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The Rise and Rise of the One Percent: Getting to Thomas Piketty's Wealth Dystopia

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The Rise and Rise of the One Percent:  
Getting to Thomas Piketty's Wealth Dystopia  

Shi-Ling Hsu*  

Abstract  

Thomas Piketty's *Capital in the Twenty-first Century*, which is surely one of the very few economics treatises ever to be a best-seller, has parachuted into an intensely emotional and deeply divisive American debate: the problem of inequality in the United States. Piketty's core argument is that throughout history, the rate of return on private capital has usually exceeded the rate of economic growth, expressed by Piketty as the relation $r > g$. If true, this relation means that the wealthy class – who are the predominant owners of capital – will grow their wealth faster than economies grow, which means that relatively speaking, the non-wealthy will fall behind.  

But even if we accept Piketty's assertion that this has been an "historical fact," why is $r > g$ most of the time? Piketty offers a few economic factors and a few legal rules, but mostly demurs as to why the "forces of [wealth] divergence" generally overwhelm the "forces of [wealth] convergence." This review argues that legal rules and institutions exhibit an inherent bias towards some forms of private capital, and serve to inflate returns to private capital – Piketty's $r$. Meanwhile, not only is it more difficult to make economic growth – Piketty's $g$ – keep pace, but it is more contentious. The result is that returns to private capital have indeed commonly exceeded the rate of economic growth. This review argues that this historical truism can be traceable to a capital-friendly bias that inheres in legal rules and institutions. This review identifies several areas of law in which this bias is particularly pronounced, and serves to inflate returns to private capital, driving it above the rate of economic growth, and exacerbating economic inequality. This review closes by arguing for a greater attention paid to funding education, which is not only an equalizing "force of convergence," but also a predicate to economic growth.

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I. Introduction

It is fantastic to believe that a dry, 577-page economics treatise with 97 graphs could rocket to the top of best seller lists, and sit for weeks alongside popular blockbusters such as Hilary Rodham Clinton's autobiography *Hard Choices*, Maya Angelou's masterpiece *I Know Why the Caged Bird Sings* (in the immediate wake of her May 28 passing), and the boxed set of George R.R. Martin's *Game of Thrones* books. But that is what Thomas Piketty's *Capital in the Twenty-First Century* has done, elevating the French economist to a public status never attained by Adam Smith or Karl Marx. In the United States, where his book sales have done particularly well, Piketty finds himself in such an intense spotlight because he has waded into an emotional and deeply divisive debate on the problem of inequality. But his book also attracts readers because his fastidiously data-driven approach stands in fresh contrast with the predominating bombast and hand-wringing about either the "one percent" or "class
Whenever debate becomes too coarse, a public need for cooler, more analytical voices emerges. Still loved or hated at the ideological poles, Thomas Piketty has become an important, cooler voice, one that seeks to recast the inequality debate in more empirical terms.

Piketty's argument – that without intervention wealth will unavoidably concentrate in the hands of the few – has attracted both praise and criticism, but most credible economists respect his meticulous attention to data. Piketty's central observation is
that historically, the rate of return on capital has usually been greater than the rate of growth, expressed as the relation \( r > g \), in which \( r \) is the rate of return on private capital and \( g \) is the economic growth rate. Piketty equates wealth with capital\(^9\) (a move meeting with some objection\(^{11}\)), so that \( r > g \) implies that the wealthy class – who are the predominant owners of capital – will grow their wealth faster than economies grow. That means that relatively speaking, the non-wealthy will fall behind. The neoclassicist economic response is factually accurate: that poverty worldwide has fallen and in general the wealth pie has grown.\(^{12}\) And yet, even if the poor are better off in absolute terms, it has remained a source of discontent that they are poorer in relative terms.

Piketty marshals vast amounts of data that span long periods of time and several countries. Between 1976 and 2007, the top one percent of all earners garnered nearly sixty percent of the income growth in the United States.\(^{13}\) A battery of other similar statistics leaves the reader with confidence that Piketty is not, as some critics claim, merely cherry-picking.\(^{14}\) But a critical question looms: why has \( r > g \) been true for most of history? How does it actually happen that wealth concentrates so inexorably, interrupted only by world wars and the Great Depression? How is it that the rich get richer and richer and richer?

On this central question, Piketty, his supporters, and his critics are all missing a huge piece of the puzzle: the role of law in distributing wealth. That wars and recessions wreak havoc on capital investments is intuitive enough. But in times of peace and prosperity, the legal mechanisms by which the rich accumulate, consolidate, and

\(^{9}\) Piketty, supra note 2, at 25.
\(^{10}\) Piketty, supra note 2, at 47.
\(^{11}\) One could imagine that some forms of wealth, such as gold, could be in forms that do not generate a return, as capital must, by definition. But as a prophylactic move, the conflation seems reasonable, as any pair of definitions is unlikely to show that wealth and capital are uncorrelated concepts, and it avoids the difficulty of defining "capital," explored in Shi-Ling Hsu, Capital Rigidities, Latent Externalities, 51 Hous. L. Rev. 719, 727-29 (2014).
\(^{12}\) See, e.g., Angus Deaton, The Great Escape: Health, Wealth, and the Origins of Inequality 1 (Princeton Univ. Press, 2013) ("Life is better now than at almost any time in history. More people are richer and fewer people live in dire poverty. Lives are longer and parents no longer routinely watch a quarter of their children die.").
increase their wealth remains a black box in this discussion. Piketty tosses out some snippets of law and policy that likely have the effect of concentrating wealth, like trusts and estates law and the lowering of marginal tax rates for high-income earners. But the totality of his suggestions still leaves many questions unanswered. According to Piketty and collaborator Emmanuel Saez, over the past 30 years in the United States, a transfer of income amounting to 15 percent of national income — a little more than $2 trillion per year — has shifted from the bottom 90 percent to the top 10 percent. That is a staggering shift in wealth, suggesting that there is something more at work.

