ANTITRUST: CASES AND ANALYSIS 14–15 (1986). Economies of scale result in market power only if two conditions hold: i) a firm of minimum optimal scale produces a large percentage of total market demand; ii) suboptimal-scale firms face significantly higher average costs of production compared to optimal-scale firms.

accumulation is the prerequisite for innovation by firms. But capital accumulation only arises if profits and savings are effectively made. Therefore, innovation requires some mark-up effects by firms that evolve in an imperfectly competitive environment.[27] The objective of antitrust laws of minimizing the mark-up effects and associated market power firms can enjoy can come at the expense of the firms' ability to innovate.[28] A lessening of competition can affect R&D inputs – thereby innovation outputs – both directly (by reducing the number of firms performing R&D) and indirectly (by changing the product market's profits): such lessening can usher in an increase in the industry's pace of innovation,[29] thereby confirming the Schumpeterian intuition.

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[27] On the incongruity of perfect competition model, *see* FRIEDRICH HAYEK, *Meaning of Competition*, *in* INDIVIDUALISM AND ECONOMIC ORDER 92 (1958) ("It appears to be generally held that the so-called theory of 'perfect competition' provides the appropriate model for judging the effectiveness of competition in real life and that, to the extent that real competition differs from that model, it is undesirable and even harmful").

[28] *See* SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1203 (2d Cir. 1981) (stating "the conflict between the antitrust and patent laws arises in the methods they embrace that were designed to achieve reciprocal goals. While the antitrust laws proscribe unreasonable restraints of competition, the patent laws reward the inventor with a temporary monopoly that insulates him from competitive exploitation of his patented art"). The very existence of intellectual property rights, including patents, is to limit competition so that the inventor having generated the innovation can exclusively exploit the potential of her discovery for a certain period. Here, competition is being temporarily shut down for incentives to innovate. Nevertheless, Arrow demonstrates that with exclusive intellectual property rights, firms in a competitive market are better incentivized to innovate than are monopolists. *See* Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources to Invention*, *in*, THE RATE AND DIRECTION OF ECONOMIC ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609 (R.R. Nelson ed.1962); Herbert Hovenkamp, *Restraints on Innovation*, 27 CARDOZO L. Rev. 248 (2007). The tension can nevertheless be overcome by restating that both IP laws and antitrust laws share the same objectives—namely consumer welfare and innovation—as Tim Muris argued: "the tensions between the doctrines tend to obscure the fact that, properly understood, IP law and antitrust law both seek to promote innovation and enhance consumer welfare." Timothy Muris, Chairman, Fed. Trade Comm'n, Competition and Intellectual Property Policy: The Way Ahead, Remarks Before the American Bar Association Antitrust Section Fall Forum (Nov. 15, 2001), https://www.ftc.gov/news-events/news/speeches/competition-intellectual-property-policy-way-ahead. *See also* U.S. DEP'T OF JUST. & U.S. FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION, (2007), www.usdoj.gov/atr/public/hearings/ip/222655.pdf ("[T]he goals of antitrust and intellectual property law were viewed incompatible: intellectual property law's grant of exclusivity was seen as creating monopolies that were in tension with antitrust law's attack on monopoly power. Such generalization is relegated to the past. Modern understanding of these two disciplines is that intellectual property and antitrust laws work in tandem to bring new and better technologies, products, and services to consumers at lower prices"). Remarks from the FTC and DOJ are neatly echoed in in the European practice: "Indeed, both bodies of law share the same basic objective of promoting consumer welfare and efficient allocation of resources. Innovation constitutes an essential and dynamic component of an open and competitive market economy." Commission Notice (2004/C), Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements, 2004 O.J. (C 101) 2, 7.

[29] Guillermo Marshall & Álvaro Parra, *Innovation and Competition: The Role of The Product Market*, 65 INT'L J. INDUS. ORG. 221 (2019).

On the other hand, competition policy fosters innovation since antitrust laws combat monopolistic rents that are rarely conducive to innovative initiatives.[30] Without competition, no innovation is being incentivized due to the replacement effect[31] since the innovative process requires the divesture of resources for risky projects.[32] These investments for innovation depart the profit-maximizing monopoly from its ability to reap off monopolistic rents without guaranteed short-term benefits currently[33]—this ambivalent relationship between innovation and antitrust places the "competition-innovation debate"[34] in an open-ended discussion.[35] The relationship between antitrust enforcement and innovation has never been straightforward and settled: many academics' and practitioners' debates questioned the level of innovation allowed by antitrust enforcement.[36] Empirical evidence stays inconclusive as Gilbert rightly recaps:

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30 *See* Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources to Invention*, *in* THE RATE AND DIRECTION OF ECONOMIC ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609 (1962). Classically, Arrow's perspective is said to be opposite to the one adopted by Schumpeter, although this taxonomy may be exaggerated, and a "middle ground" can be attained. *See* Carl Shapiro, *Competition and Innovation: Did Arrow Hit the Bull's Eye?*, *in* THE RATE AND DIRECTION OF INVENTIVE ACTIVITY REVISITED 361 (Josh Lerner & Scott Stern eds., 2012); MASSIMO MOTTA, COMPETITION POLICY: THEORY AND PRACTICE 54 (2004); Michael Peneder & Martin Woerter, *Competition, R&D and Innovation: Testing the Inverted-U in a Simultaneous System*, 24 J. EVOLUTIONARY ECON. 653 (2014).

31 Jean Tirole, The Theory of Industrial Organization (John Bonin & Hélène Bonin trans., 1988).

32 Id.

33 *See* F.M. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 426 (Edward Jaffe, Theresa M. Ludwig & Trisha Nealon eds., 2d ed. 1980) ("[B]ecause the competitor has an incentive to expand output further following a cost reduction, its quasi-rent increment exceeds that of the monopolistic firm . . . This extra margin might just tip the balance between innovating and not innovating, and so we should expect competitive producers to adopt new cost-reducing processes somewhat more readily than firms with monopoly powers, other things being equal.").

34 *See* Richard J. Gilbert, *Looking for Mr. Schumpeter: Where Are We in the Competition--Innovation Debate?*, *in* 6 INNOVATION POLICY AND THE ECONOMY 159 (Adam B. Jaffe, Josh Lerner & Scott Stern eds., 2006).

35 *See* Douglas H. Ginsburg & Joshua D. Wright, *Dynamic Analysis and the Limits of Antitrust Institutions*, 78 ANTITRUST L. J. 1, 4 n.14 (2012) (quoting Richard J. Gilbert, *Competition and Innovation, in* 1 ABA SECTION OF ANTITRUST LAW, ISSUES IN COMPETITION LAW AND POLICY 577, 583 (W. Dale Collins ed. 2008) ("[E]conomic theory does not provide unambiguous support either for the view that market power generally threatens innovation by lowering the return to innovative efforts nor the Schumpeterian view that concentrated markets generally promote innovation."). Gilbert, *supra* note 34 ("[E]conomic theory does not offer a prediction about the effects of competition on innovation that is robust to all of these different market and technological conditions"). *See also* Morton I. Kamien & Nancy L. Schwartz, *Market Structure and Innovation: A Survey*, 13 J. ECON. LITERATURE 1 (1975); SCHERER, *supra* note 33, at 414–15.

36 *See* Geoffrey A. Manne and Joshua D. Wright, *Innovation and the Limits of Antitrust*, 6 J. COMPETITION L. & ECON. 153, 166 (2010). One direct implication of such ambivalent relationship is the bias toward false positive within the error-cost framework, as discussed below, since "this bias toward Type 1 error is skewed further only by the fact that, as a general rule, economists know much less about the relationship between competition and innovation, and in turn, consumer welfare, than they do about standard price competition." *Id.*

> The empirical literature does not support a conclusion that large firms promote innovation because they provide large and stable cash flows, economies of scale (above some threshold), or risk diversification. This is contrary to Schumpeter's argument that monopoly can promote innovation by providing a "more stable platform" for R&D. At the same time, neither theory nor empirical evidence supports a strong conclusion that competition is uniformly a stimulus to innovation. There is little evidence that there is an optimal degree of competition to promote R&D. Empirical studies that use market concentration as a proxy for competition fail to reach a robust conclusion about the relationship between market concentration and R&D when differences in industry characteristics, technological opportunities, and appropriability are taken into account.[37]

The inconclusiveness of the empirical literature is further jumbled with the recent rise of digital platforms and algorithm-driven companies,[38] the adjustments of competition policies to multi-sided markets where innovation, disruptive business models where zero-priced products and services question the fundamental principles of antitrust enforcement, the relationship between antitrust and innovation has further strengthened this tension.[39] Market concentration, including firms' consolidation, is conducive to greater innovative outputs[40] as innovation incentives bear a nonlinear relationship to industry characteristics.[41] Clearer details of this nonlinear relationship have been provided seminally by Aghion.[42]

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37 *See* Gilbert, *supra* note 34, at 205–206 (2006). Gilbert developed these arguments in Innovation Matters: Competition Policy for the High-Technology Economy. Richard J. Gilbert, Innovation Matters: Competition Policy for the High-Technology Economy (2020).

38 *See* FRANK H. KNIGHT, RISK, UNCERTAINTY, AND PROFIT (1921) (explaining a changing environment increases the "true" uncertainties surrounding antitrust enforcement).

39 *See* Ginsburg, *supra* note 35, at 12 ("Economic science has not provided a way to make reliable and accurate predictions of this nature, nor even more general predictions concerning changes in market structure and levels of innovation. As with static-versus-dynamic welfare tradeoffs, in the absence of reliable knowledge or generally accepted theory, antitrust institutions wisely refrain from making predictions about the evolutionary path or competitive significance of innovations or new products generally or in any particular relevant market.").

40 *See* Richard Levin & Peter C. Reiss, *Tests of a Schumpeterian Model of R&D and Market Structure*, *in* R&D, PATENTS, AND PRODUCTIVITY 175 (Zvi Griliches ed., 1984) (evidencing returns to process R&D are increased with market concentration); John Lunn & Stephen Martin, *Market Structure, Firm Structure, and Research and Development*, 26 Q. REV. ECON. & BUS. 31 (1986) (arguing R&D expenditures are increased when market shares increase); EDWIN MANSFIELD ET AL., THE PRODUCTION AND APPLICATION OF NEW INDUSTRIAL TECHNOLOGY (1977) (finding some evidence of positive correlation of R&D expenditures at low levels of market concentration, but no significant effect of concentration otherwise).

41 Gilbert, *supra* note 34, at 195.

42 Philippe Aghion et al., *Competition, Imitation and Growth with Step-by-Step Innovation*, 68 REV. ECON. STUD. 467 (2001); Philippe Aghion et al., *Competition and Innovation: An Inverted-U Relationship*, 120 Q. J. ECON 701 (2005); Philippe Aghion et al., *The Causal Effect of Competition on Innovation: Experimental Evidence*, 34 J. L. ECON. & ORG. 162 (2018). *See also* Jan Boone, *Competitive Pressure: The Effects on Investments in Product and Process Innovation*, 31 RAND J. ECON. 549 (2000); Jan Boone, *Intensity of Competition and the Incentive to Innovate*, 19 INT'L J. INDUS. ORG. 705 (2001); Giulio Federico, Gregor Langus, Tommaso Valletti, *A Simple Model of Mergers and Innovation*, 157 ECON. LETTERS 136 (2017) (critiquing the inverted-U relationship); Massimo Motta and Emanuele

Increased competition has three types of effects on innovation incentives. First, it should foster innovation in "neck-and-neck sectors" where firms face similar technological levels – here, incremental profits derived from innovation provide the incentives to innovate. Second, increased competition has a short-term "Schumpeterian effect"[43] – here, laggard firms are disincentivized from innovating since they will not reap off the sector's post-innovation rents' leader. Third and finally, increased competition generates an "anticipated escape-competition effect" by which laggard firms' innovation incentives expect to surpass the sector's leader through anticipated post-innovation rents. These three stages of the relationship between competition and innovation lead to sketching out an inverted-U relationship between increased competition and incentives to innovate: this relationship reflects the fact that competition first discourages laggard firms from innovating, but then, the increased competition encourages neck-and-neck firms to innovate to escape competition with their rivals (the so-called "escape-competition effect").

More generally, antitrust enforcement is concerned with the efficiency of the market – be it allocative, productive, and dynamic efficiency that is materialized by innovation.[44] Pursuing these three types of efficiencies simultaneously proves to be a herculean task entrusted to antitrust enforcement.[45] The tension between competition and innovation appears to intensify in the digital era. For instance, it may become harder to strike an optimal balance between competition and innovation, especially when a wealth of intellectual property rights (IPRs) enables innovation while excluding potential competitors from exerting the beneficial competitive constraints. Disruptive innovation, inherent to digital markets, becomes hampered when extensive IPRs prevent firms from developing their apps and

Tarantino, *The Effect of Horizontal Mergers, When Firms Compete in Prices and Investments* (Barcelona Graduate Sch. Econ., Working Paper No. 987, 2017); Shapiro, *supra* note 30; Peneder, *supra* note 30.

43 Michael L. Katz & Howard A. Shelanski, 'Schumpeterian' Competition and Antitrust Policy in High-Tech Markets, 14 COMPETITION 47 (2005).

44 Competition is an evolutionary process, therefore requiring the dynamic efficiency criterion to be better considered. *See* HAYEK, *supra* note 27, at 94 ("[C]ompetition is by its nature a dynamic process whose essential characteristics are assumed away by the assumptions underlying static analysis."). *See also* ISRAEL M. KIRZNER, *The Market as a Discovery Process*, *in* DISCOVERY, CAPITALISM, AND DISTRIBUTIVE JUSTICE 72 (1989); Pedro Bento, *Competition as a Discovery Procedure: Schumpeter Meets Hayek in a Model of Innovation*, 6 AM. ECON. J. 124 (2014); Friedrich Hayek, Lecture to the Memory of Alfred Nobel (Dec. 11, 1974).

45 In that regard, F. M. Scherer had long confirmed this ambiguity when he stated that "Schumpeter was right in asserting that perfect competition has not title in being established as the model of dynamic efficiency . . . . What is needed for rapid technological progress is a subtle blend of competition and monopoly, with more emphasis in general on the former than the latter, and with the role of monopolistic elements diminishing when right technological opportunities exist." SCHERER, *supra* note 33, at 426. *See also* Wesley M. Cohen & Richard C. Levin, *Empirical Studies of Innovation and Market Structure*, 2 HANDBOOK INDUS. ORG. 1059 (Richard L. Schmalensee & Robert D. Willig eds., 1989).

platforms and competing with incumbents who enjoy IPRs.[46] As an illustration, one famous example is the Apple's touchscreen of iPhones, which have been patented by the company so much so that every time a manufacturer (say, Samsung) wants to produce a smartphone with a touchscreen, license payments from the manufacturer to Apple need to be agreed upon.[47] Is that desirable from a social point of view? Are competition and innovation optimally incentivized, or is competition lessened (due to financial payments tantamount to monopoly rents) and innovation deterred (due to a monopolistic position on touchscreen over a period)? [48]

As Gilbert advocates, antitrust enforcement "should evolve from being price-centric to innovation-centric" so that competition and innovation are maximized without overlooking the innovation dynamics inherent to some novel business practices. Intellectual property rights may not unduly prevent competition over innovations.[49] To that extent, a risk-averse, precautionary-inspired antitrust policy may further reinforce some firms' inability to compete over innovation and innovatively compete in the market, as discussed below in Part III.

Another illustration is provided with the well-known issue related to the dual role of the platform: the platform disruptively innovates concerning incumbents and thus contribute to enhanced competition at the first phase of development, but later interferes with downstream competition by out-competing downstream players thanks to its unparalleled place in the second phase of development. This latter phenomenon is oft-referred as a conflict of interest in the digital world where you have the platform acting both as umpire and player. One example is provided with the cab-lifting platform

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46 Alexandre de Streel & Pierre Larouche, *Disruptive Innovation and Competition Policy Enforcement*, (Org. Econ. Coop. & Dev., Working Paper DAF/COMP/GF(2015)7, 2015) (using extensive IPRS to point out "established firms, when they are able to spot the threat of a disruptive innovation, may render the . . . phases of disruption more difficult.").

47 Steven Musil, *Apple's Touch-Screen Patent Upheld by U.S. Patent Office*, CNET, https://www.cnet.com/news/apples-touch-screen-patent-upheld-by-us-patent-office/ (Oct. 17, 2013, 4:11 PM) (detailing Apple filed for the patent in April 2008 on behalf of Steve Jobs and 24 other people as patent-holder. This patented technology has not prevented "patent wars" until recent patent lawsuits). *See* Mike Peterson, *Apple Seeking to Invalidate Touchscreen Patents Used Against it in the Case*, APPLE INSIDER, https://appleinsider.com/articles/20/06/12/apple-seeking-to-invalidate-touchscreen-patents-used-against-it-in-lawsuit (June 12, 2020); Kirsten Errick, *Microsoft, Dell, Samsung, and LG Sued for Touch Screen Patent Infringement*, LAW STREET, https://lawstreetmedia.com/news/tech/intellectual-property/microsoft-dell-samsung-and-lg-sued-for-touch-screen-patent-infringement/ (2020).

48 For a more general discussion on the way IPRs and patents can be used anti-competitively, *see* Org. Econ. Coop. & Dev. [OECD], *Competition, Patents and Innovation II*, at 16, DAF/COMP(2009)22 (Apr. 1, 2010), https://www.oecd.org/daf/competition/45019987.pdf (2009) ("Cross-licensing agreements and licensing pools are usually efficient and pro-competitive. There are a number of ways in which pending patents could be used anti-competitively in these arrangements, though. These include entry deterrence and patent flooding scenarios where a dominant firm files a large number of poor quality patent applications with the aim of either keeping a rival out of the market or forcing it to cross-license its valuable technology.").

49 Gilbert, *supra* note 34, at 235.

Uber: initially, it disrupted the market of taxi drivers through an innovative platform. Uber drivers must possess commercial insurance, a car, and a taxi license.[50] Later, Uber introduced Uberpop (now UberX), which out-competed with the initially registered Uber drivers on cheaper prices (and perhaps the lower quality of services): Uberpop drivers do not need to have a taxi license or commercial insurance.[51] Is Uberpop both a competitive and innovative service provided by Uber? Should Uber not have interfered with downstream competition to retain a neutral role without distortion of competition and the absence of an "innovative" service? The alleged conflict of interests and associated difficulty in designing antitrust enforcement in this area are more recently and more prominently illustrated with the antitrust investigations against Amazon on both sides of the Atlantic. Reprimanded by a political leader[52] and antitrust enforcers,[53] Amazon's practices of being both a platform (enabling for downstream competition through innovative digital tools) and a seller (acting on downstream competition due to its

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[50] Michele Capagnano, *The ECJ's Ruling on Uber: A New Room for Regulating Sharing Platforms?* 1 ITALIAN ANTITRUST REV. 121, 130–33 (2018) (noting the balance between regulation and prohibition "will be likely replicated in other sectors subject to 'uberalization' and/or 'amazonization' so the risk that a conservative approach will paralyze the innovation in Europe is still high.").

[51] This lax framework brought rivals to sue Uber in courts in Europe, and finally win over the introduction of the new service Uberpop. *See* Michele Sinner, *Uber faces criminal charges in France for its UberPOP service following E.U. court ruling*, VENTUREBEAT (Apr. 10, 2018, 2:09 AM), https://venturebeat.com/2018/04/10/uber-faces-criminal-charges-in-france-for-its-uberpop-service-following-eu-court-ruling/.

[52] Interview with Elizabeth Warren, Senator, Massachusetts (December 4, 2020) ("My view on that one is that really you can be the umpire in the baseball game or you can have a team in the baseball game, but you don't get to do both at the same time. So breaking the platform off from the competitive business, yeah, that would give a lot of small businesses a much more level playing field and ability to compete"), https://www.nytimes.com/interactive/2020/01/14/opinion/elizabeth-warren-nytimes-interview.html; Astead W. Herndon, *Elizabeth Warren Proposes Breaking Up Tech Giants Like Amazon and Facebook*, N.Y. TIMES (March 8, 2019), https://www.nytimes.com/2019/03/08/us/politics/elizabeth-warren-amazon.html.

[53] European Commission Press Release IP/19/4291, Antitrust: Commission Opens Investigation into Possible Anti-competitive Conduct of Amazon (July 19, 2019) (Vice-President Vestager, in charge of the Competition at the European Commission, arguing she has "decided to take a very close look at Amazon's business practices and its dual role as marketplace and retailer . . . ."), https://ec.europa.eu/commission/presscorner/detail/en/ip_19_4291; Valentina Pop & Sam Schechner, *Amazon to Face Antitrust Charges From E.U. Over Treatment of Third-Party Sellers*, WALL ST. J. (June 11, 2020, 5:21 PM), https://www.wsj.com/articles/amazon-to-face-antitrust-charges-from-eu-over-treatment-of-third-party-sellers-11591871818; Simon Van Dorpe, *What to Look for in the European Union Charges Against Amazon*, POLITICO (June 14, 2020, 10:33 PM), https://www.politico.com/news/2020/06/14/european-union-amazon-charges-319176; Fatema Patrawala, *E.U. Commission Opens an Antitrust Case Against Amazon on Grounds of Violating E.U. Competition Rules*, PACKT (July 17, 2019, 8:22 AM), https://hub.packtpub.com/eu-commission-opens-an-antitrust-case-against-amazon-on-grounds-of-violating-eu-competition-rules/ (2019) (quoting the then Chief Economist at the E.U. Commission who tweeted "[F]ollowing Senator Warren . . . we have just opened an investigation into Amazon's businesses practices, in particular its use of data." Tommaso Valletti (@TomValletti), TWITTER (July 17, 2019, 5:54 AM), https://twitter.com/TomValletti/status/1151430006209482752).

innovativeness) illustrate the revised tension between competition and innovation in the digital era.

On the one hand, the competitive constraints are fostered by Amazon's offering lower prices than downstream rivals, thereby increasing competition in these markets. On the other hand, the insider's advantage and market dominance enjoyed by Amazon may prevent downstream sellers or entrants from innovating and entering the markets, given the sheer ability of Amazon to quickly out-compete them thanks to strong financial capacities. Is Amazon competitive by out-competing downstream rivals, or is Amazon killing innovation in the downstream market through its dual role? The digital era seems to bring the tension between innovation and competition to the next level: the level of assessing counterfactuals without benchmarks in rapidly evolving and poorly defined digital markets.[54] The multisidedness of markets may also mean that some digital businesses' conduct may decrease competition on one side of the market while incentivizing innovation on the other side of the market, increasing competition and reducing innovation simultaneously. Undoubtedly, digital markets bring intensified difficulties to weigh out competitive and innovative implications of one isolated-studied business conduct.[55]

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[54] *See, e.g.,* Lina Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973 (2019) (citing investors to conclude that "[a]necdotal evidence suggests that both actual entry and the threat of entry by digital platforms into platform-adjacent markets is dampening investment in complementary segments, now known as a 'kill-zone.'"). On the other hand, for the perspective of leveraging theory, *see* Patrick Todd, *Digital Platforms and the Leverage Problem*, 98 NEB. L. REV. 486 (2019). Some authors describe the ambiguous relationship the platform can endure with its downstream customers/rivals as a "frenemy relationship". *See* ARIEL EZRACHI & MAURICE STUCKE, VIRTUAL COMPETITION: THE PROMISE AND PERILS OF THE ALGORITHM-DRIVEN ECONOMY (2016). Some authors have referred to this phenomenon as "predatory innovation.".

[55] *See* Nicolai Van Gorp & Olga Batura, *Challenges for Competition Policy in a Digitalised Economy*, at 50, Eur. Parl. Comm. on Econ. & Monetary Affairs (Pol'y Dep't A: Econ. & Sci. Pol'y, Study IP/A/ECON/2014-12, 2015) ("Digitalisation of the economy creates many challenges for policy makers . . . These challenges do not concern the basic principles of E.U. competition law but the analytical steps and instruments that are used to assess the relevant market and dominance."), https://www.europarl.europa.eu/RegData/etudes/STUD/2015/542235/IPOL_STU%282015%29542235_EN.pdf. As pointed out by the European Commission itself, it needs to be reminded that the swiftness of innovation cycles (i.e., probability of disruptive innovation to materialize) in digital markets implies that sub-optimal competitive environments may not prevent (but rather evidence) innovation: "[i]n fast-growing sectors characterised by short innovation cycles, large market shares may sometimes turn out to be ephemeral and not necessarily indicative of a dominant position." Commission Decision AT.39740, Google Search (Shopping), ¶ 267 (EC), https://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf. "Both theoretical and empirical research on the link between market structure and innovation is not conclusive, even though a 'middle ground' environment, where there exists some competition but also high enough market power coming from the innovative activities, might be the most conducive to R&D output." MOTTA, *supra* note 30, at 54. Nevertheless, the inverted-U relationship referred to above seems empirically evidenced. *See* Peneder, *supra* note 30.

Nevertheless, against the background of an inverted-U relationship between competition and innovation,[56] antitrust enforcement must ensure that it is conducive not only to consumer welfare – by minimizing consumer harm and an innovative environment, the minimization of innovation deterrence.[57] Unfortunately, the current framework within which antitrust fits in – namely the error-cost framework – provides some guidance but with little persuasiveness concerning a sought-after innovation-based antitrust enforcement.

B. *Error-Cost Framework – The Need for an Alternative Explanation*

Frank Easterbrook seminally proposed the error-cost framework to better explain and reform antitrust enforcement.[58] According to Easterbrook, antitrust decisions either fall within Type I error (false positives) or Type II errors (false negatives). False positives portray the regulatory costs of intervening excessively while the benefits (consumer and innovation benefits) derived from the alleged anti-competitive conduct are greater than its associated costs. False negatives portray the regulatory costs of non-intervention. In contrast, the alleged anti-competitive conduct costs are greater than the benefits reaped out of such conduct's regulatory redress.[59]

The error-cost framework proposed by Easterbrook has proven to be of considerable influence in shaping following antitrust rules and practices. It has been compellingly contended that Type I errors (false positives) tend to be costlier than Type II errors (false negatives) because the path-dependency

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[56] For the relative futility to try fully apprehending the exact relationship between innovation and competition, *see* Shapiro, *supra* note 30, at 363 ("[W]e do not need a universal theory of the relationship between competition and innovation . . . [because] the Arrow and Schumpeter perspectives are fully compatible and mutually reinforcing."); C. Scott Hemphill, *Disruptive Incumbents: Platform Competition in an Age of Machine Learning*, 119 COLUM. L. REV. 1973, 1989–93 ("Arrow and Schumpeter coincide in their attitude toward innovative efforts *outside the home market* of the incumbent . . . This reconciliation is illustrated by leading platforms' aggressive forays outside of their home markets. For example, . . . Amazon has built [Amazon Web Services] into an important business selling storage and computing power to other firms. . . . [Such examples] illustrate a complementarity in production, whereby a large firm's core operations create capabilities that are profitably deployed elsewhere."). Gilbert qualifies the U-inverted relationship between competition and innovation from an empirical perspective. Gilbert, *supra* note 34, at 62.

[57] Innovation deterrence can be referred to as the barriers for the necessary knowledge to spontaneously emerge from a competitive process, as explained seminally by Friedrich Hayek. FRIEDRICH A. HAYEK, *Competition as a Discovery Procedure*, *in* NEW STUDIES IN PHILOSOPHY, POLITICS, ECONOMICS AND THE HISTORY OF IDEAS 179 (1978).

[58] First referred to by Richard Posner, the error-cost framework has been detailed in antitrust by Easterbrook. Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984). *See* Richard A. Posner, *An Economic Approach to Legal Procedure and Judicial Administration*, 2 J. LEGAL STUD. 399 (1973); Isaac Ehrlich & Richard A. Posner, *An Economic Analysis of Legal Rulemaking*, 3 J. LEGAL STUD. 257 (1974).

[59] *See* Howard Shelanski, Information, Innovation, and Competition Policy for the Internet, 161 UNIV. PA. L. REV. 1663 (2013).

effect of entrenched rules is stickier than the market's ability to auto-correct false negatives.[60] False positives and false negatives proposed by The error-cost framework intend to map out cases of over-deterrence (of beneficial and innovative conduct) and cases of under-deterrence (of harmful and restrictive behaviors). Antitrust enforcement reformers propose changing the antitrust policy within the error-cost framework from false negatives to more false positives but without waving off the detrimental effects of false positives.[61] Critics contend that the error-cost framework suffers pitfalls "because the deterrence consequences of legal errors depend partly on how those errors affect the marginal costs and benefits of conduct undertaken in the shadow of the law."[62]

Applied to digital markets, the error cost framework is under attack for its diminished relevance given the sector's intrinsic characteristics. Indeed, in the Crémer Report, the authors recommend that the European commission departs from the error cost framework; because these characteristics have "changed the balance of error costs and implementation costs, such that some modifications of the established tests, including the allocation of the burden of proof and the definition of the standard of proof, may be called for."[63] The authors suggest that the inadequacy of the error cost framework applied to digital markets pertains to the need for a shift from over-estimated Type I errors to under-estimated Type II errors: antitrust enforcers may exaggerate the probability of creating false positives. Simultaneously, they may excessively discard the risks of false negatives when antitrust enforcement is applied to digital markets. Indeed, the authors invite antitrust enforcers to

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60 *See* Fred S. McChesney, *Easterbrook on Errors*, 6 J. COMPETITION L. & ECON. 11, 14–16 (2010); Manne & Wright, *supra* note 36, at 157, 158–59 ("At its core, the error-cost framework is a simple but powerful analytical tool that requires inputs from state-of-the-art economic theory and empirical evidence regarding the competitive consequences of various types of business conduct and produces outputs in the form of legal rules").

61 *See, e.g.,* Kevin A. Bryan & Erik Hovenkamp, *Startup Acquisitions, Error Costs, and Antitrust Policy*, 87 UNIV. CHI. L. REV. 331, 334 & 350 (2020) (arguing for expanded antitrust interventions in startup acquisitions by dominant incumbents) ("Consequently, society may benefit from a policy that permits limited intervention based on reasonably ascertainable evidence, even if this carries some risk of false positives.") ("[H]ypothetical intervention would have to be predicated on less precise economic evidence than courts usually demand, creating some risk of false positives. But that does not mean that such a policy could not improve upon on the status quo. . . . [T]here is no good reason the maintain the traditional view that false positives are more problematic than false negatives.") Erring on false positives for the sake of no longer erring on false negatives constitutes a limited rationale in terms of convincing legal basis.

62 Jonathan B. Baker, *Taking the Error out of 'Error Cost' Analysis: What's Wrong with Antitrust's Right*, 80 ANTITRUST L. J. 1, 37–38 (2013) (lamenting that the Chicago School's antitrust program's assumptions "systematically overstate the incidence and significance of false positives, understate the incidence and significance of false negatives, and understate the net benefits of various rules by overstating their costs."). *See also* Shelanski, *supra* note 59.

63 Jacques Crémer, Yves-Alexandre de Montjoye & Heike Schweitzer, *Competition Policy for the Digital Era*, at 4, Eur. Comm'n Directorate-General for Competition, (May 20, 2019), https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf.

"err on the side of disallowing potentially anti-competitive conducts and impose on the incumbent the burden of proof for showing the pro-competitiveness of its conduct."[64] The recommended shift from one error (perceived false negatives) toward a different kind of error (accepted false positives) is unsatisfactory and problematic.

Unsatisfactory because the sought-after false positives imply reneging on fundamental legal principles that constitute the rule of law and ensure legal certainty, such as the unreversed burden of proof, the one who brings accusations must show them first. Also, a lowered evidence standard may question the relevance. It may revert to gut feeling where discretionary (and politically motivated) antitrust decisions prevailed in the U.S. and the E.U. The weakening of the evidentiary standards (burden and standard of proof) associated with the advocated shift from one type of error to another is legally and economically unsatisfactory.[65] Problematic, this shift stands for the desire to enforce competition law erring on the other side without providing an ethical basis for this advocated change. Indeed, to what extent and how can a legal error be justified if adopted purportedly? The recommendation to err on false positives does not constitute a legitimate legal basis for adopting such policy; law errors still are inexcusable.[66] The case for erring on another side than the one we have allegedly erred into so far does not heighten legitimacy in the advocated reforms' ethical basis.

Instead, we argue that the error-cost framework is still an essential conceptual tool to resort to in antitrust cases. Nevertheless, the error-cost framework provides a limited solution to the earlier problem. We argue that the error-cost framework is of little help to reaching pro-innovative antitrust decisions for a simple reason: arguing that a regulator or a judge has committed a Type I error (false positives) and has thus inhibited desirable conduct and innovative endeavors is of no help to convincingly justify why one should prefer committing Type II errors (false negatives) rather than

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64 Id.

65 *See* Easterbrook, *supra* note 58. The widespread recognition that false positives are presumed to be costlier than false negatives is also disregarded in the advocated shift of errors. Indeed, because of the stickiness of legal errors as opposed to the adaptive correction of competitive forces, false positives are more damaging in terms of mistaken deterrence of beneficial conducts compared to false negatives. *But see* Andrew I. Gavil & Steven C. Salop, *Probability, Presumptions and Evidentiary Burdens in Antitrust Analysis: Revitalizing the Rule of Reason for Exclusionary Conduct*, UNIV. PA. L. REV., (forthcoming Jan. 2020) (manuscript at 45) ("The enforcement agencies and the courts also have become more knowledgeable and experienced in evaluating economic evidence. For this reason, it makes sense today to assume that the error costs from false positives and false negatives are relatively equal."), https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=3236&context=facpub.

66 The law maxim error *juris non excusat* prevents errors to be legally ethical and thus acceptable. Furthermore, error implies a mistaken flaw, an unconsciousness. But, the legal error advocated here when suggestions to err on false positives supposes a conscious act of erring: thus, it is more precisely a legal fault, engaging enhanced legal liability, rather than an unconscious legal error. In many ways, the legal error remains problematic from a legal ethics standpoint.

Type I errors.[67] Both are errors – irrespectively of their economic costs yet. Indeed, from a legal and ethical perspective, leaving one type of error to adopt a different kind of error does not make decisions and judgments more legally attractive and desirable. We are still in the realm of errors leading to injustice for those subject to these errors. It cannot be a convincing argument to induce decision-makers to shift from one kind of error to another.

Moreover, it cannot be a convincing argument for regulators and judges to leave one error to indulge another error to market actors. Our legal orders' goal is to avoid injustices arising from mistakes, not to convince us that one error type is more appealing than another. Consequently, the error-cost framework, albeit helpful for understanding the implications of antitrust cases, becomes helpless in supplying convincing justifications for shifting the practice of antitrust towards a more innovation-based competition policy since the ethical dilemma between the two types of errors remains unresolved.

Most importantly, the error-cost framework inherently holds a fundamental flaw in its normative dimension.[68] The error-cost framework can hardly be conducive to significant changes in cases of disagreements amongst decision-makers and scholars. This holds that, for the error-cost framework to be practical, the decisionmaker (regulator or judge) needs, as a prerequisite, to acknowledge and recognize it has previously made an error. Such an unlikely event is of little help to reform a practice from one error type to another. Regulators and judges rarely, if not never, assess cases twice: either a different body (e.g., judicial review) or the same body formed differently, which may check the validity of the decision delivered. Therefore, how can a regulator or judge recognize he has made a Type I error (false positives).

Lawyers have a limited repute for admitting they have caused legal errors by their judgments. Consequently, the error-cost framework prevalent in antitrust practice provides only limited solutions for the innovation-based antitrust legitimately sought-after. For, there cannot be a shift from Type I errors (false positives) to Type II errors (false negatives), let alone the ethical issues of shifting from a legal mistake to another one, since no error shall be presumably admitted to having been generated on the first place. How can one redress an "error" if no error is confessed?

Consequently, despite the error-cost framework's usefulness as a descriptive tool, this framework is limited as a normative tool. The emergence of an innovation-based antitrust cannot arise with such a negatively connoted expression of "erring" one side or another. Therefore, there is a need to better explain, with less negatively connoted expressions such as "false positives" and "errors," that antitrust has embarked on an

67 Except the argument mentioned earlier that Type I errors are costlier than Type II errors because of legal entrenchments.

68 The positive dimension of the error-cost framework, as abovementioned, is helpful nevertheless because it provides a better understanding of antitrust decisions' consequences.

insufficiently innovative approach in light of the blossoming digital economy we live in. Furthermore, there is a need to explain why some who advocate for the more interventionist changes in antitrust enforcement do not accept negatively connoted expressions such as false positives. There is a need to conceptualize the ongoing shift from the status quo towards novel, yet appealing for some, antitrust tools and thinking.

In other words, the shift of antitrust enforcement cannot be explained by a shift from false negatives to false positives. Advocates of aggressive antitrust enforcement do not recognize erring on the side of interventions. Instead, advocates of aggressive antitrust enforcement exhibit a *preference*, rather than an *error*, toward precaution over innovation. The debate no longer takes place on the economics of antitrust enforcement (i.e., the comparative costs and efficiency of Type I errors and Type II errors) but rather on the subjective preference of regulation (i.e., the relative benefits of regulation over disruption).

For, antitrust enforcement is insufficiently innovation-based, whereby dynamic efficiency can be effectively propelled through better consideration of innovation arguments.[69] The needs to be a better explanation for the prevailing discourse in antitrust. This discourse questions the lessons derived from antitrust economics developed in the second half of the 20th century. Aimed at tech companies particularly, this discourse has given rise to a so-called "tech backlash"[70] after a period of acclaim the digital companies. Antitrust authorities and the dominant discourse have embarked on a counter-revolution, undoing the "antitrust revolution" ushered by the so-called Chicago School. The current tech backlash against GAFA – Google, Amazon, Facebook, Apple, and others– has been initiated by the so-called New Brandeisian Movement,[71] which put allegiance to the early 20th century

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[69] On the criticism of antitrust being too static-oriented, *see* Rupprecht Podszun, *The Arbitrariness of Market Definition and an Evolutionary Concept of Markets*, 61 ANTITRUST BULL. 121 (2016); Tony Curzon Price & Mike Walker, *Incentives to Innovate v Short-term Price Effects in Antitrust Analysis*, 7 J. EUR. COMPETITION L. & PRAC. 475 (2016); Christopher Pleatsikas & David Teece, *The Analysis of Market Definition and Market Power in the Context of Rapid Innovation*, 19 INT'L J. INDUS. ORG. 665 (2001); Sidak, *supra* note 18; David S. Evans & Keith N. Hylton, *The Lawful Acquisition and Exercise of Monopoly Power and its Implications for the Objectives of Antitrust*, 4 COMPETITION POL'Y INT'L 203 (2008); Wolfgang Kerber, *Competition, Innovation and Maintaining Diversity Through Competition Law*, *in* ECONOMIC APPROACHES TO COMPETITION LAW: FOUNDATIONS AND LIMITATIONS 173 (Josef Drexl, Wolfgang Kerber & Rupprecht Podszun eds., 2010); de Streel, *supra* note 46. *See generally* HAYEK, *supra* note 57.

[70] *See* Aurelien Portuese, *The Trans-Atlantic Tech Backlash: Convergence on GAFA Antitrust*, OXFORD COMPETITION L. BLOG (Sept. 11, 2019), https://oxcat.ouplaw.com/page/809.

[71] Tim Wu, After Consumer Welfare, Now What? The 'Protection of Competition' Standard in PRACTICE, J. COMPETITION POL'Y INT'L (Columbia Pub. L. Research Paper, No. 14-608, 2018); Lina M. Khan, The New Brandeis Movement: America's Antimonopoly Debate, 9 J. EUR. COMPETITION L. & PRAC. 131 (2018); Lina M. Khan, Amazon's Antitrust Paradox, 126 YALE L. J. 710, 717 (2017); Marshall Steinbaum, Maurice E. Stucke, The Effective Competition Standard: A New Standard for Antitrust, 86 UNIV. CHI. L. REV. 595 (Univ. Tenn. Legal Stud. Research Paper, No. 367, 2019); Barry Lynn, The

Justice Louis D. Brandeis's legacy. In Europe, this tech backlash has materialized through the revival of the Ordoliberal tradition. The protection of the effective competitive structure, rather than consumer welfare, should be the goal of antitrust laws. This romanticizing of antitrust enforcement has paved the way for a transformational rethink of antitrust practice's goals, tools, and reasoning.[72]

Less innovation-based and more intervention-leaning, the New Brandeisian Movement revives a populist perspective on antitrust whereby false negatives are discounted in favor of false positives. This antitrust counter-revolution unearths both in the E.U. (materialized in the decisional practice) and in the U.S. (surfaced merely so far in political and academic debates, but numerous investigations flourish). This counter-revolution epitomizes a fundamental inclination towards a new antitrust approach that the superficial dichotomy of the negative expression "false positives/false negatives" of the "error-cost framework" does not grasp correctly. This novel approach does not consider itself " erring " or willing to shift from Type II errors to Type I errors for the ethical and legal reasons discussed above. Therefore, the current tech backlash we experience requires a better explanation with a less negatively connoted expression. We propose a new thesis to categorize this counter-revolution: antitrust has now embraced a precautionary approach.