This review suggests that some legal rules and institutions have artificially and systematically inflated returns on private capital without inducing a concomitant increase in economic growth. In the parlance of Piketty's relation, the law has been much more effective in boosting $r$ than it has been in boosting $g$. This is understandable, because inflating and propping up $r$ is easy — government subsidies, favorable tax treatment, and legal protections from regulatory interference are just a few of many ways that lawmakers have boosted or propped up returns to private capital. It is not nearly as easy to figure out how to make economic growth keep pace. Inducing economic growth is a matter on which leading economists differ sharply, to say nothing of a partisan and unwitting Congress. The world is an extremely complicated place, made more so by globalization, and ensuring economic growth has been much more art than science. Moreover, in modern times, the political popularity of "trickle-down" theories of economics have held enormous influence over American policymaking, such that many lawmakers are strongly inclined to believe that boosting private returns to capital (Piketty's $r$) is tantamount to boosting economic growth generally (Piketty's $g$). This conflation of private gain and public growth,

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15 Piketty, supra note 2, at 362 (on trusts and estates law), 451 (on dynastic trusts).
16 Piketty, supra note 2, at 513 (on the lowering marginal income tax rates).
18 Piketty & Saez, supra note 13, at 473.
coupled with the inherent uncertainty of economic growth, has produced lawmaking that seems to seek comfort mostly in boosting returns to private capital.

On one level, if one accepts Piketty's thesis, then the assertion that law is at work in causing wealth inequality is banal. Obviously, every economy is defined by the rules by which market participants abide; there is no such thing as an economy unmoored from law. But which laws, and how do they inflate returns to private capital? This review focuses on legal provisions and their impacts on returns to capital, providing a policy concreteness that is a bit scarce in both Piketty's exposition and its critics. Perhaps more importantly, if some laws can be demonstrated to artificially inflate returns on private capital and effectively transfer wealth from the poorer to the richer, then these laws can be the focus of reform. This would obviate the need for Piketty's proposed reform, a global wealth tax, which he acknowledges faces very high political obstacles in the near term.

Piketty finds the prospect of a return to the medieval inequality of say, France's Belle Epoque period, a "terrifying" prospect. There is enough of Karl Marx in Thomas Piketty for him to drop some dark hints of the violent dystopias that lie ahead if wealth gaps continue to expand. In my view, Piketty is right to be concerned. In societies with vast inequalities, the poor have very little opportunity costs of violence, with the result that they have a comparative advantage in violence. The rich can of course purchase some security with their vast wealth, conferring upon them an absolute advantage in violence, but that may not be enough to prevent those with little left to lose from engaging in violence. So even if the poor lose more (in absolute terms) in a violent clash, in the context of what can be gained and lost by disparate-situated groups, a violent clash can be more costly to the rich than to the poor.

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22 PIKETTY, supra note 2, at 515-39.
23 PIKETTY, supra note 2, at 515.
24 For a general treatment of the Belle Epoque period, see, MAURICE LARKIN, RELIGION, POLITICS AND PREFERMENT IN FRANCE SINCE 1890: LA BELLE EPOQUE AND ITS LEGACY (Cambridge Univ. Press, 1995).
25 PIKETTY, supra note 2, at 577.
26 PIKETTY, supra note 2, at 263, 422.
27 An illustration of the difference between an absolute advantage and comparative advantage in violence is provided in Terry L. Anderson and Fred S. McChesney, Raid or Trade? An Economic Model of Indian-White Relations, 37 J. LAW & ECON. 39 (1994), and in D. Bruce Johnsen, The Formation and Protection of Property Rights Among the Southern Kwakiutl Indians, 15 J. LEGAL STUD. 41 (1986). Professor Johnsen argues that property rights among aboriginal groups of the Pacific Northwest emerged which provided a substantial amount of customary sharing, in part to avoid the wealth imbalances that would give rise to a comparative advantage in violence.
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rich fear this, and respond by beefing up security and further withdrawing from engagement. This is Piketty's future wealth dystopia, and one that is indeed terrifying.

II. A Summary of Piketty’s Argument

Why does wealth inevitably accumulate in the hands of the few? There are, in Piketty's view, "fundamental forces of divergence" which drive apart the rich and the poor.28 Piketty acknowledges (as he must) that there are also forces of convergence that compress wealth gaps. In theory, mobile capital should flow to poorer countries because a higher rate of return can be obtained where labor and other costs are lower; this would tend to equalize wealth globally.29 And historically, advances in technology, provided that they have been broadly shared, tended to compress wealth gaps.30 Piketty even takes a broadside at Karl Marx, for "totally neglect[ing] the possibility of durable technological progress and steadily increasing productivity, which is a force that can to some extent serve as a counterweight to the process of accumulation and concentration of private capital."31 So how is it that these forces of convergence are rarely able to overcome the forces for divergence?

There are, to be sure, a number of economic mechanisms at work. Inflation is generally regressive, as those owning real estate enjoy some hedge against rising prices, while renters, who tend to be less wealthy, are buffeted by market volatility.32 It is also the case that there are economies of scale to investing, so that the wealthier are generally able to earn higher returns. It is a market truism that risk and return are positively correlated,33 so that the wealthier, having greater freedom to take risks, can

28 PIKETTY, supra note 2, at 25. The differences in wealth among those in the bottom 90% are relatively small compared with the differences between the top ten percent and the bottom 90%. Piketty and Saez, supra note 13, at 460 (Table 1).

29 PIKETTY, supra note 2, at 69-71. Piketty acknowledges and extensively discusses why the global trade picture is much more complicated. Nobel Laureate Joseph Stiglitz has written about how the complicated effects of globalization and how it has mostly exacerbated wealth inequalities. See, e.g., JOSEPH STIGLITZ, THE PRICE OF INEQUALITY (2012); JOSEPH STIGLITZ, GLOBALIZATION AND ITS DISCONTENTS (2003).


31 PIKETTY, supra note 2, at 10.

32 PIKETTY, supra note 2, at 455.

garner higher returns. Piketty cleverly illustrates this by examining the returns on university and college endowments, showing that larger endowments tend to do better.

But clearly, there is something fundamental at work. Piketty's parsimonious explanation is his relation \( r > g \), representing the historical truism that returns to private capital have generally been greater than the rate of economic growth. The significance of this relation is that those with capital can leverage it into greater wealth more quickly than the rest of society accumulates wealth through economy-wide economic growth.

It is not, however, as if \( r > g \) neatly defines the necessary and sufficient condition under which wealth inequality is increasing. Wealth inequality is currently increasing, but Piketty's own data indicates that \( r > g \) does not currently hold true. Piketty's explanation is that after the two world wars and the Great Depression devastated returns to capital, there simply has not been enough time to for \( r \) "catch up" with \( g \). But if \( r > g \) does not fully define the condition of increasing wealth inequality, Piketty does not explain what else might also be at work in driving the current divergence in wealth. It could be that at times only certain sectors and individuals are able to secure outsized returns to their capital, so that \( r > g \) holds true for some sectors but not the entire economy; in such a situation, wealth inequality is increasing, but economy-wide returns to private capital might not yet exceed the rate of economic growth. Piketty's \( r > g \) relation is thus a heuristic, and a marker of some legal-economic process by which the rich and the poor are being driven apart.

The nature of the legal-economic process of wealth divergence is extremely complex. Piketty takes a stab at identifying parts of it. One part is the emergence of exorbitant "supersalaries" paid to some executives, which Piketty believes contributes to the growing wealth gap. This story is in part an economic one: the emergence of supersalaries coincided with the dramatic lowering of personal income tax rates for high-income earners, creating new incentives for executives to seek out exorbitant salaries. But in larger part, this is a story of law and policy. It took an act of

34 Piketty, supra note 2, at 430-31.
35 Piketty, supra note 2, at 448.
36 Piketty, supra note 2, at 25.
37 Piketty, supra note 2, at 356 (Fig. 10.10). Piketty explains that "[a]ll signs are, however, that it is about to end." Id.
38 Piketty, supra note 2, at 372.
39 Piketty, supra note 2, at 298-302.
40 Piketty, supra note 2, at 298-302.
Congress to enact the 1986 Tax Reform Act, which slashed the high marginal tax rates applied to the highest personal income tax brackets. Moreover, as Piketty notes, a corporation shopping for a CEO faces a great deal of uncertainty in future managerial performance, and given what is at stake, it may well be rational for a corporation to seek out CEOs with a history of high salaries as a signal of quality. This argument, a slight refinement to arguments put forth by Lucian Bebchuk and Jesse Fried a decade ago, is more of a matter of corporate law than of economics. Corporations law could require broader and deeper disclosures for high executive pay packages, or could more strongly support shareholder proposals that seek to control executive compensation. But not only is the Bebchuk thesis disputed, it is not clear that this phenomenon has effected a very large wealth transfer from poor to rich. Piketty himself shows that the rise of the supermanager has been limited to the United States, the United Kingdom, Australia, and Canada, while absent in Europe and Japan. But Europe and Japan have also trended towards greater inequality. So the supermanager phenomenon may be unjust and distortionary, but it is by no means clear that it is driving the increase in the wealth gap.

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42 Piketty, supra note 2, at 298-302.
43 Bebchuk and Fried postulated that the structure of executive compensation boards in corporations had provided opportunities and incentives for the issuance of gargantuan pay packages decoupled from any merit considerations. Lucian Bebchuk and Jesse Fried, Pay Without Performance: the Unfulfilled Promise of Executive Compensation 24-37 (Harvard Univ. Press, 2004).
47 Piketty concedes so much: just looking at the top five corporate executives (whose salaries are required to be made public) of top publicly-traded firms does not, by itself, illustrate how the advent of highly-paid “supermanagers” accounts for the increasing wealth gap. Piketty, supra note 2, at 302.
48 Piketty, supra note 2, at 316-317.
49 For example, Piketty takes pains to note inequality is on the rise in his home country of France (Piketty, supra note 2, at 271-81), as well as in Germany (Piketty, supra note 2, at 323), and in Sweden (Piketty, supra note 2, at 344-47).
Another part of the legal-economic process of wealth divergence is the increase in
inheritance income, which Piketty documents with his characteristic meticulousness,\(^{50}\)
but leaves much unexplained in his analysis. He remarks that "wealthy people are
constantly coming up with new and ever more sophisticated legal structures to house
their fortunes,"\(^{51}\) and briefly and casually refers to the advent of the family trust,\(^{52}\)
designed to avoid estate taxes.\(^{53}\) But estimates of federal and state tax liability are not
nearly enough to account for the huge macroeconomic tendencies considered by
Piketty.\(^{54}\)

Legal analysis was never Piketty's objective, nor his bailiwick. His prescription for
rising wealth inequality is simple enough without too much legal fuss: a progressive
annual tax on the order of one or two percent on global wealth.\(^{55}\) If one accepts
Piketty’s urging that the growing wealth gap is problematic, then why not attack the
problem directly? Piketty reminds us that his proposal is not particularly new or
radical, and perhaps it is even too meek: in 1919, American Economic Association
President Irving Fisher expressed alarm at the growing wealth gap in the United States
and proposed a tax on big estates from 67% to 100%.\(^{56}\) In the modern, globalized
world, there is the complication of tax havens, which have sheltered a large chunk of
global wealth from taxation and exacerbated wealth inequality.\(^{57}\) International
cooperation and transparency would thus be required for Piketty's tax, which he
argues would be a good thing anyway.\(^{58}\) At a time in which high public debt is viewed
as being a source of shame,\(^{59}\) Piketty argues that the real shame is having so much
wealth resident in private hands, and being so unequally held. It is a conscious
political choice for the wealthy to be providing money to government by loaning it
instead of paying taxes.\(^{60}\) Countries such as the United States thus pay more money in

\(^{50}\) Piketty, supra note 2, at 377-429.
\(^{51}\) Piketty, supra note 2, at 453.
\(^{52}\) Piketty, supra note 2, at 451-52.
\(^{53}\) See, e.g., Robert H. Sitkoff and Max Schanzenbach, Jurisdictional Competition for
\(^{54}\) See, e.g., James M. Poterba, The Estate Tax and After-Tax Investment Returns, in
DOES ATLAS SHRUG? THE ECONOMIC CONSEQUENCES OF TAXING THE RICH 329-349 (Slemrod,
\(^{55}\) Piketty, supra note 2, at 515-39.
\(^{56}\) Piketty, supra note 2, at 506.
\(^{57}\) Piketty, supra note 2, at 466-67.
\(^{58}\) Piketty, supra note 2, at 521-28.
\(^{59}\) Andrew Kaczynski, Democratic Senator on National Debt: "Shame On Us,"
BuzzFeed Politics, June 1, 2014, http://www.buzzfeed.com/andrewkaczynski/democratic-
senator-on-national-debt-shame-on-us.
\(^{60}\) Piketty, supra note 2, at 498-508.
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interest to wealthy bondholders than it spends on higher education.\textsuperscript{61} That, Piketty argues, is the real shame.

III. Legal Enrichment of the One Percent

While the legal-economic process of wealth concentration is more complicated than just measuring the rate of return to private capital and the rate of economic growth, there is clearly a lot embodied in the relation $r > g$. There is indeed something fundamental about how private wealth and public wealth grows. This review focuses on the rate of return to private capital, and legal rules and institutions inflate it.