C. *A New Thesis: The Precautionary Principle Has Entered Antitrust*

Recent antitrust practices and discourses have exposed the new aggressive stance on antitrust. Indeed, the traditional Chicago/economic approach to antitrust epitomized by the consumer welfare standard is progressively and forcefully rebutted in scholarship and litigation cases.[73] The rationale behind the new assertiveness in antitrust reflects the citizens' desire for greater precaution and their mounting skepticism toward

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Consumer Welfare Standard in Antitrust: Outdated or a Harbor in a Sea of Doubt?: Hearing Before Subcomm. on Antitrust, Competition Pol'y & Consumer Rts. of the S. Comm. on the Judiciary, 115th Cong. (2017) (statement of Barry Lynn, Executive Director, Open Markets Institute), https://www.judiciary.senate.gov/imo/media/doc/12-13-17%20Lynn%20Testimony.pdf.

[72] On the return of the Brandeisian perspective, *see* Atkinson, *supra* note 22 (lamenting the return of Brandeis' vision described as "a small but intelligent and articulate school of neo-Brandeisians weeks to turn back the clock, if not to the era of anti-chain store laws and unit banking laws, at least to the heyday of the populist S-C-P era of the 1950s and 1960s, which treated even minor levels of concentration in markets as per se illegitimate and dangerous").

[73] *See* Manne & Wright, *supra* note 36, at 153 (stating that there is "a movement away from error-cost analysis, impelled by the belief that antitrust intervention is essentially costless from a consumer-welfare perspective. This belief stands in stark contrast to Easterbrook's approach of assuming that errors are an inevitable and core feature of the antitrust enterprise. This new approach implies that over-deterrence is not a concern that should motivate either enforcement decisions or the design of liability rules").

innovation.[74] The New Brandeisian Movement is rooted in the populist approach to antitrust. At the same time, the European Ordoliberals forcefully idealize a perfectly competitive market structure, thereby privileging regulation over any innovation capable of upsetting such structure.[75] Both intellectual movements embody the current popular quest for protection and caution over progress and uncertainties.

This Article develops a new thesis to explain the recent developments in antitrust enforcement and discourse; the precautionary principle has surreptitiously entered antitrust. It is argued that the precautionary principle has already entered E.U. antitrust enforcement and is looming in U.S. antitrust enforcement. The U.S. has so far remained limited to debates. Still, rapid inspirational influences from the European decisional practice generate serious prospects of such precautionary antitrust to be soon implemented in the U.S.[76] More specifically, the precautionary logic in antitrust is present in the U.S. through the number of antitrust bills introduced and, most importantly, in the FTC's willingness to regulate competition ex-ante through rulemaking activity.[77]

The characteristics of the precautionary principle–namely risk-aversion and urgent interventionism in the absence of both certainties and harm–now prominently influence antitrust debates and enforcement on both sides of the Atlantic. The philosophical underpinnings of the precautionary principle are now prevalent in antitrust enforcement. This descriptive claim shall be discussed and evidenced at length in this Article. The more neutrally phrased explanation – precautionary antitrust – better explains recent antitrust debates and practices. Precautionary antitrust proves to be of superior explanatory power as compared to the judgmental error-cost framework. It offers a more objective, conceptually coherent paradigmatic explanation of the reasons underpinning the growing false positives tendency in antitrust enforcement, especially concerning digital markets. The debate has shifted from the dead-end over falsehood (false positives v. false negatives) in favor of a discussion over the level of "precautionism" (precaution v. innovation).

Alike the precautionary principle considered to be excessively risk-averse and detrimental to innovation (Part II), the precautionary antitrust,

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74 This reminds us of the famous thought of Nobel Laureate Ronald Coase who once articulated seminally that: "if an economist finds something-a business practice of one sort or another-that he does not understand, he looks for a monopoly explanation. And as in this field we are very ignorant, the number of understandable practices tends to be very large, and the reliance on a monopoly explanation, frequent." Ronald Coase, *Industrial Organization: A Proposal for Research*, *in* POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION (Victor R. Fuchs ed., 1972).

75 *See* Aurelien Portuese, Joshua Wright, *Antitrust Populism: Towards A Taxonomy*, 21 STAN. J.L. BUS. FIN. 131, 144 (2020); Aurelien Portuese, *Beyond Antitrust Populism: Robust Antitrust*, 40 J. ECON. AFF. 237, 241 (2020) at 241.

76 *See* Sarah E. Light, *Precautionary Federalism and the Sharing Economy*, 66 EMORY L.J. 333, 333–394 (2017) (elaborating a similar extrapolation of the precautionary principle applied to digital markets but with respect to the U.S. federal system).

77 *See* Portuese*, supra* note 8.

which comes to the fore, can be overcome with a more innovation-based antitrust (Part III). We shall then contemplate the normative claim according to which we should overcome precautionary antitrust with guiding principles to design more vigorous innovation-based antitrust enforcement (Part IV). Understanding current antitrust enforcement in digital markets will better reform antitrust enforcement in digital markets. As we live in an era of precautionary antitrust, we develop a path forward to a more innovation-based antitrust (Conclusion).

II. THE PRECAUTIONARY PRINCIPLE

Before introducing the notion of Precautionary Antitrust in the next Section, the present Section defines the Precautionary Principle (II.A), discusses the economic cost and innovation deterrence such principle incurs (II.B), and finally proposes to overcome the Precautionary Principle with a so-called Innovation Principle which addresses the excessive risk-aversion associated with the precautionary approach (II.C).

A. *The Definition of the Precautionary Principle*

The general principle of law,[78] decision-making norm when scientific uncertainties arise[79] 'a magic spell' principle[80] encouraging 'obscurantism,'[81] the precautionary principle hacks back from a shared fear amongst decision-makers of a catastrophe involving health, environmental, or social issues. 'Ill-defined,' the precautionary principle enjoys a 'philosophical reputation [which] is low.'[82] This precautionary approach towards (probable or hypothetical) risks originates with the precautionary principle[83] and is

78 *See* Aurelien Portuese and Julien Pillot, *The Case for an Innovation Principle: A Comparative Law & Economics Analysis*, 15 MANCHESTER J. INT'L ECON. L. 214 (2018).

79 *See* David B. Resnik, *Is the Precautionary Principle Unscientific?*, 34 STUD. IN HIST. & PHIL. BIOLOGICAL & BIOMEDICAL SCI. 329, 330 (2003).

80 Philippe Kourilsky, Geneviéve Viney, *Le Principe de Précaution. Rapport au Premier Ministre*, ODILE JACOB :DOCUMENTATION FRANÇAISE, www.ladocumentationfrancaise.fr/var/storage/rapportspublics/004000402.pdf (1999); *see generally* Per Sandin, *Dimensions of the Precautionary Principle*, 5 HUM. ECOLOGICAL RISK ASSESSMENT 889 (1999).

81 Claude Birraux & Jean-Yves Le Déaut, *L'Innovation à l'Épreuve des Peurs et des Risques*, Rapport déposé à l'Assemblée Nationale et au Sénat le 24 janvier 2012, OFFICE PARLEMENTAIRE D'EVALUATION DES CHOIX SCIENTIFIQUES ET TECHNOLOGIQUES, at 183 (2012) (where the authors describe the 'fear of some innovations, and the rise of the new obscurantism').

82 Stephen M. Gardiner, *A Core Precautionary Principle*, 14 J. OF POL. PHIL. 33 (2006).

83 *See* Portuese & Pillot, *supra* note 78; Arie Trouwborst, Evolution and Status of the Precautionary Principle in International Law (2002).

informally even more ancient.[84] Nevertheless, the precautionary principle's ethical objectives[85] do not prevent the precautionary principle from being a legal principle[86] with detrimental economic consequences concerning innovation and investments. The precautionary principle has been first invoked in environmental treaties. The first textual reference to the precautionary principle hacks back to the Global Charter on Nature, in 1982, which tells that:

> Activities that are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh the potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed.[87]

Also, the word precaution is explicitly referred to in the Ministerial Declaration of 1987 following the Second Global Conference on the North Sea Protection wherein it is said that:

> Call upon the North Sea Ministers to apply the Precautionary Principle in the further development of the strategy to combat the eutrophication in the North Sea and to give impulses to the application of the source-oriented approach.[88]

The Second North Sea Conference Ministerial Declaration (London Declaration) explicitly referred to the principle three times:

> In order to protect the North Sea from possibly damaging effects of the most dangerous substances, a precautionary approach is necessary which may require action to control inputs of such substances even before a causal link has been established by absolutely clear scientific evidence;
>
> . . . By combining . . . approaches based on emission standards and environmental quality objectives, a more precautionary approach to dangerous substances will be established;
>
> [The parties] therefore agree to . . . accept the principle of safeguarding the marine ecosystem of the North Sea by reducing polluting emissions of substances that are persistent, toxic and liable to bioaccumulate at source by the use of the best available technology and other appropriate measures. This applies especially when there is reason to assume that certain damage or harmful effects on the living resources of the sea are likely to be caused by such

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84 See Kenisha Garnett & David J. Parsons, Multi-Case Review of the Application of the Precautionary Principle, 37 EUROPEAN UNION LAW AND CASE, RISK ANALYSIS 502 (2017); S. Boehmer-Christiansen, The precautionary principle in Germany - enabling government, in INTERPRETING THE PRECAUTIONARY PRINCIPLE, 31–60 (Timothy O'Riordan & James Cameron eds., 1994).

85 Cass Sunstein, *Beyond the Precautionary Principle*, 151 UNIV. PA. L. REV. 1003, 1004–5 (2003).

86 *See* Owen McIntyre and Thomas Mosedale, *The Precautionary Principle as a Norm of Customary International Law*, 9 J ENV'T. L. 221 (1997); ARIE TROUWBORST, EVOLUTION AND STATUS OF THE PRECAUTIONARY PRINCIPLE IN INTERNATIONAL LAW (2002).

87 G.A. Res. 37/7, ¶ 11 b (Oct. 28, 1982).

88 Ministerial Declaration on the Protection of the North Sea, 14 ENVIRONMENTAL CONSERVATION 357, ¶ VII (1987).

> substances, even where there is no scientific evidence to prove a causal link between emissions and effects ('the principle of precautionary action').[89]

The famous Wingspread Declaration, from a meeting of environmentalists in 1998, details the implications of the precautionary principle concerning the shifting of the burden of proof:

> When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not established scientifically. In this context the proponent of the activity, rather than the public, should bear the burden of proof.[90]

The precautionary principle applies in the absence of certainties and actual harm and favors false positives over false negatives. This is justified in environmental treaties where the precautionary principle emerged because, as Talbot argued,[91] false positives cost money (economic cost), while false positives may cost lives (human cost). This lays at the heart of the justification for the precautionary principle despite such assertion being unevidenced. Indeed, as Cross argued,

> Given the asymmetry in the consequences of error, Page urged that we err on the side of preventing false negatives at the expense of some false positives. Yet his claimed asymmetry of consequences was essentially asserted without proof.[92]

Several international treaties gradually increased the references to the precautionary principle increased gradually in the 1990s in several international treaties. For instance, the precautionary principles will be present in environmental treaties such as the International Conference on the North Sea (1990), the Bergen Declaration following the Conference on Sustainable Development (1990), Vienna Convention on Ozone Layer, Agenda 21, Framework Convention on Climate Change, Principle 15 of Rio UN Declaration, and the Wingspread Conference (1998). In the United States, the precautionary principle appeared in the early nineties, notably with the Massachusetts Toxics Use Reduction Act of 1990 and the Clean Air Act of 1993. In Germany, the precautionary principle is a much better-entrenched principle of law as it has been referred to as early as the 1970s. The precautionary principle, remaining inherently a legal principle, had recognition in a limited number of texts in the World Trade Organization

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89 *Id*.

90 Cass R. Sunstein, The paralyzing principle: Does the Precautionary Principle point us in any helpful direction?, 25 REGULATION 32 (2005).

91 See Talbot Page, *A Generic View of Toxic Chemicals and Similar Risks*, 7 ECOLOGY L.Q. 207, 219–220 (1978).

92 Frank B. Cross, *Paradoxical Perils of the Precautionary Principle*, 53 WASH. & LEE L. REV. 851 (1996).

(WTO) law and European countries' national laws. Under WTO law, the precautionary principle has been received with caution by the Appellate Body.[93] However, statutory provisions have encapsulated the precautionary principle with a much welcoming approach. This is the case of the Cartagena Protocol on Biosafety of 2000, which represents a clear attempt to implicitly enshrine the precautionary principle into WTO Law as it is said that:

> Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism . . . shall not prevent that Party from taking a decision, as appropriate, with regard to the import of the living modified organism . . . in order to avoid or minimize such potential adverse effects.[94]

The Cartagena Protocol allows restrictions on imports whenever a risk assessment is carried out scientifically and considers recognized risk assessment techniques.[95] The precautionary measures to be adopted are, therefore, after a comprehensive risk assessment is conducted. To some extent, this provision avoids the adoption of protectionist measures on behalf of precaution. However, the burden of providing and paying for the risk assessments rests on the exporter.[96] Article 5(7) of the SPS Agreement allows for precautionary measures to be adopted only if:

> The situation to which safeguard measures can be applied suffers from "insufficient relevant scientific information";
>
> The adoption of safeguard measures must be based on "available pertinent information";
>
> The state imposing safeguard measures must "seek to obtain the additional information necessary for a more objective assessment of risk"; and

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[93] Indeed, the Appellate Body has classically considered such recognition of the precautionary principle as a highly 'imprudent' in judicial instances since the legal valence of the precautionary principle under international law is 'less than clear'. For instance, *see* Appellate Body Report, *EC Measures Concerning Meat and Meat Products (Hormones)*, ¶ 123–124, WTO Doc. WT/DS48/AB/R (adopted Jan. 16, 1998) (where it is judged that "the status of the precautionary principle in international law continues to be the subject of debate among academics, law practitioners, regulators and judges. The precautionary principle is regarded by some as having crystallized into a general principle of customary international environmental law. Whether it has been widely accepted by Members as a principle of general or customary international law appears less than clear. We consider, however, that it is unnecessary, and probably imprudent, for the Appellate Body in this appeal to take a position on this important, but abstract, question. We note that the Panel itself did not make any definitive finding with regard to the status of the precautionary principle in international law and that the precautionary principle, at least outside the field of international environmental law, still awaits authoritative formulation.")

[94] *See* Cartagena Protocol on Biosafety to the Convention on Biological Diversity art. 10(6), 11(8), Jan. 29, 2000, 2226 U.N.T.S. 208.

[95] *See* Cartagena Protocol on Biosafety to the Convention on Biological Diversity art. 10(1), 15, Annex III, Jan. 29, 2000, 2226 U.N.T.S. 208.

[96] *See* Cartagena Protocol on Biosafety to the Convention on Biological Diversity art. 15(2) –3), Jan. 29, 2000, 2226 U.N.T.S. 208.

> The state in question must "review the safeguard measure accordingly within a reasonable period."

Consequently, while not being written in the SPS Agreement as 'a ground for justifying SPS measures that are otherwise inconsistent with Members' obligation*s to set out in particular provisions of that Agreement*, the precautionary principle 'finds reflections' in Article 5.7 of the SPS Agreement.[97]

More specifically, the European legal philosophy increasingly epitomizes a precautionary approach towards life, human actions, and corporate conduct.[98] Although considered not to "justify the adoption of arbitrary decisions,"[99] the precautionary principle remains "one of the most controversial principles in E.U. law."[100] Europeans have been eager to conceptualize the precautionary principle as a guiding principle for

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97 *See EC Measures*, *supra* note 93, at ¶ 124.

98 *See* Garnett & Parsons, *supra* note 84, at 502–516 (2017); Erik Persson, *What are the core ideas behind the Precautionary Principle?* 557–558 SCI. TOTAL ENV'T. 134, 134-141 (2016); K. H. Lardeur, *The Introduction of the Precautionary Principle into E.U. law: A Pyrrhic Victory for Environmental and Public Health Law? Decision-making under Conditions of Complexity in Multi-Level Political Systems*, 40 COMMON MKT. L. REV. 1455 (2003); Jonathan B. Weiner & Michael D. Rogers, *Comparing Precaution in the United States and Europe*, 5 J. RISK RSCH. 317, 317–349 (2002); David J. Vogel, Soloman P. Lee Chair Distinguished Professor Emeritus of Business Ethics, U.C. Berkeley, Risk Regulation in Contemporary Europe: an American perspective (Jan. 29, 2001); David J. Vogel, *Ships Passing in the Night: the Changing Politics of Risk Regulation in European and the United States* (EURO. UNIV. INST., ROBERT SCHUMAN CTR. ADVANCED STUD., Working Paper No. 16, 2001); Paul Slovic et. al., *Nuclear Power and the Public: a Comparative Study of Risk Perception in France and the United States*, *in* CROSS-CULTURAL RISKS PERCEPTION: A SURVEY OF EMPIRICAL STUDIES 55–102 (Ortwin Renn & Bernd Rohrmann eds., 2000); K. S. SHRADER-FRECHETTE, RISK AND RATIONALITY: PHILOSOPHICAL FOUNDATIONS FOR POPULIST REFORMS (1991).

99 *See* Communication from the Commission on the Precautionary Principle, at 13 (COM 2000) 1 final (Feb. 2, 2000).

100 Kai P. Purnhaghen, *The Behavioural Law and Economics of the Precautionary Principle in the E.U. and Its Impact on Internal Market Regulation*, 37 J. CONSUMER POL'Y 453, 454 (2014). On the interactions between the precautionary principle and the proportionality principle in the E.U. practice, *see* C-343/09, Afton Chemical Limited v. Secretary of State for Transport, ECLI:EU: C:2010:419, ¶ 53 (July 8, 2010); Case 54/85 Ministère Public v. Xavier Mirepoix, ECLI:EU:C:1986:123, ¶ 16 (Feb. 4, 1986); C-504/04, Agrarproduktion Staebelow GmbH v Landrat des Landkreises Bad Doberan, ECLI:EU:C:2006:30, ¶ 40 (Jan. 12, 2006). *See also* C-174/82 (1983) Sandoz BV. ECR 2445 (July 14, 1983); Elen Stokes, *The EC Court's Contribution to Refining the Parameters of Precaution*, 11(4) J. RISK RSCH. 491, 496 (2008); Giandomenico Majone, *What Price Safety? The Precautionary Principle and Its Policy Implications*, 40(1) JCMS J. COMMON MKT. STUD. 89, 89–109 (2002) (where the Netherlands wished to enforce a restriction on selling vitamin-fortified foods for human health purposes. Excessive intakes of vitamins could potentially be harmful to human beings, but uncertainties prevail as to the extent of this potential harmfulness. The Court of Justice sided with the Netherlands, which wished to protect its citizens as long as the restriction was deemed proportionate. More specifically, the case of Sandoz, while not applying the precautionary principle explicitly, nevertheless signaled the pervasiveness of this principle in the European legal thought subsumed with protectionism to some extent).

regulatory interventions in numerous sectors of societies[101] whenever there is a risk of irreversible damage.[102] The number of occurrences and the wide range of law areas where the precautionary principle is being invoked has never ceased to increase and expand.[103] The European Court of Justice recalled that the precautionary principle implied that, where there is scientific uncertainty as to the existence or extent of risks to human health or the environment,

> This principle allows the institutions to take protective measures without having to wait until the reality and seriousness of those risks become fully apparent or until adverse health effects materialize.[104]

Interestingly for antitrust purposes, the precautionary principle was formally inducted in E.U. law. It has immediately been concerning consumer-related activities, as early as the 13 April 1999 when the Council adopted a resolution urging the Commission

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101 *See, e.g.*, C-180/96 (1998) United Kingdom of Great Britain and Northern Ireland v Commission of the European Communities, ECLI:EU:C:1998:192, ¶ 63 (May 5. 1998) ("Where there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent."); *See also* the *Green Paper on the General Principles of Food Law in the European Union*, COM ¶1 (1997) 176 final (Apr. 30, 1997) (stating that "The Treaty requires the Community to contribute to the maintenance of a high level of protection of public health, the environment and consumers. In order to ensure a high level of protection and coherence, protective measures should be based on risk assessment, taking into account all relevant risk factors, including technological aspects, the best available scientific evidence and the availability of inspection sampling and testing methods. Where a full risk assessment is not possible, measures should be based on the precautionary principle."); Marco Bocchi, *Is the E.U. really more precautionary than the US? Some thoughts in relation to TTIP negotiations*, EJIL: TALK! (Aug. 9, 2016), https://www.ejiltalk.org/is-the-eu-really-more-precautionary-than-the-us-some-thoughts-in-relation-to-ttip-negotiations/ (2016).

102 On the notion of irreversibility, *see* Neil A. Manson, *The Concept of Irreversibility: Its use in the Sustainable Development and Precautionary Principle Literatures*, 1 THE ELEC. J. SUSTAINABLE DEV. 3 (2007); Persson, *supra* note 98, at 137-38.

103 *See* Communication, *supra* note 99, at 8 (arguing that "however, when there are reasonable grounds for concern that potential hazards may affect the environment, or human, animal or plant health, and when at the same time the available data preclude a detailed risk evaluation, the precautionary principle has been politically accepted as a risk management strategy in several fields").

104 Press Release, General Court of the European Union, *Press Release No68/18* (May 17, 2018) (on file with author); *See* also Case T-13/99 Pfizer Animal Health SA v. Council of the European Union, 2002 E.C.R. II-3318, ¶ 142 (Sept. 11, 2002) (when the Court of First Instance argued that "in a situation in which the precautionary principle is applied, which by definition coincides with a situation in which there is scientific uncertainty, a risk assessment cannot be required to provide the Community institutions with conclusive scientific evidence of the reality of the risk and the seriousness of the potential adverse effects were that risk to become a reality").

> To be in the future even more determined to be guided by the precautionary principle in preparing proposals for legislation and in its other consumer-related activities and develop as a priority clear and effective guidelines for the application of this principle.[105]

The European Commission had immediately pulled the trigger for a wide-ranging application of the precautionary principle into European regulations with the Communication (2000) on the Precautionary Principle.[106] The Commission's approach to the precautionary principle was formally endorsed by the Council of Ministers' Nice Resolution, where they stated that the precautionary principle is justified

> Where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are 'reasonable grounds' for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection.[107]

While its presence in E.U. secondary law can hardly be comprehensively be counted given its wide application,[108] the E.U. precautionary principle suggests that there is a general duty to lean towards regulatory interventionism whenever there are uncertainty and threat of irreversible damage. Europeans' cautionary approach to regulations distinguishes them from, say, their American counterparts.[109] Indeed, the

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105 Communication from the Commission on the Precautionary Principle, *supra* note 99, at 24.

106 *See id.* at 7 (arguing that "whether or not to invoke the Precautionary Principle is a decision exercised where scientific information is insufficient, inconclusive, or uncertain and where there are indications that the possible effects on the environment, or human, animal or plant health may be potentially dangerous and inconsistent with the chosen level of protection").

107 *Id*.

108 *See*, for instance, Council Directive 01/18, 2001 O.J. (L. 106) (EC) (GMOs); Council Directive 09/127, 2009 O.J. (L. 310) (EC) (Pesticide Machinery); Council Regulation 1946/03, 2003 O.J. (L. 287) (GMOs); Council Directive 11/65, 2011 O.J. (L. 174) (EC) (Restriction of Hazardous substances); Council Regulation 178/02, 2002 O.J. (L. 31) (Food safety); Council Regulation 708/07, 2007 O.J. (L. 104) (Alien aquatic species); Council Directive 01/18, 2001 O.J. (L. Council Directive 13/30, 2013 O.J. (L. 178) (EC) (Offshore safety); Council Regulation 1334/08, 2008 O.J. (L. 354) (Use of favouring's).

109 For instance, such dichotomy is illustrated at the international level, notably in the World Trade Organization (WTO). Article 5(7) of the WTO Agreement on Sanitary and Phytosanitary Agreement defines precaution. The Codex Alimentarius of the WHO are voluntary rules but WTO agreements refer to them. The E.U. constantly tries to introduce the precautionary principle in the Codex Alimentarius documents. The last attempt took place with the "Working Principles for Risk Analysis for Food Safety for Application by Governments" in 2007 does not explicitly refer to the "precautionary principle" due to resistance from the US. The final text refers to "precaution" with considerable borrowings from the definition of the precautionary principle. *See* Food and Agriculture Organization of the United Nations [FAO] & World Health Organization [WHO], *Working Principles for Risks Analysis for Food Safety for Application by Governments*, ¶ 12, CAC/GL 62-2007 (2007), https://www.fao.org/fao-who-codexalimentarius/shproxy/en/?lnk=1&url=https%253A%252F%252Fworkspace.fao.org%252Fsites%252Fcodex%252FStandards%252FCXG%2B62 2007%252FCXG_062e.pdf; *see* MILIEU LTD, ASSER T.M.C., & PACE, CONSIDERATIONS ON THE APPLICATION OF THE PRECAUTIONARY PRINCIPLE IN THE CHEMICALS SECTOR 14 (Aug. 2011).

E.U. environmental policy is enshrined as being "based on the precautionary principle" according to Article 174 of the 1992 Maastricht Treaty on the European Union [now Article 191 of the Treaty Functioning of the European Union].[110]

In the U.S., the precautionary approach (rather than "principle") stemmed from two federal statutes as acknowledged by federal courts: the Clean Air Act[111] and the Endangered Species Act.[112] The U.S. has traditionally been reluctant to embrace a designed "precautionary principle," but this may not mean that the U.S. approach has been less precautionary than the E.U. concerning specific risks.[113] When assessing a wide range of sector-specific regulations, it is considered that "neither the E.U. nor the U.S. has been consistently more adherent to the precautionary principle, whether viewed over the last five years or the last 30 years".[114] Nevertheless, it is noticeable that European multiparty voting systems, as opposed to the American biparty voting system, have enabled third parties (such as the Green parties) to voice their concerns more effectively and directly influence the decision-making process.[115]

Because it is often better to be safe than sorry, the precautionary principle has provided regulators worldwide with a sufficiently malleable and quite powerful regulatory tool for risk minimization. The precautionary principle aims to minimize risks irrespectively of the benefits derived from the envisaged conduct or product.[116] Such a precautionary principle encapsulates the essence of the sheer reluctance to generate uncontrolled (and potentially unintended) consequences from individual and corporate behaviours.[117] In that regard, as a risk assessment tool, the precautionary principle is the opposite of a cost-benefit analysis whereby costs and benefits are weighed out to reach outcomes that yield net benefits.[118] The precautionary principle effectively focuses on charges exclusively, thereby

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110 Alan Doyle & Tom Carney, Precaution and Prevention: Giving Effect to Article 130r Without Direct Effect, 8 EUR. ENERGY & ENV'T REV 44, 45 (1999).

111 Clean Air Act of 1963, 42 U.S.C. § 7401; *See* Ethyl Corp. v. EPA, 541 F.2d 1, 13 (D.C. Cir. 1976) (concluding that "the 'will endanger' standard [stated in the legislation] is precautionary in nature and does not require proof of actual harm before regulation is appropriate").

112 Endangered Species Act 1973, 16 U.S.C. § 1531; s*ee* TVA v. Hill, 437 U.S. 153 (1978).

113 Jonathan B. Wiener & Michael D. Rogers, *Comparing precaution in the United States and Europe*, 5 J. RISK RSCH. 317 (2002).

114 *Id.* at 334.

115 *Id.* at 337.

116 See Kai Purnaghen, The Behavioural Law and Economics of the Precautionary Principle in the E.U. and its Impact on Internal Market Regulation, 37 J. CONSUMER POL. 453 (2014).

117 On the distinction between the precautionary logic and the precautionary principle, *see* Arie Trouwborst, *Prevention, Precaution, Logic and Law*, 2 ERASMUS L. REV. 105, 113–14 (2009) (noting the relationship between the precautionary principle and the preventative principle in international law and associated questions).

118 See Christian Gollier & Nicolas Treich, Decision-Making Under Scientific Uncertainty - The Economics of the Precautionary Principle, 27 J. RISK UNCERTAINTIES 27, 77, 99, 103 (2003).

involving an unsatisfactory alternative cost-benefit analysis[119] due to its lack of operational context[120] in dealing with merely "theoretical risks."[121]

Indeed, it can be argued that the precautionary principle rests upon the epistemological conditions which contend that in the absence of knowledge and/or of scientific certainties, one must not refrain from adopting regulatory measures.[122] Portrayed as "incoherent,"[123] it can further be induced that the precautionary principle is the legal embodiment of a legal culture where excuses for the damage caused by lack of knowledge are no longer acceptable; even in the absence of information or proven probability of future harm, regulators can be held liable for regulatory reasons rather than on a traditional liability system where the causal link needs to be demonstrated and where the lack of information functions as an exemption liability rule. In that regard, the precautionary principles function as a rule aimed at tackling the 'unknown unknowns' such as "awareness-based heuristics."[124] Nevertheless, the precautionary principle takes part in both the weakening of the causal link in engaging legal responsibility and recognizing the absence of any excuse based on lack of knowledge potentially invoked by regulators and decision-makers for any harm caused by any activities in our societies.

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119 *See e.g.,* RICHARD A. POSNER, CATASTROPHE: RISK AND RESPONSE 140 (2004) (depicting precaution as an unsatisfactory alternative to CBA).

120 *See* Fritz Allhoff & Adam Henschke, *The Internet of Things: Foundational Ethical Issues*, 1 INTERNET OF THINGS 55, 56 (2018) (arguing that the precautionary principle "invites us to consider broad targets, like risk and uncertainty, without a particular operational context" due to the inconclusiveness of this principle); *see also* Löfstedt, R.E., *A Possible Way Forward for Evidence-Based and Risk-Informed Policy-Making in Europe: A Personal View*, 17 J. RISK RSCH. 1089, 1100 (2014) (noting that "different guidelines and legal cases are being agreed upon without a clear and coherent policy as to when the Commission should be using risk assessments, let alone the precautionary principle" and considered that there is a need for "a thorough academic analysis of the present use of the precautionary principle"). Such academic endeavour has been partially carried out in Kenisha Garnett & David Parsons, *Multi-Case Review of the Application of the Precautionary Principle in European Union Law and Case*, 37 RISK ANALYSIS 502, 513 (2017) (studyingthe practice of the E.U. precautionary principle. They conclude that "the decision whether or not to apply the precautionary principle appears to be poorly defined, with ambiguities inherent in determining what level of uncertain and significance of hazard justifies invoking the precautionary principle . . . The different standards of proof for invoking the precautionary principle, established in E.U. directives and regulations, suggest that grounds for invoking the precautionary principle may be dependent on what is at stake"); *see also* Oliver Todt & Jose Luis Lujan, *Analyzing Precautionary Regulation: Do Precaution, Science, and Innovation Go Together? Analyzing Precautionary Regulation*, 34 RISK ANALYSIS 2163 (2014); Gloria Origgi*, Fear or Principles? A Cautious Definition of the Precautionary Principle*, 13 MIND & SOCIETY 1 (2014); MILIEU LTD, *supra* note 109, at 36–37.

121 The Lancet, Editorial, *Caution Required with the Precautionary Principle*, 356 THE LANCET, 265 (2000).

122 *See* J. Adam Carter & Martin Peterson *On the Epistemology of the Precautionary Principle*, 80 ERKENNTIS 1, 11 (2015).

123 Cass R. Sunstein, Laws of Fear: Beyond the Precautionary Principle (2005).

124 Simon Grant & John Quiggin, *Inductive Reasoning About Unawareness*, 54 ECON. THEORY 717, 746 (2013).

The precautionary principle as a regulatory tool can be recapped as having the following core elements:

- *Lack of certainties:* in a lack of scientific certainties and/or of full knowledge, the precautionary principle is applicable;
- *Lack of harm:* actual damage, even foreseeable damage, is no longer needed – only the potentiality of future severe damage (*i.e.,* hypothetical damage[125]) is necessary for the precautionary principle to apply;
- *The shift of the burden of proof:* the private actor must show the regulator the harmlessness of her conduct or innovation to be allowed to continue – there is an assumption of harm unless proven otherwise that private actors bear;
- *Urgent regulations:* the irreversibility of the damage envisaged, together with the inability of the private actor to prove the harmlessness of her conduction or innovation, justifies immediate regulations through interim and permanent measures.

Once these essential elements are present, the precautionary principle can successfully be invoked by the regulators for interventions or claimant damages based on the precautionary principle's breach. The precautionary principle's fundamental elements partake in its costs, and the anti-innovation aspect such principle eminently embroils.

B. *The Cost of the Precautionary Principle*

Costs associated with the precautionary principle pare down to both i) the opportunity costs (compliance costs and innovative costs) and to ii) the legal certainty costs (shifted burden of proof). We shall discuss these two types of costs commonly associated with the precautionary principle to unveil this principle's detrimental aspect and the need to overcome it with a so-called Innovation Principle.

1. Opportunity Costs of the Precautionary Principle

The precautionary principle creates opportunity costs for firms and private actors, which materialize in two different manners: the compliance costs of acting according to the precautionary principle (*i.e.,* seen costs) and the innovation costs of avoiding breaching the precautionary principle (*i.e.*, unseen costs).[126] The innovation costs of the precautionary principle were

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125 *See* generally Stephen Charest, Bayesian Approaches to the Precautionary Principle, 12 Duke Envtl. L. & Pol'y F. 265 (2002).

126 This classification of the seen/unseen costs reverts to FREDERIC BASTIAT, ECONOMIC SOPHISMS AND "WHAT IS SEEN AND WHAT IS NOT SEEN," (Jacques de Guenin ed., Jane Willems & Michel Willems trans., Liberty Fund 2018) (1850).

clearly outlined by Advocate General Bobek on the 30th of March 2017 in his Opinion for the case Giorgio Fidenato where he convincingly argued that:

> The precautionary principle justifies preventive action to avert risks that have not yet been fully identified or understood because of scientific uncertainty. Defined in such a broad way, that principle could be construed as encompassing various risks to various interests, be it the environment, health, public security, social justice, or perhaps even morality. However, suppose such a broader perception were to prevail. In that case, the difficulty then becomes determining where to draw the line so that the precautionary principle does not turn it a universal incantation to block innovation. By definition, innovation implies novelty in relation to the existent knowledge.[127]

It is noticeable that Advocate General Bobek considers the fact that the precautionary principle can stifle innovation because their associated risks are not fully "understood" by regulators. Therefore, it implies that novel products and business models might be blocked under the precautionary principle only because they fail to be fully understood by regulators – the precaution thus means banning the unknowns or the misunderstood. Zero-priced markets and ad-funded business models are potential illustrations of antitrust enforcers' difficulty in apprehending these novel business realities in the digital economy.[128] This tendency partakes to the significant innovation costs inferred by the precautionary prohibition inherent to this principle.

The absence of novelties and the excessive fears manifested towards risks may incur prohibitive costs for society since the issues or demand the innovation are expected to address will never be addressed or matched. The social problems are left unaddressed under the precautionary principle because regulators prefer a riskless society over a risk-loving society. As Bartsch puts it, for the sole instance of plant and animal breeding,

> It is time for a reformation of a dogmatic precautionary principle. Dogmatism is calling the absence of risks before any further action (and progress) might happen. However, there is no riskless activity in human life: taking no action by avoiding any change or undifferentiated application of strong law interpretation might highly likely increase the risk of food insecurity and socio-economic disasters.[129]

Precaution is thus costly. Innovation may well be beneficial – but these innovation benefits are blocked under the precautionary principle.

The compliance costs pertain to the precautionary principle's red-tape regulatory costs and which firms and citizens must adhere. The innovation

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127 Case C-111/16 ¶ 32, Criminal proceedings against Giorgio Fidenato et. al., 2017 E.C.R. 676.

128 *See* section III.A, Evidencing Precautionary Antitrust (The E.U. decision on Google Android well illustrates this case as the ad-funded business model of Google Android represents an innovative method of marketing one's operating system as opposed to Apple's IoS, which epitomized prices and traditional vertical integration business models).

129 Detlef Bartsch, *New Genome Editing Ante Portas: Precaution Meets Innovation*, 12 J. CONSUMER PROT. & FOOD SAFETY 297, 298 (2017).

costs relate to the highly risk-aversion instilled by the precautionary principle, thereby conducive to false positives (Type I errors) conducts and innovations that could have generated more benefits than costs are excessively deterred. Allhoff considers that "if the precautionary approach is meant to do something different than cost-benefit analysis, then it would be paralyzing."[130] Indeed, the precautionary principle discards the relevance of cost-benefit analyses and the error-cost framework and substitutes a new regulatory philosophy towards uncertainties and innovation; caution at (almost) all costs. Overdeterrence ushered by the precautionary principle correlates with the inherent risk-aversion this principle is conducive.

2. Legal Certainty Costs of the Precautionary Principle

The precautionary principle not only incurs direct and indirect economic costs but also contributes to weakening the rule of law due to the destruction of the causal link inherent to any liability theory and the shifting burden of proof. The precautionary principle experienced major criticisms: ill-defined and ambiguous. The precautionary principle has been designated as being legally impractical.[131] Pelkmans and Renda provide a helpful classification of E.U. rules concerning innovation. They divided E.U. legislation on innovation into four rubrics:

1. General rules: wide-ranging rules such as competition policy, procurement rules, trade regulations, bankruptcy regulation, consumer protection rules, risk management rules under the precautionary principle, etc.
2. Specific rules: rules which ensure the protection of property rights protection such as patent rules, intellectual property rights, and funding programs under Horizon 2020;
3. Sector-specific legislation: rules on chemicals, food law, biotechnology, GMOs, etc.;
4. Standardization: rules issued by the European Committee for Standardization, the European Commission for Electrotechnical Standardization, European Telecommunications Standards Institute, etc.[132]

These rules affect the innovation level, although they might not overtly address innovation objectives. Indeed, under one of the 1500 E.U.

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130 Fritz Allhoff, *Risk, Precaution, and Emerging Technologies*, 3 STUD. IN ETHICS, L., & TECH. 1, 20 (2009).

131 House of Commons Science and Technology Committee, 5th Report Advanced Genetic Techniques For Crop Improvement: Regulation, Risk and Precaution, 2014-5, HC 328, ¶ 27 (UK).

132 *See* ANDREA RENDA & JACQUES PELKMANS, HOW CAN E.U. LEGISLATION ENABLE AND/OR DISABLE INNOVATION (2014) https://ec.europa.eu/futurium/en/system/files/ged/39-how_can_eu_legislation_enable_and-or_disable_innovation.pdf.

Directives, 900 E.U. Regulations, and thousands of E.U. Decisions,[133] innovation becomes inevitably affected due to the twisted incentives generated by the E.U. regulatory environment dominated by the precautionary principle and its risk-averse culture.[134] More generally, the legal certainty costs of the precautionary principle pare down to its inherent paradigm change of bringing arguments in legal terms. Indeed, the burden of proof is shifted from the regulator to the innovator. The reversed burden of evidence mandates the regulator to regulate uncertainties and harmless situations based on potential risks preemptively. It gives the innovator the limited opportunity to block such ex-ante regulatory interventionism by assigning the responsibility for demonstrating the absence of (present and future) harm associated with the envisaged innovation. Thus, it is for the innovator to demonstrate her innovation's harmlessness and no longer for the regulator to show the (actual or likely) harm alleged to this innovation for the regulator to justify interventions.[135]

This dramatic shift of the burden of proof puts a premium on the status quo and discards changes in times of uncertainties (which is always the case with innovations). This reversed burden of proof generates legal uncertainty surrounding potential innovations since these innovations may be deemed illegal unless proven harmless. The difficulty for entrepreneurs to gather incontrovertible exogenous evidence to legitimize their innovations contributes to the uncertain legal environment into which their innovations may end up trapped.[136] Thus, the reversed burden of proof inherent in the precautionary principle generates legal certainty costs.[137] Establishing an innovation principle would effectively address most of the costs related to the precautionary principle.[138]

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133 *See* Mario Monti, Report to the President of the European Commission: A New Strategy for the Single Market, at 37 (2010) https://ec.europa.eu/docsroom/documents/15501/attachments/1/translations/en/renditions/pdf (acknowledging that " . . . in practice, multiple barriers and regulatory obstacles fragment intra-E.U. trade and hamper economic initiative and innovation", and that " the propagation of digital technology is a spontaneous process of innovation and transformation. Yet, regulatory and social conditions influence the speed and extent of the uptake of new technologies and the spread of the benefits of a digital economy. Europe is moving at a slower speed than the U.S.").

134 See Kathleen Garnett, Geert Van Calster, & Leonie Reins, Towards an Innovation Principle: An Industry Trump or Shortening the Odds on Environmental Protection?, 10 L. INNOVATION & TECH. 1 (2018).

135 *See* Portuese & Pillot, *supra* note 78, at 231.

136 *See* Suraj Malladi, *Judged in Hindsight: Regulatory Incentives in Approving Innovations*, in PROCEEDINGS OF THE 21ST ACM CONFERENCE ON ECONOMICS AND COMPUTATION (2020) https://extranet.sioe.org/uploads/sioe2020/malladi.pdf (explaining why the reversed burden of proof leads regulators to "drag their feet on approval decisions" of innovations due to the precautionary logic at the expense of the rate--and usefulness--of innovations).