A myriad of laws and institutions govern the acquisition, utilization, and alienation of private capital. In fact, just about every law does, indirectly. But some laws are more central than others in determining the rate of return on capital. This review does not attempt to provide a comprehensive review or evidence of which legal mechanisms help the wealthy augment their rate of return on capital. Rather, the goal of this review to highlight a few areas of U.S. federal and state law that warrant special attention for their potential to inflate returns to private capital.

This review will mostly avoid discussing how legal rules and institutions affect economic growth, the other key parameter to Piketty's $r > g$ relation. That is a morass of economic and legal policy, and the source of too much partisan bickering. It is impossible to completely avoid discussion about economic growth, as the vast majority of ill-advised economic policies that inflate private returns to capital can also be putatively justified by their capacity to spur economic growth. I will only make, when necessary, informal comparisons between the effects of a legal rule on the rate of return on capital with its effects on economic growth. To keep this discussion tractable, this review focuses only on American law and American impacts. It is clear that Piketty's thesis has special relevance for the American experience.

A. Financial Regulation

Studying economic contractions has historically been the domain of economists, who have indices to measure economic distress, such as unemployment, gross domestic product, housing starts, and poverty.\textsuperscript{62} The Business Cycle Dating Committee of the

\textsuperscript{61} Piketty, supra note 2, at 567.

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National Bureau of Economic Research announces the beginning and the end of recessions. But more than a few legal scholars have weighed in on the global financial crisis of 2008 because it seems to highlight some previously underappreciated linkages between law and economics.

The financial crisis raises two separate but interrelated questions: (1) how did the laws of financial regulation, corporations law and/or bankruptcy law precipitate (if not outright cause) the crisis, and (2) have financial regulation and corporation laws made this last crisis a force of divergence, rather than a wealth equalizer? The first question is only relevant to Piketty's project and to this review insofar as the answer to the second question is "yes." If economic contractions exacerbate wealth inequalities, then it becomes doubly important to regulate the kinds of risky behavior that produced the financial crisis – not only to protect economic growth, but to protect those on the lower rungs of the wealth ladder.

Regarding the first question, the causes of the financial crisis are extremely complex and still imperfectly understood. While finance experts and students of the crisis disagree about the exact causes of the crisis, there does appear to be some consensus that some legal reforms would be sensible. Some were reflected in the subsequent passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act as a regulatory response to the crisis. This review will not attempt to synthesize or evaluate the already vast literature on the crisis, but rather highlight a widely agreed-upon insight: a large number of finance professionals took unwise risks that were made possible by one or more legal moves towards deregulation.

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65 Stout, supra note 64, at 3.

There are many legal changes suspected of causing or contributing to the financial crisis, but a few stand out. The Commodity Futures Modernization Act of 2000\(^\text{67}\) deregulated a number of financial products that played a central role in the crisis, including over-the-counter derivatives and credit default swaps.\(^\text{68}\) In 2004, the Securities and Exchange Commission adopted the Consolidated Supervised Entity Program,\(^\text{69}\) which allowed investment banks to avoid the SEC’s net capital rule, which required that the firms keep their debt to equity ratios below a certain threshold, and elect instead for a much less stringent capital requirement.\(^\text{70}\) The program was taken up by five investment banks – Goldman Sachs, Merrill Lynch, Morgan Stanley, Lehman Brothers, and Bear Stearns, all of which became extremely over-leveraged and either filed for bankruptcy, merged into a solvent company, or gave up their status as independent investment banks.\(^\text{71}\) In 2005, The SEC adopted Regulation AB, which relaxed (and standardized) disclosure requirements for asset-backed securitizations,\(^\text{72}\) making them more opaque and obscuring their riskiness. Also in 2005, sale-repurchase agreements and credit default swaps, two products that were central to the financial crisis,\(^\text{73}\) were part of a massive exemption from the automatic stay under Chapter 11 of the Bankruptcy Code,\(^\text{74}\) making them attractive financing vehicles.\(^\text{75}\) These products exploded in popularity, taking on risk along the way and infecting a


\(^{70}\) Net Capital Requirements for Brokers or Dealers, 17 C.F.R. § 240.15c3-1 (2008).


\(^{75}\) Stout, supra note 64, at 28.
Addressing the second question – whether legal rules made the financial crisis a force of divergence – requires some economic inference. In Piketty's world, a recession, like a depression, should depress returns to capital and act as a wealth equalizer. This recent crisis, however, seems to have exacerbated wealth inequality. For one thing, the rebound since 2009 seems to have been stingy towards the ninety-nine percent. Unemployment remains worryingly high, and consumer confidence remains well below pre-recession levels, and economic pessimism has been persistent and widespread. Investors (dominated by the wealthy), however, are back: the Dow Jones Industrial Average, S&P 500, and the NASDAQ Composite have already surpassed pre-recession levels. For 2013, the Dow Jones Industrial Average was up 26 percent,
while real GDP was up by just 1.9 percent.\textsuperscript{84} Data compiled by Piketty and his co-author Emmanuel Saez show that of the total income gains in the United States from 2009 to 2012, an astonishing ninety-five percent accrued to the top one percent of earners.\textsuperscript{85} This stunning fact seems to underscore how the recent crisis diverges from the Piketty script.

A central reason this crisis was so brutal on the less wealthy is because it produced a widespread withdrawal of credit which cascaded down to a very wide swath of businesses, causing many to fail or contract, and to lay off workers.\textsuperscript{86} Job losses overwhelmed a weak economy. In 2008 and 2009, nearly nine million Americans lost jobs, 800,000 in the single month of January 2009.\textsuperscript{87} Between 2007 and 2010, nine million Americans slipped into poverty.\textsuperscript{88} Even for those in the lower ninety-nine percent keeping their jobs, their contractions were more severe than it was for the one percent. For them, housing equity accounts for a much larger fraction of household wealth, and the slow rebound in housing prices has dampened their recovery.\textsuperscript{89}


\textsuperscript{86} See, e.g., Gabriel Chodorow-Reich, The Employment Effects of Credit Market Disruptions: Firm-Level Evidence From the 2008-9 Financial Crisis, 129 Q.J. ECON. 1 (2013); Nancy Green Leigh & Edward J. Blakely, Planning Local Economic Development: Theory and Practice 2 (2013); Firms that borrowed from one of the failed firms were only able to borrow, if at all in the credit freeze-up, at less favorable rates.


\textsuperscript{89} Fabian T. Pfeffer, Sheldon Danziger & Robert F. Schoeni, Wealth Disparities Before and After the Great Recession, 650 ANNALS AM. ACAD. POL. & SOC. SCI. 98, 104 (Table 1) (2013) (showing that in 2007, the median household had $95,472 in wealth, only $22,240 of which was non-housing wealth; by contrast, a household at the 95th percentile held $1.57 million in wealth, with more than 935,000 in non-housing wealth).
Fundamentally, the financial crisis occurred because the massive withdrawal of credit was the reaction to the realization of widespread, systemic risk. In significant part, the financial crisis was the suffering of self-inflicted wounds by risk-takers who simply failed to understand the nature of the risk they were assuming. Managers at AIG, in particular, utterly failed to comprehend the inter-relatedness of all the risk they took in the form of credit default swaps. But this assumption of private risk is not problematic. Indeed, risk is usually (obviously not always) good for the wealthy who can afford them, and over the long run, obtain the higher returns that derive from risky portfolios. Enabling risk-taking is the law's way of inflating the returns to capital – Piketty's r.

It is the public nature of systemic risk that is problematic. As noted above, the instability of banks created a credit crisis that threatened not just a handful of wealthy investors and managers, but a much wider circle of borrowers, including the vast majority of American businesses that depend on credit for cash flow to conduct their business and employ workers. With the sharp contraction in credit availability, businesses suffered and unemployment soared, reducing consumer spending just when the economy needed it most, and further pushing the economy into a nasty spiral of business failures leading to more unemployment leading to even less spending. All of this occurred because some legal rules enabled or encouraged risky behavior by some managers that generated systemic risk, which imposed losses on those that took no part in the assumption of risk, and were least able to absorb the loss. That widespread risk is an externality. As others have pointed out, systemic risk that poses a threat to the entire economy imposes social costs well in excess of the market punishments meted out to managers responsible for creating that risk.

And yet, the focus of finance and corporations law is to regulate relations among private parties – investors, directors, managers, and perhaps, under the guise of bankruptcy law, creditors. Securities laws are concerned with protecting the integrity of the market, lest there arise some concern that would cause investors to lose

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91 Coffee, supra note 68, at 822-23.
92 Coffee, supra note 68, at 822; Stulz, supra note 73, at 79-83.
93 Piketty, supra note 2, at 430-31.
95 See, e.g., Henry N. Butler, The Contractual Theory of the Corporation, 11 Geo. Mason U. L. Rev. 99, 100 (1989) ("the contractual theory views the corporation as founded in private contract, where the role of the state is limited to enforcing contracts.").
confidence and withdraw from the market. But there is little sense in the law that the finance industry and corporations impose externalities upon a broader society, despite their capacity to redirect the flow of trillions of dollars. Normative and positive research into the functioning of business organizations as an actor in a broader societal fabric have been largely cabined to the area of scholarly research known as "Corporate Social Responsibility." Otherwise, lawmaking and legal scholarship in the areas of finance and corporations law seem to be based predominantly on the notion that the only truly interested parties are private ones.

Take for example, two competing accounts of the role of shareholders and managers in assuming risks leading up to the financial crisis. Over the past decade, Lucian Bebchuk and several co-authors have argued that executive compensation has become completely disconnected from performance. Stock options were supposed to give managers incentives to improve their firms and increase shareholder value, but in practice managers have taken risky, highly-leveraged bets for short-term gains, cashed out their options, and left their companies in a long-term mess. Moreover, managers have been successful in shaping their pay packages to enable this self-serving behavior. In the view of Bebchuk and his co-authors, the financial crisis presents a

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98 See, e.g., Andrei Shleifer & Robert W. Vishny, A Survey of Corporate Governance, 52 J. FINANCE 737, 738 (2012) ("Our perspective on corporate governance is a straightforward agency perspective, sometimes referred to as separation of ownership and control. We want to know how investors get the managers to give them back their money."); Butler, supra note 95.


100 Bechuk and Fried, supra note 99, at 72 ("[B]oard is assumed to design compensation schemes to provide managers with efficient incentives to maximize shareholder value.").

101 Bechuk & Spamann, supra note 99, at 249.

particularly salient example, as senior managers at Bear Stearns and Lehman, the two most leveraged and vulnerable of the independent investment banks, received lavish pay packages even as they left their firms in tatters. In this "managerial power" view, managers have incentives to take excessive risks, because they share in the upsides but are insulated by their compensation packages from the downsides. How might one remedy this? Officer or director liability or claw-backs are rare. A more practical proposal is to change executive pay packages by replacing options with subordinated debt, so that if long-term risks materialize, executives lose. That is an example of a legal fix for a quasi-economic problem.

The Bechuk et al account is contested, of course. A competing explanation for risk-taking is that it is the shareholders driving the risk, not the managers. A number of studies have found that financial institutions with greater shareholder control were more exposed to risk and ultimately suffered greater losses than those with weaker shareholder control. Also, those financial institutions in which managers' incentives were better aligned with shareholder value were also more exposed to risk and did worse during the crisis. The explanation is that

103 Bechuk & Spamann, supra note 99, at 261.
104 Bechuk & Spamann, supra note 99, at 249-50.
105 In the government-facilitated acquisition of Bear Stearns by JPMorgan, officers and directors were actually indemnified from any liability that might stem from its failure Davidoff & Zaring, supra note 64, at 474-75. Executive clawbacks, in which recipients are ordered to repay some past compensation, are also rare. The only known instances of this connected with the financial crisis was the reduction of severance packages of the CEOs of Fannie Mae and Freddie Mac, by $8 million and $15 million, respectively. Davidoff & Zaring, supra note 64, at 487.
107 See, e.g., Xavier Gabaix & Augustin Landier, Why Has CEO Pay Increased So Much? 121 Q.J.ECON. 49 (2008) (arguing that CEO pay has increased simply because they are scaling up with the increase in size of firms);
shareholders, being broadly diversified, are actually more willing to tolerate risk than managers. This makes intuitive sense also, in that institutional shareholders, which dominate ownership of the largest firms,\textsuperscript{111} are both more powerful and more willing to press individual companies to take more risk. How might one remedy this? One proposal is to require firms to offer "contingent capital" that converts into preferred stock and takes priority over common stock, so that if long-term risks materialize, shareholders lose.\textsuperscript{112} That is also an example of a legal fix for a quasi-economic problem.