137 *See id.* at 27.

138 *See* Portuese & Pillot, *supra* note 78.

C. *The Need for an Innovation Principle*

The shortcomings of the precautionary principle deter innovation and thus harm the economy significantly with the excessively risk-averse attitudes it implies. An alternative principle has emerged to address those identified shortcomings: the innovation principle. Scholars, policy advocates, and entrepreneurs suggest this innovation principle has recently been acknowledged by the highest European institutions: the European Council. Hence, this official recognition appears both promising and entails the need for further research and further scrutinization on what seems to become a serious challenger, or at least a serious balancing principle, to the damaging precautionary principle. To better grasp the proposed principle's content and implications, we shall first outline the genesis and definition of the innovation principle (1) before discussing its ramifications for policymaking (2).

1. The Emergence of the Innovation Principle

As an alternative or complement to the precautionary principle, the innovation principle appears to experience momentum.[139] The European Commission's in-house think tank, European Political Strategy Centre, published in June 2016 a note entitled "Towards an Innovation Principle Endorsed by Better Regulation," where it is acknowledged that "innovation is an essential element of the internal market" and that "by definition, innovation cannot be preordained. It takes place in response to diverse incentives."[140] Concerning the interactions between the precautionary principle and the innovation principle, the European Commission's think

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[139] *See* The Innovation Commission, *One Principle and Seven Goals for Innovation* (2019) [hereinafter the Lauvergeon Report] https://www.bpifrance.fr/content/download/16327/214181/version/1/file/One%20principle%20and%20seven%20goals%20for%20innovation.pdf; BusinessEurope, *Research and Innovation in the New European Political Cycle* (2019) https://www.businesseurope.eu/sites/buseur/files/media/position_papers/iaco/2019-09-09_position_paper_research_and_innovation_in_the_new_eu_political_cycle.pdf; Press Release, Digital Europe, Horizon Europe: Innovation should be at the core of E.U. legislation (Dec. 11, 2018) https://www.digitaleurope.org/wp/wp-content/uploads/2019/01/Press-release-Innovation-principle.pdf; *see* Portuese & Pillot, *supra* note 78; *see* Garnett, *supra* note 134 (advocating for a qualified innovation principle that balances reasonable risk-taking with a degree of responsibility); Peteris Zilgalvis, *The Need for an Innovation Principle in Regulatory Impact Assessment: The Case of Finance and Innovation in Europe*, 6 POL'Y & INTERNET 377 (2014) (advocating for an innovation principle in the FinTech sector to ensure that legislative proposals are "future proofed"); Jacob A. Hasselbalch, *Innovation Assessment: Governing Through Periods of Disruptive Technological Change*, 25 J. EUR. PUB. POL'Y 1 (2017) (outlining the need for innovation assessments); Yangguan Li, Junju Yue, & Min Wu, *Research on the Innovation Elements in the Process of Technology Innovation,* in MATEC WEB OF CONFERENCES 100 (2017) (elaborating the general process of the formation of innovation principle).

[140] European Political Strategy Centre, *Towards an Innovation Principle Endorsed by Better Regulation*, in EPSC STRATEGIC NOTES 14 at 1 (June 30, 2016).

tank appears to qualify the relevance of the precautionary principle to be given more room for an innovation principle to emerge in a balancing exercise with the precautionary principle:

> Although the precautionary principle derives from environmental law, it is – according to the jurisdiction of the ECJ – a general principle of E.U. law, that includes economic and non-economic considerations . . . Although the precautionary principle may be understood as counter principle to the innovation principle, it is of particular importance for innovation, because especially at an early stage of a new technique or approach, the possibility of a risk often cannot be ruled out. It provides procedures and criteria to assess, appraise and manage risks. As envisaged by the precautionary principle, an integral part of the risk management is the examination of the potential benefits and costs of action or lack of action.[141]

The innovation principle is said to fit within the broader Better Regulation Agenda[142] of the European Commission, whereby the regulatory burdens to innovation are addressed optimally by aiming at "smart regulations" and at "innovation deals":[143]

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141 *Id.* at 3.

142 *See* European Commission Directorate-General for Research and Innovation, *Better Regulations for Innovation-Driven Investment at E.U. Level: Commission Staff Working Document* (2016) (stating that the Better Regulation Agenda "is in line with the concept of 'innovation principle' that anticipates impacts on innovation to be assessed and addressed in policy and regulatory proposals." The European Commission adopted the Better Regulation Agenda on 19 May 2015). *Better Regulation for Better Results – An E.U. Agenda*, COM (2015) 215 final (May 19, 2015) (arguing that "Better regulation is not about "more" or "less" E.U. legislation; nor is it about deregulating or deprioritizing certain policy areas or compromising the values that we hold dear: social and environmental protection, and fundamental rights including health - to name just a few examples. Better regulation is about making sure we actually deliver on the ambitious policy goals we have set ourselves" and that "Our commitment to better regulation must apply across the board building on the progress already made with impact assessment and the Regulatory Fitness Programme (REFIT). We should not impose policies but prepare them inclusively, based on full transparency and engagement, listening to the views of those affected by legislation so that it is easy to implement ". On 13 April 2016, the European Parliament, the Council of the European Union and the European Commission signed a new Inter-Institutional Agreement on Better Law-Making as an extension tool of the Better Regulation practices to all E.U. institutions). *See also* Andrea Renda, *How can sustainable Development Goals be 'mainstreamed' in the E.U.'s Better Regulation Agenda?,* CEPS POL'Y INSIGHTS (2017) (arguing that " the current use of better regulation in the European Commission, other E.U. institutions and member states appears incapable of mainstreaming sustainable development in daily regulatory practice. The E.U. better regulation agenda is still coping with a number of existential dilemmas (for example, is it a cost-cutting agenda or a policy coherence agenda?); existing imperfections in the policy cycle (for example the missing role of the Council, the very limited implementation of better regulation in member states); and governance problems that might impair the Commission's ability to use better regulation for [Sustainable Development Goals]") ; *see* Giulia Listorti et al., *Towards an Evidence-Based and Integrated Policy Cycle in the E.U.: A Review of the Debate on the Better Regulation Agenda*, 58 J. COMMON MKT. STUD., 1 (2020) (reviewing the academic debate on Better Regulation Agenda and find it confined to academic fields of political science, public administration, and law); Inge Govaere & Sasha Garben, *The Multi-Faceted Nature of Better Regulation*, in THE E.U. BETTER REGULATION AGENDA: A CRITICAL ASSESSMENT 3 (I. Govaere & S. Garben eds. 2018).

143 "Innovation deals" are voluntary cooperation agreements between the E.U., innovators, and national and local authorities. Commissioner for Research, Science, and Innovation presented innovation

> The innovation principle will provide opportunities if it is conceived in a comprehensive manner. It should aim at improving the overall societal well-being by enhancing the effectiveness, coherence, and comprehensibility of regulation . . . Regulatory burdens are often perceived as a major obstacle to innovation. Hence, the objective of improving the legal framework is shared by the innovation and Better Regulation policy. Therefore, a close link exists between both, which has to be taken into account while implementing the innovation principle.[144]

A European Commission document already outlined the complementarity between the innovation principle and the Better Regulation Agenda. Indeed, on February 10th 2016, the European Commission issued a staff working document, "Better regulation for innovation-driven investment at E.U. level," where it is argued that the Better Regulation Agenda laid down in 2015 provided a "Research Innovation Tool" helping to assess

> The positive and negative innovation implications of options for new legislative proposals. This is in line with the concept of an "innovation principle" that anticipates impacts on innovation to be assessed and addressed in policy and regulatory proposals.[145]

A few months later, on 26 May 2016, the European Council of the European Union stressed,

> That, when considering, developing or updating E.U. policy or regulatory measures, the "Innovation Principle" should be applied, which entails taking into account the impact on research and innovation in the process of developing and reviewing regulation in all policy

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deal as "an instrument towards a more modern and responsive administration that helps innovators facing regulatory obstacles to innovation in the existing E.U. legislative framework. Implementing Innovation Deals shows that we are changing as an institution, from only setting rules to being pragmatic and pro-active in helping achieve policy objectives through innovation." *European Commission Press Release, European Commission addresses barriers to innovation: the first Innovation Deal focuses on water reuse (April 7, 2017)*. Innovation deals were introduced in 2015, where it was planned that "Commission will launch a pilot approach for "innovation deals" to identify and address potential regulatory obstacles for innovators." *Closing the loop - An EU action plan for the Circular Economy*, at 20, COM (2015) 614 final (Dec. 2, 2015). Until now, the European Commission has signed two innovation deals—one on e-vehicule batteries and one on treated water reuse. *See European Commission Press Release, supra*; *European Commission Press Release, European Commission tackles barriers to innovation: the second Innovation Deal focuses on batteries for electric vehicles (Mar. 12, 2018)*; *see also* European Commission Directorate-General for Research and Innovation, *supra* note 142, at 12 (arguing the innovation deals "address regulatory uncertainties identified by innovators, which can hinder innovation within the existing legal framework. In cases where a regulatory obstacle can only be addressed at E.U. level, the European Commission could help national, regional or local authorities to identify and make use of existing flexibility in the E.U. legislative framework or to implement specific legal provisions appropriately by providing clarification. In this way, potential barriers to innovation can be addressed, whilst fully respecting E.U. law, without any derogation from the existing regulatory framework, unless specifically foreseen in the latter instruments").

144 European Political Strategy Centre, *supra* note 140, at 4.

145 European Commission Directorate-General for Research and Innovation, *supra* note 142.

> domains, and calls on the Commission together with the Member States, to further determine its use and to evaluate its potential impact.[146]

Regulatory burdens are speculatively overcome via agile regulations such as innovation deals and/or regulatory sandboxes.

Regulatory sandboxes refer to the U.S. initiative in 2012 for FinTech regulation, and the expression was later christened in the UK in 2015. Regulatory sandboxes allow innovative companies to experiment and launch highly innovative products or business models in a specific time frame under relaxed regulatory supervision by the relevant authority. Regulatory sandboxes allow for legal certainty for innovators, while this innovation instrument enables them to exploit their innovative ideas at ease for society's benefit. Regulatory sandboxes enable potential relaxations of regulatory requirements through testing and feedback to become a secure innovation zone. Regulatory sandboxes reconcile the balance between innovation and regulation. The innovator and the regulator engage in an open dialogue within which innovation levels are optimized, whereas the regulatory burdens are minimized.

A prime illustration lies in the UK's Financial Conduct Authority 2017 Report, which detailed the knowledge acquired from a series of regulatory sandboxes:

- Regulatory sandboxes improved levels of innovation with new offerings for financial consumers, including new blockchain solutions, biometric services, and custom-automated financial advice;
- More investments in innovative technologies and improved survival rate for startups;
- Decreased misbehavior by companies thanks to standard safeguards implemented.[147]

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146 European Council of the European Union Press Release, Better regulation to strengthen competitiveness (May 26, 2016) (focusing on the footnote at the end of the sentence which reads "the Councils recalls the Precautionary Principle.").

147 *See* JORGE G. JIMENEZ & MARGARET HAGAN, *A Regulatory Sandbox for the Industry of Law,* STAN. L. SCH. LEGAL DESIGN LAB WHITE PAPER 5, (2019) https://law.stanford.edu/publications/a-regulatory-sandbox-for-the-industry-of-law/ (considering that "a regulatory sandbox for the legal industry . . . could be helpful in meeting the challenges of a changing market, assist new legal business to flourish, and advance access to justice"). *See also* Dirk Zetzsche et al., *Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation*, 23 FORDHAM J. CORP. & FIN. L. 31, 98 (2017) (outlining four stages of smart regulation for FinTech where regulatory sandboxes constitutes a decisive second stage: "a reasonable regulatory approach could comprise four sequenced stages: (1) A testing and piloting environment; (2) A regulatory sandbox, which widens the scope of testing and piloting, is transparent, and removes the regulators' disincentive to grant dispensations (and depending on the ecosystem and the importance of cross-border recognition the sandbox may take the form of a sandbox umbrella); (3) A restricted licensing / special charter scheme, under which innovative firms can further develop their client base and financial and operational resources; (4) When size and income permits, the move to operating under a full license").

Regulatory sandboxes can be promising tools for innovation-driven legal environments dedicated to innovative startups and nascent companies. Indeed,

> A regulatory sandbox is an interesting regulatory innovation of its own. If used smartly, it can benefit consumers and the economy . . . Regulatory agencies should use sandboxes to keep up to date with fast-paced innovation and promote market competition without sacrificing consumer protection. Real innovation-minded regulatory agencies see sandboxes as means, not ends. Real innovation-minded regulatory agencies shun the glitz of sandboxes. Rather they take the insights gained from sandboxes to improve rulemaking, supervision, and enforcement policies so that the entire market can benefit.[148]

While regulatory sandboxes can emphasize the need for a more innovation-driven regulatory environment for innovative ideas and business models, they remain focused on the experimentation of changing or relaxing regulations before designing the permanent regulatory framework.[149] Thus, regulatory sandboxes and innovation deals provide a temporary mutual-learning period for both the innovator and the regulator before the latter can shape more innovation-driven regulations.[150] Consequently, they can only complement the view of an innovation principle that is permanent as a legal norm and paramount to other regulatory requirements. In that regard, the innovation principle further achieves the temporary objectives of regulatory sandboxes, and innovation deals more dramatically and permanently shaping the regulatory environment and culture towards more innovation-driven outcomes.

This is undoubtedly why the innovation principle has been recognized as a regulatory objective by the highest E.U. institutions and has been propelled by entrepreneurs and industry actors as a reasonable balance between precaution and regulation.[151] Introduced in October 2013 by the

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148 Dan Quan, *A Few Thoughts on Regulatory Sandboxes*, STANFORD PACS CENTER ON PHILANTHROPY & CIVILSOCIETY (2020), https://pacscenter.stanford.edu/a-few-thoughts-on-regulatory-sandboxes/.

149 *See* Harry Amstrong & Jen Rae, *A working model for anticipatory regulation* (Nesta Working Paper, Nov. 2017), https://media.nesta.org.uk/documents/working_model_for_anticipatory_regulation_0.pdf (proposing an advisory, adaptive, and anticipatory approaches in order to foster the regulators' role in the innovation process).

150 *See* JIMENEZ, *supra* note 147, at 4; Zetzsche, *supra* note 147, at 92-3.

151 *See e.g.*, Lauvergeon Report, *supra* note 139, at 13. Stating that the Commission, made of entrepreneurs and industrialists, "advises adopting an innovation principle . . . at the highest level, balancing the precautionary principle, yin and yang of societies' progress." Following the Lauvergeon Report, the innovation principle has been introduced into French law via an amendment No. 808 to the Macron Law of 2015. Amend. Titre III, Le principe d'innovation, Ch. 1, "Définition du principe d'innovation" (2015). http://www.assemblee-nationale.fr/14/amendements/2498/AN/808.pdf. *See also* BusinessEurope, *supra* note 139 at 18 (concluding that, as part of the emergence of a "fit-for-innovation" regulatory framework, regulators need to "fully implement the Innovation Principle across the whole

European Risk Forum, the innovation principle suggests that "whenever policy or regulatory decisions are under consideration the impact on innovation as a driver for jobs and growth should be assessed and addressed."[152] The European Risk Forum is a think tank founded in 2007 and dedicated to research and policy proposals on risk assessments whose members are companies and trade associations.[153] Designed to enhance risk assessment with a distinct concern for innovation implications of envisaged regulatory interventions, the innovation principle has emerged from the "deep concern over the negative effect that increasingly risk-averse legislation is having on European innovation."[154] The complementarity of the precautionary principle and the innovation has been acknowledged from the outset since the "two principles should be used alongside each other, recognizing the need to protect society and the environment while also protecting Europe's ability to innovate."[155] The innovation principle's objective is to stimulate innovation investments by fostering innovators' confidence in the applicable regulatory framework.[156]

More collegially, the European Risk Forum, together with Business Europe and the European Round of Table of Industrialists have issued, in June 2015, a Joint Statement, "Better Framework for Innovation – Fuelling E.U. policies with an Innovation Principle."[157] In this Joint Statement, these organizations consider that to:

> Build on the ideas set out in the new Better Regulation Guidelines and science-based policy making agenda and to shape a more positive and progressive innovation policy, the European business community believes that E.U. institutions now need to incorporate the Innovation Principle as an integral component of the policy-making process.[158]

The innovation principle may consist of an innovation checklist as part of an enhanced risk assessment with criteria such as i) improving

policy-cycle, from evaluation to implementation. . . . Also, the E.U. should give guidance on the relation between the innovation and the precautionary principles, as they are too often interpreted as conflicting rather than complementary.").

152 *See* European Risk Forum, *What is the Innovation Principle?,* THE EUROPEAN REGULATION AND INNOVATION FORUM (2015), https://www.eriforum.eu/uploads/2/5/7/1/25710097/innovation_principle_one_pager_5_march_2015.pdf.

153 See *id.*

154 *Id*.

155 *Id.*

156 *See* European Risk Forum, *Innovation Principle – Q&A*, THE EUROPEAN REGULATION AND INNOVATION FORUM (2015), https://www.eriforum.eu/uploads/2/5/7/1/25710097/innovation_principle_qa_-_jan.21.pdf.

157 Joint Statement of Business Europe, the European Risk F. & the European round table of industrialists, ERT, Better Framework for Innovation: Fueling E.U. Policies with an Innovation Principle (June 2015), http://www.eriforum.eu/uploads/2/5/7/1/25710097/businesseurope-erf-ert_innovation_principle_joint_statement.pdf.

158 *Id.*

implementation of existing legislation (rather than adding extra regulatory burden); ii) keeping pace with a changing world (rather than frequently reviewed prescriptive regulations); iii) creating space for innovators to measure and manage technological risk (rather than solely risk avoidance); iv) weighing risks of alternative solutions in comparison (rather than narrowing comparisons for counterfactuals with the *status quo* only).[159] To ensure that the innovation principle is granted full consideration, the Joint Statement concludes with suggestions for providing credible and independent scientific advice to the E.U. institutions to uphold high scientific standards and evidence.[160] Indeed, scientific evidence needs to be reliably generated and used for policymaking and must not be an instrumental "tool with which to manipulate or justify the policy making process."[161]

This Joint Statement found immediate responses and backing from the E.U. institutions themselves since the European Commission's think tank wrote in 2016 that the innovation principle "could be a guiding principle" *in order* "to ensure that the regulatory process becomes more innovation-friendly."[162] It also recognized that:

> The innovation principle, understood as a positive obligation to facilitate innovation, offers guidance on the process and regulation content. It is premised on the idea that well-designed regulation ensures the appropriate framework conditions to foster entrepreneurship and a culture of innovation. The innovation principle can be implemented through the process as well as content. Both are of equal importance to achieve a qualitative change in the way that regulation can fuel innovation.[163]

Also, the European Commission itself acknowledged the benefits to be derived out of the innovation principle.[164] This principle should intervene at

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159 See *id*.

160 *Id*.

161 *Id.* On the other private sector's initiative advocating for the Innovation Principle, *see also* Press Release, Digital Europe, *supra* note 139, at 1 (where the trade association representing 35,000 digital businesses argued that "the innovation principle aims to reduce the E.U. innovation deficit . . . .This principle guarantees that E.U. policies would not dramatically affect innovation and drive us further away from this goal. . . . Digital Europe finally recalls that the innovation principle does not undermine the precautionary principle, but rather complements it.").

162 European Political Strategy Centre, *supra* note 140, at 10.

163 European Political Strategy Centre, *supra* note 140, at 7.

164 *See* European Commission, *supra* note 142, at 11. *See also* European Commission, *The Innovation Principle*, EUROPEAN COMM'N (Dec. 13, 2019), https://ec.europa.eu/info/sites/info/files/research_and_innovation/knowledge_publications_tools_and_data/documents/ec_rtd_factsheet-innovation-principle_2019.pdf (where the European Commission defines the innovation principle as following: "E.U. policy and legislation should be developed, implemented and assessed in view of encouraging innovations that help realise the E.U.'s environmental, social and economic objectives, and to anticipate and harness future technological advances." Also, the European Commission incorporated the innovation principle into its Horizon 2020 funding programme.); European Commission, *Tool #21 Research & Innovation of the European Commission*, EUROPEAN COMM'N (last visited Aug. 11, 2022) https://ec.europa.eu/info/sites/info/files/fileimport/better-regulation-toolbox-

the preparatory stage and the impact assessment stage, and the evaluation stage.[165] Furthermore, the Finnish Presidency of the Council of the European Union organized on the 3rd of December 2019 a high-level conference entitled "The Innovation Principle: Developing an innovation-friendly legislative culture," where it has notably been concluded that:

> The Innovation Principle is an important approach in addressing key socio-economic transitions such as the transition to carbon neutrality and the circular economy as well as in responding in an agile way to rapid technological advances; . . .
>
> The quality of the regulatory environment in relation to innovation is becoming an asset for competitiveness internationally. For instance, digital business models are often global and European companies need a competitive regulatory framework to grow and succeed in intense competition; . . .
>
> The E.U. needs even more agile, more dynamic ways of law making to help companies to scale up their businesses in a sustainable way.[166]

It thus appears that the innovation principle will soon be encapsulated into the E.U. legal environment at the same legal valence as the precautionary principle to balance out this latter principle effectively.[167]

2. The Implications of the Innovation Principle

The innovation principle suggests that regulators need to better grasp some business models' innovativeness by a stronger stakeholder's engagement with regulatory proposals and implementation. The innovation principle also requires a "holistic approach" with an enhanced policy toolbox whereby innovation concerns are considered at the agenda-setting, the preparatory and drafting stages, and the implementation and evaluation

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21_en_0.pdf; Croner-i, *Innovation and the Precautionary Principle – risk or opportunity?*, CRONER-I (June 18, 2019), https://app.croneri.co.uk/feature-articles/innovation-and-precautionary-principle-risk-or-opportunity#PO-DOCUMENT-ID_53727.

165 *See* European Commission, *supra* note 142.

166 Finland's Presidency of the Council of the European Union & Ministry of Econ. Aff. And Emp. of Fin., Report on the High level Conference on Innovation Principle – Developing an innovation-friendly legislative culture, at 5 (Dec. 3, 2019), https://innovationprinciple2019.fi/sites/default/files/InnovationPrincipleConferenceReport.pdf*; see also* Signe Ratso, Deputy Dir.-Gen. Rsch. & Innovation, European Commission, Speech at the High level Conference on Innovation Principle 10 (Dec. 3, 2019) ("clarity about the Innovation Principle is needed. However, the Innovation Principle in practice in Europe does not mean innovation per se, but innovation that delivers social and environmental benefits together with economic advantages,").

167 *See* Gaia Taffoni, *Regulating for Innovation? Insights from the Finnish Presidency of the Council of the European Union*, 11 EUR. J. OF RISK REGUL. 141, 146 (taking note of the fact that "innovation is a fundamental perspective endorsed by the Commission, it is not a legal principle (yet).").

stages.[168] Such a holistic approach paves the way for agile regulations such as regulatory sandboxes and innovation deals. Furthermore, the innovation principle implies that ex-post regulatory review and evaluation are preferred over ex-ante regulatory interventions when uncertainties are important in novel industries or novel products. Innovation processes in the marketplace are often fragile and unstable since massive R&D expenditures are needed for little predictability about the business outcomes. Therefore, these innovation processes must be secure in the marketplace with a risk of encouraging a culture that can also foster competition in the marketplace. Below are the elements of innovation-friendly regulatory practices with the integration of the innovation principle in all stages of regulatory design.[169]

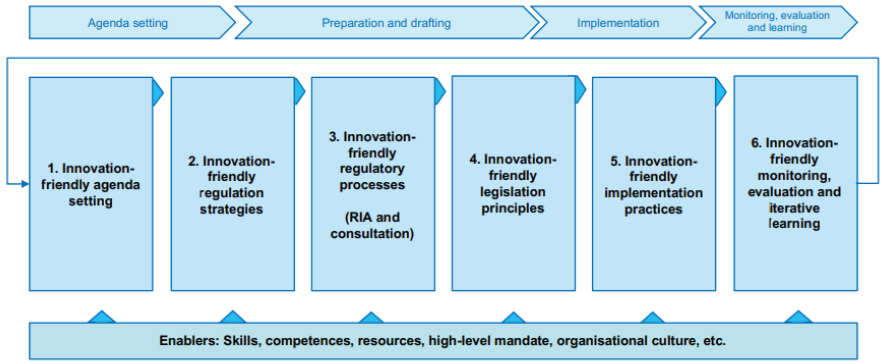

Figure 1: The Innovation Principle in Regulatory Design

Thus, one of the main policy lessons drawn out of the high-level conference entitled "The Innovation Principle: Developing an innovation-friendly legislative culture," which took place on the 3rd of December 2019, organized by the Finnish Presidency of the Council of the European Union, was that "E.U. rules, such as state aid rules, can be implemented in a way that encourages innovation without interfering with markets or competition."[170]

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168 Finland's Presidency of the Council of the European Union & Ministry of Econ. Aff. And Emp. of Fin. *supra* note 166.

169 *See* Vesa Salminen & Kimmo Halme, *Policy Brief: Towards Innovation-Friendly Regulation* (2019), https://tietokayttoon.fi/documents/1927382/2116852/22-2019-Framework+for+innovation-friendly+regulation.pdf/4d888ac9-7294-24f8-0941-47105f637da9/22-2019-Framework+for+innovation-friendly+regulation.pdf?version=1.0&t=1575270048000; Finland's Presidency of the Council of the European Union & Ministry of Econ. Aff. And Emp. of Fin., *supra* note 166.

170 Finland's Presidency of the Council of the European Union & Ministry of Econ. Aff. And Emp. of Fin. *supra* note 166.

Considered not to be "*a policy* per se*, but rather an approach,*"[171] the innovation principle requires further conceptualization to gain operationality within the regulatory frameworks. The innovation principle would improve the rate of innovation and its diffusion in Europe.[172] It would ensure more "evidence- and foresight-based policymaking" while not being automatically "anti-regulatory" contrary to common beliefs.[173] Nevertheless, the innovation principle aims at improving the overall innovation-friendliness of the E.U. regulatory framework.[174] Once the rationale for intervention has been rationally evidenced from an innovation perspective, the innovation principle suggests that the interventions may occur either under the Better Regulation Tool or under Innovation Deals, both designed by the European Commission.[175] An innovation impact assessment will be conducted both ex ante and ex post so that ongoing evaluations ensure agile and updated assessments on the technological changes and the innovation processes which endlessly occur.

Interestingly, the innovation principle is thought to provide an operational context within which innovation and competition are encouraged via innovation-friendly regulatory approaches at all policymaking stages. In other words, the innovation principle would enable greater innovation through innovators' incentivization and would thus yield fiercer competitive levels given the disruptive nature of innovation. Let's recall the words of Commissioner Moedas, who vouched for an optimal balancing exercise between the precautionary principle and the innovation principle when he asked:

> I believe we need to do more to create a regulatory environment for innovation to flourish […] How do we make sure that regulation is based on an innovation principle as well as a precautionary principle?"[176]

Because innovation results from competitive constraints and/or predates disruptive competition, the innovation principle would help reach competition policy objectives of greater competitiveness and lower economic rents. In that regard, the innovation principle would overtly balance out the covertly instilled precautionary principle perceptible in the European antitrust enforcement. We shall further scrutinize and evidence this claim below.

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171 *See* Andrea Renda &Felice Simonelli, Study Supporting the Interim Evaluation of the Innovation Principle 11 (2019).

172 *See Id.* at 13.

173 *Id.* at 13.

174 *See id.* at 16.

175 *See* table below.

176 Carlos Moedas, Comm'r for Rsch., Innovation, and Sci., Speech: Open Innovation, Open Science, Open to the World, (June 22, 2015).

In conclusion, it appears blatant the detrimental consequences of the precautionary principle on both the innovativeness and competitiveness of the European economy requires a complementary principle to ensure adequate and reasonable regulatory outcomes. The precautionary principle's unintended effects appear unaffordable in a fast-moving innovation society fitted in a globalized economy. Consequently, the innovation principle appeared as a credible complement to the precautionary principle. In Part III, we shall prove the European antitrust enforcement experience a precautionary approach, primarily when it addresses digital markets. In a similar vein, the need to go beyond the precautionary principle with an innovation principle, this precautionary approach to antitrust enforcement needs to be complemented with a more innovation-friendly approach to E.U. antitrust enforcement Part IV.

III. PRECAUTIONARY ANTITRUST

We have demonstrated that the precautionary principle is one of the general, yet controversial, law principles–chiefly from the E.U. legal order. This precautionary principle has come to the fore and imbued all areas of the European Union's laws and regulations to become an essential element of policymaking and a general principle of E.U. law. The explanation for this European success lies in the intrinsically risk-averse philosophy, which underpins the precautionary principle. This risk-averse leaning corresponds to Europeans and the European Union's normative ethos, who ambitions risk-minimization to the greatest extent and who dislikes threats of harm and mere probabilities of damage. Associated with it, the innovative and regulatory costs of the precautionary principle are now well documented, so much, so an innovation principle has repeatedly been suggested–and is even under consideration by the European institutions themselves to countervail these increasingly enormous costs of the precautionary principle is a dynamic economy.

The precautionary principle has nevertheless made intakes into an overlooked area of law and has consequently, and is currently revolutionizing, the associated policy: antitrust enforcement (or competition policy). We shall argue and evidence in this section that the precautionary principle and its associated costs described in the previous section are present in the European antitrust enforcement, particularly concerning high-tech/digital markets. The precautionary logic has entered antitrust without noise but with considerable influence. The precautionary principle applies in antitrust enforcement without awareness but with tenseness. This is what we call "precautionary antitrust." Such precautionary antitrust in Europe is particularly noticeable in digital markets. European precautionary antitrust is so influential that it can help foresee US antitrust developments in the years to come.

After having provided a piece of evidence of the overriding precautionary antitrust enforcement which currently takes place in Europe concerning digital markets (1), we would pose a moment to conceptualize this underlying and influential trend that has shaped, shapes, and will shape European antitrust enforcement but also is expected to exert ever-increasing influence onto the US antitrust enforcement (2). Alike the precautionary principle implying an innovation principle due to the costs associated with the former principle, precautionary antitrust calls for a reflection to overcome it with a more innovation-based antitrust enforcement (3).

A. *Evidencing Precautionary Antitrust*

Precautionary antitrust comes to the fore with illustrations of the precautionary principle's fundamental elements in competition policy enforcement. Namely, in the absence of scientific knowledge, regulatory interventions may pre-emptively take place as long as the proponent of the deemed the scrutinized activities fails to demonstrate with certainty the lack of future harm. The precautionary principle's motto is "better safe than sorry." Following the precautionary principle's motto, a number of antitrust initiatives borrow heavily from the precautionary principle with a shift from an ex-post, case-by-case approach of enforcing antitrust rules toward an ex-ante, per se rules of illegality leading to preemptive blanket prohibitions in the name of the regulation of competition. In Europe, such a shift is best illustrated with the Digital Markets Act. In the United States, such a shift is best described by antitrust bills recently introduced and with the weaponization of Section 5 of the Federal Trade Commission Act to preemptively regulate the "unfair methods of competition."

While the evidence scrutinizes the E.U. antitrust enforcement, the debate over US antitrust enforcement has undergone some adjustments that correspond to a precautionary approach to antitrust and materialize in future proposals and a more precautionary decisional practice. The influence of European precautionary antitrust enforcement over the US antitrust debate is discussed in the next section. In the present section, each element evidencing the precautionary approach toward European antitrust enforcement is considered successively.

1. The Informational Uncertainties Surrounding Precautionary Antitrust

As a preliminary note, the contextual prerequisite (*i.e.,* absence of scientific knowledge) matches the environment we face when antitrust enforcement is applied to digital markets. Indeed, fraught with uncertainties

and underpinned by probabilities,[177] state of the art about antitrust enforcement for algorithm-driven platforms is still in its infancy[178]: the shape and application of these modern technologies are "unknowable," "possibly unimaginable," and "develop at uneven and unpredictable rates" as the UNCTAD Report rightly sums ups.[179] Several reports have counted for these "known unknowns." For instance, on the unique challenges presented by technology platforms, in the Stigler Report,[180] the authors note that "very often the uncertainty involved in evaluating harms to innovation will be high, especially in contrast to the analysis of price forecasts."[181] With rapid entry/exit and numerous acquisitions, digital platforms' fast-changing environment creates uncertainties for regulators and judges since retrospective knowledge about platform dynamics remains terse for these decision-makers. The uncertainties can nevertheless become a ground for quicker and fiercer antitrust interventions, especially with a dedicated and

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177 *See* FED. MINISTRY OF ECON. AFF. AND ENERGY, *A New Competition Framework for the Digital Economy*, Report by the Commission 'Competition Law 4.0' 14 (2019), https://www.bmwi.de/Redaktion/EN/Publikationen/Wirtschaft/a-new-competition-framework-for-the-digital-economy.pdf?__blob=publicationFile&v=3 (With respect to antitrust enforcement in digital markets, the German government sums up the difficulties by stating that "any substantive discussion on the various options for reforms requires an understanding of the trade-offs associated with the relevant regulatory regimes and law enforcement institutions in what is a highly dynamic area of regulation full of uncertainty.").

178 *See, e.g.*, The BRICS Competition Law and Policy Centre, *Digital Era Competition: A BRICS View* 166 (2019), http://bricscompetition.org/upload/iblock/6a1/brics%20book%20full.pdf (2019) (the BRICS Report) (stating that "an extra uncertainty appears in case of [multi-sided platforms] due to the network effect when the number of users becomes an important determinant of the platform efficiency (whatever it is measured)."). But, the platform efficiency (and viability) almost exclusively pares down to the very number of its users since network effects are crucial to any digital platform. Thus, if the essence of digital platforms (i.e. network effects generated by number of users) represents "uncertainties," it becomes blatant that the interplay of digital platforms, their internal and external functioning remain vaguely understood. On algorithms, the French and German competition authorities acknowledge that ". . . so far little is known about the actual real-world use of advanced techniques for pricing purposes. In particular, it remains to be seen if and how pricing algorithms can arrive at some kind of communication. This uncertainty is partly caused by the fact that the exact nature of potential 'algorithmic communication' cannot be anticipated." Autorité de la Concurrence & Bundeskartellamt, *Algorithms and Competition*, at 44 (Nov. 6, 2019), https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Berichte/Algorithms_and_Competition_Working-Paper.pdf;jsessionid=514F1107B70FCC46BFFFDE3FFFA8AF64.2_cid381?__blob=publicationFile&v=5.

179 United Nations Conference on Trade and Development, *The 'New' Digital Economy and Development*, U.N. Doc. ICT4D/08 (Oct. 2017).

180 University of Chicago & Stigler Center For the Study of the Economy and the State, Stigler Committee on Digital Platforms: Final Report (2019).

181 *Id.* at 91 & 94. (noting that "digital markets typically have high levels of uncertainty and move quickly. Given uncertainty, courts must determine how much weight to put on the risk of enforcement mistakes: both the likelihood of a mistake and its cost. . . . Especially in technology markets, the most important competitive threats to incumbent firms are likely to come from new entrants that might be vulnerable to exclusionary conduct or anticompetitive acquisitions when their competitive prospects are uncertain.").

newly created "digital authority" in charge of tech platforms. The Stigler Report indeed considers that "[…] the cost of false negatives is high and therefore, under conditions of uncertainty, the public interest requires the [the Digital Authority] to take a more interventionist approach."[182]

Also, the Cremer Report acknowledges that "in the digital world, where the future is more uncertain and less understood, there will be under-enforcement if we insist that the harm be identified with a high degree of probability."[183] Thus, uncertainties surrounding antitrust enforcement in digital markets should not prevent early interventions. This normative insight follows a precautionary logic. In "situations of uncertainty," antitrust agencies should "not try to work with the error cost framework cases by case" but rather "some modifications of the established tests, including the allocation of the burden of proof and the definition of the standard of proof, may be called for."[184] Again, uncertainties of the digital market justify, rather than deter, enhanced antitrust enforcement via different legal standards. These uncertainties justify a "balanced error cost analysis" with "great care and intellectual discipline."[185] Overall, the Cremer and Furman reports suggest that uncertainties inherent to digital understanding markets should not constitute obstacles for antitrust interventions only if a coherent rationale justifies the paradigm shift. We argue that this coherent rationale is the precautionary logic underpinning these normative proposals.

The digital markets' functioning is still better deciphered through research and experience with economists, data scientists, engineers, political scientists, etc. The countless ramifications of understanding disruptive business models suggest that more knowledge is needed. The knowledge resources of even highly respected antitrust authorities are severely limited. A telling illustration is provided by the European Commission, which erred in assessing the ability of Facebook not to utilize WhatsApp's data after the reviewed merger would take place.[186] The European Commission fined

182 *Id.* at 114.

183 *See* Cremer Report *supra* note 63, at 42.

184 *Id.* at 51.

185 *Id.* at 123.

186 Commission Decision imposing fines under Article 14(1) of Council Regulation (EC) No. 139/2004 for the supply by an undertaking of incorrect or misleading information Case M.8228 Facebook/WhatsApp, at 20, COM (2017) 3193 final (May 17, 2017) (concluding that Facebook infringed E.U. competition law on the following two grounds: "i) [it has] at least negligently supplied incorrect or misleading information [in the case] Facebook/WhatsApp, and; ii) [it has] at least negligently supplied incorrect or misleading information in the Reply . . . made pursuant to Article 11(2) of the Merger Regulation [in the case] Facebook/WhatsApp."). See also the initial clearance of the merger, Commission Decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004 Case M.7217 – Facebook/ WhatsApp, at 29, COM (2014) 7239 final (March 10, 2014). (concluding naively that users' integration was both technically improbable – "the Commission takes into account that there are likely to be significant technical hurdles to enable the integration of WhatsApp and Facebook. In particular, such integration would likely require involvement of users of both WhatsApp and Facebook to match/create their profiles on both platforms. Any forced transfer of WhatsApp users onto the Facebook social network

Facebook for providing "misleading information" during the merger review regarding its ability to establish reliable automated matching between Facebook users' accounts and WhatsApp users' accounts.[187] First, the European Commission's belief that linking WhatsApp users' data with Facebook users' data was not the essential aim of the merger reveals the European Commission's naivety. Second, the European Commission's belief that such linking was technically impossible, and would so remain soon, demonstrates the limited technical knowledge possessed by the European Commission. Agreed, misleading information is per se illegal, even more, when provided to public institutions and deserves sanctions. But one can legitimately wonder whether the European Commission has the *a priori* knowledge capacity to review such a merger. More generally, it raises doubts about the European Commission's ability, then to equally staffed and less staffed antitrust authorities worldwide to understand and regulate the innovation dynamics and motives underlying digital platforms.

Consequently, it can hardly be argued that antitrust enforcement's expertise towards digital platforms is fossilized: academic and policy debates, controversies, and counterfactuals contribute to the ever-improvement so that regulatory humility for antitrust enforcers and scholars is warranted. The digital ecosystems evolve with remaining mysteries, digital platforms' strengths, weaknesses, and business models unveiled. They experience regular challenges, the costs, and benefits of the innovation process, and the end-consumers progressively unfold as digital markets mature. Harm, risks, threats, potentials, benefits, and opportunities remain more speculative than evidenced and intuitive than experienced. With the feedback it produces, time appears to be the only factor enabling information improvements on antitrust enforcement for these fast-moving digital markets.[188] Overall, the unparalleled informational constraints associated with the contextual environment needed for the precautionary principle to be invoked are present. Indeed, the precautionary principle in the antitrust

(for example, by compelling WhatsApp users to register on Facebook) may alienate users and cause their outflow to competing consumer communications apps." – and was also not planned by Facebook. "The current plans of Facebook, as evidenced by its submissions to the Commission, public statements and internal documents, do not provide support for a future integration of WhatsApp with Facebook of the sort that would strengthen Facebook's position in the potential market for social networking services.").

187 Madhumita Murgia, Facebook Fined €110m by European Commission over WhatsApp Deal, FIN. TIMES, May 18, 2017; Mark Scott, E.U. Fines Facebook $122 Million Over Disclosures in WhatsApp Deal, N.Y. TIMES, May 18, 2017.

188 The innovation of digital markets should nevertheless not lead to innovation in their legal treatments. *See* Pablo I. Colomo & Gianni De Stefano, *The Challenge of Digital Markets: First, Let Us Not Forget the Lessons Learnt Over the Years*, Editorial, 9 J. EUR. COMPETITION L. & PRAC. 485, 486 (arguing wisely that "many enforcement errors would be avoided if courts and authorities, when evaluating the lawfulness of a new practice, considered where, and why, it falls in the abovementioned spectrum. . . . [T]he real threat of digital markets is that they may lead to the incorrect conclusion that innovation is also required about legal analysis. The opposite is true.").

enforcement applied to digital markets is a favorable climate prone to the prodigious uncertainties needed for the precautionary logic to nurture.