What is worth noticing about this disagreement is that both sides agree that there was too much risk-taking, and that it was at least a proximate cause of the financial crisis. Both argue that the structure of corporate ownership – a product of corporations law and of other legal rules – encourages the excessive risk-taking.\textsuperscript{113} For our purposes, it does not truly matter whether it is the shareholder or the manager that is driving the risk – all would agree that existing corporate laws, coupled with the light regulation of financial institutions, have given rise to too much risk. It would stand to reason that remedies to address these risk incentives are legal in nature, and would de-incentivize risk-taking, whether it is by the managers or the shareholders.

The financial crisis illustrates another risk subsidy. The unprecedented and massive rescue of key troubled financial entities deemed "too big to fail" through the Troubled Asset Relief Program,\textsuperscript{114} or "TARP," stirred enormous public anger.\textsuperscript{115} The architect of the rescue, or "bailout," then-Treasury Secretary Timothy Geithner, acknowledged that the plan extinguished the fire but "rewarded the arsonists."\textsuperscript{116} This was especially the case since one of the recipients of TARP money, AIG, turned around and paid some of its bailout money – $165 million – to several executives in the form of firms with more independent boards and institutional ownership is that boards and shareholders encouraged managers to increase shareholder returns by taking more risk prior to the crisis"); Rüdiger Fahlenbrach & René M. Stulz, \textit{Bank CEO Incentives and the Credit Crisis} 1 (Nat’l Bureau of Econ. Research, Working Paper No. 15212, 2009).

\begin{itemize}
  \item 111 Coffee, \textit{supra} note 68, at 812.
  \item 112 Coffee, \textit{supra} note 68, at 825-38.
  \item 113 Maria Mara Faccio, Maria-Teresa Marchica, & Roberto Mura, \textit{Large Shareholder Diversification and Corporate Risk-Taking}, 24 REV. FIN. STUDIES 3601(2011).
  \item 115 Coffee, \textit{supra} note 68, at 797.
  \item 116 \textsc{Timothy Geithner}, \textit{Stress Test: Reflections on Financial Crisis} 9 (2014).
\end{itemize}
Not only did that outrage American taxpayers, and not only does it exacerbate the moral hazard problem that led to excessive risk-taking, but the expectation that this kind of rescue will become politically necessary enables such firms to borrow at favorable rates, with the expectation that government would bail out creditors that had not bothered with due diligence. Dodd-Frank recognizes this problem, and at least in its text, limits the ability of the Federal Reserve Board to rescue failing firms. It is not at all certain, however, that the Dodd-Frank provision limiting rescues would survive the next crisis. What can be done about it? No less a socialist than Alan Greenspan speculated with a legal prescription: "In 1911 we broke up Standard Oil. So what happened? The individual parts became more valuable than the whole. Maybe that's what we need."

Piketty acknowledged that wealth distribution is "deeply political." It is no accident that financial regulation is also deeply political. Carmen Reinhart and Kenneth Rogoff have studied not only business cycles but also the political pressures preceding and succeeding them. We should not be surprised that their title, This Time is Different, is ironic in that financial catastrophes have occurred repeatedly throughout history, and that financial regulation tightens after each crash, only to gradually erode over time to political pressures to deregulate. Along similar lines, Thomas Philippon and Ariel Reshef argue that a huge wage premium for finance executives – 250% – was in

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118 Anat R. Admati, Peter M. DeMarzo, Martin F. Hellwig & Paul C. Pfleiderer, Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is not Expensive, Rock Center for Corporate Governance at Stanford University Working Paper No. 86 (2010) ("[I]nstitutions that are demed to be 'too big to fail,' are therefore able to borrow at lower interest rates."); online: https://www.clevelandfed.org/research/Conferences/2012/4-13-2012/Hellwig-Admati-Demarzo-Pfleiderer.pdf.

119 Dodd-Frank Act, supra note 66, § 1101(a)(6).

120 Coffee, supra note 68, at 800.


122 Piketty, supra note 2, at 20.


124 REINHART & ROGOFF, supra note 123, at 223-39.
large part driven by financial deregulation. One can thus see the stake that finance executives have in deregulation. At bottom, Reinhart, Rogoff, Philippon and Reshef, all economists, raise a problem with the lawmaking of financial regulation.

What was different this time around, it appears to be, was the extent to which risk became such a deadly social cost. Financial regulation and other laws governing business entities qua business entities has, in turning attention away from social costs, allowed a huge body of law to develop in a social vacuum. Other substantive areas of law such as antitrust law or environmental law may seek to internalize certain kinds of externalities, but it is clear that financial regulation and corporations law has, by focusing so intently on the private parties to transactions, played a key role in allowing the one percent to separate themselves from the ninety-nine percent.

B. Antitrust Law

As with the case with financial regulation, antitrust law generally consists of proscriptions, not affirmative duties, so the role of antitrust law in exacerbating a wealth gap may be in its failure to constrain conduct leading to wealth concentration, rather than a failure to induce desirable behavior. For Piketty's project, the question is whether antitrust law as practiced has served to artificially inflate \( r \), returns to private capital. One should also ask if antitrust law as practiced contributes to \( g \), economic growth. The latter is an especially relevant question for antitrust law, because a primary objective of antitrust law is to create the right conditions for economic growth to occur. The problem is that among lawmakers, boosting returns to private capital, in the name of encouraging capital investment, is often mistakenly equated with boosting economic growth. When the assumption is made that boosting private capital leads automatically to boosting economic growth, antitrust law runs a risk of exacerbating wealth inequality.

What is antitrust law supposed to do? In the 1979 case Reiter v. Sonotone Corp., the United States Supreme Court, declared that the Sherman Antitrust Act was intended to be a "consumer welfare prescription." Citing Robert Bork's influential book, The Antitrust Paradox, the Court brushed aside nearly seven decades of jurisprudence and

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antitrust policy that was oriented not around consumer welfare, but the preservation of
competition. Bork's view is that "competition" was too incoherent to serve as a
touchstone for antitrust law. In his view, not only did consumer welfare have an
economic meaning, but a legislative history that clearly showed it to be Congress's
objective. Bork made an additional step that was even more controversial, equating
consumer welfare with overall efficiency. While Bork scored a total victory on the
first part of his argument – a move from competition to consumer welfare – he does
not appear to have won the day on his second argument. Courts generally apply a
consumer welfare test; if a practice leads to higher prices and lower output, courts will
generally find that the practice violates antitrust laws, even if there are proffered
efficiencies.

128 Barak Orbach, How Antitrust Lost Its Goal, 81 Fordham L. Rev. 2253, 2255 (2013);
Eleanor M. Fox, Against Goals, 81 Fordham L. Rev. 2157, 2159 (2013) ("The operational
goal … is to let business be free of antitrust unless its acts will decrease aggregate consumer
surplus…. But this is not the goal of antitrust unless the concept of "goal" reads ninety years
out of antitrust history.").