2. The Absence of Consumer Harm Inherent to Precautionary Antitrust

Once the context of uncertainties creating informational limitations and justifying the precautionary logic is present, as is the case with antitrust enforcement in digital markets, one needs to establish that the precautionary principle's core elements are also present. One of the prime aspects of the precautionary logic is the absence of actual or future harm, which does not preclude regulatory constraints on allegedly risky activities or conducts. This precautionary language is witnessed particularly in the European Commission's antitrust enforcement for digital markets in two ways.

First, precautionary antitrust indices shift from the need to evidence consumer harm to protect consumer choice. Although European antitrust enforcement has traditionally been reluctant to embrace an all-exclusive "consumer welfare standard"[189] and has historically favored the "consumer choice" objective,[190] the importance of the consumer welfare standard in

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189 Joined Cases C-501/06 et al. GlaxoSmithKline v. Comm'n, 2009 E.C.R. I-9291, ¶ 63 (stating that "it must be borne in mind that the Court has held that, like other competition rules laid down in the Treaty, Article [101 TFEU] aims to protect not only the interests of competitors or of consumers, but also the structure of the market and, in so doing, competition as such. Consequently, for a finding that an agreement has an anti-competitive object, it is not necessary that final consumers be deprived of the advantages of effective competition in terms of supply or price."). On the multiplicity of objectives of the E.U. competition policy, *see* FRANK MAEIR-RIGAUD, *On the Normative Foundations of Competition Law – Efficiency, Political Freedom and the Freedom to Compete*, *in* EDWARD ELGAR - THE GOALS OF COMPETITION LAW 132, (Daniel Zimmer ed., 2012) (discussing the opposition between the efficiency principle of the consumer welfare and the Ordoliberal idea of the freedom to compete as inherent to the preservation of the sufficient number of choices offered to consumers). *See also* IOANNIS LIANOS &VALENTINE KORAH, COMPETITION LAW. ANALYSIS, CASES, & MATERIALS 120 (2020) (concluding that "positive law still supports the view that the E.U. competition law pursues multiple goals." Also, the concept of choice has traditionally surfaced with respect to vertical restraints). *See* Commission Decision 76/642, ¶ 22, 1976 O.J. 223/27 (considering that "the conduct of Roche . . .constitutes an abuse of a dominant position, because by its nature it hampers the freedom of choice . . . and restricts competition between bulk vitamin manufacturers in the common market."). *See also* Commission Decision 76/353, ¶ 3, 1975 O.J. SPEC. ED. 95/1; Commission Decision 81/969, ¶ 37, 1981 O.J. 353.33; Comission Decision 76/353, § II ¶ 3, 1975 O.J. SPEC. ED. 95/1; ("[A] buyer must be allowed the freedom to decide"); Commission Decision 92/163, ¶ 108, 1992 /EEC, O.J. 72/1; Commission Decision 2003/707, 2003 O.J. 263/9; Case T-271/03, Deutsche Telekom v. Commission, 2008 E.C.R. II-477; Case C-280/08 P, Deutsche Telekom AG v. Commission, 2010 E.C.R. I-9555; Commission Decision 1/38.113, 2006 O.J. C219/12.

190 Peter Behrens, The Consumer Choice Paradigm in German Ordoliberalism and its Impact Upon Competition Law Discussion Paper (Europa-Kolleg Hamburg ed. 2014).

European antitrust enforcement has historically remained uncontested.[191] Nevertheless, although consumer harm has traditionally been the prerequisite for antitrust liability to be successfully invoked, the absence of consumer harm no longer prevents regulatory actions and reforms.[192] Since antitrust interventions are no longer based upon the demonstration of consumer harm, the justification for such interventions needs another legal basis: consumer choice.[193]

Paul Nihoul notes the "radical transformation" of E.U. competition law in the last few years with

> landmark decisions bringing to the foreground a concept that had so far gained limited attention – the concept of choice, that is, the possibility, and the right, for consumers to choose freely the products/services best corresponding to their needs, and the economic partners they want to deal with.[194]

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191 Case C-209/10, Post Danmark A/S v. Konkurrenceradet, ¶ 20 (Mar. 27, 2012) (arguing that "it is apparent from case-law that [Article 102 TFEU] covers not only those practices that directly cause harm to consumers but also practices that cause consumers harm through their impact on competition . . ."); C-52/09, TeliaSonera Sverige v. Konkurrensverket, ¶ 24 (Feb. 17, 2011) (stating that ". . . Article 102 TFEU must be interpreted as referring not only to practices which may cause damage to consumers directly . . . but also to those which are detrimental to them through their impact on competition. . . . Article 102 TFEU does not prohibit an undertaking from acquiring, on its own merits, the dominant position in a market, and while, a fortiori, a finding that an undertaking has a dominant position is not in itself a ground of criticism of the undertaking concerned . . . ."); Commission Guidelines 101/08, ¶ 13, 2004 O.J. C (ascertaining that "the objective of [Article 101 TFEU] is to protect competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources "); *id.* at ¶104 (noting that "the availability of new and improved products constitutes an important source of consumer welfare. As long as the increase in value stemming from such improvements exceeds any harm from a maintenance or an increase in price caused by the restrictive agreement, consumers are better off than without the agreement and the consumer pass-on requirement of [Article 101(3)] is normally fulfilled").

192 Interventions on the basis of lack of consumer choice requires utmost care on the remedies to be used. *See* Thomas J. Rosch, Commissioner, Fed. Trade Comm'n, Remarks before the *Concurrences* Conference on "Consumer Choice": An Emerging Standard for Competition Law: Can Consumer Choice Promote Trans-Atlantic Convergence of Competition Law and Policy? (June 8, 2012); PAUL NIHOUL, CHOICE - A NEW STANDARD FOR COMPETITION LAW ANALYSIS? 278 (Nicolas Charbit & Elisa Ramundo eds. 2016) (arguing that "if we are truly to expand consumer choice, however, any remedy that we fashion as antitrust enforcers should take into account how consumers actually make choices. This means that we should not ignore the recent contribution of behavioral economics (BE) to understanding how consumer decisions actually get made." The ambition to enhance consumer choice must indeed first establish that such choices are unsatisfactory and can be improved through remedies despite consumers' heuristics biases).

193 The criterion of consumer choice was already present in the Commission guidelines on Article 102 TFEU where the goal of consumer choice was justified as an illustration of the primary goal of the enhancement of consumer welfare. *See* 2009 O.J. (C 45) 7 (noting that "the aim of the Commission's enforcement activity in relation to exclusionary conduct is to ensure that dominant undertakings do not impair effective competition by foreclosing their competitors in an anti-competitive way, thus having an adverse impact on consumer welfare, whether in the form of higher price levels than would have otherwise prevailed or in some other form such as limiting quality or reducing consumer choice").

194 NIHOUL *supra* note 192, at 9.

As professor Nazzini affirms,

> when consumer choice is seen as an objective in its own right, it may become a disguised form of competitor protection: a competitor deserves to be protected solely on the basis that it offers a differentiated product.[195]

According to the Ordoliberal viewpoint, the alleged reduction of consumer choice, irrespectively of the discarded products and services' efficiency inferiority,[196] appears to legitimize interventions.[197] The presumed detrimental effects of consumers' status quo bias entail that antitrust enforcers tackle the default choice as an impairment to greater consumer

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195 Renato Nazzini, The Foundations of European Union Competition Law: The Objective and Principles of Article 102 32 (2011).

196 Alleged product superiority or inferiority loses relevance as a matter-of-fact within the consumer choice standard since the status quo bias ascribed to consumers allegedly prevent them from switching, irrespectively of the superiority/inferiority of the products they use. Thus, the lack of consumer choice justifies consumer stickiness and hinders the emergence of superior products, although such superiority needs not (and cannot) be evidenced by the antitrust authorities.

197 *See, e.g.,* Commission Decision C-3/37.990, D (2009) 3726 final (May 13, 2009) (fining Intel, the US chip manufacturer, for exclusionary practices which consisted of payments and conditional rebates in order to hinder Intel's main competitor AMD. More specifically, the European Commission concluded at ¶ 1678 that "AMD-based products for which there was a customer demand d*id* not reach the market, or d*id* not reach it at the time or in the way they would have in the absence of Intel's conduct. As a result, customers were deprived of a choice which they would have otherwise had" and at para.1602 that "As a result of Intel's rebates and payments, end-customers were artificially prevented from choosing other products on the merits . . . since Intel's conduct prevented the competitors' product from being offered . . ."); *see* Case C-202/07 P, France Télécom v. Commission, 2009 E.C.R. I-2369 ¶112 (arguing that "[T]he lack of any possibility of recoupment of losses is not sufficient to prevent the undertaking concerned reinforcing its dominant position, in particular, following the withdrawal from the market of one or a number of its competitors, so that the degree of competition existing on the market, already weakened precisely because of the presence of the undertaking concerned, is further reduced and customers suffer loss as a result of the limitation of the choices available to them.") On the academic literature discussion consumer choice as a new objective of competition law enforcement, *see* NIHOUL, *supra* note 192; NAZZINI, *supra* note 195, at 30-32 (considering that "when consumer choice is seen as an objective in its own right, it may become a disguised form of competitor protection: a competitor deserves to be protected solely on the basis that it offers a differentiated product"); Neil W. Averitt & Robert H. Lande, *Using the 'Consumer Choice' Approach to Antitrust Law*, 74 ANTITRUST L.J., 175, 178 (2007) (alleging that "the consumer choice model of antitrust is being used with increasing frequency because, fundamentally, it asks the right questions and identifies the right goals"); Robert H. Lande, *Consumer Choice as The Ultimate Goal of Antitrust*, 62 UNIV. OF PITT. L. REV. Vol.62, 503, 525 (2001) (endeavoring to "help shift the focus of antitrust from the current administrative and judicial emphasis on price to one that centers around the concept of consumer choice" and who considers that with the Microsoft case, "antitrust case law has already begun to move explicitly towards a consumer choice model."). For a European example, *see* Commission Decision COMP/C-3/37.792, ¶ 782 (2007) O.J. L 32/23 (noting that the notion of consumer choice emerged through interoperability obstacle: "Microsoft's refusal to supply has the consequence of stifling innovation in the impacted market and of diminishing consumers' choices by locking them into a homogeneous Microsoft solution.")

choice.[198] In the digital markets, the number of digital players and the number of products and services offered to consumers has become the norm: the default bias is believed to deplete consumer choice. In that context, consumer choice is equivalent to promoting the (Ordoliberal) objective of market participation by smaller competitors irrespectively of the incumbent's potential superior efficiency and innovativeness.[199] Consumer choice standard favors a return to an idealized market structure's objective despite both the economics of digital platforms (*i.e.,* winner-take-all phenomenon and novel business models of vertical restraints) and the historical demise of the structuralist approach to the competitive process. Nevertheless, entrenched market positions face greater antitrust scrutiny without evidenced consumer harm but merely because consumer choice is not ideally optimized due to these dominant positions associated with an alleged default bias.[200]

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198 For a discussion on the lack of clarity about the nature of those referred in the notion of "consumer choice,", *see* NIHOUL, *supra* note 192, at 27. (noteing that "the use of the words by the Commission and the European courts in these cases [on consumer choice] do not appear to result from a careful assessment of the meaning or connotation that could be conveyed. 'Consumer,' 'customers,' 'clients,' 'users,' 'buyers,' 'purchasers,' – to name a few – tend to be used interchangeably in decisions and rulings." Such a confusing pattern undeniably weaken the relevance of the consumer choice as standard of antitrust enforcement since the choice of whom to protect appears inconclusive.)

199 Joseph V. Coniglio, *Why The 'New Brandeis Movement' Gets Antitrust Wrong*, LAW360 (Apr. 24, 2018) (asking, "does market structure matter solely as a means to gauge market power and changes in economic welfare, or does it also matter for social policy – namely, to promote market participation by smaller competitors or, as in a more European approach, to facilitate consumer choice?"); Douglas A. Melamed & Nicolas Petit, *The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets*, 54 REV. INDUS. ORG., 741, 741-774 (2019) (the notion of consumer choice standard refers to the more general concept of economic freedoms in the competitive process advocated by Ordoliberals). On the Ordoliberal consumers' freedom of choice, *see* David J. Gerber, *Constitutionalizing the Economy: German Neo-liberalism, Competition Law and the 'New Europe,'* 42 AM. J. COMPAR. L. 25, 78 (1994) (discussing the goal of Ordoliberalism and its endless fight against market power when he states "in the ordoliberal view, competition law seeks to protect economic freedom, and the fact that there continue to be power positions does not necessarily mean that competition has not contributed to protecting those freedoms"); Liza Lovdahl Gormsen, *The Conflict Between Economic Freedom and Consumer Welfare in the Modernisation of Article 82 EC*, 3 EUR. COMPETITION J. 329; PINAR AKMAN THE CONCEPT OF ABUSE IN E.U. COMPETITION LAW: LAW AND ECONOMICS APPROACHES 58 (2012).; Peter Behrens, *The Ordoliberal Concept of 'Abuse' of a Dominant Position and its Impact on Article 102 TFEU*, *in* ABUSE REGULATION IN COMPETITION LAW (Paul Nihoul &Takahashi Iwakazu eds. 2015); IOANNIS LIANOS, COMPETITION LAW: ANALYSIS, CASE AND MATERIAL 107-109 (2020).

200 The default options induced by Google, Microsoft and other tech platforms have largely contributed to the sanctions these companies faced in the E.U. antitrust enforcement. Since the default options advantages incumbents and because consumers are presumed to have a status quo bias irrespective the efficiency or quality of the products they use, these default options amounted to abuse of dominant positions because it diminished consumers' range of available choices and thus constitute exclusionary abuses. *See* Commission Antitrust Procedure, Case AT.3970 Google Search (Shopping), ¶ 311, June 27, 2017 (fining Google for having leveraged its dominance on the search engine market into the comparison shopping services markets, noting that "A study of . . . confirms that more than two thirds of users d*id* not use general search services other than Google ("nearly a third of [beta] users were aware of, and used, alternative web services made available by default")); Commission Antitrust Procedure, Case AT.40099

This is illustrated by the concepts of "digital gatekeepers" or "intermediary power," where strategic market positions enable few companies to enjoy great market powers over their digital ecosystems allegedly.[201] The Digital Markets Act proposed by the European Commission in December 2020 precisely wants to regulate "digital gatekeepers" in a sheer embodiment of precautionary antitrust.[202] Amid incommensurable market uncertainties, the European Commission intends to regulate few well-identified digital platforms even without harm. Indeed, without the need to evidence harm and in the absence of any harm caused, the designated digital gatekeepers will be prevented from carrying several practices – thereby

Google Android, ¶ 781, July 18, 2018 (where Google Andro*id.* was fined as the whole argument revolved around pre-installed apps and default settings by Google at the expense of competitors whereas the Commission considered that "the reason why pre-installation, like default setting or premium placement, can increase significantly on a lasting basis the usage of the service provided by an app is that users that find apps pre-installed and presented to them on their smart mobile devices are likely to "stick" to those apps. [Hewlett Packard] described the creation of a "status quo bias" in the form of premium placement and default setting . . . ");

Commission Antitrust Procedure, Case AT.39530 Microsoft – Tying, ¶ 27, March 6, 2013 (where Microsoft has been fined for breaching its commitments not to tie Internet Explorer as a web browser into its PC operating systems, Windows, but the Commission noted, instead, that Microsoft recognized that when Windows 7 SP was released, "changes should have been made" to ensure that users did not have "[Internet Explorer] as their default browser.").

[201] *See* Commission's Proposal for a Regulation of the European Parliament and of the Council on Promoting Fairness and Transparency for Business Users of Online Intermediation Services, COM (2018) 238 final (Apr. 26, 2018) (arguing that "this growing intermediation of transactions through online platforms, combined with strong indirect network effects that can be fuelled by data-driven advantages by the online platforms, lead to an increased dependency of businesses on online platforms as quasi "gatekeepers" to markets and consumers. The asymmetry between the relative market strength of a small number of leading online platforms – not necessarily dominant in the sense of competition law – is exacerbated by the inherently fragmented supply-side consisting of thousands of small merchants." Clearly, the digital platforms targeted here are the "GAFA" which, albeit not being "dominant" from a competition law viewpoint, are said .to have essential facilities and thus exert great market power.) *See* Cremer Report *supra* note 63, at 100 (advocating that "refusals to grant access should be subject to a more elaborate Article 102 TFEU assessment where (1) the data controller holds a gatekeeper position of some relevant kind, i.e. access to its data is essential for competing on one or more neighbouring markets; (2) data access requests for this purpose are somewhat standardised."). *See also* Nicolai Van Gorp & Dr. Olga Batura, Challenges for Competition Policy in a Digitalised Economy, at 8, IP/A/ECON/2014-12 (2015) (where it is argued that "digital platform operators aim at making themselves indispensable for both end-users as well as advertiser and place themselves in a gatekeeper position".)

[202] Commission Proposal for a Regulation of the European Parliament and of the Council on Contestable and Fair Markets in the Digital Sector (Digital Markets Act), at 842, COM (2020) 842 final (Dec. 15, 2020) (justifying a regulation on the basis that "a few large platforms increasingly act as gateways or gatekeepers between business users and end users and enjoy an entrenched and durable position, often as a result of the creation of conglomerate ecosystems around their core platform services, which reinforces existing entry barriers."). Together with the Digital Markets Act, the European Commission has also proposed a Digital Services Act which mostly regulate hate speech, misleading information and fraudulent products on digital platforms. See Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and Amending Directive 2000/31/EC, COM (2020) 825 final (Dec. 15, 2020).

enabling their rivals to perform the very same practices. Not only harm no longer needed to be evidenced, but it is also because it is time-consuming and costly to find the harm in the blamed conducts that the European Commission suggests getting rid of this now superfluous requirement. There is no longer antitrust liability because of the harm caused; instead, there is antitrust regulation despite no harm. The Digital Markets Act, beyond the regulatory constraints imposed in the absence of harm it imposes, stunningly represents the illustration of precautionary antitrust: it provides for *ex ante* regulation in the absence of harm against a narrow range of companies who are subject to discriminatory regulations due to their size/success.

The Digital Markets Act regulates in the absence of harm for the sake of increasing "consumer choice" – forcing small companies to enter some digital markets. The reduction of consumer choice has been blamed for lessening competition and stifling innovation: consumers' inability to choose competitors' products impedes their ability to innovate. Thus, for innovation to thrive, the argument goes. Irrespective of the inherent flaw of the criterion of consumer choice as a new standard for competition policy[203] and despite the speculative nature of the claim that innovation is stifled when consumer choice is limited,[204] this paradigm shifts away from the need to show that

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203 Consumers can process only limited amounts of information in making a choice, thereby voluntarily reducing their options available. *See* Matthew Bennett, et al., *What Does Behavioural Economics Mean for Competition Policy?* 6 COMPETITION POL'Y,111, 112 n.3 (2010) (considering that behavioural economics emphasize the difficulties antitrust authorities face in trying to correct consumer biases); Adi Ayal, *Harmful Freedom of Choice: Lessons from the Cellphone Market*, 74 L. & CONTEMP. PROBS. 91, 96 (2011) ("One of the interesting aspects of choice overload is that consumers are generally unaware that variety may work to their detriment, and may be unaware of the effects of cognitive overload-despite their actions"); Dav*id* G. Mick et al., *Choose, Choose, Choose, Choose, Choose, Choose, Choose: Emerging and Prospective Research on the Deleterious Effects of Living in Consumer Hyperchoice* 52 J. BUS. ETHICS 207, 207 (2014) (noting that "consumption ideology now spans the world, including an imperative of consumer choice," leading consumers into "hyper choice," which is "initially attractive but ultimately unsatisfying" and "psychologically draining"); James C. Cooper & William E. Kovacic, *Behavioral Economics: Implications for Regulatory Behavior* 41 J. OF REGUL. ECON. 41, 58 (2012) (suggesting that "Much [behavioral economics] research prescribes increased regulatory intervention to constrain consumer choice in response to consumer biases and to expand the use of competition law to correct consumer harm that arises from biased firm behavior. If regulators, who are human after all, suffer from the same biases, our analysis suggests a greater skepticism of these calls for increased intervention.").

204 Reduction of consumer choice can increase innovation and quality of products as companies may unleash new business capacity to invest so that lower prices, higher quality, and innovation can result from the reduced range of choices available to consumers. *See* Joshua D. Wright & Douglas H. Ginsburg, *The Goals of Antitrust: Welfare Trumps Choice*, 81 FORDHAM L. REV., 2405, 2411 (2013) (arguing that "a flaw with [the consumer choice] approach is that both economic theory and empirical evidence are replete with examples of business conduct that simultaneously reduces choice and increases welfare in the form of lower prices, increased innovation, or higher quality products and services." From a historical perspective, consumer choice standard as a mean to protect innovation can arguably be captured by competitors against incumbent.). One historical illustration is offered with Sun Microsystems's CEO McNealy considered that Microsoft's antitrust "issue is about protecting consumer choice in the marketplace. It is about protecting innovation." quoted in Steve Lhor, *Gates, on Capitol Hill, Presents*

consumer harm constitutes a meaningful change from both the economic approach to competition laws and from the modernization of the E.U. competition policy. Aimed at helping to "revitalize more aggressive antitrust enforcement,"[205] the consumer choice standard reveals a more profound logic with a return to structural presumptions and the prevalence of a view of (Ordoliberal) freedom over (market) efficiency.[206]

Second, precautionary antitrust indices are a justificatory ground for regulatory interventions merely in the presence of "risks to competition." These risks threaten the alleged irreversible damage to the competitive structure that the regulators aim to protect. The market structure appears to require protection in a resurgence of Ordoliberal thinking[207] (and to Neo-Brandeisian thinking in the US). In this protective move, the "new competition tools" imagined by Commissioner Vestager are caused by "structural competition problems" not currently addressed in a "timely and effective manner." She justified new tools in the following way:

> The world is changing fast and it is important that the competition rules are fit for that change. Our rules have an inbuilt flexibility, which allows us to deal with a broad range of anti-competitive conduct across markets. We see, however, that there are certain structural risks for competition, such as tipping markets, which are not addressed by the current rules. We are seeking the views of stakeholders to explore the need for a possible new competition tool that

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Case for an Unfettered Microsoft, N.Y. TIMES, March 4, 1998, https://www.nytimes.com/1998/03/04/business/gates-on-capitol-hill-presents-case-for-an-unfettered-microsoft.html. Similar arguments of consumer choice standard are currently raised against big tech companies as evidenced in July 2020 Big Tech Hearings at the US House of Representatives. *See* Avery Hartman, *Wednesday's Big Tech Antitrust Hearing has Echoes of Bill Gates' and Microsoft's Landmark Court Battle 22 Years Ago. Here's Why the Government Scrutinized Gates and How it Played out for the Company.* BUS. INSIDER, July 29, 2020, https://static5.businessinsider.com/bill-gates-microsoft-antitrust-case-history-outcome-2020-7/#on-march-3-1998-then-microsoft-ceo-bill-gates-came-to-capitol-hill-to-testify-before-the-senate-judiciary-committee-1.

205 Robert H. Lande, Resurrecting Incipiency: From Von's Grocery to Consumer Choice, 68 ANTITRUST L. J. 875, 875 (2001).

206 Agustin Reyna & David Martin, *Online Gatekeeping and the Google Shopping Antitrust Decision: The Beginning of the End or the End of the Beginning?*, 3 COMPETITION AND REGUL. L. REV. 204, 206 (2017) (noting that "The Commission has taken an important step forward with this [Google Shopping] decision. It is a landmark development towards a healthier and more competitive Digital Single Market. This market has to be built on consumer choice and innovation and aim to deliver the best services for consumers.").

207 *See* Rosch *supra* note 192; NIHOUL, *supra* note 192 at 274 (arguing that the European Commission's ordoliberalism may conflict with the US's Chicago School so that "there still might not be a total convergence, even under a consumer choice standard."). *But see* Averitt & Lande, *supra* note 197, at 249-250 (arguing that the "choice paradigm" may be "particularly useful for presentation the European Union as a mutually-acceptable midpoint around which the ongoing convergence of national policies in the industrialized nations can continue. The European Union is less completely committed than we are to the efficiency-centered antitrust paradigm . . . But they might agree on a choice model. Some E.U. statements on competition policy are already framed in terms very similar to our proposed choice approach.").

> would allow addressing such structural competition problems, in a timely and effective manner ensuring fair and competitive markets across the economy.[208]

Borrowing from the precautionary rhetoric of risks, the so-called structural risks to the competition are illustrated, according to Commissioner Vestager, by "market tipping" this new expression in antitrust enforcement evidence of the creativity of describing market situations that are already well-known (*i.e.,* is market tipping similar to dominance or even super-dominance?). More importantly, this newly devised expression of "market tipping" under the language of (structural) risks to competition aims at implying, explicitly or implicitly, that the said dominance has become "irreversible." Indeed, it is the very irreversibility of dominance that appears to give a definitional sense to this expression of "market tipping." Risks, protection of market structure, irreversibility…the rhetoric of the precautionary principle is implicitly instilled into the new decisional practice of the European Commission and as a justificatory ground for further regulatory reforms in the antitrust tools available. The Digital Markets Acts explicitly refers to such irreversibility. At para.26, the proposal states that "Undertakings can try to induce this tipping and emerged as a gatekeeper by using some of the unfair conditions and practices regulated in this Regulation. In such a situation, it appears appropriate to intervene before the market tips irreversibly."[209] Thus, with market tipping irreversible effects, the regulator can justify anticipating that digital markets tip; intervention becomes necessary before irreversible tipping entrenches platform dominance. Again, the precautionary logic surfaces in the "market tipping" rhetoric since *ex ante* interventions via urgent regulations are decided.

Margrethe Vestager had given some explanations before the U.S. Congress in her testimony of July 2020 when she argued that

> The reflection process has identified certain structural competition problems that we believe that our existing competition rules cannot tackle (such as monopolization strategies by non-dominant companies which nevertheless have market power) or cannot address most effectively (e.g., parallel leveraging strategies by dominant companies into multiple adjacent markets).[210]

These proposed changes constitute significant shaking up of the fundamental principles of antitrust enforcement; non-dominant firms may end up being liable for abuse of their market power, thereby unreasonably stretching out the reach of Article 102 TFEU, whereas parallel leveraging jeopardizes digital ecosystem-building where the multiplicity of product

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208 *Id*.

209 Digital Markets Act, *supra* note 202, at ¶ 26.

210 Margrethe Vestager, *Statement Before the Comm. on the Judiciary*, *Subcomm. on Antitrust, Com. and Admin. L.*, 116th Cong. (2020). http://docs.house.gov/meetings/JU/JU05/20200729/110883/HHRG-116-JU05-20200729-SD007.pdf.

complementarities is inherent to consumer benefits and innovation. Consequently, Article 102 TFEU's ambit would be outstretched beyond the remits laid down by the Treaties themselves. These revolutionary changes not only raise questions concerning their legal basis but, more importantly, question the concept of structure raised by Commissioner Vestager are these conducts capable of creating "structural risks" to the competition? One needs to grasp better what is in the mind of Commissioner Vestager concerning these "structural risks." Some elements of answers are provided in the same testimony before the US Congress. Commissioner Vestager indeed distinguishes between two categories of "structural risks":

1. *Structural risks for competition*: some features of markets are conducive to "market tipping" by gatekeepers, "the emergence of which could be prevented by early intervention." Also, this category covers anti-competitive conduct by non-dominant companies.

2. *Structural lack of competition*: this refers to "structural market failures" evidenced by i) "systemic failures" about more than a particular company (e.g., high market concentration, high entry barriers, consumer lock-in, data access barriers), ii) "oligopolistic market structures" with risks of (algorithmic) tacit collusion.[211]

The critical notion to these revolutionary proposals is obviously "risk." In a quasi-regulatory risk assessment,[212] antitrust enforcement would, if these "new tools" be adopted, increasingly resemble precautionary measures where the hypothetically detrimental outcomes anticipated justify ex-ante regulation towards "digital gatekeeper platforms"[213] – namely, the GAFA and alike platforms. This refers to the precautionary principle's essential feature, which instills a default presumption to preserve the market structure's status

211 *Id.* at 7.

212 For an introduction to risk assessment, *see* Veerle Heyvaert, *Reconceptualizing Risk Assessment*, 8 RECIEL 135, 135 (1999) (who uncontroversially defines risk assessment as "a methodology for making predictions about the risks attached to the introduction, maintenance or abandonment of certain activities . . . based on available information relating to the activity under examination. In other words, risk assessment is a way of ordering, structuring and interpreting existing information with the aim of creating a qualitatively new type of information, namely estimations on the likelihood (or probability) of the occurrence of adverse effects." The precautionary principle has been criticized with the argument from adverse effects – meaning that the principle creates extra risks rather than decrease them.) In the environmental context, *see* INDUR M. GOKLANY, THE PRECAUTIONARY PRINCIPLE: A CRITICAL APPRAISAL OF ENVIRONMENT RISK ASSESSMENT (2000). Applying the precautionary principle is a broader context. JULIAN MORRIS, RETHINKING RISK AND THE PRECAUTIONARY PRINCIPLE 189-228 (2001).

213 Vestager, *supra* note 210, at 7.

quo because suboptimal market structure yields suboptimal consumer benefits and suboptimal innovation levels.[214]

In the U.S., the Stigler Report advocated for regulation for antitrust matters:

> Regulations that mimic the antitrust laws but lower the burden of proof for the regulator and allow it to move faster are a way to gain effective enforcement in this sector, if not others. Regulation offers a valuable addition to antitrust enforcement. It can help design the digital landscape and align the interests and incentives of platforms and key providers with those of consumers and society.[215]

These regulatory tools aimed at reducing structural risks to competition and/or lack of competition come together with the perception that earlier and timely interventions are necessary instead of the lengthy process of antitrust liability characterized by the judicial process and the adherence to the Rule of law principles. Consequently, associated with the new regulatory tools possibly applicable to antitrust matters, the precautionary principle justifies preemptive interventionism illustrated by interim and urgent measures.

3. Preemptive Interventionism Justified by Precautionary Antitrust

The permissioned innovation authorized by the precautionary principle clashes with the benefits of permissionless innovation.[216] Such permissioned innovation intrinsic to the precautionary principle undoubtedly stifles the level and speed of innovation. The permissioned innovation derives from the precautionary principle's essence, legitimizing ex ante regulatory interventions rather than ex post liability. Compensating weaker *ex post* liability regimes, the *ex-ante* regulatory interventions that the precautionary principle encourages create the permission for innovation: it is a regulatory threat of censorship, banning, and non-recoupment of sunk costs incurred by the entrepreneur. Its deterrence effect proves to be incommensurable.[217]

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214 *See id.* at 5. (such presumptions are implicitly called for when the effect-analysis is criticized for being both too demanding and too time-consuming. Indeed, in her testimony, Commissioner Vestager has clearly suggested that reversed burden of proof (thus, legal presumptions) might be needed since, according to her, "whilst it is our burden of proof to demonstrate that a certain practice has harmful effects, when we undertake an effects analysis, I sometimes wonder how much needs to be shown to demonstrate that a company with a 95% market share which locks up more than half the market by imposing exclusivity on customers has harmed choice and competition".).

215 Stigler Report, *supra* note 180, at 100.

216 Adam Thierer, Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom (2016).

217 This is the "policeman at the elbow" effect as referred by Wu when discussing about the IBM antitrust case in the US. *See* Tim Wu, *Tech Dominance and the Policeman at the Elbow* (Columbia Public

The precautionary principle's essence is to justify *ex ante* regulation before any harm arises or even before any credible threat materializes. Indeed, one should not confuse the precautionary principle, which explains preemptive measures adopted in the absence of probable harm, with the preventative principle that justifies preventive measures adopted in alleged injury. While the precautionary principle grounds *ex ante* regulation for the merely theoretical, hypothetical risks, the preventative principle grounds *ex ante* regulation for the realistically plausible risks. The latter principle fits into the probabilistic theory of a cost-benefit analysis. The former principle appears detached from probabilistic calculus and discards cost-benefit analysis.

Nevertheless, both principles extol *ex ante* regulations, albeit each justified on a different basis. Preemptive measures supported the precautionary principle merely consist of prohibitions of conduct, bans of products, suspension until subsequent authorization, and lastly, regulatory constraints depending on approval. Therefore, the *ex-ante* regulations inferred by the precautionary principle often entail prohibitions rather than mere authorizations subject to regulations. In other words, the deterring effect of these preemptive measures is at maximum since the probability that the precautionary principle commands a ban on the examined activity remains highly probable.

Indeed, Commissioner Vestager has outlined the revolutionary shift of antitrust enforcement from ex post liability regime towards a more ex ante regulatory regime through *ex ante* tools in her testimony before the US Congress in July 2020. She has detailed the nature of the possible ex ante tools for tomorrow's antitrust enforcement:

> Whilst the precise nature and scope of any [ex ante regulatory] provisions are still to be determined, one option would be to establish a clear list of dos and don'ts that the platforms concerned would be required to comply within other words, a specifically defined set of obligations and prohibitions that would be of general applicability to the platforms concerns. That might include, for example, rules to stop platforms misusing their position as both player and referee – both owing to a platform, and competing with others that rely on that very same platform.[218]

The ambitious objective here is not so much to prohibit *ex post* alleged abuses (such as in the *Google Shopping* decision) but more precisely to prevent market tipping by digital gatekeepers so that potential abuses may not be deemed possible by the platform. The structural unbundling of the platform activities and the merchant activities may raise endless questions. For instance, why such structural separation be imposed on digital platforms

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Law Rsch., Working Paper No. 14-623, 2019) (arguing that " . . . both firms and individuals may behave differently when enforcement is more likely, especially "with a policeman at the elbow. . . . pending monopolization case, which focuses on exclusionary and anticompetitive acts and scrutinizes efforts to dominate new industries, may affect firm conduct in recognizable ways.").

218 Vestager, *supra* note 210, at 6.

and not on brick-and-mortar competitors with the risks of creating a two-level playing field amongst rivals? How can we ascertain that consumers and innovation do not benefit when the platform steps into the downstream market to offer cheaper prices and high quality? The ex-ante regulatory tools envisaged by the European Commission are more grounded on a view of the ideal market structure rather than based on evidence of efficiency losses and innovation deterrence concerning the blamed business conduct.

Another rationale for preemptive measures to come to the fore as justified by the precautionary principle lies in the preservation objective in the context of time constraints. Without further inquiry, the precautionary principle thus justifies interim measures and/or urgent measures. Interim measures refer to ex ante regulations that may intervene outside emergencies and often have a definitive status. On the other hand, urgent measures refer to *ex ante* regulations under emergency. They are usually temporary, pending a subsequent definitive measure that will override and confirm the urgent measure previously decided. Both interim measures and urgent measures are part of the preemptive measures provided for the precautionary principle. While the urgent measures are banal and are highly justified given the proven contextual environment legitimizing these measures adopted under emergency, interim measures are those measures dedicated to illustrating the precautionary logic towards a set of identified policy issues.

Indeed, interim measures substitute this ex-ante regulation most of the time, taking place outside any emergency requirement, instead of an ex-post liability regime whereby only those materialized harms create legitimate claims for compensation through damages. One fundamental condition for such an ex-post liability regime to be dependable is that it needs to be efficient, transparent, and fully accessible to potential victims. Failures and perceived malfunctions of the ex-post liability regime render the precautionary principle and its ex ante interim measures more attractive to litigants and regulators. The interim measures' precautionary logic is illustrated by Article 22 of the Digital Markets Act, which adopts the precautionary rhetorical language. Article 22 states that:

> In case of urgency due to the risk of serious and irreparable damage for business users or end users of gatekeepers, the Commission may […] order interim measures against a gatekeeper on the basis of a prima facie finding of an infringement of Article 5 or 6."[219]

Such *prima facie* finding legitimizes early regulatory intervention absent the demonstration of damage only hypothetical risks of damage may suffice to stop the gatekeeper from doing particular conduct.

With this hindsight as a background, it can be noted that the ex-post liability regime available in the European Union for claiming ex post liability

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219 Proposal for a Regulation of the European Parliament and of the Council, *supra* note 202, at art. 22.

for an identified antitrust injury suffers notable pitfalls. Indeed, both institutional and public feelings can demonstrate that the ex-post liability system in the E.U. for antitrust claims may appear for some observers as unsatisfactory considering some pressing claims and accessibility imperatives. Consequently, rather than reforming these imperfect legal mechanisms so that ex post antitrust liability can more quickly and efficiently be claimed, a paradigm shift towards a more precautionary answer via the use of interim measures and ex ante regulations becomes more attractive in terms of radical reforms and in terms of the vigorous hastiness aimed at being instilled in the antitrust enforcement. Indeed, such interim measures portraying the precautionary logic inherent to ex ante regulations have first been envisaged by the European Commission better to address the ex post antitrust liability system's shortcoming.

On the 16th of October 2019, the European Commission ordered the American chipmaker Broadcom to stop applying specific provisions of its agreements with six of its main customers.[220] The interim measures decision is justified because this prohibition warrants "serious and irreparable damage to competition" in specific markets for systems-on-a-chip for TV. Competition Commissioner Margrethe Vestager justified the measure by arguing that:

> We have strong indications that Broadcom, the world's leading supplier of chipsets used for TV set-top boxes and modems, is engaging in anti-competitive practices. Broadcom's behavior is likely, in the absence of intervention, to create serious and irreversible harm to competition. We cannot let this happen, or else European customers and consumers would face higher prices and less choice and innovation. We, therefore, ordered Broadcom to stop its conduct immediately.[221]

Interestingly, these interim measures were intended to be decided at the start of the investigations' opening, which took place on the 26th of June 2019. Indeed, in a statement at the beginning of the inquiry against Broadcom, Commissioner Vestager argued that:

> TV set-top boxes and modems are part of our daily lives, for both works and leisure. We suspect that Broadcom, a major supplier of component for these devices, has put in place contractual restrictions to exclude its competitors from the market. This would prevent Broadcom's customers and, ultimately, final consumers from reaping the benefits of choice and innovation. We also intend to order Broadcom to halt its behaviour while our investigation proceeds, to avoid any risk of serious and irreparable harm to competition.[222]

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220 European Commission Press Release, Antitrust: Commission Imposes Interim Measures on Broadcom in TV and Modem Chipset Markets (Oct. 16, 2019).

221 *Id*.

222 European Commission Press Release, Antitrust: Commission Opens Investigation into Broadcom and Sends Statement of Objections Seeking to Impose Interim Measures in TV and Modem Chipsets Markets (June 26, 2019).

The allegedly exclusionary practices, falling within the ambit of Article 102 TFEU, are i) setting exclusive purchasing obligations; ii) granting rebates or other advantages conditioned on exclusivity or minimum purchase requirements; iii) product bundling; iv) abusive IP-related strategies and v) deliberately degrading interoperability between Broadcom products and other products.[223] Broadcom's market dominance has been identified in the supply of systems-on-a-chip for TV set-top boxes and modems. These interim measures were deemed "indispensable" in the Statement of Objections to "ensure the effectiveness of any final decision taken by the Commission at a later date."[224] This early assessment was based on the need "the suspected anti-competitive behaviour damages the market irreparably [...]".[225] In other words, "interim measures can only be granted if a company's behavior constitutes, at first sight, an infringement of competition rules and if there is a risk of serious and irreparable harm to competition."[226] In the present case of *Broadcom*, the Statement of Objections considered that the alleged competition concerns were "serious" and that there was a risk of "elimination or marginalization of competitors before the end of proceedings."[227] Thus, the European Commission has an *a priori* clear view of the course of the investigations since interim measures were, in a rare fashion, envisaged at their opening. The justifications given for Broadcom's interim measures decision echo the jargon associated with the precautionary principle. Indeed, interim measures were deemed "indispensable" to avoid "irreversible damage" and "serious and irreparable harm," so regulatory intervention is necessary. These criteria are precisely those about the precautionary principle when this principle is invoked to avoid, despite uncertainties, generating potentially severe and irreversible harm as provided by the definition of the European Environment Agency in the area of environmental protection:

> The precautionary principle provides justifications for public policy and other actions in situations of scientific complexity, uncertainty, and ignorance, where there may be a need to act in order to avoid, or reduce, potentially serious or irreversible threats to health and/or the environment, using an appropriate strength of scientific evidence, and taking into account the pros and cons of action and inaction and their distribution.[228]

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223 *Id.*

224 *Id.*

225 *Id.*

226 *Id.*

227 *Id.*

228 *See* Eur. Env't Agency, Late Lessons from Early Warnings II: Science, Precaution and Innovation, Doc. No. 1/2013, at 649 (2013). *See also* Econ. & Soc. Council, Comm. on Sustainable Dev., Rio Declaration on Environment and Development: application and implementation, at ¶ ¶ 80-86 (Feb. 10, 1997), https://www.un.org/esa/documents/ecosoc/cn17/1997/ecn171997-8.htm (stating that "in order to protect the environment, the precautionary approach shall be widely applied by States according to their

These interim measures are explicitly "precautionary" in their nature, according to Commissioner Vestager, as revealed in her answer given to a Member of the European Parliament (MEP) on the 5th of July 2017. Spanish MEP Ramon Luis Valcarcel Siso asked, in a question entitled "Applying precautionary measures in antitrust cases," whether, following the fine imposed in the 2017 Google Shopping decision, "temporary measures" could oblige companies to abide by remedies before the end of antitrust investigations. He asked:

> [C]ompanies affected by the unfair practices identified have reported that their business was severely damaged because of those practices during the years that DG Competition took to come to a verdict. In fact, of this situation, Commissioner Vestager has suggested that temporary measures may be introduced to oblige companies being investigated in antitrust cases to cease unfair practices even before those practices have been proven to exist. The aim of those measures would be to have DG Competition respond to any sign of unfair practices in such a way that those affected by the practices would not have to wait the several years that it usually takes to close investigations of that type [...] Could the Commissioner provide more detailed information on the proposal?[229]

Interim measures have been dormant instruments of E.U. competition policy for many years.[230] Article 8 of the Council Regulation (E1/2003 of 16 December 2002 provides for interim measures. It states that "in cases of urgency due to the risk of serious and irreparable damage to competition, the Commission, acting on its own initiative may be decision, on the basis of a prima facie finding of infringement, order interim measures" (Article 8(1)). The interim measures decision can be renewed if deemed necessary and appropriate (Article 8(2)). The Regulation also acknowledges the Member States' competition authorities to order interim measures when applying E.U. competition rules (Article 5). Article 8 of the Regulation codifies the seminal

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capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."). Furthermore, the Appellate Body of the WTO reinforces the essential element of irreversibility of the potential damages considered in the precautionary principle when it endorses a precautionary approach for the WTO panels who "may [...] and should, bear in mind that responsible, representative governments commonly act from perspectives of produce and precaution where risks of irreversible, e.g. life-terminating damage to human health, are concerned." *EC Measures*, *supra* note 89, at ¶ 123.