129 ROBERT BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 61 (Free

130 BORK, supra note 129, at 66.

131 BORK, supra note 129, at 90 ("Consumer welfare is the greatest when society’s
economic resources are allocated so that consumers are able to satisfy their wants as fully as
technological constraints permit. Consumer welfare, in this sense, is merely another term for
the wealth of the nation.").

132 But see, Barak Y. Orbach, The Antitrust Consumer Welfare Paradox, 7 J.
Competition L. & Econ. 133, 142-50 (2010).

133 See, e.g., Herbert Hovenkamp, Implementing Antitrust's Welfare Goals, 81 Fordham
L. Rev. 2471, 247_ (2013); John B. Kirkwood & Robert H. Lande, The Fundamental Goal of
Antitrust: Protecting Consumers, Not Increasing Efficiency, 84 Notre Dame L. Rev. 191, 192
(2008) ("The conventional wisdom in the antitrust community today is that the antitrust laws
were passed to promote economic efficiency. This view, held by most economists,
conservative scholars, federal enforcers, and practicing lawyers, is incorrect. Neither the sole
nor even the primary purposes of these laws is, or ever has been, to enhance efficiency…. Instead, … the fundamental goal of antitrust law is to protect consumers."); Joseph F. Brodley,
The Economic Goals of Antitrust Efficiency, Consumer Welfare, and Technological Progress,

134 Hovenkamp, supra note 133, at 2475.

135 Hovenkamp, supra note 133, at 2476-77, citing U.S. Dep't of Justice & Fed. Trade
Comm'n, Horizontal Merger Guidelines § 10 (Aug. 19, 2010), available at
133, at 212.
HSU – RISE AND RISE OF THE ONE PERCENT

Bork's view of the Sherman Act was strongly supported by scholars at the University of Chicago and drew many detractors, including self-proclaimed "Modern Populists" and "Post-Chicagoans." As a descriptive matter, however, everyone agrees that Bork and the Chicago School have mostly won. Analysis under the Sherman Act is welfarist in nature, with non-economic concerns rarely part of any Sherman Act case. A few per se rules endure – mergers to monopoly or near-monopoly are never justified by efficiency gains, no matter how great. But by and large, non-economic considerations such as concentration of wealth or power are irrelevant to Sherman Act analysis. Other pieces of trade legislation are not necessarily efficiency-oriented, but nor have they been an important part of enforcement efforts. For example, scholars agree that the Robinson-Patman Act is meant to protect small businesses for the sake of smallness, rather than for efficiency's sake. But prosecutions under the Robinson-Patman Act have declined literally to zero.

I do not take a position on this efficiency-oriented state of antitrust law. However, I do wish to emphasize (as others have) that this interpretation of the Sherman Act is a conscious political choice, manifested in law. I also wish to argue (as others have) that as a descriptive matter, an equally defensible interpretation of the Sherman Act that would not exclude consideration of non-economic goals. I acknowledge the normative arguments in favor of the efficiency-based consumer welfare standard, including administrability, predictability, and consistency. However, I follow others

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141 Hyman & Kovacic, supra note 140, at 2170-71.
142 Baker, supra note 137, at 2476.
in noting that these could be balanced with non-economic considerations without doing violence to the Sherman Act.

In fact, Bork's interpretation of the Sherman Act runs counter to much of the legislative history of the Act, as well as certain political and economic realities in 1890. Economists in 1890 did not have much influence over the passage of the Sherman Antitrust Act. Passage took place against the backdrop of the rise of Standard Oil, which dominated crude oil production and distribution, and was perceived as wielding not just economic power, but political power. Indeed, the legislative history is rife with statements expressing concern about the concentration of power in the hands of the few, and that monopolists were essentially "extorting" helpless individuals. In *U.S. v. Aluminum Co. of America*, Judge Learned Hand, citing statements by Senator Sherman himself, opined that "among the purposes of Congress in 1890 was a desire to put an end to great aggregations of capital because of the helplessness of the individual before them." Others wrung their hands over the perceived disgorgement of money from commoners to titans, and the resultant concentration of wealth. Senator George Frisbie Hoar, one of the key shepherds of the Act, complained of "transaction[s] the only purpose of which is to extort from the community ... wealth which ought ... to be generally diffused over the whole community." Representative George Washington Fithian declared that trusts were "impoverishing" people through "robbery." Senator Sherman fumed "[i]f we will not endure a king as a political power we should not endure a king over the production, transportation, and sale of any of the necessaries of life." Piketty would have found a much friendlier audience in the 1890 Congress, as Sherman himself warned that "[no problem] is more threatening than the inequality of condition of wealth, and opportunity that has grown within a single generation out of the concentration of capital."

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145 Lande, *supra* note 143, at 894.
146 Fox, *supra* note 143, at 2157.
147 148 F.2d 416 (2d. Cir. 1945).
148 148 F.2d at 428. However, as Barak Orbach has pointed out, Senator Sherman was not actually the principal drafter of the legislation that bears his name; he very reluctantly supported the watered-down bill that was really shepherded through the Senate by Senators Edmunds and Hoar. Barak Orbach, *How Antitrust Lost Its Goal*, 81 FORDHAM. L. REV. 2253, 2260-61 (2013). Senator Sherman and his ghost-drafters did, however, agree that competition was a worthy objective of legislation. *Id.* at 2262.
149 21 CONG. REC. 2728 (1890) (statement of Sen. Hoar).
151 21 CONG. REC. 2457 (statement of Sen. Sherman).
152 21 CONG. REC. 2460 (statement of Sen. Sherman).
Many other similar statements are not hard to find. Modern antitrust scholars, including prominent economists, are also concerned about the concentration of capital. There are problems with alternatives to the welfarist-only approach, but unease persists that the views that gave rise to the Sherman Act should not be discarded completely, even if they were economically unsophisticated. No one argues that efficiency is irrelevant, or even that efficiency should be in second place to any consideration. But it is another thing altogether to completely exclude all other considerations, placing enormous pressure on consumer welfare analysis. For example, analysis would have to consider the potential long-term negative impacts of industry concentration even if it lowers prices in the short term.