229 VALCARCEL SISO, APPLYING PRECAUTIONARY MEASURES IN ANTITRUST CASES, Question for written answer E-004559/2017, European Parliament, Rule 130, PE 607.713 (2017).

230 Commission interim measures decisions have not been numerous over the years. Before the Broadcom decision, the Commission ordered interim measures in Commission Decision of 18 August 1982 (IV/30.6969 - Distribution system of Ford Werke AG - interim measures, 1982 O.J. (L256) 1092; Commission Decision of 29 July 1983 (IV/30.698 - ECS/AKZO: interim measures), 1983 O.J. (L252); Commission Decision of 29 July 1987 (IV/32279 - BBI/Boosey & Hawkes: interim measures) 1987 O.J. (L286); Commission Decision of 26 March 1990 adopting (IV/33.157 Ecosystem / Peugeot - Provisional measures); Commission Decision of 25 March 1992 (IV/34.072 - Mars/Langnese and Schoeller - interim measures); Commission Decision of 11 June 1992 (IV/34.174 - Sealink/B&J - Halyhead: interim measures); Commission Decision of 3 July 2001 (Case COMP D3/38.044 - NDC Health/IMS Health: interim measures, 2002 O.J. (L59)).

E.U. case *IMS Health Inc*[231] of 2001, discussing an interim measures decision.[232] In *IMS Health Inc*, the Court referred to the general Article 105(2) of the Rules of Procedure, which permits judges to apply interim measures when necessary to be able to

> have enough time to be sufficiently informed so as to be in a position to judge a complex factual and/or legal situation" or "where it is desirable in the interests of the proper administration of justice that the status quo be maintained pending a decision. [233]

In other words, the interim measures here referred to compulsory licensing of IP rights to competitors. Here, interim measures, in that case, would reach a different solution than a mere preservation of the status quo (as the French meaning, , *mesures conservatoires* suggests). For, interim measures here would alter the market structure and modify the firm's business model together with the competitive constraints at stake. Because of the disruptive nature of interim measures on the dynamic process of competition as well as on the firm's property rights, the Court in the *IMS Health* case has suspended the interim measures decision of the European Commission based on "potentially very important economic consequences" for the firm subject to the interim measures decision and based on the "serious encroachment on its property rights."[234]

After this demise, interim measures in EU competition law became dormant.[235] Dedicated to tackle such dormancy, MEP Valcarcel Siso rightly referred to E.U. interim measures as a "precautionary measures in cases" when he suggested to Commissioner Vestager taking interim measures out of their dormancy in EU antitrust.[236] Commissioner Vestager replied on the

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231 T-184/01, IMS Health Inc. v. European Commission, 2001 E.C.R. II-2351 (suspending the Commission Decision in COMP D3/38/044 NDC health / IMSHealth: Interim measures).

232 *See also* C-792/79 R, Camera Care v. Commission 1980 E.C.R. 119 (where the Court of Justice asserted that the Commission had power to order interim measures under competition rules); *See also* Lang (1981:52) (writing that "interim measures will not be ordered if they would impose irreparable loss on the firm against which they were ordered. All interim measures are adopted without prejudice to the Commission's final decision on the merits. As interim measures are essentially to protect the status quo ante, they will not normally put the firm requesting them in a better position than it would have been in if the alleged infringement had not occurred"); *See also* Morris (1985:108) who recaps the two conditions for interim measures to be adopted as being in cases of proven urgency, their adoption aims at avoiding "1) serious and irreparable damage to the party requesting protective measures, or 2) a situation which is intolerable for the public interest"; *See also* Mantzari, D., *Interim Measures in E.U. Competition Cases: Origins, Evolution, and Implications for Digital Markets*. CLES Research Paper Series 1/2020 (2020).

233 *Id.* at ¶ 20.

234 *Id.* at ¶ 27.

235 Despoina Mantzari, Interim Measures in E.U. Competition Cases: Origins, Evolution, and Implications for Digital Markets, 11 J. OF EUROPEAN COMPETITION LAW & PRACTICE 487 (2020).

236 Ramon Luis Valcarcel Siso, *Applying Precautionary Measures in Antitrust Cases*, Question for Written Answer E-004559-17 Rule 130 (July 5, 2017) https://www.europarl.europa.eu/doceo/document//E-8-2017-004559_EN.html.

21st of September 2017, foretelling the Broadcom decision a few months later:

> The Commission already has the power to impose so-called interim measures. Such measures ensure that whilst an investigation is being carried out, no serious and irreparable damage is caused to competition that could not be remedied after the Commission procedure. The power of the Commission to impose interim measures is set out in Article 8 of Council Regulation (EC) No. 1/2003. This article codifies the two conditions outlined by the Court of Justice of the European Union in its case-law on interim measures. These two conditions are cumulative:
>
> A) there must be a prima facie finding of an infringement; and
>
> B) there must be an urgent need for protective measures due to the risk of serious and irreparable harm to competition.
>
> The Commission recognizes that the speed and timely nature of an intervention, if necessary, may be crucial in antitrust cases. For this reason, the Commission carefully analyses in each case whether the imposition of interim measures is appropriate [...] The Commission will not hesitate to decide on interim measures in suitable cases.[237]

Commissioner Vestager "resurrected"[238] E.U. interim measures for the *Broadcom* decision. Such change partakes to a broader changer of shifting antitrust from an ex post enforcement mechanism toward ex ante rules of competition. Big tech companies,[239] and more generally, large market actors, may not have to wait years of investigations before some regulatory obligations become applicable: The opening of antitrust investigations can lead to interim measures be immediately imposed in the name of avoiding "irreversible" risks to competition which oftentimes, if not always, are risks to the financial viability of competitors rather than actual consumer harm. Departing from *IMS Health Inc*.'s *res judicata*, the new policy of the European Commission signals a strongly interventionists bias in dynamic markets as precaution, not disruption, has subrepticely become the main concern of antitrust enforcers.

This trend partakes to the more generally precautionary approach to E.U. competition enforcement illustrated with the recent "new competition tools"[240] to be devised under the new mandate of Commissioner Vestager that

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237 Commissioner Vestager, *Answer Given by Ms. Vestager on Behalf of the Commission* (Sept. 21, 2017) https://www.europarl.europa.eu/doceo/document/E-8-2017-004559-ASW_EN.html.

238 See Bryan Koenig, In Broadcom Test, E.U. Tries to Resurrect 'Interim Measures,' LAW360 (June 28, 2019).

239 On the general, and largely unfounded, bias against large companies, *see* ROBERT D. ATKINSON & MICHAEL LIND, BIG IS BEAUTIFUL: DEBUNKING THE MYTH OF SMALL BUSINESS (MIT Press 2018) (aiming to "debunk the small-is-beautiful orthodoxy" with a size-neutrality principle toward companies).

240 See European Commission, *Antitrust: Commission consults stakeholders on a possible new competition tool*, Press Release IP/20/977 (2020a). *See also* Euractiv (2020) (reporting that MEP Carmen Avram, shadow rapporteur on the Parliament's annual competition report, argued that "the main objective

these "new competition tools" (NCT) are blatant departures from the existential feature of competition policy–*i.e., ex -post* antitrust liability as part of corrective justice regime–towards a more preemptive nature of competition policy– *i.e., ex-ante* precautionary antitrust as part of a deontological justice regime. In short, (antitrust) liability occurs when excuses are no longer acceptable for modern and accountable regulators (antitrust) precaution becomes the norm, and absence of harm (either to be shown or to be expected) becomes the rule.[241] Additionally, the European Commission launched in June 2020 an "Inception Impact Assessment," as part of the proposed "Digital Services Act package," aimed at assessing the need for an "ex-ante regulatory instrument for large online platforms with significant network effects acting as gate-keepers in the European Union's internal market."[242] Because precaution is better than cure according to common-sense old adagio, Commissioner Vestager prefers to intervene in digital markets that "fail" structurally by regulating them at the expense of the industry dynamics concerning innovativeness without having evidenced potential consumer harm. This increasingly regulatory trend in antitrust enforcement, especially on big digital platforms, pertains to shifting from a liability regime towards a no-fault regulatory authority.[243] Market failures

for the new competition tool is to be able to deal more effectively and faster with digital antitrust and merger cases in particular.").

241 This precautionary approach infuses into national competition authorities as illustrated by the French Competition Authority (Autorité de la Concurrence) and its interim measures decision against Google on 2020. *See* Autorité de la Concurrence, *Décision No 20(MC-01) relative à des demandes de mesures conservatoires présentées par le Syndicat des éditeurs de la presse magazine*, l'Alliance de la presse d'information générale e.a. et L'Agence France-Presse, April 9, 2020 (2020) (who imposed interim measures on the basis of Article L.464-1 of the French Commercial Code and due to the necessity and proportionality to the seriousness of the alleged anti-competitive conduct of Google vis-à-vis the press agencies).

242 European Commission, Inception Impact Assessment - Digital Services Act package: Ex ante regulatory instrument for large online platforms with significant network effects acting as gate-keepers in the European Union's internal market, Ares (2020)2877647, June 2, 2020 (2020) (arguing that "whereas over 10,000 such online platforms operate in Europe's digital economy, most of which are SMEs, a small number of large online platforms captures the biggest shares of the value. This mainly follows from the development of large online platforms operating as gatekeepers between businesses and citizens, benefitting from strong network effects. Furthermore, some of these large online platforms exercise control over whole platform ecosystems that are essentially impossible to contest by existing or new market operators, irrespective of how innovative and efficiency they may be". Thus, the Commission considers a number of policy options in order to regulate these big digital platforms, including the adoption of "a new and flexible ex ante regulatory framework for large online platforms acting as gatekeepers" which may include the "adoption of tailor-made remedies addressed to large online platforms acting as gatekeepers on a case-by-case basis where necessary and justified".)

243 This is particularly well illustrated by the Report entitled "White Paper - Digital Platforms" issued by the German Ministry for Economic Affairs and Energy (2017:106) which pursues the aim of the "Establishment of a dual, proactive competition law. For this purpose, the applicable elements of the general and rather reactive competition law – as defined by the Act against Barriers to Competition (GWB) – will be combined with a distinctly more active and systematic market supervision and robust

are addressed preemptively without much emphasis on potential regulatory shortcomings. In that regard, Type I error costs are discarded while Type II error costs are exaggerated in coherence with the logic underpinning the precautionary principle. This is now enshrined in the proposed Digital Markets Act, and especially its Article 22.[244] Commissioner Vestager has made clear that the Broadcom interim measures decision "is a sign of things to come." In the same vein, interim measures, mostly digital platforms, are commanded by several digital competition reports.[245] Consequently, it is no surprise that the Article 24 of the Digital Markets Act allows for the European Commission to regulate digital gatekeepers through the use of interim measures given the precautionary logic of both interim measures and the Digital Markets Act.[246] Article 24 of the DMA states:

> In case of urgency due to the risk of serious and irreparable damage for business users or end users of gatekeepers, the Commission may adopt implementing acts ordering interim measures against a gatekeeper on the basis of a prima facie finding of an infringement of Article 5, 6 or 7.[247]

It is *because* interim measures have a precautionary logic that the DMA integrated them as one of the power the European Commission should have in the new precautionary antitrust. Such precautionary antitrust is further illustrated with another fundamental aspect of the precautionary principle –

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intervention powers. The aim is to institutionalize an 'early warning system' . . . Proof of a market-dominant position as so far required by the GWB is no longer a prerequisite for intervention."

244 Proposal for a Regulation of the European Parliament and of the Council, *supra* note 202, at art. 22.

245 *See e.g.,* Furman Report, *Unlocking Digital Competition*, REPORT OF THE DIGITAL COMPETITION EXPERT PANEL 6 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf (2019); BRICS Report, *Digital Era Competition: A BRICS View*, REPORT BY THE BRICS COMPETITION LAW AND POLICY CENTRE 410 http://bricscompetition.org/upload/iblock/6a1/brics%20book%20full.pdf (2019); Cremer Report, *Competition Policy for the Digital Era*, FINAL REPORT 17 https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf (2019) (mentioning interim measures without reaching a conclusion).

246 This is also true at the national competition authorities' level thanks to the adoption of the ECN+ Directive on the December 11, 2018. This Directive enable national competition authorities (NCAs) to impose interim measures. The Directive notes that "interim measures can be an important tool to ensure that, while an investigation is ongoing, the infringement being investigated does not seriously and irreparably harm competition. This tool is important to avoid market developments that could be exceedingly difficult to reverse by a decision taken by an NCA at the end of the proceedings. NCAs should therefore have the power to impose interim measures by decision. At a minimum, this power should apply in cases where an NCA has made a prima facie finding of infringement of Article 101 or 102 TFEU and where there is a risk of serious and irreparable harm to competition", in ¶ 38 and codified in Article 11 of Directive (EU) 2019/1 to empower the competition authorities of the Member States to be more effective enforcers and to ensure the proper functioning of the internal market.

247 Proposal for a Regulation of the European Parliament and of the Council, *supra* note 202, at art. 24.

the reversal of the burden of proof (or everything is prohibited unless proven otherwise).

4. The Reversed Burden of Proof Implied by Precautionary Antitrust

Along with the precautionary principle, the Digital Markets Act shifts the burden of proof: the platforms have to demonstrate that they have not infringed the regulations or harmed anyone (be it consumers, rivals, or the general idea of innovation). Indeed, paragraph twenty-three of the Digital Markets Acts states that, against the presumption that digital gatekeepers are liable,

> the burden of adducing evidence that the presumption deriving from the fulfillment of quantitative thresholds should not apply to a specific provider should be borne by that provider.[248]

Therefore, designed digital gatekeepers can almost impossibly be exempted from falling under the scope of the Digital Markets Act. Furthermore, quite astonishingly, the Digital Markets Act further considers that

> any justification on economic grounds seeking to demonstrate efficiencies deriving from a specific type of behaviour by the provider of core platform services should be discarded, as it is not relevant to the designation as a gatekeeper."[249]

The burden of proof is not only shifted. The precautionary approach embodied in the Digital Markets Act entails some irrebuttable presumptions and an increase in the standard of proof when relevant.

Suppose the ability to intervene ahead of the damage via ex-ante regulations such as interim measures form an essential component of the precautionary principle. In that case, another critical part deserves scrutiny, the shift in the burden of proof inherent to the precautionary principle.[250] As

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248 Proposal for a Regulation of the European Parliament and of the Council, *supra* note 202, at ¶ 23.

249 *Id.*

250 The E.U. rules of the burden of proof in competition law were first laid down in Article 2 of the Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Article 81 and 82 of the Treaty (2003) 2003 O.J. (L 1/1) which states that "the burden of proving an infringement of Article 81(1) or of Article 82 of the Treaty shall rest on the party or the authority alleging the infringement. The undertaking or association of undertakings claiming the benefit of Article 81(3) of the Treaty shall bear the burden of proving that the conditions of that paragraph are fulfilled". This codified the statement of the Court according to which "Where there is a dispute as to the existence of an infringement of the competition rules, it is incumbent on the Commission to prove the

we shall now prove, this shift of the burden of proof both pertains to the precautionary principle and appears in recent antitrust reforms suggested by or advised to Commissioner Vestager.[251] This reversed burden of proof is strongly advocated in the U.S., as shown by the Stigler Report.[252] This report concludes that:

> Burdens of proof might be switched by adopting rules that will presume anticompetitive harm based on preliminary showings by antitrust plaintiffs and shift a burden of exculpation to the defendant or by ensuring that plaintiffs are not required to prove matters to which the defendants have greater knowledge and better access to relevant information.[253]

First, let us delve into the extent to which the precautionary principle implies a shift of the burden of proof. To prevent the regulator from intervening based on theoretical risks of irreversible damage, the individual must prove the absence of harm or damage caused by the envisaged course of action under the precautionary principle. This means that the burden of proof must be reversed with the precautionary principle instead of traditional liability regimes. Uncertainties no longer prevent the regulator from intervening but rather command for regulatory interventions. Furthermore, only certainties of innocuousness showed by the individual can wave off regulatory interventions.[254] Indeed, the European Commission saw that, in applying the precautionary principle for prior approval of products before they are marketed, "the legislator, by way of precaution, has reversed the burden of proof by requiring that the substances be deemed hazardous until proven otherwise. Hence it is up to the business community to carry out the scientific work needed to evaluate the risk."[255] The European Commission further considers that "action taken under the head of the precautionary principle must in some instances include a clause reversing the burden of proof and placing it on the producer, manufacturer or importer, but such an obligation cannot be systematically entertained as a general principle."[256]

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infringements found by it and to adduce evidence capable of demonstrating to the requisite legal standard the existence of the circumstances constituting an infringement", in C-185/95 P Baustahlgewebe v. Commission, ¶ 58, 1998 E.C.R. 608.

251 Investigation Into Competition in the Digital Economy and the Role of Digital Platforms Before the Subcomm. On Antitrust, Commercial & Admin Law of the H. Comm. on the Judiciary, 116th Cong. 5 (July 30, 2020) (statement of Margrethe Vestager, Executive Vice-President, Eurpean Commission).

252 Stigler Report, *Stigler Committee on Digital Platforms* (2019) https://research.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms---committee-report---stigler-center.pdf?la=en&hash=2D23583FF8BCC560B7FEF7A81E1F95C1DDC5225E.

253 *Id.* at 98.

254 Jonathan Wiener & Michael Rogers, *Comparing precaution in the United States and Europe*, 5 J. OF RISK RSCH. 317, 321 (2002).

255 Communication from the Commission on the Precautionary Principle, *supra* note 99, at 20.

256 *Id.* at 20-21.

The seminal text defining the precautionary principle, the 1998 Wingspread Declaration, encapsulates explicitly such reversed burden on proof:

> When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not established scientifically. In this context, the proponent of the activity, rather than the public, should be the burden of proof.[257]

Second, the recent calls for antitrust enforcement reforms in Europe concerning digital markets: the shift of the burden of proof appear conditional to the new line of thinking.[258] On the one hand, Commissioner Vestager has clearly stated that, given the difficulty in demonstrating consumer harm in the allegedly anti-competitive conducts of big digital platforms, she reflects on proposals for shifting the burden of proof onto big digital platforms: it would be for digital platforms to demonstrate the absence of harm to competition/consumer/innovation caused by their behaviors.[259] To explicit commissioner Vestager's thoughts, one of her advisers, used the example of the Uber company:

> Say, for instance, Uber started offering higher rates for those drivers who used its platform more often," said this person. "This would put competitors at a disadvantage because drivers would start favouring Uber to carry out their trips over competing apps. Under the proposed change it would be Uber who would need to show its behaviour is causing no harm to competition rather than the Commission having to prove it.[260]

Such a reversed burden of proof has been suggested quite influentially in high-level reports. Primarily, the so-called "Cremer Report,"

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257 Wingspread Conference on the Precautionary Principle, Consensus Statement on the January 26, 1998, https://www.sehn.org/sehn/wingspread-conference-on-the-precautionary-principle (1998).

258 Cani Fernandez, *Presumptions and Burden of Proof in E.U. Competition Law: the Intel Judgment*, 10 J. OF EUR. COMPETITION L. & PRAC., 448, 456 (2019) (noting that standard of proof and burden of proof are intrinsically related since "the allocation of the burden of proof (who should bear it) closely relates to the matter of its discharge (how the person carrying the burden of proof may satisfy it).").

259 *See* Emily Craig, *Vestager considers shifting burden of proof for big tech*, GLOB. COMPETITION REV. (Oct. 31, 2019), https://globalcompetitionreview.com/article/vestager-considers-shifting-burden-of-proof-big-tech (who precises that such reversed burden of proof appears questionable to many observers.) On the merits of big companies over small business, *see* ROBERT D. ATKINSON & MICHAEL LIND, BIG IS BEAUTIFUL: DEBUNKING THE MYTH OF SMALL BUSINESS 13 (2018) (eloquently recapping that "left-wing populists have made common cause with right-wing libertarians in their disdain for large business, co-opting the language of the market fundamentalist right to paint their antipathy to large business in the guise of the support of markets.").

260 *See* Javier Espinoza & Sam Fleming, *Margrethe Vestager eyes toughening 'burden of proof' for Big Tech*, FIN.TIMES (Oct. 31, 2019) https://www.ft.com/content/24635a5c-fa4f-11e9-a354-36acbbb0d9b6?shareType=nongift.

commissioned by the European Commission and delivered in early 2019, made the following proposals:

> We propose that competition law should not try to work with the error cost framework on a case-by-case basis. Rather, competition law should try to translate general insights about error costs into legal tests. The specific characteristics of many digital markets have arguably changed the balance of error costs and implementation costs, such that some modifications of the established tests, including allocation of the burden of proof and definition of the standard of proof, may be called for. In particular, in the context of highly concentrated markets characterised by strong network effects and high barriers to entry (I.e., not easily corrected by markets themselves), one may want to err on the side of disallowing potentially anti-competitive conducts and impose on the incumbent the burden of proof for showing the pro-competitiveness of its conduct.[261]

Another clear illustration is represented in the so-called "Furman Report" commissioned by the U.K. Competition & Markets Authority, where it is said that:

> The principal alternative considered by the Panel has been the introduction of a legal presumption against acquisitions by large digital companies, with the burden placed on parties involved to provide proof that the merger will not be anti-competitive.[262]

In a similar vein, the French competition authority (*Autorité de la Concurrence*) embraces such shift of the burden of proof for the merger because the reversal would enable "timely intervention for addressing anticompetitive conduct whenever they arise."[263] Therefore, the reversed burden of proof carries the dual advantage to out-source the duty to evidence from the regulator to the private actor and enable, together with interim measures, speedy intervention given the probable inability of this private actor to prove the absence of harm. This reversal of the burden of proof is revolutionary for antitrust enforcement.[264]

With the structural presumptions suggested by *ex-ante* regulatory tools,[265] the precautionary principle is *de facto* and *de jure*, a reversal of the

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261 Cremer Report, *Competition Policy for the Digital Era*, Final Report, European Commission, https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf at 4 (2019).

262 Furman Report, *Unlocking Digital Competition – Report of the Digital Competition Expert Panel*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf at 101 (2019).

263 Our translation from "Ce renversement de la charge de la preuve permettrait ainsi de gagner en rapidité, pour corriger toute distorsion de concurrence le plus rapidement possible après son apparition", in Autorité de la Concurrence (2020:9).

264 Indeed, it does not match the discussion relating to the allocation of the burden of proof and when, from the standard of proof perspective, the burden shifts from the plaintiff to the defendant. For a general discussion on this shift with a specific application to U.S. antitrust, *see* ANDREW I. GAVIL, BURDEN OF PROOF IN U.S. ANTITRUST LAW: ISSUES IN COMPETITION LAW AND POLICY 125-27 (ABA Book Publishing 2008).

265 *See* § II, *supra* note 263.

burden of proof;[266] liable until proven irreproachable, digital platforms would not only be subject to *ex-ante* tools (structural tools and interim measures). Still, they would also have ex-post to prove that they have created sufficient efficiency benefits to provide a credible defense. Unfortunately for them, the threshold for evidencing efficiency defenses stays unreasonably high in Europe[267] and is subject to potentially heightened U.S. requirements.[268] Consequently, in light of the literature and most notably in light of the

266 Cani Fernandez, *Presumptions and Burden of Proof in E.U. Competition Law: the Intel Judgment*, 10 J. OF EUR. COMPETITION L. & PRAC., 448, 456 (2019) (concluding that "when the conditions imposed to rebut a presumption are disproportionate, this has the effect of depriving completely this tool of its function. Because when a presumption is not rebuttable, not only this amounts to a non-respect of the principle of presumption of innocence, but also the competition enforcement is costly in terms of welfare, as the application of such a presumption will cause an excessive number of type I errors". Thus, in the context of reversed burden of proof applied inherent to precautionary antitrust where hypothetical risks to competition are alleged, the discharge of the burden of proof by evidencing efficiencies/innovation becomes unattainable. Consequently, the legal presumption, hinted by the precautionary reversal of the burden of proof, becomes an irrebuttable presumption contrary to fundamental right of a fair trial and to the basic tenets of the rule of law principles. Indeed, the same author at 449 clearly recalls that "a resort to presumptions not surrounded by the proper procedural guarantees, which prevents to call into question, the conclusions that derive from their application, may imply a violation of the presumption of innocence and result in an infringement of the undertakings' rights of defence".)

267 Efficiencies have not played a prominent role in merger cases before the Council Regulation no 139/2004 of 20 January 2004, and even after that date, "the European Commission has cleared no merger solely on the basis of efficiencies" and "the European Commission and Community Courts were initially reluctant to acknowledge efficiency justifications in dominance cases". *See* OECD, *Background Note, in The Role of Efficiency Claims in Antitrust Proceedings*, OECD Policy Roundtables, DAF/COMP(2012)23, 11-60, at 23 (2012). Furthermore, Richard Wish and David Bailey stated that they are "not aware of any case in which an efficiency defence has succeeded under Article 102." RICHARD WISH & DAVID BAILEY, COMPETITION LAW 218 (9th ed. 2018). In the US, a growing number of voices have advocated to question the rule of reason in favour of a per se illegality rule whereby efficiency defence would play no role."

268 *See for instance*, Maurice Stucke, *Does the Rule of Reason Violate the Rule of Law*, 42 U.C. DAVIS L. REV. 1375, 1378-79 (2009) (arguing that "Under the Court's per se illegal rule, certain restraints of trade are deemed illegal without consideration of any defences. These restraints are so likely to harm competition and to lack any significant procompetitive benefits that, in the Court's estimation, 'they do not warrant the time and expense required for particularized inquiry into their effects.'"); TIM WU, THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE 129 (Columbia Global Reports 2018) (advocating that "we might also consider a return to structural presumptions, such as a simple but per se ban on mergers that reduce the number of major firms to less than four"); Stigler Report, *Stigler Committee on Digital Platforms*, https://research.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms---committee-report---stigler-center.pdf?la=en&hash=2D23583FF8BCC560B7FEF7A81E1F95C1DDC5225E (2019) (at 78 arguing that "Mergers between dominant firms and substantial competitors or uniquely likely future competitors should be presumed to be unlawful, subject to rebuttal by defendants. This presumption would be valuable, not because it would identify anticompetitive mergers with precision, but because it would shift the burden to the party with the best access to relevant information on issues of competitive effects and efficiencies from the merger", at footnote 11 stating that "at some point we need to start thinking about inverting the burden of proof: Prima facie evidence of responsibility that cannot be further scrutinized because the companies refuse to share the data that would prove or disprove the claims should be considered strong evidence they are responsible".)

proposed Digital Markets Act,[269] it can be argued that the suggested (and probably soon materialized) shifts in the burdens of proof reveal the pervasiveness of the precautionary principle into antitrust enforcement towards digital platforms. The change of the burden of evidence, limited to big tech companies with no specific, convincing reason, bears several detrimental effects in enforcing a modern antitrust policy.

First, it introduces structural presumptions according to which significant digital platforms' conduct is thought to be anti-competitive unless proven otherwise. Such structural presumptions prevent the same level playing field of enforcement to all players and prejudge any consumer/innovation harm to prevent an arbitrarily selected range of conducts by a handful of companies to, for instance, enter new markets and disrupt incumbents for the benefits of consumers and of the competitive process. Structural presumptions derail the rule of law and introduce an unjustified two-level playing field in antitrust enforcement. Second, while in digital sectors, the introduction of new products or services yields high risks (thus generates expectations of high returns), the chilling out the effect of the reversed burden of proof - which can never be met given the inability to prove any innocuousness - will be disastrous on the innovation and competitiveness of our economies. Premiums are *de facto* granted to proven products and services (e.g., firms' expansions through external growth/mergers). Price tags are put on new products and services (e.g., firms' expansion through innovation). Third, Europe would become the place to introduce new products and services in digital markets compared to other places globally, which would, correspondingly, gain from this self-inflicted cost on innovation. For these reasons and potentially many others, the reversed burden of proof explicitly applied to a few digital market platforms is both incoherent and unconvincing from both a legal and an economic perspective.

This section shows how the precautionary principle's core elements are in European antitrust enforcement in digital markets. It is indeed commonly accepted that informational uncertainties surround the application of competition policy in digital markets due to unpredictable consequences, lack of counterfactuals, and traditional notions (such as market definition and market power, innovation, and consumer harm) being profoundly challenged by novel business practices. Furthermore, consumer harm is increasingly superfluous in showing antitrust liability because of a preferred standard to preserve the market structure, protection of consumer choices. Also, in a precautionary stance, uncertainties must not prevent regulators from intervening under urgent conditions to avoid what is considered structural risks incurring irreparable harm to competition. Finally, the targeted companies would be subject to a reversed burden of proof to ease the institution's work at the expense of market actors who will have great

269 Proposal for a Regulation of the European Parliament and of the Council, *supra* note 202.

difficulties to evidence dynamic efficiencies (innovation). Altogether, these elements dramatically shift the regulator's mindset concerning the "structural risks" to competition generated by big tech companies: regulatory interventions are warranted to preserve the status quo and avoid potential damages. Such extrapolation of the precautionary principle to antitrust enforcement is inevitably both fascinating and worrying – fascinating because it exemplifies the prestige of the precautionary principle in all the decision-making processes and worrying because it stands for a risk-averse market environment in time of a competitive quest for innovation across the globe. Nevertheless, the demonstration of applying the precautionary principle to E.U. antitrust enforcement (and its influence in the U.S.) does not explain such an application has taken place. This is now what we may decipher.

5. The Brussels' Effect: American Precautionary Antitrust

Professor Anu Bradford has famously coined the expression "the Brussels Effect" to describe the tremendous extraterritorial influence European regulations have.[270] In other words, the rest of the world follows the European regulatory approach, given the size and influence of the European market. But, as European regulations often epitomize a precautionary logic given the importance of the precautionary principle in Europe, the precautionary approach tends to be exported too.

Given the rise of Europe's precautionary antitrust together with the Brussels effect, it is unsurprising that a similar approach would arise in the United States.[271] As the Neo-Brandeisians frequently take inspiration from Europe to justify a more aggressive antitrust enforcement, the European precautionary approach to antitrust matters when it comes to innovative companies has been transplanted in the United States in two major ways.

First, the antitrust bills represent a shift toward ex-ante rules of competition with reversed burden of proof, quasi-rules of per se illegality given the reduced role of efficiency defenses, and ultimately a departure from the judicial enforcement of antitrust rules.

Second, and most importantly, the FTC has explicitly identified rulemaking as a new way to intervene in antitrust matters. Rather than relying on judicial enforcement of antitrust rules, the FTC aims at shifting the enforcement to ex-ante rules via rulemakings "unfair methods of

270 ANU BRADFORD, BRUSSELS EFFECTS: HOW THE EUROPEAN UNION RULES THE WORLD, (Oxford University Press 2020); Anu Bradford, *The Brussels Effect*, 107 NW. UNIV. L. REV. 1 (2020).

271 Aurelien Portuese, *Changes to antitrust policy would harm U.S. economy,* TIMES UNION (June 29, 2021), https://www.timesunion.com/opinion/article/Commentary-Changes-to-antitrust-policy-would-16280255.php.

competition" (UMC).[272] This ambition is questionably on two fronts. First, it is very likely that such rulemaking ambition is illegal, given the FTC's inability to engage in substantive rulemaking authority when it comes to "unfair methods of competition." Second, should such legally questionable rulemaking materialize, UMC rulemakings will inevitably portray the characteristics of a precautionary approach to pro-competitive and pro-innovative behaviors. Indeed, UMC rulemaking will preemptively prohibit a number of business practices irrespective of efficiency defenses. These blanket prohibitions would be imposed ex-ante by regulators rather than ex-post by judges. The prevalence of regulation over litigation, and more importantly of precaution over possible innovations, characterize the precautionary approach inherent to the shift from ex-post to ex-ante rules of competition. Finally, the rise of American precautionary antitrust is also illustrated by President Biden's Executive Order on Competition which calls for a wide range of regulatory rules aimed at promoting competition despite possible unintended consequences on innovation.[273]

In conclusion, the American version of precautionary antitrust follows from, but also differs from, the European version of precautionary antitrust. It may rely more on agencies' activity rather than on legislative changes, given the inability of Congress to substantially change antitrust laws. Be that as it may, the American version of precautionary antitrust will decidedly remain softer and milder than the European version of precautionary antitrust, thereby leaving the European precautionary approach to competition as the most influential model of regulations.

B. *Conceptualizing Precautionary Antitrust*

Precautionary antitrust has become a reality both in the E.U. and in the U.S. only because the conceptual tenets for its emergence were present. These conceptual prerequisites are numerous. Some have remained persistent throughout history, while others appeared only lately. For instance, the structural approach inherent to precautionary antitrust has never utterly lost its grasp on antitrust enforcement (III.B.1). An emerging consensus coalesced around the competition rules' alleged inappropriateness to prompt address anticompetitive behaviors (III.B.2). Finally, as one of the concepts that needed to be discarded for precautionary antitrust to appear, the error-cost framework has incrementally lost its appeal as arguments were thrown out from both sides of the antitrust spectrum without much usefulness (III.B.3.).

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272 Aurelien Portuese, *American Precautionary Antitrust: Unrestrained FTC Rulemaking Authority*, INFO. TECH. & INNOVATION FOUND. (JAN. 31, 2022), https://itif.org/publications/2022/01/31/american-precautionary-antitrust-unrestrained-ftc-rulemaking-authority.

273 Robert D. Atkinson, et al., *Reflections on President Biden's Executive Order on Competition*, July 2021, https://itif.org/sites/default/files/2021-biden-competition-executive-order.pdf (2021).

1. The Revival of the Structural Approach to Competition

Aimed at preventing potential "structural risks to competition" or potential "structural lack of competition,"[274] the precautionary principle applied to antitrust enforcement reveals an underlying structural approach to market competition. Beyond this rhetorical reference to the structure of the market, the precautionary approach illustrated by the European Commission (as well as by Neo-Brandeisians) proves adherence to the long-established, yet criticized, "structure-conduct-performance" (SCP) paradigm first articulated by Bain[275] as well as others.[276] Indeed, aimed primarily at tackling market concentration, the Digital Markets Act postulates that a number of digital services are:

> Highly concentrated multi-sided platform services, where usually one or very few large digital platforms set the commercial conditions with considerable autonomy.[277]

Article 12 of the Digital Markets Act obliges digital gatekeepers to notify the European Commission of every concentration project, irrespectively of their size, under the belief that any concentration involving a digital gatekeeper is detrimental to the economy.[278] These recent proposals are well aligned with the old, yet revived, SCP approach to markets.

The SCP paradigm postulates that a lousy market structure prevents optimal firm performance, and in reverse, optimal firm performance can only be achieved with an optimal market structure. They were justifying great regulatory interventions in the market to reach an optimal market structure. The SCP paradigm analyses decentralized market structure and its associated myriad of small companies as the goal of economic policies aimed at pursuing social welfare. Firm size, number of firms, and firms' relative

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274 Margrethe Vestager, Statement Before the Committee on the Judiciary, Subcommittee on Antitrust, Commercial and Administrative Law, United States House of Representatives, July 30, 2020, http://docs.house.gov/meetings/JU/JU05/20200729/110883/HHRG-116-JU05-20200729-SD007.pdf (2020)

275 Joe Bain, *A Note in Monopoly and Oligopoly*, 39 *AM. ECON. REV.* 448 (1949); Joe Bain, *Workable Competition in Oligopoly*, 40 *AM. ECON. REV.* 35 (1950); Joe Bain, Economies of Scale, Concentration, and Condition to Entry in Twenty Manufacturing Industries, 44 *AM. ECON. REV.* 15-39 (1954); JOE BAIN, *BARRIERS TO NEW COMPETITION* (Harvard University Press 1956); JOE BAIN, *INDUSTRIAL ORGANIZATION* (2d ed., John Wiley & Sons, Inc. 1967).

276 William J. Baumol et al., *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* (1982); Edward A. G. Robinson, *THE STRUCTURE OF COMPETITIVE INDUSTRY* (1931); George J. Stigler, *Theory of Oligopoly*, 72 J. OF POL. ECON. 44 (1964); Richard Caves, *AMERICAN INDUSTRY: STRUCTURE, CONDUCT, PERFORMANCE* (1964); Harold Demsetz, *Industry Structure, Market Rivalry and Policy*, 16 J. OF L. AND ECON. 1 (1973); FREDERIC M. SCHERER & DAVID ROSS, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE (Houghton Mifflin Company 1990).

277 Proposal for a Regulation of the European Parliament and of the Council, *supra* note 202, at exp. memo 3.

278 *Id.*

equalities amongst them all are determinants of the (good) conduct of these firms. Monopolists, or large companies,[279] were sanctioned, and so, irrespectively of their (superior) efficiencies.[280] Oligopolistic markets are blamed for the so-called imperfect competition they stand for. Indeed, in an optimal market structure, firms are deterred and impeded from abusing their market positions. These good conducts enable the optimization of market performance.

Consequently, it appears that regulatory interventions must take place preemptively in the marketplace (*i.e.,* structuring the market) so that interventions become useless subsequently (*i.e.,* in assessing the market's conduct). Therefore, the SCP paradigm is central to the recent reform calls for early interventions on the market before any damaging behavior may arise to prevent the advent of abusive conduct. The revival of the SCP paradigm for antitrust enforcement in digital markets is hardly coincidental. Indeed, never has the Chicago School truly landed in Europe or enjoyed consensus in the U.S.

The focus on the market structure by antitrust enforcers has never felted away. Indeed, despite the Chicagoans' efforts to incentivize enforcers to focus on conduct only rather than pre-existing structure to carry out antitrust analysis, market structure's importance remained essential to any antitrust analysis.[281] The Chicago revolution was more of a reform than a true revolution.[282] The "rise of the Chicago School"[283] has unfolded, contrary to

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279 Common language confuses large companies with monopolists. *See e.g.,* Zephyr Teachout, *How Biden Can Break the Stranglehold of Amazon and Other Monopolies*, The Nation, January 4, 2021 (lamenting the "tentacles of today's monopolistic companies") (2021).

280 The Alcoa case of 1945 is illustrative of the legal attack on oligopolistic markets and imperfect market structures by resorting to a syllogism from the unconditional prohibition of cartels to the unconditional prohibition of large firms when Judge Learned Hand state: "it would be absurd to condemn such contracts unconditionally, and not to extend the condemnation to monopolies; for the contracts are only steps toward that entire control which monopoly confers: they are really partial monopolies", in United States v Aluminium Co. of America (Alcoa), 147 F.2d 416. Robert Bork summed up the idea of the time of Alcoa's decision by lamenting that "the message is unmistakable: monopoly (two-thirds of a market or more) is illegal unless the monopolist could not avoid it. Superior efficiency is not only no excuse, it is an 'abuse' of large size". Firms of large size were "equated" with price-fixing cartels. *See* ROBERT BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF, 170 (Basic Books Inc. 1978).

281 Carl T. Bogus, *The New Road to Serfdom: The Curse of Bigness and the Failure of Antitrust*, 49 UNIV. OF MICH. J. OF L.14 (2015). *But see* ROBERT D. ATKINSON & MICHAEL LIND, BIG IS BEAUTIFUL: DEBUNKING THE MYTH OF SMALL BUSINESS (MIT Press 2018).

282 William Kovacic, *The Antitrust Paradox Revisited: Robert Bork and the Transformation of Modern Antitrust Policy*, 36 WAYNE L. REV. 1413, 1470 (1990) (noting that "Bork's analysis has played an important part in guiding enforcement agencies and courts to recast enforcement policy and doctrine concerning horizontal restraints, vertical restraints, and single-firm conduct. For at least the short term, this trend is likely to continue.").

283 Tim Wu, The Curse of Bigness: Antitrust in the New Gilded Age 83-92 (Columbia Global Reports 2018).

general beliefs, with only minor changes since the Chicago School itself remained somehow concerned with the ideal market structure.[284]

To refer to one of the heroes of the Chicago School – Robert Bork, the author of *The Antitrust Paradox,* recommended that "the law should be reformed so that its strikes" […] "horizontal mergers creating exceptionally large market shares (those that leave fewer than three significant rivals in any market)."[285] Surprisingly, this structuralist approach by one of the most influential figures of the Chicago School has remained mostly unnoticed. According to Bork, several firms are to be set at an ideal level, and it is implied that duopolies cannot exert sufficient rivalry. This viewpoint unexpectedly squares well with one of the key figures of the Neo-Brandeisians – Tim Wu, who calls for reforms of antitrust laws to reinstate "structural presumptions" that ban "mergers that reduce the number of major firms to less than four."[286] Rarely have these supposedly opposite views been put into perspective so that the "Chicago revolution" may instead appear to be slight changes amidst an unchallenged structuralist approach in antitrust.[287] Antitrust laws in the U.S. have always remained structuralist – despite some minor qualifications with an exaggerated reliance upon price theory.[288]

In the E.U., at the time of reception of the Chicago School in the eighties, the first regulation for merger control is adopted with a clear focus on preserving market structure. The E.U. goal of market integration has

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284 Marc Glick, Antitrust and Economic History: The Historic Failure of the Chicago School of Antitrust, (Inst. of Econ. Thinking, Working Paper, No. 95, 2019).

285 Robert Bork, The Antitrust Paradox: A Policy at War With Itself 405-06 (Basic Books Inc. 1978).

286 TIM WU, THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE 129 (Columbia Global Reports 2018). *See also* Lina Khan, *Separation of Platforms and Commerce*, 119 COLUMBIA L. REV. 973 (2019) (where structural separations (breakups) are suggested on the basis of preserving the market structure. She indeed considers that "structural separations should be recovered as a tool of competition policy . . . because digital platform markets seem to favor monopolistic market structures." *Id.* at 1035. Hence she advocates for "recovering our understanding of structural separations . . ." *Id.* at 1091).

287 Sanctions of market structure irrespective of the anticompetitiveness of the conducts have a long history both in the US with the so-called "no-fault monopoly" and in the E.U. with the so-called "economic freedoms of rivals". For an overview and the discussion of the inadequacy of no-fault monopoly approach to digital markets, *see* Marina Lao, *No-fault Digital Platform Monopolization*, 61 WM. & MARY L. REV. 755 (2020); For the E.U. Ordoliberal approach and its requirements of protecting consumer which and an ideal market structure, *see* Peter Behrens, *The Consumer Choice Paradigm in German Ordoliberalism and its Impact Upon Competition Law*, Europa-Kolleg Hamburg, Discussion Paper 1/14 (2014).

288 ROBERT BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF, 405 (Basic Books Inc. 1978). (where Bork considers that consumer welfare standard measured as productive efficiency, and ancillarily as allocative efficiency, is the exclusive criterion of antitrust laws. Dynamic efficiency (i.e. innovation) is granted few, if not none, grounds for antitrust analysis. In that regard, over-reliance on price theory and its productive efficiency criterion discounts the necessary analysis of the dynamic efficiency inherent to firms' conducts.)

contributed not to focus on firm conducts exclusively.[289] The nineties have typically placed market structure as a prerequisite to any antitrust analysis. The so-called "more economic approach" has only marginally reduced the market structure's weight in E.U. competition enforcement.[290] Decisions during this "modernization" era illustrate that the Ordoliberal fundamentals have been revised but not honestly questioned.[291]

Against this background, it appears non-surprising that the structural approach could quickly be revived when the times enabled such reappearance. And the digital era is prone to this revival. With its network effects and winner-take-all phenomenon, the digital markets can easily be perceived by structuralists as the best illustrations of what a sub-optimal market structure would look like. Market concentration in the digital markets has allegedly increased when relevant markets are defined narrowly for antitrust purposes. Structuralists, such as Neo-Brandeisians, point out the concentration in digital markets as an unacceptable feature of these markets – the solution is the big tech companies' break up.

The structuralist approach is revived as part of the precautionary principle and its aversion to risks. Indeed, according to Neo-Brandeisians and most explicitly by European Ordoliberals, the need for precautionary measures is justified based on the "risks to the structure of competition," or alternative, of the "structural risks of competition."[292] To be clear, it is no longer the conduct of firms believed to be assessed either as pro- or anti-competitive. More specifically, the market structure. Anticompetitiveness results from the market structure from any evidence conduct. The return to the original structural approach conceptualized with the SCP research

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289 Ben Van Rompuy, Economic Efficiency The Sole Concern of Modern Antitrust Policy? Non-Efficiency Considerations under Article 101 TFEU, Wolters Kluwer 2012); Pinar Akman, *The Reform of the Application of Article 102 TFEU: Mission Accomplished*, 81 ANTITRUST L. J. 145 (2016).

290 Timur Ergen & Sebastien Kohl, Varieties of Economization in Competition Policy. A Comparative Analysis of German and American Antitrust Doctrines, 1960-2000, MPIfG Discussion Paper 17/18 (2017); Sigrid Quack & Marie-Laure Djelic, *Adaptation, Recombination, and Reinforcement: The Story of Antitrust and Competition Law in Germany and Europe*, in BEYOND CONTINUITY: INSTITUTIONAL CHANGE IN ADVANCED POLITICAL ECONOMIES 255 (Oxford University Press 2005); DANIEL J. GIFFORD & ROBERT T. KUDRLE, THE ATLANTIC DIVIDE IN ANTITRUST: AN EXAMINATION OF U.S. AND E.U. COMPETITION POLICY (University of Chicago Press 2015).

291 C-209/10 Post Danmark A/S v. Konkurrenceradet, ECLI:EU:C:2012, 172, ¶ 30 ("'price discrimiation'…cannot of itself suggest that there exists an exclsuonary abuse."); C-49/07 Motosykletistiki Omospondia Ellados NPID. (MOTOE) v. Elliniko Dimosio, ECR I-4863, ¶ 51 ("A system of undistorted competition, such as that provided for by the Treaty, can be guaranteed only if equality of opportunity is secured as between the various economic operators.") ; C-553/12 P European Commission v. Dimosia Epicheirisi Ilektrismou AE (DEI), ECLI:EU:C:2014:2081, ¶ 57 ("inequality of opportunity between economic operators, and thus distorted competition . . .").

292 *See* NAZZINI, *supra* note 195, at 32; *see also* European Commission Press Release, Antitrust: Commission consults stakeholders on a possible new competition tool (June 2, 2020), https://ec.europa.eu/commission/presscorner/detail/en/ip_20_977 (2020) (stating *"*We see, however, that there are certain structural risks for competition, such as tipping markets, which are not addressed by the current rules").

program is straightforward and proudly invoked. It is the structure of the market that justifies the Department of Justice to request "structural reliefs" against Google: the search engine cannot arguably avoid anticompetitive conduct without a reshuffling of the market through break-ups.[293] The Department of Justice's complaint's underlying goal is not so much Google's past conduct – as a traditional antitrust analysis would focus on – but more the prospect of re-organizing the market with more atomized market actors. In the vein of the SCP approach, the assessment of past conducts matters less than the design of future market structure – antitrust interventions conceptually shift from backward-looking liability analysis in favor of forward-looking market designs. This paradigmatic change conceptually speculates on the nature of the market is highly innovative and strongly unpredictable industries. As it may, never has the structural approach enjoyed such widely accepted and praised consensus since the Chicago School's mini-revolution.

Therefore, the demise (or, more appropriately, the failure to have a lasting influence) of the Chicago School enabled the structuralists such as Neo-Brandeisians and Ordoliberals to succeed in laying down the conceptual basis for precautionary antitrust to become the prime approach in antitrust across the Atlantic. This results in preserving the market structure – resembling a "competitor-welfare standard"[294] – at the expense of antitrust authorities' interventions only in cases where evidenced consumer harm and stifled innovation. The precautionary approach to restoring the allegedly lost rivalry in digital markets commands early interventionism for preservation purposes – be it ecological preservation in the traditional field of the precautionary principle or the market structure preservation in the startling area of precautionary antitrust. In both cases, the sense of the cherished present and an idealized past situation trumps the dreaded prospect of the

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293 *See* U.S. DEP'T OF JUST., U.S. AND PLAINTIFF STATES V. GOOGLE LLC JOINT STATUS REPORT ¶ 194 (Janaury 4, 2022) ("Google acted unlawfully to maintain general search serices, sercice advertising, and general search text advertising mponopolies…Enter structural relief as needed to cure any anticompetitive harm . . ."). In alike manner, the House Report identifies "structural separations and prohibitions of certain dominant platforms from operating in adjacent lines of business" as the prime recommendation in order to restore competition in the digital economy. JERROLD NADLER & DAVID N. CICILLINE, INVESTIGATION OF COMPETITION IN DIGITAL MARKETS, MAJORITY STAFF REPORT AND RECOMMENDATIONS 20 (2020).

294 *See* Declaration of Economists and Antitrust Scholars on Behalf of Radiomóvil Dipsa S.A. de C.V (Telcel), Reconsideration Recourse, RA-007-2011, Case File No. DE-37-2006, Comisión Federal de Competencia (United Mexican States) (Oct. 14, 2011) (lamenting against the "protectionist competitor-welfare standard" hinted by some reforms banning price-squeeze which would have been tantamount to "increasing the complaining firm's margin [which] would require increasing the retail price of the service at the expense of customers, or reducing the wholesale price of the service, which would require cross-subsidies from other services again at the expense of customers. The more accurate assessment is that the subsidy inherent in a liability rule for margin squeeze turns antitrust law into a tool for rent-seeking behavior by competitors"). For having coined the expression, *see* J. Gregory Sidak, *The Failure of Good Intentions: The WorldCom Fraud and the Collapse of American Telecommunications After Deregulation,* 20 YALE J. ON REG. 207 (2003).

new world to unfold. Thus, social security is expanded to a sort of market security where economic actors are entitled to play a role in the market without the risks of being ousted for uncompetitiveness and uninnovativeness. The desire for safety in our fast-changing world is indeed highly valued – and the precautionary principle best illustrates the legal vehicle to achieve that desire.

2. The Long Demise of the Error Cost Framework in Antitrust

Antitrust enforcement has long been dominated by the so-called "error-cost framework" seminally laid down by Professor Easterbrook.[295] Subsequently, the discussion resolved around antitrust authorities engaging in false positives (Type I errors) or false negatives (Type II errors). False positives were said to be costlier than false negatives due to regulatory and judicial decisions' stickiness. Because of the immediate costs and deterrence on innovation, these flawed decisions were generated. As a matter of principle, the antitrust debates accepted the error-cost framework's main tenets, despite some vocal opposition. This was true for many years – but it is no longer valid.

Indeed, the error-cost framework has morphed into the frame of dialogue where some who advocate for more antitrust interventionism blame opponents for favoring lax enforcement and to acclaim decisions that allegedly are illustrative of false negatives: the scholars who support underenforcement are accomplices of decisions and judgment which create costly false negatives. On the other hand, some who advocate for less antitrust interventionism blame opponents for favoring aggressive enforcement and acclaim decisions that allegedly are illustrative of false positives: scholars who support overenforcement are accomplices of decision judgments create costly false positives.

Both sides of this highly divided academic and policy debate seem irreconcilable: profound divergences in the role of the State in the market, on the need to protect competitors rather than consumers, on the adequacy of the incentives created in terms of efficiency and innovation appear continuously and irremediably. The divide seems irreconcilable. The stances are as strong as they are lightly shown: one side tries to convince the other side that erring on her owner's side rather than erring on the other's side is advisable. Beyond the sheer vanity of such exercise doomed to fail, the very justification for erring at all is not provided. Thus, the rhetorical exercise is hardly convincing. Still, this exercise is fundamentally flawed from a legal ethics

295 *See* Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEXAS L. REV. (1984). *See also* Fred S. McChesney, *Easterbrook on Errors*, 6 COMPETITION L. & ECON. 11 (2020); Geoffrey A. Manne & Joshua D. Wright, *Innovation and the Limits of Antitrust*, 6 COMPETITION L. & ECON. J. 153 (2010); Keith N. Hylton & Michael Saling, *Tying Law and Policy: A Decision-Theoretic Approach*, 69 ANTITRUST L. J. 469 (2001).

perspective – erring under the law is wrong as a matter of principle irrespectively of each decision's respective costs.

Therefore, the antitrust debate framework takes place for the last thirty years or so appears as inadequate as obsolete now. However, there is a need to conceptualize and explain the current antitrust debate about over-or under-enforcement. This debate is no longer a matter of costs (which falsehood is costlier than the other?) or a matter of evidencing errors (which error type are we facing?) – but more a matter of preference. Indeed, citizens and, more significantly, regulators and judges reveal idiosyncratic preferences that may evolve over the years. With the uncertain world we live in, the precautionary principle has found favorable grounds in the regulatory policy-making arena to cope with the shared fears of new, innovative, and uncertain products and services. Antitrust enforcement has not escaped such appeal from the precautionary principle.

"In case of uncertainties, regulate with early interventions" here is the main teaching of the precautionary principle, which applies to antitrust enforcement in digital markets. Indeed, concerning algorithm-enabled competition, data-driven rivalry, and new markets created . . . antitrust authorities wish to regulate and prevent something that has not yet delivered its benefits and/or has not yet been predictable enough to predict the detrimental effects of the future it wishes to avoid. Nevertheless, the precautionary principle appeases the fear, tames the anxiety, and corresponds to regulators' preferences not to be blamed subsequently for not having pre-emptively acted at an early stage. Again, precaution is better than cure: in antitrust enforcement, precautionary intervention is better than the hypothetical risks of damage and its associated risks of professional blame for regulators. Rationally minded regulators discount the costs of precaution and inflammation from the costs of non-acting. Within this biased decision-making framework, the precautionary principle represents an underlying preference by regulators and citizens.

Consequently, it appears blatant that precautionary antitrust supports a more robust conceptual framework than the error-cost framework. With the precautionary principle applied to antitrust enforcement, we no longer are in the same and pointless debate of error-costs analysis where neither errors nor costs can be shown. Still, we enter a discussion of subjective preferences where errors fade away in favor of citizens' and regulators' preferences. The allegedly mathematical pretense of the error-cost framework is ultimately discarded in exchange for a subjective, policy-oriented preference for precaution over risks, for present regulations over speculative innovations. In short, with the precautionary antitrust perspective, there is no longer a right/wrong decision, a costly/cheap decision to make; there now is a decision taken in the grey zone of risk perceptions and risk sensitivity. This grey zone adapts particularly well to antitrust enforcement. Economic analysis and discussions are prone to arguments and counterarguments in what is not a black or white answer. Precautionary antitrust supports a sound

conceptual framework for the antitrust debate to take place: those who used to blame false negatives and lax enforcement can now justify their decisions and policy choices based on the well-accepted and widely used precautionary principle; those who used to blame false positives and aggressive enforcement can also explain their critics based on the cost and anti-innovation precautionary principle. Thanks to the precautionary antitrust framework, both sides of the antitrust debates can agree on the terms of the debates while disagreeing based on their subjective preferences concerning the use of the precautionary principle in antitrust enforcement. Thanks to the precautionary antitrust framework, the antitrust debates can occur in a more civilized, less divisive manner.

CONCLUSION: THE NEED FOR DYNAMIC ANTITRUST

This article demonstrates that the underlying forces that have first shaped E.U. antitrust and influence U.S. antitrust are persistent and explained with a novel conceptual framework. Antitrust has embraced the precautionary principle. This is demonstrated by the presence, either in decisions or in the rhetoric, of the fundamental elements inherent to the precautionary principle.

As the precautionary principle entered antitrust, innovation exited it. Precautionary antitrust implies preemptive regulations, a static view of competition disingenuous to the valuable disruptive innovations which underpin dynamic competition. While precautionary antitrust protects the current market structure, disruptions create the next markets. As the status quo bias of precautionary antitrust solidifies, competition becomes less dynamic and less disruptive.

The willingness to let innovation thrive despite the uncertainties implies the need to accept innovation defenses in antitrust cases and understand the new business models that are idiosyncratic to disruptive innovators have all waned. Against the status quo bias of precautionary antitrust, we need principles of "dynamic antitrust"[296]–namely, antitrust principles which foster dynamic competition and preserve innovation incentives as a source of competition.

From algorithm-driven companies to two-sided digital platforms through the build-in of encompassing digital ecosystems, the digital economy's phenomenon remains unfamiliar to traditional enforcement of antitrust and enforcers – be they regulators or judges. Such newness ushered in fears and speculations about the fundamental threats digital companies can

296 Aurelien Portuese, *Principles of Dynamic Antitrust: Competing Through Innovation*, in INFO. TECH. & INNOVATION FOUND. (June 14, 2021) https://itif.org/publications/2021/06/14/principles-dynamic-antitrust-competing-through-innovation#:~:text=Principles%20of%20dynamic%20antitrust%20suggest,over%20vertical%20and%20conglomerate%20mergers.

constitute to the market and democracy's functioning. Early regulations have become the consensual way of addressing digital platforms, while antitrust liability appeared inappropriate. To be sure, advocates of precautionary antitrust discounted innovations to be ushered by massive R&D. Precautionary antitrust offered security for rivals, certainty for the market structure, and warranties for regulators' oversight. Given the popularity of the precautionary principle irrespectively of its innovation costs, this principle inspired regulators who have generally become acquainted with decades of experience in implementing this principle. Antitrust was the last area of regulation to remain immune from the precautionary principle's grasp – it is no longer the case. Precautionary antitrust prevents the maximization of innovation but offers a sound conceptual framework within which antitrust debates can occur.

The emergence of precautionary antitrust, first in Europe and later transplanted into the United States, has several explanations, as discussed above – from risk perceptions to the demise of the Chicago School and the revival of the populist antitrust, as well as the appeal of the S-C-P approach, and to the burning desire to regulate despite compelling evidence to do so. To be sure, the desire to crack down on big tech firms is another powerful explanation irrespective of preferences toward precaution. These firms are colloquially portrayed as "monopolists." But big tech firms are no monopolists; they face intense rivalry akin to monopolistic competition.

Unfortunately, precautionary antitrust overlooks the innovation dynamics–namely, present competition as the outcome of innovation and innovation as a prerequisite for future competition, in a coherent lineage with the precautionary principle's skepticism toward technologies, precautionary antitrust discounts technological innovation and any entrepreneurial innovations, to favor its value-based, undebatable regulations enforced as a matter of principle – the precautionary principle.

Due to its increasing tendency to favor precaution, antitrust enforcement is still insufficiently innovation-based. We have indirectly proven this fundamental flaw by portraying the importance of the precautionary principle in antitrust enforcement. Alike in general terms, where the precautionary principle needs to be overcome and balanced out with an innovation principle, precautionary antitrust needs to be balanced out with more innovation-based antitrust. Such innovation-based antitrust is yet to be defined but would require a robust antitrust framework built on sound principles. Increased antitrust agencies independence from politics, increased agencies staffing, truly functioning innovation defenses, a better consideration for potential competition, better consideration of the expenses of R&D by firms, and the need to adhere to both economic efficiencies (allocative, productive, dynamic) as an overarching criterion for antitrust analysis – all are potential paths for a sound reform of antitrust enforcement away from political calculus but instead, really concerned with innovation-based antitrust enforcement. Should these principles be discounted,

precautionary antitrust would pervade market actors' traditional functioning, where tough rivalry and aggressive innovation would be replaced by market structure preservation and permissioned innovation. These outcomes would ironically be the opposite of the essence of antitrust laws. Precautionary antitrust has entered enforcement – it is time to make dynamic antitrust triumphant instead.[297]

What would be the founding stones upon which dynamic antitrust rest? We have demonstrated that antitrust has become precautionary both in Europe and the U.S. It embraces an antitrust policy at war with innovation. In detail, a program for innovation-based antitrust is outside the scope of this Article.[298] Nonetheless, we may outline the main guidelines enabling innovation-based antitrust as a profoundly necessitated counter-thesis of the emerging precautionary antitrust. These guidelines are:

- Antitrust philosophy: a dynamic, long-term view of the appraisal of what competition on the merits is proving to be essential. A shift away from equilibrium, static, photographic-like perspective to the functioning of the market in favor of a disequilibrium, dynamic, and more refined view of the market's competitive tensions is crucial for the diagnosis. Enforcers must acknowledge that entrepreneurial creativity pares down to the firm's dynamic capabilities.[299] Such acknowledgment entails regulatory humility, but it must require in-depth inquiry and understanding of the firm's internal functioning and dynamic capabilities and their impact on the external implications in terms of antitrust policy. Innovation, as a broader goal than price-centric consumer welfare, needs to become the point of focus of antitrust enforcers;
- Antitrust substance: all presumptions must be made rebuttable. *Per se* prohibitions prove absurd in a world of complex and open innovation business models. Market shares and market structure should no longer remain the prime tool for antitrust analysis. In that regard, market definitions can no longer be sustained the way they are and must be substituted with industry investigations

297 For a detailed analysis, *see* Portuese, *supra* note 293.

298 Innovation-based antitrust has long remained at the altar of the quest for dynamic antitrust. There is a broad consensus that innovation matters, and yet antitrust enforcers fail to enforce antitrust laws in a manner which is consistent with innovation dynamics. *See, e.g.,* Christine Wilson, Commissioner, Fed. Trade Comm'n, Remarks at the Standard Essential Patents Symposium, Antitrust and Innovation: Still Not a Dynamic Duo? (Sept. 10, 2019), https://www.ftc.gov/system/files/documents/public_statements/1544179/wilson_-_remarks_seps_9-10-19.pdf (stating that "[w]e have long known that dynamic effects are important, but we have also long struggled to properly account for them in our antitrust analysis."). For a general discussion, *see* Portuese, *supra* note 293; *see* Portuese, *supra* note 75, at 237–58.

299 DAVID J. TEECE, DYNAMIC CAPABILITIES & STRATEGIC MANAGEMENT: ORGANIZING FOR INNOVATION AND GROWTH (Oxford University Press 2009) (outlining the role of firms' dynamic capabilities in shaping market rivalry, and who advises at 236 that "framing competition issues in terms of monopoly versus competition appears to have been unhelpful, at minimum inconclusive. Rivalry matters, but market concentration doesn't necessarily determine rivalry.").

where market substitutability plays a more significant role. Also, the anti-innovation effects of cartels and collusive practices must become the prime focus of antitrust enforcers over single conduct investigations where plentiful (innovation) efficiencies are often present. The extent to which a firm innovates (measured through a bundle of proxies) can no longer be discarded as immaterial. Also, merger analysis needs to encompass potential competition domestically and globally with a revised timeframe of 3 to 5 years (instead of 2 to 3 years presently);

- Antitrust institutions: Dynamic antitrust rely on the court system because of the evolutionary nature of judge-made law. Instead of an ex-ante system of antitrust whereby judicial precedents play a minor role, dynamic antitrust would extensively rely on the evolutionary process of the judicial system in order to shed light on the nature of the pro- and anticompetitive nature of the practices under examination. Judges have prevalence over regulators in a dynamic antitrust approach. Also, because the anti-innovation stance of precautionary antitrust is fueled by popular fears and popular weaponization of antitrust, antitrust agencies must further complete the de-politicization of antitrust enforcement. Politicians should no longer be in charge of antitrust policies. Similarly, the monetary policy has gained full independence. Therefore, in Europe, the DG-Comp must become a fully independent agency akin to national competition authorities. In the U.S., the FTC should be less subject to political pressures and political guidance;
- Antitrust cooperation: legal uncertainty generated by antitrust divergences is the best enemy to firms' innovations. Therefore, global antitrust must come to the fore more ambitiously than is currently informally discussed at the International Competition Network and tersely debated within the World Trade Organization. Of course, such an ideal prospect may not unfold in the short run. Therefore, in the short run, a Transatlantic partnership on antitrust enforcement must be given full reality. Involving both the E.U. and the U.S., this partnership may also attract small jurisdictions such as Canada, the U.K., Switzerland, and Mexico. Such partnership is essential in minimizing antitrust divergences, fostering antitrust coherences across jurisdictions – thereby enabling companies to generate innovations with a reasonably clear regulatory framework and enforcement when it comes to antitrust policy.

Precautionary antitrust has emerged in a world of disruptive innovations. It appeared as a limiting philosophy about the disruptive effects of technology and innovation on markets in a time where the race to innovation globally, the need for innovation domestically, and the chances to

reap innovation benefits have never been so large. And yet, precautionary antitrust cautions against all sorts of fears, from the fear of a market structure imbalance to the fear of an insufficient assertion of the political power against the economic power. Preemptive regulations, sanctions without evidence harms, and restructuring companies: the guidelines defined by precautionary antitrust run afoul innovation-based antitrust. The application of the precautionary principle in antitrust reveals a regulator's preference but embodies a society's detrimental future.

Precautionary antitrust is a reality in Europe. Thanks to the Neo-Brandeisians, it seems inevitable that precautionary antitrust is to be transplanted into the U.S. through antitrust bills and/or Section 5 of the FTC Act. And yet, we need to have another path: we plainly need a more optimistic, innovation-embracing, competition-enhancing alternative where innovation is maximized and competition is reasonably enforced. We need to overcome precautionary antitrust with innovation-based antitrust that best incentivizes dynamic competition. In other words, we need principles of dynamic antitrust that foster dynamic competition, respect the necessary legal predictability required by the rule of law, and bolster innovation incentives. Dynamic antitrust principles would rest upon two pillars: the promotion of dynamic competition substantively and the promotion of the dynamic enforcement of antitrust through courts procedurally. Opposite to precautionary antitrust, dynamic antitrust would improve ex-post judicial enforcement of antitrust and would encourage disruptions that best topple incumbents and drive social progress. This article has introduced the notion of precautionary antitrust as an explanatory thesis of the current preference of regulators to aggressively weaponize antitrust. It has sketched out the reasons for overcoming precautionary antitrust and how to do so. The path forward is clear; the journey for dynamic antitrust only commences.

DIVERSITY: RULE OF LAW, EFFICIENCY, AND FOLK ECONOMICS

Paul H. Rubin[*]

INTRODUCTION

Modern progressives (aka "the woke") have a profoundly mistaken primitive zero-sum understanding of market processes, which leads them to advocate and implement policies that will ultimately be detrimental to our collective social output, and particularly to those the woke claim to represent. In contemporary U.S. society, "diversity" refers to preferential policies aimed at increasing the number of favored minorities (mainly African-Americans and Hispanics) in various positions, in education, in the private market, and in government. (Other minorities, such as Jews and Asians, are not included and will be harmed by diversity policies. Women are sometimes included, but recently they seem to be doing well without too much special attention.)

Goals of increasing diversity, which require giving weight to race in hiring and other decisions, are fundamentally inconsistent with classical "Rule of Law" principles, which require treating all people equally, independently of personal characteristics, such as race.[1] The search for diversity is part of "identity politics" and an aspect of being "woke." Identity politics treats individuals as members of particular groups, usually racial, rather than as individuals.

A search for diversity is a descendant of affirmative action. Affirmative action was a policy aimed at countering racial discrimination, both past and ongoing. It was originally a product of executive orders signed by President Kennedy in 1961 and President Johnson in 1965. The theory behind these orders and the Civil Rights Movement, in general, was that if discrimination could be eliminated and results of past discrimination overcome, then occupational and other differences across races would eliminate themselves. I was active in civil rights issues in those years and can attest to the fact that this theory drove the movement. This is what Dr. Martin Luther King referred to in his famous speech at the 1963 March on Washington (which I attended), "I have a dream that my four little children will one day live in a

[*] Professor Emeritus, Emory University. Trigger warning: This entire paper is completely politically incorrect. Read at your peril. While accepting all blame and reprehension, I would like to thank participants at a Henry G. Manne Program in Law & Economics, Research Roundtable on Capitalism & The Rule of Law, in Bachelor's Gulch Colorado on June 20-24, 2021. Special thanks to discussants Eric Alston, Nuno Garoupa, and Andrew Young.

[1] *See* Albert Venn Dicey, INTRODUCTION TO THE STUDY OF THE CONSTITUTION 110 (Liberty Classics 8th ed. 1982) (1915).

nation where they will not be judged by the color of their skin but by the content of their character."[2] While ending discrimination was efficient and desirable, affirmative action has been less successful.[3]

Unfortunately, the world did not work as hoped. Racial discrimination has largely or entirely been eliminated, and yet substantial differences in outcomes by race still remain. This has led to seeking other goals, primarily diversity viewed as a good itself. However, there are substantial and persistent differences in test performance by race.[4] As a result, universities seeking diverse student bodies have been forced to tolerate large racial gaps in test performance in admitted students. As these gaps become noticeable, some universities have begun to cease using standardized tests at all in the admissions process. While there are other possible explanations for lack of racial diversity in various outcomes, the work of Mac Donald and Murray indicates that the differences are due mainly to ability.

Using race as a criterion in hiring is fundamentally inconsistent with efficiency. In education, students should be chosen who can best benefit from an education at a particular school so that the best students should attend the best schools. (Other policies such as legacies are also inconsistent with efficiency.) To increase the number of favored minorities, some schools are generally lowering their standards, such as by ceasing to use standardized tests in admissions.[5] This will decrease efficiency in selection throughout the entire student body, not only among favored minorities.

The private market is paying lip service to diversity goals, although perhaps not doing much about it.[6] If the private market begins hiring based on race instead of productivity, this will also lead to a general decrease in efficiency and will lower incomes for everyone, including favored minorities. Favoring minorities will also reduce the productivity of government, although to the extent that government is promoting inefficient policies, such as pressuring the private sector to increase diversity at the expense of efficiency, lowering productivity of government may actually increase social welfare. In other areas, such as the military, reducing efficiency may have real and substantial costs.

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2 Martin Luther King Jr., I Have a Dream Speech at Lincoln Memorial (Aug. 28, 1963).

3 *See* Thomas Sowell, AFFIRMATIVE ACTION AROUND THE WORLD 198 (2004).

4 *See* Heather Mac Donald, *The Bias Fallacy*, THE CITY JOURNAL, Autumn 2020; Charles Murray, FACING REALITY 33–40 (2021).

5 On a personal note, some years ago, I was Acting Chair of the Economics Department at Emory. We were hiring that year. I was required to go to the Affirmative Action Committee to explain our hiring decisions. I don't remember exactly who was hired that year, but whoever they were, they did not satisfy the desires of the Committee. I was asked how we had chosen the candidates, and I said that we had hired the "best economists available." I was asked if we had tried to find minority candidates, and I again iterated that we wanted the best available economists. At that point, the Dean thanked me and gently escorted me out of the room to avoid a shouting match with members of the committee. That was my personal experience with the trade-off between quality and diversity.

6 *See* Jonathan R. Macey, *ESG Investing: Why Here? Why Now?*, LAW AND ECONOMICS CENTER AT GEORGE MASON UNIVERSITY SCALIA LAW RESEARCH PAPER SERIES, March 2022, 22-013.

Heather Mac Donald and Charles Murray have shown that, based on objective measures such as SAT scores, there are fewer qualified blacks graduating from high school and college than whites or Asians.[7] Although the press and many woke spokesmen assume that all racial gaps are due to racism, Mac Donald's and Murray's courageous research show that there are differences in test scores between blacks and whites that can explain racial gaps. "The myth of bias, whether in medicine, technology, or finance, can be maintained only by ignoring the skills gap."[8] Mac Donald also points out that to hide the disparity in skills, objective measures such as SAT scores are being eliminated in many places.[9]

Since seeking diversity reduces welfare, a natural question is, "why do people seek diversity?" The rest of this paper address this issue.

I. OUR EVOLVED MIND

"Folk economics" is the understanding of economics of untrained people.[10] Although he did not use the term, Hayek also discussed primitive understanding of economics.[11] Folk economic beliefs are based on the evolved understanding of economics during the tens of thousands of years— what is called the EEA, Environment of Evolutionary Adeptness— our ancestor's minds were evolving to enable them to adapt to the environment in which they lived.

In that environment, the economy was quite simple. There was little specialization except by age and gender. Young men hunted and fought; old men taught them and advised them. Women gathered and took care of the young. Otherwise, the economy was too small for much additional specialization.[12] There was some exchange, and if one hunter had a good day, he might share some food with another in the expectation of reciprocation if roles were reversed. There was little capital, so a labor theory of value was appropriate.

Markets create second-order effects. Indeed, one of the main policy skills of economists is to point out these effects. Some examples: Minimum wages can lead to unemployment. Price supports can lead to surpluses. Safer cars can lead to less safe driving. Increased tort damage payments can lead

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7 *See* Mac Donald, *supra* note 4; Murray, *supra* note 4 at 44–45.

8 Mac Donald, *supra* note 4.

9 *Id.*

10 *See* Paul H. Rubin, *Folk Economics*, 70 S. ECON. J. 157, 157 (2003); Pascal Boyer & Michael B. Peterson, *Folk-Economic Beliefs: An Evolutionary Cognitive Model*, 41 BEHAVIORAL & BRAIN SCIENCES e158 (2018).

11 *See* FRIEDRICH AUGUST HAYEK, THE FATAL CONCEIT: THE ERROR OF SOCIALISM 100–01 (W. W. Bartley III ed., 1988); *see also* BRYAN CAPLAN, THE MYTH OF THE RATIONAL VOTER: WHY DEMOCRACIES CHOOSE BAD POLICIES 23 (2007).

12 ADAM SMITH, THE WEALTH OF NATIONS 121 (Penguin Books 1982) (1776) ("The division of labor is limited by the extent of the market.").

to less availability of safety-improving items and perhaps fewer trauma doctors. Reducing the number of police will lead to fewer shootings by police but more shootings by hoodlums. Hiring based on non-efficiency factors can lead to higher prices and reduced output.

In the EEA, there were minimal markets and so minimal second order effects of decisions. Complex markets are a relatively new innovation, and understanding these markets has not yet influenced our evolved minds. Our minds did not evolve to understand these effects, and so they are often ignored in policy. These effects are sometimes called "unanticipated consequences," but they are unanticipated only by those with folk economic minds. Indeed, unanticipated consequences or ignoring second order effects is an implication of zero-sum thinking. Because those who are "woke" reject market analysis, we would expect that many of their policies would lead to harmful consequences, even from their own perspective.

The EEA economy was entirely static. There was no virtually technological change (no Stone Ax1 and Stone Ax2). There was no economic growth.[13] Everyone lived and died in the same economy in which they were born. There was little physical capital; almost all productivity came directly from labor. These conditions mean that there was no incentive for the brain to evolve to understand a complex economy. There was some trade and an incentive to avoid being cheated, but beyond that, there was little evolved economic understanding.

The main point is that the world was essentially zero-sum. Someone might be able to work a little harder or longer, but there was no major way to increase output. The main issues were issues of allocation (division of a fixed pie), not output (increase the size of the pie). Incentives were simple and direct: If you spend more time hunting, you might do better. Trading with other tribe members might increase utility somewhat, but again the possibilities were limited. There were no decisions as to what to do for a living (hunt and gather), or where to live (where the tribe lives), or how much to save (not an issue in a largely subsistence economy), or whether you should invest your pension in stocks or bonds (neither NYSE nor ETFs available).

But even though our minds did not evolve to intuitively understand economics, we humans are clever enough to learn economics. But the point is that we must learn it; it is not intuitive. Consider the analogy of speech and reading. Everyone growing up in a normal environment learns to speak without being taught, but we must be taught to read. Economics is like reading, not like speech.

Intuitive zero-sum economics is like flat earth thinking. It is obvious to everyone that the world is flat. Similarly, it is obvious that resources are fixed. Both are wrong. But there is an important difference between flat earth thinking in geography and zero-sum thinking in economics. Unless one

[13] Michael Kremer, *Population Growth and Technological Change: One Million B.C. to 1990*, 108 Q.J. OF ECON. 681, 710 (1993).

is a cartographer or an international pilot, it does not make much difference if you think the earth is flat. But in a democracy, the ideas of voters are important because they choose the politicians who make real decisions. If you think that the world is zero-sum, then you will vote for politicians who agree with you or at least pretend to. In either case, the results of zero-sum thinking can be very harmful to an economy. Most of the errors in economic policy are due to zero-sum thinking and to ignoring second order effects, as discussed above.

Folk economics is harmful in that it leads to counterproductive economic policies. Folk economics is the economics of people untrained in economics. If more people were trained in economics, folk economics would be less prevalent. A major job of economists is to train people in economics. If we trained more people in economics, bad economic policies would be less common. Therefore, part of the difficulty with economic policy is the responsibility of economists.

The standard undergraduate economics major is designed to train future economists. Economics departments pride themselves on increasing rigor and increasing selectivity in accepting majors. This leads to an increase in the quality of economics majors but a decrease in the quantity. Schmidt shows that higher grade requirements to major in economics does lead to fewer majors.[14] While high quality undergraduates make better economists and are more fun to teach, even less well-trained students with some knowledge of economics make better voters. For example, many young people indicate that they prefer socialism to capitalism. It is hard (at least, for me) to think of anyone going through any economics major without learning the costs of socialism and the benefits of free markets, although even this may be changing.[15]

Of course, we economists have our own incentives, which generally do not include undergraduate teaching. Additionally, most of our colleagues in liberal arts colleges do not want to see us get more majors; in the short run, the number of students is fixed. No one has an incentive to increase the quantity of economics majors. If there is to be an increase in teaching basic economics to undergraduates, the incentive must come from outside—say, grants from free market foundations.

It is also important to note that since students begin their training with zero-sum mentalities, because of the innate nature of these beliefs and because of faulty common school teaching, in teaching basic economics, we should adapt to these beliefs. For example, in [16]discussing minimum wages, we may show the employment effects and the effects on capital-labor ratios,

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[14] Stephen J. Schmidt, *Minimum Grade Requirements For Economics Majors: Effects On Enrollment and Student Learning*, 111 AEA PAPERS AND PROC. 107, 111 (2021).

[15] RICHARD LOWERY & CARLOS CARVALHO, HOW CRITICAL THEORY FUNDAMENTALLY CHALLENGES TRADITIONAL INQUIRY IN SOCIAL SCIENCE, 26 (2021).

[16] STEVEN PINKER, THE SENSE OF STYLE: THE THINKING PERSON'S GUIDE TO WRITING IN THE 21ST CENTURY 59–63 (2014).

but we may not stress that there are real losses in the economy, not just redistribution effects. Pinker discusses the "curse of knowledge" or "mind blindness," the notion that experts may be so immersed in their fields of study that they do not realize that they must teach non-experts these basics. Economists are mind blind towards notions of efficiency. I discuss the teaching of "really basic economics" elsewhere.[17]

The discussion so far has been about economics. But there were also political issues in the EEA, both internal and external. Internally, societies seemed to be rather loose male-dominated hierarchies. The alpha male had some power, but the power was limited in that a group of subordinate males could overthrow the dominant male if conditions warranted.[18] A powerful dominant could deny sexual access to females for other males, as well as taking too much food. Thus, our minds evolved to control the power of dominants.

Externally, the world was dangerous. Wars between tribes or bands were common. Death rates from violence were much higher than even the most dangerous contemporary environments.[19] Therefore, it paid to avoid members of other tribes; xenophobia and ethnocentrism were rational responses to many conditions of the EEA.

II. EMPORIOPHOBIA: FEAR OF MARKETS

Zero-sum thinking means that people do not understand the benefits of markets. However, there are additional factors which lead to actual dislike or fear of markets. In thinking about the number of avowed socialists among the young, I realized that these people are our students. Therefore, some blame for the number of socialists must rest on our shoulders.

We call markets "competitive." The term comes from Adam Smith, who borrowed it from sports.[20] But it is incorrect and harmful to view markets as being competitive in the sense of sports. Competition in sports is zero-sum: someone wins the race or the game, and someone loses. Use of the term competition leads people to think of the economy as zero-sum: if Bill Gates or Jeff Bezos are rich, it must be because someone else is poorer. If more Mexicans get jobs in the U.S., some Americans must lose jobs. If we import more stuff, we will make less stuff. If we increase the minimum wage, employment will not change.

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17 PAUL RUBIN, THE CAPITALISM PARADOX: HOW COOPERATION ENABLES FREE MARKET COMPETITION 86–87 (2019).

18 CHRISTOPHER BOEHM, HIERARCHY IN THE FOREST: THE EVOLUTION OF EGALITARIAN BEHAVIOR 252–55 (1999).

19 *See* LAWRENCE H. KEELEY, WAR BEFORE CIVILIZATION: THE MYTH OF THE PEACEFUL SAVAGE 88–94 (1996); STEVEN PINKER, THE BETTER ANGELS OF OUR NATURE 47–50 (2011).

20 George J. Stigler, *Perfect Competition, Historically Contemplated*, 65 J. POL. ECON. 1, 1–2 (1957).

But the economy is not zero-sum, and all the implications above (as well as many more discussed below) are wrong. The economy is positive sum and cooperative: gains from economic activity are greater than losses. The basic economic activity is the transaction. A transaction is the most positive sum activity possible: both parties gain from a voluntary exchange, or else they would not trade with each other. Although each party to an exchange is out to maximize his or her share of the gains, the result is cooperative: both parties gain. The entire economy is driven by increasingly complex exchanges. A firm hires workers (voluntary exchange) and buys inputs (voluntary exchange), and borrows capital to produce output which it then sells (voluntary exchange). The entire economy is a complex web of cooperative positive-sum exchanges.

We may think of coordinated and uncoordinated cooperation. Coordinated cooperation is what goes on in organizations such as firms and universities. A peak coordinator hires workers who then voluntarily cooperate (because they are paid) to achieve the goals of the organization.

But all transactions are also cooperative and utility increasing, although they are uncoordinated. Moreover, markets enable vast webs of cooperation. Even a simple transaction such as buying a shirt at Walmart can be shown to directly or indirectly involve a huge number of people all over the world, some of whom may even be dead. Think of the building itself, the roads to the building, the electricity that lights the building, the ships and trucks that deliver the shirt, the job that the buyer uses to make the money to buy the shirt . . .

Any interaction where both parties benefit is cooperative; there need not be a direct transaction. Gains may be highly indirect. Think of a teacher teaching a student. The teacher gains because he or she is being paid by the school, using the money paid by students for tuition. The student gains because of increased knowledge. The interchange is cooperative. Think of one scholar citing the work of another. The scholar whose work is cited gains in prestige and reputation and in having a higher number of citations on Google Scholar. The citing scholar has in improved paper because of the citation. A cooperative interaction. Think of driving on a highway. The builder of the highway gained because he was paid. The driver gains because she gets somewhere. A cooperative interaction, even though one set of players—the builders of the highway—may be dead.

Of course, competition is also important in an economy. Competition occurs at all levels: workers compete for jobs, universities compete for faculty and students, firms compete to hire workers and to sell products. But it is important to note that competition is for the right to cooperate. Workers are competing for the right to cooperate with the firm; firms are competing for the right to cooperate (trade with) consumers. If competition is free and open, then the competitive process chooses the most efficient cooperators. Competition is the casting director; cooperation is the movie. It is the cooperative exchange that creates the consumer surplus that drives the

economy. It is competition that chooses the best cooperators so that the surplus is maximized.

But understanding of all of this huge web of cooperation is lost when we call the economy "competitive." When people hear the term "competition," they think of zero-sum activities, such as sports. This reinforces the natural tendency to view the world as zero-sum. Because zero-sum competition creates losers as well as winners, people then view the result as being negative.

I have examined the usage of the word "competition" using Google. Here are some common modifiers of "competition" and the number of Google references to each:

> "Cutthroat competition" (256,000), "excessive competition" (159,000), "destructive competition" (105,000), "ruthless competition" (102,000), "ferocious competition" (66,700), "vicious competition" (53,500), "unfettered competition" (37,000), "unrestrained competition" (34,500), "harmful competition" (18,000), and "dog-eat-dog competition" (15,000).

Conversely, for "beneficial competition," there are 16,400 references. For "beneficial cooperation," there are 548,000 references and almost no references to any of the negative modifiers of cooperation. Thus, people have no difficulty in thinking of negative connotations of "competition" and are less inclined to think of competition than of cooperation as beneficial.[21]

III. BACK TO DIVERSITY

What does this tell us about diversity?

Traditional labor market outcomes are driven by normal economic forces, including profit maximization. Profits are maximized when firms hire based on productivity, net of costs. This is the traditional economic analysis of input markets, leading to the familiar profit maximization conditions. This has led to the traditional labor force.

Those who are "woke" reject every part of this analysis. They are opposed to markets. They are opposed to profits and so of necessity to profit maximization. If they understood it, they would be opposed to efficiency since it does not lead to their preferred outcome. In their view, efficient markets lead to the hiring of too many white males.

Seeking diversity would be consistent with folk economic beliefs. Zero-sum thinking would imply that it does not matter who holds a particular job. In a zero-sum world, the world of the woke, output does not change, so there is no cost to imposing diversity on a firm or university. There are no second order effects. Workers compete for jobs, but competition is not based on productivity because all workers are equally productive. Employees are

21 RUBIN, *supra* note 17, at 14.

therefore selected on other characteristics, such as being white, or personal connections, or random credentials, such as neighborhood of residence or school attended. There is no cost to substituting other criteria such as race or gender because the actual person chosen does not matter. To the woke, the fact that not enough African-Americans are hired is evidence of the fundamental racism of the U.S. economy, not of any difference in productivity.

This is where the difference between cooperation and competition becomes most relevant. The economy is viewed as competitive; workers compete for a job. One person is hired. Competitive norms are satisfied. But what is missing is what the worker is hired for. In particular, the worker is hired to cooperate with others. The goal of the organization is to hire the best cooperators.

For a familiar example, consider a professor. A professor must cooperate with students to teach them. He or she must cooperate with journal editors to get papers published. Cooperation with colleagues is necessary to get papers cited, the current measure of research quality. In hiring, all of these factors are considered.

I want to be careful here. When I say that someone is not a good cooperator, I do not mean that racism maintains distance or limits the cooperation between black and white workers. Rather, I mean that different groups are differentially endowed with the skills needed for the cooperative process to operate. The problem is lack of skills, not racism.

It is not surprising that policies supported by those who are "woke" are inconsistent with rational economic markets. The fundamental belief system behind these policies is Marxist, with race and gender substituted for class. Marxism itself is inconsistent with rationality. Although Marx claimed his system was modern and based on science ("scientific socialism"), in fact, the basic propositions of Marx are only consistent with our primitive evolved worldview. Notions of class struggle assume a fixed pie—a zero-sum world, with different classes competing for their share. If we understand that the economy is cooperative, then we would understand that labor and capital cooperate with each other to produce output. Similarly, Marx believed in the labor theory of value, which is approximately consistent with a primitive economy and primitive economic thinking but not with our economy.

Consider the fundamental Marxist policy, "from each according to his ability, to each according to his needs."[22] Both parts of this statement are based on zero-sum primitive thinking. The first part assumes that ability is a given. But of course, ability depends not only on innate ability but also on effort and training. If we require that each provide according to ability, there is an incentive not to work hard and not to acquire valuable skills since the benefits of hard work and skill training go to others. Similarly, "needs" are

[22] KARL MARX, CRITIQUE OF THE GOTHA PROGRAM 10 (C.P. Dutt ed., 1966) (1891).

not well defined, and if we give to each according to needs, individuals have incentives to increase needs and to not take care of themselves.

Marx also dislikes the wealthy. Consider this bizarre statement from the Communist Manifesto: "Our bourgeois, not content with having wives and daughters of their proletarians at their disposal, not to speak of common prostitutes, take the greatest pleasure in seducing each other's wives."[23] It is true that from a biological or fitness perspective, differential wealth can lead to differential access to women and to more offspring and more fitness.[24] This means that some men lack access to women. One of the major sources of the success of the West is the outlawing of polygyny. (Why any of this would lead to the wealthy seducing each other's wives is not clear.)

Dislike of the wealthy is also a part of our evolved mental architecture, derived from a world where the main way to become wealthy was to shirk and appropriate goods from others. In a zero-sum world, the only way to become wealthy is to take something from someone else; there is no possibility of creating wealth. Therefore, it is natural to view the wealthy as immoral and to dislike "millionaires and billionaires."

Xenophobia was also part of our evolved heritage. The creation of nation-states and emphasis on national identities is a way of combatting internal race hatred – "We are all Americans." But emphasis on race and blaming white racism for economic outcome differences is a way to strengthen race hatred and can lead to harmful effects. The rhetoric of Black Lives Matter and of various extreme white wing racist groups is an example of increased internal xenophobia in the U.S. and might lead to great harm in the future.

CONCLUSION

It is common to see discussions of efforts to increase diversity everywhere in our society.[25] Goals of achieving diversity (increasing the number of African-Americans and Hispanics in positions of power and wealth) are based on the assumption that America is a fundamentally racist society and that these minorities are not richer or more powerful because of racism. In fact, careful analysis indicates that underrepresentation of some groups is due to objectively measured differential ability. Efforts to increase diversity mean that race becomes an input into the hiring process, and this will lead to inefficiencies in the economy. Our minds do not understand this inefficiency because our evolved mindset is zero-sum. What is viewed as

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23 KARL MARX, THE COMMUNIST MANIFESTO, Chapter 2 (1848).

24 *See generally* LAURA L. BETZIG, DESPOTISM AND DIFFERENTIAL REPRODUCTION: A DARWINIAN VIEW OF HISTORY (1986); PAUL H. RUBIN, DARWINIAN POLITICS: THE EVOLUTIONARY ORIGIN OF FREEDOM 4 (2002).

25 There are perhaps more discussions than actual efforts. *See* Macey, *supra* note 6.

advanced thinking by the woke is actually the result of our primitive mind. This also applies to Marxism and other elements of the "woke" mentality.

Part of the problem is due to the behavior of economists. And there are some steps we could take to ameliorate these problems. First, in our teaching, we could try to reach more undergraduate students, even though this might mean reducing quality. Second, in our writing (and especially writing for laymen, such as textbooks and op-ed articles), we could stress the cooperative nature of the economy rather than the competitive aspect.

Most papers end with policy suggestions for policymakers from economists. But this one ends with policy suggestions from one economist to other economists.

ANTITRUST AGONISTES

William F. Shughart II[1]

INTRODUCTION

[H]istory is a gallery of pictures of which few are originals and many are copies.[2]

Plus ça change plus c'est la même chose

Antitrust law ("competition law" in Europe) originated in the United States with passage of the Sherman Act in 1890. Some commentators contend, erroneously in my view, that the Sherman Act merely codified the common law's hostility to unreasonable restraints of trade (contracts, combinations, or conspiracies), which the courts of the time simply refused to enforce.[3] But, along with two statutes enacted in 1914 to clarify its reach and to correct its perceived failings (the Clayton and Federal Trade Commission acts), the Sherman Act sanctioned federal antitrust prosecutions and authorized civil and criminal penalties for infractions of its two substantive sections. The balance of courtroom power thereby shifted in favor of taxpayer-financed, deep-pocket plaintiffs. In short, legislation

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[1] J. Fish Smith Professor in Public Choice, Utah State University, and Research Fellow at the Law & Economics Center at George Mason University's Antonin Scalia Law School. The research associated with this writing was funded by a grant from the Law & Economics Center. The opinions expressed herein are my own and do not represent the official position of the Law & Economics Center, George Mason University, or any other organization with which it currently is affiliated. I thank the participants in the Law & Economics Center's June 2021 "Capitalism and Rule of Law Research Roundtable," especially Eric Alston, Justin ("Gus") Hurwitz, Bruce Johnsen, Jeremy Kidd, Donald Kochan, Jonathan Macey, George Priest, Paul Rubin, Scott Masten, and Todd Zywicki, for their helpful comments, along with those of Michael Munger and Michael Reksulak on an earlier draft. The usual caveat applies.

[2] ALEXIS DE TOCQUEVILLE, THE ANCIEN RÉGIME AND THE FRENCH REVOLUTION, 75 (Gerald Bevan trans., Penguin Publ'g Grp, 2008) (1846).

[3] The crafters of the Sherman Act artfully adopted the common law's language by writing into Section 1 that "every contract, combination in the form of trust or otherwise, or conspiracy, in *restraint of trade* or commerce among the several States, or with foreign nations, is declared to be illegal." 15 U.S.C. § 1 (emphasis added). Section 2 declares that "every person who shall monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony." 15 U.S.C. § 2. De Alessi emphasizes that, while individuals are free to "contract around" the common law, discovering and implementing Coasean solutions that undo inefficient judicial decisions, statutes preclude such mutually beneficial private exchanges. *See* Louis De Alessi, *Property Rights: Private and Political Institutions*, THE ELGAR COMPANION TO PUBLIC CHOICE 33, 33-58 (William F. Shughart II & Laura Razzolini, eds. 2001).

passed more than a century ago moved the United States far beyond the common law tradition.

Although much has been written about antitrust law enforcement and jurisprudence since 1890, including the contributions to a long-standing debate about their purposes and effects, the conventional wisdom, at least until very recently, is that antitrust serves to foster and preserve competitive market conditions. It does so, in the mainstream view, by restraining certain business practices and preventing unwelcome accumulations of market power that threaten to elevate sellers' prices and profits at consumers' expense.[4]

That interpretation is naïve, however. It fails to grasp, as do most analyses of many other law-enforcement institutions,[5] that private antitrust plaintiffs, granted standing to sue by the Sherman and Clayton acts, along with the responsible federal and state agencies themselves, cannot be assumed to be motivated exclusively by the goal of ensuring that markets are freely and openly competitive.[6] After all, a competitive marketplace is something of a pure public (nonrival and nonexcludable) good that delivers broad social gains in the forms of efficient resource allocation and prices aligned with production costs. Although competition itself never (or at least not yet) has been deemed a cognizable tort, some sellers plainly are hurt by the business practices of their rivals. If one firm finds a way of lowering its own costs (and prices), it takes sales (and profits) away from other sellers that, in the limit, may be forced out of the market.

Commentators expressing unwarranted faith in the capacities of antitrust law enforcers to distinguish monopolizing behavior from competitive behavior and, hence, to generate social welfare gains net of administrative costs ignore the pervasive constellations of special interests that always shape public policy outcomes. Political pressures frequently are marshaled by individuals or groups who perceive opportunities to exploit antitrust processes strategically; not to promote competition, but to subvert it.[7] A law that declares mergers to be illegal where, in the split-infinitive language of the Clayton Act, 15 U.S.C. §§ 12-27, their effect "may be to substantially lessen competition or tend to create a monopoly" also is a law that opens the door to lobbying by the merger partners' rivals aimed at blocking combinations promising to create larger, more efficient

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4 *See* ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 134-62 (1978).

5 For an exception, *see generally* BRUCE L. BENSON, THE ENTERPRISE OF LAW: JUSTICE WITHOUT THE STATE (2011).

6 The attorneys general of most US states became much more active in enforcing their own "little Sherman Acts" during the last third of the twentieth century, especially so in the 1980s, when the Department of Justice and the Federal Trade Commission were accused by antitrust activists of being "asleep at the wheel."

7 William J. Baumol & Janusz A. Ordover, *Use of Antitrust to Subvert Competition*, 28 J. OF L. AND ECON. 247, 247-48 (1985).

competitors.[8] A law that makes it illegal for a firm to charge different prices to different customers not justified by differences in the costs of serving them likewise is a law that affords rivals the opportunity to seek relief from prices claimed to be predatorily low.[9]

Understanding fully the purposes and effects of antitrust law enforcement processes requires bringing public choice reasoning to bear on the analysis.[10] That approach begins by recognizing the broadly self-interested motives of the individuals and groups (including plaintiffs, prosecutors, defendants, judges, and juries) involved in resolving antitrust disputes as well as the personal incentives and political influences they face along the way. Moreover, one must recognize that while the antitrust laws apply to business practices generally rather than to specific firms or industries, implementing them requires the Department of Justice and Federal Trade Commission to operate more like ordinary regulatory agencies than law enforcers, responsibilities for which they are not well-suited and responsibilities that deflect them from their missions of detecting, prosecuting and punishing antitrust violations.[11]

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[8] Clayton Act, 15 U.S.C. §§ 12-27.

[9] Predatory pricing is, of course, the domestic equivalent of "dumping" in international trade, i.e., setting prices to customers located abroad below those charged in the seller's home market. How low is "predatorily low"? Below the predator's own marginal or average production costs? Below those of the prey? An equally important question to ask is, can the predator plausibly raise prices and recoup its losses after the prey has exited the market? The literature on predatory pricing is voluminous. *See generally* John S. McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J. OF L. AND ECON. 137 (1958); JOHN R. LOTT, JR., ARE PREDATORY COMMITMENTS CREDIBLE? WHO SHOULD THE COURTS BELIEVE? (1999). The controlling legal precedent nowadays (requiring evidence of "a reasonable prospect" of recouping profits lost to predation) is Brooke Group, Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 224 (1993).

[10] *See generally, e.g.*, Robert D. Tollison, *Public Choice and Antitrust*, 4(3) CATO J. 905 (1985); William F. Shughart II & Robert D. Tollison, *The Positive Economics of Antitrust Policy: A Survey Article*, 5 INT'L REV. OF L. AND ECON. 39 (1985); WILLIAM F. SHUGHART II, ANTITRUST POLICY AND INTEREST-GROUP POLITICS (1990); William F. Shughart II, *Antitrust Policy in Virginia and Chicago*, 4 KAN. J. OF L. AND PUB. POL'Y 27 (1995); William F. Shughart II, *Monopoly and the Problem of the Economists*, 17 MANAGERIAL AND DECISION ECON. 217 (1996); William F. Shughart II, *The Government's War on Mergers: The Fatal Conceit of Antitrust Policy*, 323 CATO INST.: POL'Y ANALYSIS 1 (1998); THE CAUSES AND CONSEQUENCES OF ANTITRUST: THE PUBLIC-CHOICE PERSPECTIVE (Fred S. McChesney & William F. Shughart II, eds. 1995); Fred S. McChesney & William F. Shughart II, *Public Choice Theory and Antitrust Policy*, 142(3-4) PUB. CHOICE 385 (2010); Fred S. McChesney, Michael Reksulak & William F. Shughart II, *Competition Policy in Public Choice Perspective*, 1 THE OXFORD HANDBOOK OF INT'L ANTITRUST ECON. 147 (Roger D. Blair & D. Daniel Sokol, eds. 2015). For applications of public choice principles to the law more broadly, *see generally* MAXWELL L. STEARNS & TODD J. ZYWICKI, PUBLIC CHOICE CONCEPTS AND APPLICATIONS IN LAW (2009).

[11] For Judge Easterbrook's view, see Frank H. Easterbrook, *The Limits of Antitrust*, 63(1) TEX. L. REV. 1, 35 (1984). Public agencies or commissions ostensibly are created at the state and federal levels of government to regulate the prices, profits, service quality and conditions of entry into identifiable industries, such as electric power generation and distribution, reckoned to be "natural monopolies," and staffed by lawyers and economists with specialized knowledge relating to those industries. *See* George J.

The legislation authorizing the two federal antitrust law enforcement agencies was deliberately vague, delegating to them considerable discretion in interpreting statutory language and identifying specific infractions of it. Bureaucrats, judges, and juries struggling to "follow the (economic) science" relevant to competition policy, which itself has evolved over time, have created climates of uncertainty for the owners of commercial enterprises, thereby undermining the rule of law.

The present essay adopts the public choice perspective on antitrust law enforcement, which can be traced to the intellectual entrepreneurship of the late Robert D. Tollison, who served as the Director of the Federal Trade Commission's Bureau of Economics during Ronald Reagan's first term in the White House. It does so, first (Part I), by taking a brief look at the scholarly literature on the origins of antitrust law in the United States, arguing that political influences were present at the creation. It then moves on (Part II) to address the problems of identifying "market power" or "market dominance," which exercises perforce require prosecutors to define the relevant market in which alleged antitrust law violations have taken place or *might* materialize in the future.[12] Part III considers antitrust law enforcement in the context of today's high technology "network" industries wherein evaluating competitive market conditions is especially challenging because it involves both alternative platforms and content providers,[13] and, moreover, potential customers often gain access, not by paying fees, but by being

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Stigler, *The Theory of Economic Regulation*, 2 BELL J. OF ECON. AND MGMT, SCI. 3, 12-14 (1971) (provides theory and evidence contradicting that public-interest interpretation). Easterbrook's point is that many antitrust decrees (53 issued through 1979, by his count) were regulatory in effect, requiring someone or somebody – an agency or a court – to monitor compliance with them.. *See, e.g.*, United States v. American Can Co. et al., 230 F. 859, 883-84 (1916) (ordering defendant to limit to one year or less contracts tying leases of can-closing machinery to purchases of cans); Ford Motor Co. v. United States, 405 U.S. 562, 565 (1972) (ordering divestiture of Autolite's Fostoria, Ohio, plant within 18 months, sale of the Autolite brand name to the Fostoria plant's buyer, a 10-year injunction against Ford's manufacturing of spark plugs, a five-year injunction against Ford's marketing of spark plugs bearing its own brand name, and a stipulation that Ford procure half of its spark plug requirements from the Fostoria plant's acquirer for five years and buy them under the Autolite name); and Xerox Corp., 86 F.T.C. 364, 9 (1975) (compulsory licensing of some of Xerox's patents at prescribed royalty rates). Obviously, such decrees must be enforced, meaning that successful plaintiffs' resources must be allocated to monitoring the steps taken by defendants to comply. Because the owners of other businesses not party to the lawsuit are put on notice to avoid engaging in the same unlawful practices, they, too, incur compliance costs: "the ghost of Senator Sherman is an ex officio member of the board of directors of every large company." George J. Stigler, *Monopoly and Oligopoly by Merger*, 40 AM. ECON. REV. PAPERS AND PROC. 23, 32 (1950).

[12] A key question here is whether the relevant antitrust market is "contestable." WILLIAM J. BAUMOL, JOHN C. PANZAR & ROBERT D. WILLIG, CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE 324-26 (1982). In other words, one must ask whether, independent of the market's current structure, the threat of new entry suffices to discipline the incumbents, channeling prices and profits towards competitive outcomes, even if entry does not actually occur.

[13] *See generally* MICHAEL MUNGER, THE SHARING ECONOMY: ITS PITFALLS AND PROMISES (2021).

attentive to digital content and by divulging personal information to platform operators. Part IV concludes.

I. ANTITRUST'S ORIGINS: A BRIEF HISTORY

A. *The Early Years*

A widely accepted–but "gravely incomplete"–explanation for the forces underlying the Sherman Act's passage in 1890 is that Congress yielded to political pressure from the agricultural sector of the U.S. economy.[14] Farmers, it is said, saw themselves as being squeezed between falling prices for their own produce and rising prices for the manufactured articles they purchased from distant sellers, along with the ever-higher rates they were charged for shipping their crops and livestock to expanding urban markets.[15] Those grievances crystalized into the populist Granger and Farmers' Alliance movements,[16] which targeted the railroads and the emerging industrial trusts as the sources of the agricultural sector's economic hardships. The Sherman Act thus is seen as an important agrarian victory over the forces of industrial monopoly.[17]

Among the many reasons[18] for rejecting the standard story told about antitrust's origins is that railway rates were declining steadily as track networks expanded westward during the second half of the 19th century; they continued to fall after the Sherman Act's passage.[19] Moreover, railroad

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14 G. J. Stigler, *The Origin of the Sherman Act*, 14 J. OF LEGAL STUD. 1 (1985); *see also* F. M. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 493 (1980).

15 *See* SCHERER, *supra* note 14, at 493.

16 *See* D. K. GOODWIN, THE BULLY PULPIT: THEODORE ROOSEVELT, WILLIAM HOWARD TAFT AND THE GOLDEN AGE OF JOURNALISM 192 (2013). It is worth emphasizing that the Farmers' Alliance, which displaced the Grangers, became politically active in 1890, fielding candidates in that year's midterm elections *after* the Sherman Act had been passed in July.

17 *See* Herbert Hovenkamp, PRINCIPLES OF ANTITRUST 62 (2017). The word "monopoly" is tossed around much too loosely in most of the extant literature on antitrust law enforcement. A pure monopolist in the context of neoclassical price theory is the *only* seller of a product having (in the eyes of consumers) *no* close substitutes. The less ambiguous and more helpful term is *market power*, which refers to a seller's ability to raise the prices it charges to customers (in a properly defined market) without losing so many sales that the price increase becomes unprofitable, i.e., "to deviate profitably from marginal cost pricing." *Id.*.

18 Another conjecture is that the Sherman Act was part of political deal meant to offset the effects of two other bills enacted in 1890, the McKinley Tariff and the Sherman Silver Purchase Act. The former measure raised import duties on certain items (among which were wool and tin plate) by 50%, with predictable adverse consequences for domestic market competitiveness, possibly to be ameliorated by tough antitrust intervention. The latter committed the federal government to buy 4.5 million ounces of silver in an ultimately unsuccessful effort to raise silver's price and put more silver coins into circulation, goals desired by western miners and farmers, but undone by Gresham's Law. Whether or not anyone actually believed that antitrust law enforcement would offset protectionism is debatable.

19 *See generally* Stigler, *supra* note 14.

profits represented only about one percent of the value of farm output in 1889, so any reduction in shipping charges expected from antitrust action against them would have had only trivial effects on farmers' incomes.[20] Readier access to growing urban markets in the East and declining shipping costs plausibly raised farm incomes and made them more stable than otherwise. In short, "for the farmers to combat the railroads – which were major benefactors of western agriculture – was in fact perverse behavior."[21]

The railroads were not an unalloyed blessing for every Midwestern farmer, of course. A detailed study of the agricultural sector of one state, Missouri, shows that the prices of its chief farm products (cattle, hogs, and wheat) were declining throughout the 1880s.[22] The introduction of mechanized farming equipment, which expanded optimal farm size and made large-scale farming operations more cost-effective, is one explanation for falling agricultural output prices.[23] Cost-saving innovations in the processing of agricultural products added weight to downward price pressures.[24]

Events in the cattle market illustrate the second explanation.[25] The introduction of the refrigerated railroad car made it economical for Gustavus Swift to begin year-round shipments of dressed beef to Eastern consumers during the late 1870s (before that innovation, dressed beef could be shipped safely over long distances only during the wintertime in unrefrigerated cars with doors kept open to cold temperatures).[26] The reliable, all-weather transportation services offered by expanding railroad networks also made it possible to ship live cattle for slaughter to a central location, from which point of origin dressed beef could be reshipped anywhere in the country.[27] The large-scale butchering and meatpacking operations that consequently emerged in Chicago in the early 1880s–Swift, Armour, Morris, and Hammond, known collectively as the "Big Four", were the leading firms–created new markets for beef and beef byproducts.[28] The prices of dressed beef to consumers fell and so, *pari passu*, eventually did the prices of live cattle the processors paid to ranchers.[29]

Cattle ranchers and local butchers in Missouri (and elsewhere) correctly concluded that the much larger, centrally located meat packers (and the railroad networks that expanded the market's scope) were responsible for the downward pressures on the prices of their outputs.[30] Because the profit

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20 Stigler, *supra* note 14, at 2.

21 *Id.* at 3.

22 *See* Donald J. Boudreaux et al., *Antitrust before the Sherman Act*, *in* 15 THE CAUSES AND CONSEQUENCES OF ANTITRUST: THE PUBLIC-CHOICE PERSPECTIVE 255, 257–59 (1995).

23 *Id.* at 261.

24 *Id.*

25 *Id.* at 263.

26 *Id.* at 263–64.

27 *Id.* at 263.

28 *Id.* at 263–64.

29 *Id.* at 264.

30 *Id.*

opportunities made available by taking advantage of economies of scale called for reductions in the numbers of producers (farmers, ranchers and butchers), relevant markets were becoming more "monopolized."[31] Increasing market concentration and rising profits did not mean that competition was becoming less vigorous; rather, it was becoming stronger. To reiterate, the prices of both livestock and dressed meat were falling, not rising, triggered mainly by the emergence of centralized, large-scale, low-cost production methods throughout the supply chain.[32] While the economic distresses of smaller, less efficient producers undoubtedly were quite real, those burdens were more than offset by the benefits conferred on consumers in the forms of lower priced and higher quality meat.[33]

Those gains, however, were shared by hundreds of thousands, perhaps millions of pork, mutton, and beef eaters. The costs of adjusting to a more vigorously competitive marketplace, in contrast, fell on the shoulders of a comparative handful of high-cost producers. With their livelihoods threatened, complaints by cattle ranchers and local butchers about a rumored "beef trust" were understandable. Subsequently, "[i]n May 1886, the National Butchers' Protective Association of the United States of America was formed in St. Louis."[34] The organization's goal "was to destroy the dressed meat industry, which was shipping meat from Chicago to eastern cities and was selling it for less than the meat killed by the local butchers."[35] Those grievances provoked the first federal investigation of the meat-packing industry and helped ignite an anti-monopoly movement that quickly swept Missouri and other U.S. states located along the Mississippi River valley.

The logic of collective action teaches that well-organized groups of producers will dominate political processes at the expense of much less well-organized consumers.[36] As a result of effective lobbying by local butchers,

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31 *Id.* at 265.

32 Thomas J. DiLorenzo & Jack C. High, *Antitrust and Competition, Historically Considered*, 26 ECON. INQUIRY 423, 424 (1988). The same forces were at work in other trust-dominated industries. The trusts that worried some contemporary commentators in the sugar, meatpacking, petroleum, match, and other industries during the late nineteenth and early twentieth centuries would today be called "holding companies."

33 *See* Gary D. Libecap, *The Rise of the Chicago Packers and the Origins of Meat Inspection and Antitrust*, 30 ECON. INQUIRY 242, 248–49 (1992). ("As suppliers of the prime input for dressed beef, cattle raisers were also affected by the new technology. The lowering of production and distribution costs for beef and increases in demand for beef due to refrigeration raised the derived demand for cattle. Nominal cattle prices, which had declined from 1871 through 1879, rose to an average of $25.26 in 1884, their highest level since 1867, when data are first available through the U.S. Department of Agriculture . . . . Cattle prices, however, began to fall in 1885, ending the cattle boom."). Although Libecap attributes the post-1885 decline in cattle prices to the Big Four's collective exercise of monopsony (buying) power, an equally plausible explanation can be found in the general downward national price trend that had begun a decade after the American Civil War ended. *Id.* at 250.

34 *Id.*

35 *Id*. *See* Boudreaux et al., *supra* note 22, at 264.

36 MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION PUBLIC GOODS AND THE THEORY OF GROUPS 128 (1965).

fifteen states enacted antitrust laws between 1867 and 1889; another seven would do so from 1890 to 1893.[37] However, by then, political pressure for a national solution to the "trust problem" had shifted to Washington, D.C.[38]

B. *The Sherman Act and its Sequels*

It became clear to supporters of an activist antitrust policy soon after 1890 that the Sherman Act's reach was narrow.[39] Dissatisfaction with the Justice Department's efforts to enforce it, along with judicial constructions of its language, surfaced almost immediately. Indeed, the Justice Department issued only sixteen complaints of alleged violations in the first decade after the Sherman Act became the law of the land, initiating an average of just two cases per year before 1915.[40]

The Justice Department's apparent lack of zeal in bringing Sherman Act cases plausibly can be explained by the rough going it encountered initially in the courts. For one, the "conspire" and "combine" language of Section 2 rendered it impotent against single dominant firms.[41] Moreover, "commerce" retained its traditional meaning ("trade" or "exchange") in jurisprudence for some time; the U.S. Supreme Court, for instance, dismissed the Justice Department's lawsuit against the sugar trust, reasoning that "commerce succeeds to manufacture, and is not part of it."[42] Anticompetitive actions against a competitor located outside the borders of the United States likewise were held to be beyond the Sherman Act's reach.[43] Thus, despite early successes against price-fixing conspiracies by the trusts that had emerged in,

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37 *See* Boudreaux et al., *supra* note 22, at 267.

38 *Id*.

39 Stigler, *supra* note 14, at 3.

40 Richard A. Posner, *A Statistical Study of Antitrust Enforcement*, 13 J. OF L. & ECON. 365, 366 (1970). The Antitrust Division did not become a separate line item in the Justice Department's budget until 1919. It was not until 1933 that the first Assistant Attorney General for Antitrust was named; *see* U.S. Dep't of Just., History of the Antitrust Division (Dec. 13, 2018), https://www.justice.gov/atr/history-antitrust-division.

41 Sherman Act, ch. 647, §2, 26 Stat. 209, 209 (1890) (current version at 15).

42 United States v. E. C. Knight Co. 156 U.S. 1, 12 (1895). In Federal Baseball Club v. National League, 259 U.S. 200 (1922), Major League Baseball was held to be exempt from the Sherman Act by Justice Oliver Wendell Holmes, Jr., because baseball games were "exhibitions[,] . . . purely state affairs", not commerce (trial court judge Kennesaw Mountain Landis subsequently became MLB's Commissioner). William F. Shughart II, *Antitrust before the Sherman Act*, in STEE-RIKE FOUR! WHAT'S WRONG WITH THE BUSINESS OF BASEBALL? 143–61 (Westport, CT: Praeger, 1997). Chief Justice Fuller's reading of the same word in *Knight* was overridden four years later when Judge William Howard Taft ruled in United States v. Addyston Pipe & Steel Co., 83 F. 271 (6th Cir. 1898) that the manufacture of cast-iron pipe "affected" commerce. *See* Fred S. McChesney & William F. Shughart II, *Delivered Pricing in Theory and Policy Practice*, 52 ANTITRUST BULLETIN 205, 221–26 (2007) for a critique of *Addyston Pipe* grounded in its mistaken application of delivered-pricing theories.

43 American Banana Co. v. United Fruit Co., 213 U.S. 347 (1909).

among others, the meatpacking,[44] petroleum,[45] and tobacco industries,[46] pressure began building for new legislation that would define more precisely the boundaries of federal antitrust law enforcement authority. The conviction that additional antitrust laws were needed reached a peak following the U.S. Supreme Court's 1911 *Standard Oil* decision, which held that the Sherman Act did not prohibit *all* restraints of trade, but only "unreasonable" ones.[47]

The political pressure that bore legislative fruit in a political compromise between the U.S. House and the U.S. Senate in 1914 can be traced to the presidential election of 1912. The race for the White House that year featured four more or less viable candidates: incumbent Republican president William Howard Taft; Democrat Woodrow Wilson; former president Theodore Roosevelt, to whom Taft successfully had denied the Republican Party's nomination, subsequently entering the race as the candidate of the Progressive "Bull Moose" Party; and Eugene V. Debs, labor organizer and standard-bearer for the Socialist Party. As anticipated by contemporary commentators, Roosevelt's defection from the party he had represented as president since elevation from the vice presidency after William McKinley's assassination in September 1901, and election to the presidency in his own right in 1902, took votes away from Taft in 1912 and ensured Wilson's victory.[48]

The effectively two-horse race of 1912 (Roosevelt's enduring popularity doomed Taft; Debs ultimately came in dead last with six percent

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44 Swift & Co. v. United States, 196 U.S. 375 (1905).

45 Standard Oil Co. v. United States, 221 U.S. 1 (1911).

46 United States v. American Tobacco Co., 221 U.S. 106 (1911).

47 Distinguishing between reasonable and unreasonable restrains of trade engaged the common law from very early on, mainly in the context of "non-compete clauses" in employment contracts, which precluded apprentices from opening businesses in direct competition with their master-mentors within a specified geographic area, for a specified number of years, or both. For a contemporary example of such litigation, in which the plaintiff plainly violated the terms of her employment contract, but was excused, see Hopper v. All-Pet Animal Clinic, 861 P.2d 531 (Wyo. 1993). Standard Oil has been called "the mother of all antitrust cases". See Einer Elhague, Defining Better Monopolization Standards, 56 STAN. L. REV. 253, 290 (2003). The lawsuits against the company, filed in state courts initially and then by the Justice Department, were instigated by the publication of a series of muckraking magazine articles by Ida Minerva Tarbell, whose brother William was an officer of the Pure Oil Co., one of Standard Oil's chief competitors. See Michael Reksulak & William F. Shughart II, Of Rebates and Drawbacks: The Standard Oil (N.J.) Company and the Railroads, 38 REV. INDUS. ORG. 267, 268–83 (2011); see also Michael Reksulak & William F. Shughart II, Tarring the Trust: The Political Economy of Standard Oil, 85 S. CAL. L. REV. POSTSCRIPT 23, 26-32 (2012). Ironically, or perhaps not, the Supreme Court's order breaking up Standard Oil into vertically integrated "Baby Oils" tripled John D. Rockefeller, Sr.'s wealth, nearly making him America's first billionaire. See RON CHERNOW, TITAN: THE LIFE OF JOHN D. ROCKEFELLER, SR. (1998); see also Atin Basuchoudhary et al., Titan Agonistes: The Wealth Effects of the Standard Oil (N.J.) Case, 21 ANTITRUST L. ECON. 63, 80 (2004).

48 Illustrating one weakness of plurality or majority-rule popular voting when voters must consider three or more options, Chace concludes that Wilson "almost surely" would have beaten Taft head-to-head, but that Roosevelt would have beaten Wilson in a two-candidate election. JAMES CHACE, 1912: WILSON, ROOSEVELT, TAFT & DEBS – THE ELECTION THAT CHANGED THE COUNTRY 238 (2004).

of the popular vote[49]) boiled down to the "tariff question", but what was perhaps more important was the question of whom–Roosevelt or Wilson–was the more "progressive" candidate on the trust question.[50] Roosevelt was, of course, known as a "trustbuster," largely owing to the Supreme Court's 5–4 ruling dissolving the Northern Securities Company.[51] (The Justice Department's case in chief relied heavily on Taft's majority opinion in *Addyston Pipe*.[52]) Yet his speeches on the campaign trail consistently favored regulation of big businesses by public service commissions (the Interstate Commerce Commission, established in 1887, was his model) over either outright nationalization or more vigorous enforcement of the Sherman Act. Wilson, initially opining that "government's task was to restore competition"[53] to an economy seemingly dominated by the trusts, and sharply critical of Roosevelt's idea of paternalistic "government by experts,"[54] eventually came around to supporting "a federal trade commission … to regulate competition," a proposal credited to influential adviser Louis Brandeis, who was rewarded by Wilson with appointment to the Supreme Court in 1916.[55]

So, against a backdrop of populism, progressivism, fears of the new industrial order, sometimes violent labor unrest, and the legacies of the economic panics of 1893 and 1907, the election of 1912 produced legislative responses on Woodrow Wilson's watch that "changed the country"[56]. In addition to the Federal Trade Commission and Clayton acts, Wilson presided over establishment of the Federal Reserve System, and ratification of constitutional amendments to levy taxes on personal incomes, to elect the members of the U.S. Senate by popular vote, and to extend the franchise to women, all of which were key elements of the progressive policy agenda.[57]

The Clayton Act (preferred by a House majority)[58] declared four specific business practices to be unlawful, where, splitting an infinitive, their "effect may be to substantially lessen competition or tend to create a monopoly":

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49 Debs's popular vote share was the Socialist Party's highwater mark in any U.S. national election before or since. *Id.*

50 *Id.* at 195–97.

51 Northern Securities Co. v. United States, 193 U.S. 197, 360 (1904).

52 DORIS KEARNS GOODWIN, THE BULLY PULPIT: THEODORE ROOSEVELT, WILLIAM HOWARD TAFT AND THE GOLDEN AGE OF JOURNALISM 218 (2013).

53 CHACE, *supra* note 48, at 7.

54 *Id.* at 216.

55 *Id.* at 7, 192, 216. Like Roosevelt, "Brandeis, … who had always been an enemy of bigness, realized that the trusts probably could not be destroyed." *Id.* at 194. He was especially critical of widespread corporate ownership, calling it "'absentee landlordism of the worst kind' because it results in 'a sense of absolute irresponsibility on the part of the person who holds the stock.'" *Id.* The same, of course, is true of rationally ignorant voters in mass democratic elections. *See* ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (1957).

56 CHACE, *supra* note 48, at 238.

57 *Id.* at 244.

58 *See* A.D. NEAL & D.G. GOYDER, THE ANTITRUST LAWS OF THE U.S.A.: A STUDY OF COMPETITION ENFORCED BY LAW 181 (3d ed. 1980).

price discrimination (§2);[59] exclusive dealing and tie-in sales (§3);[60] mergers and acquisitions (§7);[61] and interlocking directorates (§8).[62] Section 5 of the Federal Trade Commission Act (the approach preferred in the Senate)[63] established a five-member commission with broad authority to identify and punish undefined "unfair methods of competition".[64] At the outset, in addition to its own enabling legislation, the newly created FTC was authorized to enforce compliance with the Clayton Act.[65] Its authority with respect to the first federal antitrust statute was not clarified until 1948, however, when the Supreme Court held that the Commission could condemn under Section 5 any business practice that also would offend the Sherman Act and, moreover, that the filing of a Justice Department complaint did not require termination of pending FTC proceedings involving the same defendant.[66]

Thus, the United States is unique in having two federal agencies with overlapping antitrust law enforcement authority. Such "dual enforcement"[67] is managed by a liaison agreement negotiated by the two bureaus in the wake of the Supreme Court's 1948 *Cement Institute*[68] decision that assigns prosecution priority to one agency after "clearance" is granted by the other.[69] One important difference between the two is that only the Department of Justice can impose criminal penalties on firms determined to have violated the Sherman Act; the FTC's remedies for antitrust law infractions are limited to orders to "cease and desist" the offensive practice, followed by levying civil penalties (monetary fines) if the defendant fails to comply with the Commission's order.[70] In addition, complaints issued by the FTC trigger internal legal proceedings before an administrative law judge (ALJ) and are not heard in a federal court unless the defendant appeals an adverse ruling by

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59 15 U.S.C. § 13.

60 15 U.S.C. § 13a-b.

61 15 U.S.C. § 18.

62 15 U.S.C. § 19.

63 NEAL & GOYDER, *supra* note 58, at 182.

64 15 U.S.C. § 45(a). Section 5 of the FTC Act was amended in 1938 by the Wheeler-Lea Act to read "unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful", thus extending the commission's mandate to the realm of consumer protection, including advertising messages, warranty provisions, and clothing labels. *See generally* NEAL & GOYDER, *supra* note 58, for more details on the relevant legislative history.

65 NEAL & GOYDER, *supra* note 58, at 4, 14-20.

66 FTC v. Cement Inst., 333 U.S. 683, 730 (1948).

67 Richard S, Higgins et al., *Dual Enforcement of the Antitrust Laws*, in PUBLIC CHOICE AND REGULATION: A VIEW FROM INSIDE THE FEDERAL TRADE COMMISSION 256 (ROBERT J. MACKAY ET AL. EDS., 1987); William F. Shughart II & Fred S. McChesney, *Public Choice Theory and Antitrust Policy*, 142 PUB. CHOICE 396 (2010).

68 FTC v. Cement Institute, 333 U.S. 683, 730 (1948).

69 Shughart & McChesney, *supra* note 67, at 396.

70 *Id.*

that judge, whereas antitrust cases instituted by the Justice Department engage the federal judiciary from the start.[71]

II. THE PROBLEM OF DEFINING RELEVANT ANTITRUST MARKETS

"[I]t is only because we lack confidence in our ability to measure elasticities, or perhaps because we do not think of adopting so explicitly an economic approach, that we have to define markets instead."[72]

Market definition is the first and essentially conclusive step in the antitrust law enforcement process. Defining the market that is relevant for antitrust analysis requires plaintiffs (whether public or private) to identify the product or products at issue and the dimensions of the geographic area in which the buyers and sellers of that product (or products) interact.[73]

Depending on how narrowly or broadly the relevant market is defined, a single seller (or group of sellers possibly acting in concert) either does or does not have market power, typically measured by some numerical indicator of market concentration (the Herfindahl-Hirschman index, for instance) that reduces to a single data point the number and size distribution of firms within it. If market concentration is high, i.e., it contains just a few large business establishments, antitrust law enforcers take that datum as a cause for action.

Economists have supplied many theoretical and empirical methods for defining relevant antitrust markets.[74] All of them hinge on identifying the alternatives available to buyers and sellers if one or more firms in the market attempts to abuse its power by raising prices or adopting business practices that elevate profits at consumers' expense ("upward pricing pressure" or UPP in modern parlance). Nevertheless, presenting arcane expert economic testimony and evidence to untrained judges and juries seldom is dispositive in courtroom settings: "Statistical evidence can rarely, if ever, supply all the facts needed for a definitive judgment."[75] Even today, "market definition is at best a crude exercise".[76]

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71 Malcolm B. Coate & Andrew N. Kleit, *The Political Economy of Federal Trade Commission: Administrative Decision Making in Merger Enforcement* 1 -2 (Bureau Econs. Working Paper No. 210, 1995). A simple majority of the five-member Commission is required to authorize every step taken in the antitrust law enforcement process, beginning with opening an investigation of an alleged violation of FTC Act §5, to issuing subpoenas to named defendants, to issuing a complaint, to authorizing a hearing before an administrative law judge, and on to confirming or dismissing that judge's findings of fact and of law. Only after the Commission votes to affirm an ALJ's adverse ruling can the defendant appeal to a federal court.

72 RICHARD A. POSNER, ANTITRUST LAW: AN ECONOMIC APPROACH 125 (1976).

73 15 U.S.C. § 18. In the language of the law, the antitrust-relevant "line of commerce" and "section of the country".

74 WILLIAM F. SHUGHART II, THE ORGANIZATION OF INDUSTRY 139-40 (1st ed.1990).

75 United States v, Columbia Pictures Corp., 189 F. Supp. 153, 185 (S.D.N.Y. 1960).

76 Dennis W. Carlton & Mark A. Israel, *Effects of the 2010 Horizontal Merger Guidelines on Merger Review: Based on Ten Years of Practical Experience*, 58 REV. INDUS. ORG. 213, 216 (2021).

Now, as was in the past, antitrust plaintiffs, including the Justice Department and Federal Trade Commission, err frequently, not by defining relevant markets too broadly, but instead too narrowly. The case law is replete with definitions that ignore important competitive constraints on alleged market power. Even if the definition of the relevant market is uncontentious (hardly ever from the defendant's point of view) when an antitrust complaint is filed, the contours of that market provide only a static picture–a Tocquevillian snapshot–of competitive conditions as they then prevail. Competition is a process; markets evolve continuously through time as Schumpeterian "creative destruction"[77] moves apace.[78] New products, new production methods, and new commercial opportunities often are discovered and introduced by rivals not currently "in" the market, but outside its present boundaries. Markets are organic; change is unremitting.

Antitrust law enforcement requires predicting future market conditions, a task beyond the capacities of agencies that are remote from the special circumstances of time and place confronting the actual buyers and sellers of a good or service. The information available to market participants is dispersed and often contradictory;[79] because antitrust law enforcers are even more distant from the hurly-burly of the operations of real markets, they face even more severe Hayekian knowledge problems. Projecting the future contours of a particular market is especially challenging when it comes to evaluating the competitive effects of business practices in today's dynamic, high-technology sectors.

Although it is impossible to summarize in one essay more than 130 years of public and private antitrust enforcement policy, the failures of relevant market definition can be driven home by many examples taken from the case law. Let's consider just three.[80]

Two of them relate to horizontal mergers and acquisitions (M&A) (combinations of formerly independent business enterprises operating at the same supply chain link, i.e., manufacturing, wholesaling and distribution, or

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77 J.A. SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 71 (1942).

78 Herbert Hovenkamp, *Schumpeterian Competition and Antitrust*, 4 COMPETITION POL'Y INT'L. 273, 275 (2008).

79 F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519, 519 (1945).

80 Germane examples could be multiplied many times over. In *United States v. Aluminum Co. of Am.*, Judge Learned Hand, presiding over a three-judge panel serving as a court of last resort, found the defendant guilty of monopolizing the production of raw ("virgin") aluminum ingots, after excluding used (recyclable) aluminum from the relevant market, a still-controversial choice. 148 F.2d 416, 425 (2d Cir. 1945). In United States v. Aluminum Co. of Am., known as *Rome Cable*, insulated copper wiring was defined as being in a market distinct from insulated aluminum wiring despite evidence that the two materials are excellent substitutes on a broader market's supply side. 377 U.S. 271, 281 (1964). Metal cans and glass jars were found to be in the same relevant market, but plastic containers were ruled "out" of that market in United States v. Cont'l Can Co., 378 U.S. 441, 457 (1964), and the Justice Department failed to prevent a merger between the Parker Pen Co. and Gillette, which previously had acquired the Waterman Pen Co., despite claiming that the combination would injure competition in a market for "premium fountain pens" (priced between $50 and $400), *see* United States v. Gillette Co., 828 F. Supp. 78, 86 (D.D.C. 1993).

retailing) because such transactions have been the meat and potatoes of antitrust for most of its history and, at least in principle, the competitive effects of which are the most straightforward for law enforcers to assess.[81] Moreover, as the transfer-pricing theorem implies,[82] vertical mergers (between successive stages of production) should raise no antitrust concerns.[83]

A. *Columbia Steel (1948)*

The modern development of relevant antitrust market definition begins with a Sherman Act case in which the Justice Department sought an injunction against U.S. Steel's acquisition of Consolidated Steel Corp.[84] The two merger partners engaged in fabricating a variety of structural steel products ("shapes" and "plates," as the DOJ emphasized), one of the many ends to which rolled steel could serve as means. U.S. Steel and its subsidiaries produced about one-third of the total national output of that product. Consolidated, which operated plants in Arizona, California, and Texas, accounted for only one-half of one percent of national rolled steel sales but enjoyed a larger market share (11%) in eleven western U.S. states wherein all its output was sold. U.S. Steel operated one steel mill already in one of those states (at Geneva, Utah), planned to expand it, and to build a new plant in Pittsburg, California. The DOJ, of course, sought to confine the relevant geographic market to those eleven western states; on that definition, U.S. Steel accounted for 11% of fabricated structural steel products sold;

81 In reviewing proposed business combinations, the federal antitrust agencies have followed to greater or lesser extents the horizontal merger guidelines (HMGs) first promulged by the Department of Justice in 1968, later joined by the FTC's Clayton Act §7 enforcers, and revised several times since, most recently in 2010. A special issue of the *Review of Industrial Organization*, published in February 2021, assesses from different perspectives applications of the HMGs over the previous decade. The Hart-Scott-Rodino Antitrust Improvement Act of 1978 established a pre-merger notification process requiring companies exceeding certain sizes to inform the DOJ and FTC simultaneously of proposed consolidations, providing the agencies opportunities (two or more months in complex cases) to evaluate competitive effects prior to consummation. Pre-merger notification opens the door for competitors, labor unions, and other interested parties to organize and mobilize opposition to planned mergers. Nevertheless, antitrust intervention does not seem to have long-lasting negative impact on the aggregate U.S. economy. Andrew Thomas Young & William F. Shughart II, *The Consequences of the US DOJ's Antitrust Activities: A Macroeconomic Perspective*, 142 PUB. CHOICE 409, 417, 419 (2010).

82 Jack Hirshleifer, *On the Economics of Transfer Pricing*, 29 J. BUS. 172, 172 (1956).

83 The theorem says, in essence, that a monopoly of an input is as good as (confers no more market power than) a monopoly of an output. Moreover, the "Chicago School" approach to antitrust pioneered by Aaron Director long ago casts doubt on other so-called vertical restraints, such as tie-in sales and commodity bundling. *See* Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 925–33 (1979). For an application of the theorem to final product markets, see Robert E. McCormick et al., *A Theory of Commodity Bundling in Final Product Markets: Professor Hirshleifer Meets Professor Becker*, 26 INT'L REV. L. & ECON. 162, 170–74 (2006).

84 United States v. Columbia Steel Co., 334 U.S. 495, 498 (1948). The defendant was a wholly owned subsidiary of U.S. Steel.

Consolidated Steel's share of that same market was 15%. Noting that five of the ten largest vendors of structural steel products in the western United States did not operate any plants there, U.S. Steel argued that the relevant geographic market was national in scope.

Although the Supreme Court affirmed a lower court's ruling that the merger of U.S. Steel and Consolidated Steel did not violate the Sherman Act, *Columbia Steel* is noteworthy for at least two reasons. First, while at least one respected antitrust scholar characterized the court's discussion of market definition and market shares as written with "oppressive confusion",[85] it did establish "percentage command of a market" as a crucial element of antitrust analysis. Calculations of market shares have been obligatory ever since. Second, the failure of the Sherman Act to condemn the combination of two large steelmakers prompted Congress to amend Clayton Act § 7, the principal statutory weapon for challenging mergers and acquisitors possibly leading to anticompetitive effects. When first enacted in 1914, § 7 prohibited "any corporation engaged in commerce" to "acquire, directly or indirectly, the whole or any part of the *stock or other share capital* of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition or tend to create a monopoly."[86]

Perhaps excused by worries at the time about the emergence and growth of large industrial trusts (built by exchanging ownership shares in formally independent companies for shares in a jointly owned holding company), the law's failure to mention business consolidations consummated by acquiring physical assets opened a glaring loophole that allowed many mergers to avoid the reach of the law's long arm. In fact, U.S. Steel had acquired Consolidated Steel's western U.S. operations in just that way. Congress closed the §7's loophole in 1950 (two years after *Columbia Steel*) by passing the Celler-Kefauver Act, thereby making it unlawful for any "corporation engaged in commerce [to] acquire . . . the whole or any part of the *assets* of another corporation also engaged in commerce, where . . . the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly".[87]

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85 PHILLIP AREEDA et al., ANTITRUST ANALYSIS: PROBLEMS, TEXT, AND CASES 877 (Aspen Publ'g ed., 3rd ed. 1981).

86 Clayton Act, ch. 323, § 7, 38 stat. 730-32 (1914) (current version at 15 U.S.C. § 18 (1983) (emphasis added).

87 Celler–Kefauver Act, H.R. 2734, 81st Cong. (1950) (emphasis added); *see* 15 U.S.C. § 18 (current law). On whether or not the original asset loophole was intentional, *see* Robert B. Ekelund, Jr. et al., *Business Restraints and the Clayton Act: Public- or Private-Interest Legislation?*, *in* THE CAUSES AND CONSEQUENCES OF ANTITRUST: THE PUBLIC-CHOICE PERSPECTIVE 274–75 (Fred S. McChesney & William F. Shughart II eds., 1985).

B. *The Cellophane Fallacy (1956)*

Consider the "reasonable interchangeability" test—a standard that an economist would interpret as requiring evidence on the cross-price elasticities of demand between two or more goods identified provisionally as candidates for inclusion in a relevant product market—announced in the famous (or infamous) *Cellophane* case.[88] At issue was the relevant market for cellophane, a flexible wrapping material produced at the time by just two companies, Sylvania and du Pont, the former of which supplied about 20% of the material sold nationwide under a license of du Pont's patent.[89]

The Justice Department had charged du Pont with violating Section 2 of the Sherman Act by monopolizing the market for cellophane. Du Pont countered that the relevant antitrust market was much broader insofar as cellophane competed with many other flexible wrapping materials, such as wax paper, greaseproof paper, "tin" (aluminum) foil, Saranwrap®, and glassine. Relying on "reasonable interchangeability" between the various materials (i.e., cross-price elasticities of demand), the court agreed with du Pont and dismissed the government's complaint. That ruling has since been referred to as the "cellophane fallacy" because the price at which good alternatives to cellophane were then available may have been the monopoly price rather than a hypothetical competitive price.[90]

C. *Staples–Office Depot (1997 and beyond)*

Staples, Inc. has tried to acquire Office Depot three times, the last of which may be the charm. The first merger effort between the two occurred in the mid-1990s, but eventually was cancelled in the face of opposition by

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[88] United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 404 (1956). Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) became another landmark as the courts groped their ways toward defining relevant antitrust markets. It laid out a set of "practical indicia," including "sensitivity to price changes," that quickly became institutionalized within the federal law enforcement agencies as a kind of market definition checklist. For a careful critique of *Brown Shoe*, identifying grave errors in the facts relied on to block appellant's acquisition of G. R. Kinney, see John L. Peterman, *The Brown Shoe Case*, 18 J.L. & ECON. 81, 138–40 (1975).

[89] The obvious tension here between exclusive rights to commercialize intellectual property granted by the patent laws and antitrust policy's hostility to market power lies beyond the scope of the present essay. It is worth emphasizing, however, that although a patent grants its holder the sole right to sell a particular commercial *product* (or license production to others), it does not create a *market* for that product, which often competes with other products, whether patented or not.

[90] Luke M. Froeb & Gregory J. Werden, *The Reverse* Cellophane *Fallacy in Market Delineation*, 7 REV. INDUS. ORG. 241, 241 (1992). As taught by the neoclassical theory of the firm, a monopolist's profit-maximizing price will be in the elastic region of the demand for its product, meaning that some evidence of substitutability with the products of other sellers will be available to antitrust law enforcers. Such evidence can be misleading, though, in defining relevant markets.

the Federal Trade Commission.[91] The FTC defined the relevant market as comprising "office supply superstores," a definition that reduced the number of competitors to just three: the merger partners themselves, which at the time were the nation's two largest office supply superstores, plus Office Max, ranking last at number three. That narrow definition excluded office supplies sold by Wal-Mart, other big-box retailers, smaller, locally owned office supply stores, and Quill Corp.,[92] then a major mail-order seller headquartered in Lincolnshire, Ill., which remains very much in business as an online vendor. In 2016, the FTC issued another complaint against the same proposed merger on the grounds that Staples and Office Depot were the only two players in the selling of office supplies business-to-business (B2B) and, hence, their combination would harm such customers.[93]

In early 2021, ODP, Staples's parent company, announced plans to merge with Office Depot once again.[94] Meanwhile, #2 Office Depot had acquired #3 Office Max (the transaction was consummated in November 2013), to become the nation's #1 office supply superstore. It is thought that Staples latest offer to acquire its rival may pass antitrust muster owing to Amazon's now substantial presence in online retailing, including office supplies.

Rewind the tape to 1997: in addition to adopting an overly narrow definition of the relevant market for evaluating the competitive effects of the proposed Staples–Office Depot combination, the FTC committed a serious mistake in arguing that the merger would result in higher prices for office supply consumers. Prices apparently already were 5% to 10% higher in cities wherein either Staples or Office Depot faced no other superstore competition.[95]

That conclusion was flawed, however. The FTC erred by comparing the average price of a predetermined bundle of office supplies in cities served either by one or two superstores, finding that it was higher in the former than in the latter. Not only did the comparison rely on an unweighted index of the various office supplies included in the bundle, but it also failed to account for the actual behavior of rational consumers. The typical office supply customer does not buy the *same* bundle of items at the store charging the lowest average price, but instead purchases more of some items and less of

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91 Federal Trade Commission v. Staples, Inc., 970 F. Supp. 1066, 1069 (D.D.C. 1997).

92 Quill is perhaps better known as the plaintiff in *Quill Corp. v. North Dakota*, prohibiting states from collecting sales and use taxes on purchases of items shipped from remote sellers unless the seller had a physical presence in the customer's home state. 504 U.S. 298, 317–18 (1992). "Physical presence" was replaced by "economic nexus" in *South Dakota v. Wayfair, Inc.*, in which Quill also was a defendant. 138 S. Ct. 2080, 2092–93 (2018).

93 Staples, Inc., No. 9367, Fed. Trade Comm'n, Dec. 7, 2015 (Admin. Compl.), ¶ 13.

94 *See, e.g.*, Melissa Ginsberg & Jonathan Hermann, *Staples Announces Plans to Purchase Office Depot: Will Its Third Attempt Be More Successful?*, JD SUPRA (Feb. 11, 2021), https://www.jdsupra.com/legalnews/staples-announces-plans-to-purchase-2240158/.

95 Jonathan B. Baker, *Unilateral Competitive Effects Theories in Merger Analysis*, 11 ANTITRUST 21 (1997).

others in response to differences in the relative prices of the things on their shopping lists. Transaction costs aside, consumers may, for example, buy photocopy paper at one store where it's on sale and legal pads at another. The FTC thus committed what is known as the "comparison shopper's fallacy," a mistake emphasized by Staples's economic expert,[96] which explains why every retailer truthfully can advertise that "our prices are the lowest in town" because each store bases its claim on a different combination of items.[97]

In short, downplaying evidence of merger-related efficiencies, the FTC's law enforcers first blocked the proposed acquisition of the #2 office supply "superstore" by #1 in 1997, then allowed #2 and #3 to merge in 2013, displacing Staples at #1. The Commission stopped the new #1's planned purchase of #2 in 2016, albeit in a differently defined relevant product market (business-to-business sales of office supplies, a market that was thought to be dominated by the two prospective merger partners). As was the case in the other transactions summarized in this section, market definition was the decisive step in the antitrust law enforcement process. Now that Amazon is a major online retailer of office supplies, perhaps the proposed merger of Staples and Office Depot will be permitted at long last.[98]

III. IS THIS TIME REALLY DIFFERENT?

> It is not to be expected that any human institution will be other than rackety and only partially competent; only in histories do they proceed with ease to their ordained end.[99]

Antitrust law enforcers worldwide have turned their attention in recent years to the "new" high-technology sectors of the global economy, which rely heavily on computer software and search engines to, among many other things, connect networks of buyers and sellers, provide platforms on which individuals can communicate in real time with one another, form groups of like-minded people through social media, download information and news reports from nearly anywhere on the planet, create and share documents, stream movies and music, participate in virtual meetings and video conferences, consult healthcare providers, and telecommute to their workplaces. The list seems to be growing without bound. The chief worry

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96 Gail Degeroge et al., *Superstores on Notice*, BLOOMBERG BUSINESS WEEK, Mar. 24, 1997, at 33.

97 William F. Shughart II, *The Government's War on Mergers: The Fatal Conceit of Antitrust Policy*, 323 Pol'y Analysis, Cato Inst., at 37 (Oct. 22, 1998).

98 Indeed, owing to Amazon's dramatic expansion during the Covid pandemic panic in response to governmental "shelter-in-place" orders and lockdowns of many small, local, brick-and-mortar businesses, one wonders whether antitrust challenges to mergers in retailing are things of the past. Analyses of competitive conditions in that sector no longer can ignore electronic commerce.

99 PETER ACKROYD, FOUNDATION: THE HISTORY OF ENGLAND FROM ITS EARLIEST TIMES TO THE TUDORS 342 (2011).

about those developments is the emergence of dominant players like Amazon, Apple, Facebook, and Google.

The goods and services supplied by such commercial enterprises are characterized by what economists call network effects, meaning that values to consumers or users rise as more people connect to the *same* network.[100] Think of word-processing or web-browsing software, which run on top of a device's operating system. The value of a software application increases as additional people download programs relying on compatible (interoperable) hardware and software that allows them to create and share content with others. In the "old" economy, similar network effects promoted the growth of railroads, landline telephones, highways, mail-order retailers, and other commercial enterprises.

The unique aspects of a network industry imply what might be called serial monopoly or serial market dominance by one or two large firms, perhaps along with a few rivals on the "fringe." Networks grow because consumers assign higher values to large networks than to small ones. Early entrants who begin to build networks attract more customers and then expand if they serve their customers well. Claims routinely are made of "lock-in" to inferior technologies owing to consumers' (presumed) high costs of switching to another network. The evidence suggests, though, that switching costs are not insurmountable if a rival network emerges that is of sufficiently higher quality or lower price.[101]

Network dominance can be undermined by the introduction of new technology either from within or from without the existing industry.[102] For instance, motion pictures once could be viewed only in brick-and-mortar theaters. Sony's innovative Betamax system for watching tape-recorded movies at home destabilized the traditional theater business, but its superior sound and visual reproduction quality initially limited recordings to roughly one hour, shorter than the running times of most films. Motion pictures recorded on VHS tapes were not subject to the same running time constraint and so soon replaced Betamax for all home movie viewers. VHS lost out to DVDs, which were displaced in turn by Blu-ray discs and then by streaming

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100 OZ SHY, THE ECONOMICS OF NETWORK INDUSTRIES 1 (2001).

101 STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS AND MICROSOFT: COMPETITION AND ANTITRUST IN HIGH TECHNOLOGY 141–42, 46 (Indep. Institute, rev. ed., 2001).

102 Many commenters use the words "industry" and "market" interchangeably, but the two are not the same. One source of confusion is that information on the supply sides of many economic transactions is readily available based only on "industries" defined by the Department of Commerce and other governmental agencies for data-collection and reporting purposes, e.g., the North American Industrial Classification System (NAICS), formerly SICs (Standard Industrial Classification codes). The Federal Trade Commission itself once tried to require all companies under its jurisdiction to collect and report information by "lines of business", raising serious questions about the program's cost burden on the private sector, including the feasibility of allocating overhead and other joint costs to the individual lines of business of multiproduct firms. Those concerns killed the FTC's line-of-business program in the early 1980s. Memorandum from Richard S. Higgins, William F Shughart II & Robert D. Tollison, Bureau of Economics, Federal Trade Commission to the Federal Trade Commission (Jan. 20, 1983).

services like Netflix and Amazon Prime, which now are being challenged by Disney+, Paramount+, Pluto, Tubi and a host of other digital content providers, some subscription-based, others not, allowing viewership across multiple platforms, running from smartphones, to tablets, to laptops, to desktops, to televisions, and even in-home theaters.

Similar stories could be told about music distribution (from vinyl records to transistor radios, to compact discs, to MP3 players, to streaming services, and back to vinyl), to computer operating systems and software applications (word processors and spreadsheets), and many other network goods. In every case and at a particular time, the markets for those products and services were dominated by a major player that eventually lost its privileged position, consigning company after company to oblivion or confining it to a niche market (Netscape in web browsing, WordPerfect in word processing, Kodak in cameras and camera film, or IBM in mainframe computers).

A. *Microsoft (1997–2001)*

The first major antitrust case involving the "new" economy was launched by the Department of Justice against Microsoft Corporation (Microsoft) in the mid 1990s, ultimately decided in 2001.[103] After the FTC twice failed to issue a complaint charging Microsoft with adopting unfair methods of competition, the Justice Department filed a lawsuit alleging that Bill Gates and company had violated Sherman Act Sections 1 and 2 (the DOJ initiated its legal action following vigorous lobbying by a group of tech companies, spearheaded by Netscape, that had stakes in the litigation's outcome). A key point of contention was that Microsoft's then-current computer operating system (Windows 95) was bundled with Internet Explorer, a web browser, and sold at no additional charge to end-users, thereby intentionally injuring Netscape's own web browser (Navigator) and the developers of other software applications requiring interfaces with Windows 95 to establish and expand their customer bases.[104]

Once again, the DOJ's case hinged on the definition of the "line of commerce" in which Microsoft had acquired and subsequently wielded market power. The market definition advanced (and accepted by the courts) was "Intel-compatible PC operating systems" for desktop and laptop computers, a definition that excluded many other operating systems available then, among them Apple's Macintosh OS, IBM's OS2, and open-source Linux, thus ensuring that Microsoft could be found to be a "monopolist"

103 United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

104 *See, e.g.*, Robert B. McKenzie & William F Shughart II, *Is Microsoft a Monopolist?*, 3 INDEP. REV. 165, 167, 171, 177, 178 (1998); Michael D. Whinston, *Exclusivity and Tying in U.S. v. Microsoft: What We Know, and Don't Know*, 15 J. ECON. PERS. 63, 63-64, 73, 75 (2001).

(about eighty to ninety percent of the personal computers shipped to retailers at the time relied on Intel-compatible operating systems).[105]

Ironically, Microsoft announced on June 15, 2022, that the company no longer would support Internet Explorer, apparently ceding web browsing to Google's Chrome and other Internet surfing engines.[106]

B. *Facebook*

Facebook's co-founder Chris Hughes published an op-ed in the *New York Times* on May 9, 2019, calling on the federal government to dismantle his former company, arguing, among other things, that Facebook now dominates social media platforms both at home and abroad and that CEO Mark Zuckerberg has become much too powerful.[107] As a result, according to Hughes, competition has been undermined ("no major social networking company has been founded since the fall of 2011"), innovation has slowed, and Zuckerberg has acquired "unilateral control over speech," brandishing the "ability to monitor, organize and even censor the conversation of two billion people."[108]

Chris Hughes and Mark Zuckerberg both have invited "real government oversight" of Facebook; other critics want to undo Facebook's acquisitions of Instagram and WhatsApp,[109] approved by the Federal Trade Commission about ten years ago, and to create a new agency to regulate tech companies and to establish "guidelines for acceptable speech on social media."[110]

Facebook assuredly is "big," even "dominant," especially among the older members of the social media audience. But compared to what? Hughes said that Facebook "commands . . . more than 80 percent of the world's social networking revenue," which comes not from the platform's users, but from

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105 *Microsoft*, 253 F.3d at 51-52, 54.

106 *See, e.g.,* William F. Shughart II, Microsoft's Internet Explorer and Antitrust: Goodbye and Good Riddance, https://blog.independent.org/2022/06/17/microsoft-internet-explorer/.

107 Chris Hughes, Opinion, *It's Time to Break Up Facebook*, N.Y. TIMES, May 9, 2019, at SR.1.

108 *Id.*

109 John Markoff, Tomorrow, the World Wide Web! *Microsoft, the PC King, Wants to Reign Over the Internet*, N.Y. TIMES, July 16, 1996. Mergers and acquisitions are important avenues of exit for start-ups in all sectors of the economy but are especially essential in quickly evolving software markets. Small developers (or "builders") often don't have access to the financial resources necessary to attract and serve large customer bases; they therefore sell their products to (or are acquired by) larger companies that already have built the marketing and distribution networks necessary for achieving hoped-for commercial success. The larger companies, in turn, are less entrepreneurial when it comes to discovering new applications, which tend to fail at very high rates. Companies of both sizes thus are required for continued technological progress. Bill Gates once was criticized for adopting what he called an "embrace and extend" strategy for acquiring software applications, but that strategy is a fact of life in many high-tech industries. *See, e.g.*, TERENCE KEALEY, THE ECONOMIC LAWS OF SCIENTIFIC RESEARCH (St. Martin's Press, 1996). (The alternative is to secure funding from venture capitalists to grow enough that an initial public stock offering allows the firm to survive on its own.)

110 Hughes, *supra* note 107.

advertisers willing to pay to reach them, and the "vast majority" of the roughly "70 percent of American adults [who] use social media."[111] It certainly is not clear that those comparisons were relevant for assessing competitive effects in 2019, let alone in 2021.

C. *Two-Sided" Markets*

Every market is two-sided in the sense that all commercial transactions involve buyers and sellers (consumers and producers), whose behaviors traditionally have been considered in isolation prior to studying the consequences of their market-mediated interactions. The term "two-sided" gained currency in the economics literature following recognition that many markets also involve (1) third-party intermediaries ("platforms") and (2) that the decisions of the agents on one side of the market influence outcomes on the other,[112] leading to the conclusion that new insights potentially could be gained by modelling the behaviors and interactions of the three sets of actors explicitly.[113]

In orthodox neoclassical price theory, the purpose of third-party intermediaries ("middlemen" or "market-makers" in older terminology) is to reduce transaction costs. By lowering the explicit and implicit costs of searching for and gathering relevant information about prospective trading partners, intermediaries enable buyers and sellers to capture more of the gains from exchange than otherwise. If, as it must be, the fee charged by the intermediary to one, both or neither party (when advertising is the intermediary's main source of revenue) is less than those expected gains, all participating actors benefit on net balance.

Two-sidedness, perhaps multi-sidedness, seems to be an especially important feature of digital software, video gaming, credit/debit-card payment systems, online retailing, social media, and many other high-technology products.[114] Traditional newspapers and wire services (the Associated Press and United Press International) fit the definition, as do ride-hailing services, Airbnb, and other actors in the "sharing economy," which in essence commodifies excess capacity.[115] Most analyses of two-sided markets focus on the pricing—often zero—or other business strategies (openness, interoperability, refusals to deal, and so on) adopted by the intermediaries through or on which buyers and sellers interact. Most contributions to the literature also model intermediation as characterized by

111 *Id.*

112 Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. ECON. PERS. 125, 125 (2009).

113 *See also* Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-sided Markets*, 1 J. EUR. ECON. ASS'N 990 (2003); Jean-Charles Rochet & Jean Tirole, *Two-sided Markets: A Progress Report*, 35 RAND J. ECON. 645 (2006).

114 *See* Rysman, *supra* note 112, at 125–26 for these and myriad other examples.

115 MICHAEL C. MUNGER, TOMORROW 3.0: TRANSACTION COSTS AND THE SHARING ECONOMY 6-7, 14-15, 20-21 (2018).

increasing returns (network effects), predictably leading to serial market dominance, market power and, perhaps, anticompetitive effects.[116]

Antitrust policies toward two-sided markets plainly demand more careful thought than is true of ordinary market settings. One conjecture is that the primary purpose of platforms is to provide mechanisms building reputational capital and fostering mutual trust amongst the connected parties.[117] In the digital economy, platforms fulfill that purpose by amassing large stocks of personal (and impersonal) information about their users. Which party owns that information? How reliable are crowdsourced reviews of product quality, order fulfillment, returns policies, and other terms of sale? The answers to those (as well as other) important questions lie beyond the scope of the present paper.

Trust in an incumbent platform provider can operate as a barrier to entry, but it is not clear that trust, any more than political power, properly falls within the ambit of antitrust law enforcement. Some aspects of two-sided digital markets are novel (speed, ready access to broad and deep databases, global reach), but such markets themselves are not new, even if scholarly attention has been drawn to them only recently. After all, stock exchanges are quintessential two- or multisided markets. They originated in London alleys and Amsterdam coffee houses during the second half of the eighteenth century.[118] The fact that the platform for buying and selling ownership claims later moved to formal trading floors in financial centers, and then online, should not matter for their fundamental analytical treatment. The venues in which the parties to any transaction interact (physical or virtual spaces) seem to me to be of far less importance than the "crucial" step of defining the relevant antitrust market in which anti-competitive effects are alleged to have emerged.[119]

Markets relying on sophisticated information technologies are more complex than the archetypical souk or bazaar, where buyers and sellers meet face-to-face and finalize transactions on the spot. We still observe sellers and customers, broadly construed, but many commentators seem to be bewildered by the proliferation of new meanings for old terms such as "builders" (software developers) and "companies" (enterprises that commercialize the fruits of builders' efforts). Other players include content providers, advertisers, the venture capitalists on whom the sector's startups rely for financing and, of course, customers or end-users of IT services. Despite its superficial complexity, however, the supply side looks much like an old-economy business: newspapers.[120]

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116 *But see* Rochet and Tirole, *Platform Competition in Two-sided Markets*, *supra* note 113.

117 Michael C. Munger, *Giants Among Us: Do We Need a New Antitrust Paradigm?*, CONST. POLIT. ECON. 9 (2021).

118 EDWARD P. STRINGHAM, PRIVATE GOVERNANCE: CREATING ORDER IN ECONOMIC AND SOCIAL LIFE (2015).

119 Rysman, *supra* note 112, at 138.

120 Munger, *supra* note 117, at 9.

The fast-disappearing traditional newspaper (like hard copies of magazines and books) featured much of IT's same diversity. "Builders," called reporters, authors, or contributors, supplied content; editors and publishers collected that content in ways thought to appeal to prospective readers; advertisers paid for messages that would reach those readers; printing houses produced physical copies to be distributed to customers, who normally were charged subscription or single-copy prices less than the costs of production and circulation (losses more than offset by advertising revenue); and investors supplied capital to finance operations. Some or all such functions could be (and were) carried out within the boundaries of one newspaper "company" or outsourced to other specialized businesses along Coasean lines.[121] At the end of the twentieth century (before the entry of online news sources), one physical newspaper dominated circulation in most large U.S. cities, supposedly conferring considerable market power over its customers, along with leverage over advertisers and other input suppliers.

What seems to be so new, in the industrial organization of digital IT, is not so new after all. What is different are worries about political power (control of the informational content of digital platforms and even censorship of opinions with which platform providers disagree) rather than economic market power. If, as this essay has aimed to show, market power is hard to diagnose, measurement of the political power wielded by private business entities, not subject to the First Amendment, will be impossible. Moreover, the antitrust statutes supply no grounds for permitting the FTC and DOJ to monitor and control political speech.

IV. CONCLUDING REMARKS

> Economists have their glories, but I do not believe that antitrust law is one of them.[122]

The old antitrust question was whether size alone offends the law.[123] During the 1950s, 1960s, and 1970s, big was almost always bad. The answer since then is "no," absent evidence of harm to consumers. A company's large size may be a necessary condition for demonstrating such harm, but it is not a sufficient one. "Market dominance" violates the competition policy of the European Union, explaining why Google, Apple, and Microsoft have been in the crosshairs of Brussels more than once in recent years, but it does not violate U.S. antitrust laws, which require evidence of harm to consumers. Doing so requires defining a relevant market in which such injury can be shown.

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121 Ronald H. Coase, *The Nature of the Firm*, 4 ECONOMICA 16, 386-405 (1937).

122 G. J. Stigler, *The Economists and the Problem of Monopoly*, 72 AMER. ECON. REV. PAPERS AND PROC. 1 (1982), at 7.

123 United States v. Aluminum Co. of Am., 148 F.2d 416, 428–29 (2d Cir. 1945).

The market definition step in the antitrust law enforcement process is decisive. Depending on how broadly or narrowly a relevant market is construed, a defendant company is or is not a "monopoly," or does or does not wield "market power," allowing it to raise prices and profits at consumers' expense. The present essay has documented the Federal Trade Commission's and Department of Justice's frequent failures, since 1890, to coherently define relevant antitrust markets in which competition is alleged to have been impaired by the actions of private business entities that stand the test of economic reasoning. And if, as seems to be the case nowadays, sheer size is offensive because of the influence it confers on public opinion ("political power"), against what benchmark is that influence to be measured?

Dissenting in *Von's Grocery*,[124] in which a Supreme Court majority voted to sustain the Justice Department's plea to block the merger of two Los Angeles grocery store chains, whose combination would amount to about 7% of the LA "grocery market," Justice Potter Stewart wrote that, "[t]he sole consistency that I can find is that under §7, the Government always wins." Justice Stewart's conclusion may no longer be completely accurate: The federal antitrust authorities lose cases occasionally. But if, as documented herein, they could not define relevant markets coherently very often in traditional manufacturing and retail settings, one should question their capacities for evaluating competitive effects in the "new" high-tech, rapidly evolving, politicized global economy. Few people had heard of Zoom in March 2020 BCE ("Before the Coronavirus Era"). By early fall, 2020, Zoom's video-conferencing platform ("the best so far", according to ZDNet[125]) nevertheless had begun displacing Google Hangouts and GoToMeeting for remotely taught college courses and other virtual group meetings. Microsoft's Teams, launched on March 14, 2017, has about 250 million users worldwide as of January 2022.[126]

Presumably worried about past failures to condemn mergers with which she is unhappy, Senator Amy Klobuchar (D-Minn.), now chair of the Antitrust Subcommittee of the U.S. Senate's Judiciary Committee, introduced a bill on February 4, 2021, called the Competition and Antitrust Law Enforcement Reform Act of 2021 ("CALERA"). Among its provisions, the bill would amend Section 7 of the Clayton Act, allowing law enforcers to enjoin business consolidations whenever they pose "appreciable risk of materially lessening competition or to tend to create a monopoly or a

124 United States v. Von's Grocery, 384 U.S. 270 (1966).

125 Ed Bott, *Zoom alternatives: The best video conferencing software and apps*, ZDNET (March 3, 2021), https://www.zdnet.com/article/best-cloud-storage/ (describing Zoom as "[t]he best-known video conferencing brand, by far".).

126 Frank X. Shaw (@fxshaw), TWITTER (Jan. 25, 2022, 5:44 PM), https://twitter.com/fxshaw/status/1486107743320612867?s=20&t=QbwfnCRubTVqq5_Tfdl5nw; Kirk Koenigsbauer, *Microsoft Teams rolls out to Office 365 Customers Worldwide, Microsoft 365 Blog* (March 14, 2017), https://www.microsoft.com/en-us/microsoft-365/blog/2017/03/14/microsoft-teams-rolls-out-to-office-365-customers-worldwide/.

monopsony, in or affecting commerce, if … the acquisition would lead to a significant increase in market concentration in *any* relevant market" (emphasis added).[127]

While CALERA sidesteps the market-definition problem by dispensing with the Clayton Act's "line of commerce" and "section of the country" language,[128] it requires that *some* relevant antitrust market be delineated. To the extent that the proposed legislation grants freer rein to the Justice Department, the Federal Trade Commission, states' attorneys general, and private antitrust plaintiffs, CALERA contributes to uncertainty about how the law will be applied to specific contracts, combinations, or conspiracies. Owners and managers must consult their lawyers before virtually any business decision can be implemented. The discretion delegated to antitrust law enforcers over the past century has undermined the rule of law, the chief normative goal of which is predictability).[129]

CALERA likewise fails to consider political influences on the antitrust law enforcement process, and it presumes, contrary to fact, that antitrust policy is effective in constraining market power and restoring competitive market conditions when it does intervene. In the months following Standard Oil's breakup in 1911, for instance, when the company's control of the petroleum industry already was declining in the face of new entry from West Texas's oil fields, John D. Rockefeller, Sr.'s personal wealth tripled, nearly making him America's first billionaire. The dissolution of AT&T's long-distance telephone monopoly in 1982, often branded speciously as an antitrust "success," produced massive benefits for consumers precisely because AT&T's dominance had not arisen naturally but was based on a regulatory regime overseen by the Federal Communications Commission. So, too, with deregulation of US commercial airlines at about the same time, which dismantled the regulatory setting of fares above competitive levels by the Civil Aeronautics Board.

Rarely do the agencies themselves undertake retrospective analyses of their antitrust law enforcement efforts, nor, except for a brief interlude at the Federal Trade Commission in the early 1980s, do they have much appetite for attacking the true sources of monopoly power, which arise in the public sector. Private commercial enterprises grow only if they attract the voluntary custom of people who can refuse to deal with them at any time. Try opting out of the NSA's intrusive data-collection stream, or TSA's airport-security protocols, if you want to experience the coercive powers of actual monopolies. Markets certainly fail, but so too does government.

Benevolent, public-spirited antitrust law enforcement and public regulation of industry are unicorns. Far better to let Joseph Schumpeter's

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127 *See, e.g.*, S. 225, 117th Cong. § 4 (2021).

128 Clayton Antitrust Act § 7, 15 U.S.C. §§ 12-27.

129 BRUNO LEONI, FREEDOM AND THE LAW 74 (3d ed., Liberty Fund 1991) (1961).

"gale of creative destruction"[130] displace today's dominant high-tech companies. In many such markets, consumers benefit enormously from access to as many other users as possible and, apparently, are willing to divulge personal information in return for such access. Serial market dominance is an unexceptional consequence of competition in network industries, rather than a failure of competitive market processes.

130 JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 84 (Harper and Brothers 1942).