To make this concrete, consider the following example: what if a car rental company sought to charge higher fees for renters from lower-income areas, on the grounds that their data showed higher accident rates for renters from those areas? On consumer welfare grounds, the total pool of consumers might be better off because drivers from statistically safer areas would not have to subsidize those from low-income areas, who get into more accidents. But clearly, those from low-income areas would be made worse off. Should antitrust law take into account the distributional impacts arising from this case? In *Hertz Corp. v. City of New York*, the court did not have to confront his question squarely, as it held that the Sherman Antitrust Act pre-empted New York City's anti-discrimination ordinance, which barred Hertz from levying charges based on residence. But if it did, how would we wish the court to consider the distributional issues, if at all? In environmental administrative lawmaking, cost-benefit analyses of environmental policies must be subjected to analysis of its distributional impacts under Executive Order 12898, to see if an environmental policy


154 Robert Pitofsky, *The Political Content of Antitrust*, 127 U. PA. L. REV. 1051, 1051 (1979) ("Excessive concentration of economic power will breed antidemocratic political pressures …. A third and overriding political concern is that if the free-market sector of the economy is allowed to develop under antitrust rules that are blind to all but economic concerns, the likely result will be an economy so dominated by a few corporate giants that it will be impossible for the state not to play a more intrusive role in economic affairs.").


157 The case actually involved fees levied by New York City Hertz rental counters against New Yorkers themselves, as opposed to out-of-town travelers. Hertz alleged that although New Yorkers accounted for only 7% of renters, they accounted for over 25% of liability claims. 212 F.Supp.2d at 276.
might have a disproportionate impact on minority or low-income populations.\footnote{158} The directive does not purport to drive cost-benefit analyses, but it does mandate that the analysis be done. It does not seem fanciful that an analysis centering upon consumer welfare could be opened up to a similar distributional analysis.

As with financial regulation, there is a second question: has the practice of antitrust law, with its laissez faire approach, actually contributed to wealth inequality? It is difficult to say, but it is helpful to return to some old debates for signals, and to use them to think about the likely effects of antitrust law on the rate of return on private capital $r$ and on the rate of economic growth $g$. A seminal 1951 paper by Joe Bain seemed to suggest that firms in concentrated industries enjoyed higher profit rates than those in atomistic industries.\footnote{159} Bain's general thesis was that industry concentration signals implicit collusion, output reduction and higher profits.\footnote{160} It remains controversial,\footnote{161} but the paper is still a bedrock contribution because it framed the debate that still rages today. At least two rival narratives have emerged.\footnote{162} One, a "revisionist" school, emphasized the differences among firms, so that if one firm is more efficient, it will grow and capture market share at the expense of its rivals. So under this way of thinking, a larger market share correlates with higher profits, but not because of collusion or anticompetitive behavior, but because of innovative, competitive behavior\footnote{163} – precisely the kind of behavior antitrust law is meant to encourage. A third school of "managerialists" posits that profit rates are best explained by firm-specific effects, in that some firms are simply better managed.\footnote{164}

\footnote{158} Executive Order 12898, 59 FED. REG. 7629 (February 1, 1994).
\footnote{159} Joe S. Bain, Relation of Profit Rate to Industry Concentration: American Manufacturing, 1936-1940, 65 Q.J. ECON. 293 (1951).
\footnote{160} Bain, supra note 159, at 303-04.
\footnote{161} Yale Brozen, Bain's Concentration and Rates of Return Revisited, 14 J. L. ECON. 351, 366-67 (1971) (finding that Bain's circumspection about his data limitations were warranted, and that expanding his data set reverses Bain's results). See also, H. Michael Mann, Seller Concentration, Barriers to Entry, and Rates of Return in Thirty Industries, 48 REV. ECON. STAT. 296, 300 (1966) (confirming Bain's results when considering barriers to entry).
This debate is important because they all have different implications for antitrust law and wealth inequality. The Bain school of thought is the one that most clearly leads to the conclusion that more intervention through antitrust law is warranted. Under the Bain way of thinking, the elevated profits in concentrated industries is an inefficiently high return on private capital, an inflation of Piketty’s \( r \). Elevated profits would also signal monopoly rents, which come at the expense of economic growth. So normatively, a greater focus on industry concentration is appropriate.

If one subscribes to the managerial school of thought, then no intervention beyond what is currently practiced is necessary. Higher profits are attributable to superior management, so there is no reason to be suspicious of higher profits. Similarly, the revisionist school would suggest that there are meritorious reasons for some profits being higher than others. For revisionists high profits are a signal of innovation, which is central to economic growth. So, like the managerialists, high profits and industry concentration are not themselves reasons for concern.\(^{165}\) However, the revisionist school posits that it is competitive behavior that generates higher profits. A revisionist could well take issue with the orientation of antitrust law toward consumer welfare, preferring instead the orientation towards protection of competition that preceded the current one. If antitrust law were to revert to a body focused on preserving competition, then market share or market concentration would not be grounds for suspicion, but anticompetitive conduct might.

In reality, it is hard to believe that any one of the three schools of thought apply universally, or to even an identifiable subset of industries or firms. Technological advances have introduced challenges not even contemplated by the Bain approach, or by revisionists or managerialists. iPhones have not just expanded the cell phone industry, but have wrested many computing functions from the desktop and even the laptop markets.\(^{166}\) iPads have also upended the desktop and laptop markets, and along the way put a substantial dent in the pulp and paper industries.\(^{167}\) It is getting difficult to define what "industry" to use as a unit of analysis.\(^{168}\)


\(^{166}\) Robin Harris, Will iPhones Replace Desktops? ZDNet.com (Mar.22 2012), http://www.zdnet.com/blog/storage/will-iphones-replace-desktops/1637.


Viewed in this light, it is perhaps understandable that antitrust policy has not tethered itself to any of the three schools, but has deferred to high technology firms with dominant market shares. The markets themselves are up for grabs, so dominating an industry does not necessarily signal the existence of inflated profits. The firms that have raised the most concerns are, of course, the largest ones. Three out of the four largest firms (as measured by market capitalization), Apple, Microsoft, and Google (ExxonMobil is the fourth) have all raised concerns because of both their market dominance and their enormous size – over $1.2 trillion between the three of them 169 - and yet, they have largely been given a pass by antitrust regulators in the United States. 170 In the case of all three companies, while they have crushed rivals, there is no question that they remain in a hyper-competitive business environment. Moreover, all three have *both* created a tremendous amount of consumer surplus, as well as contributed to economic growth. In Piketty's world it is hard to determine whether these three have had higher returns to private capital, or have contributed more to economic growth. On both sides of the ledger both $r$ and $g$ for all three firms has been so high.

A different picture emerges when thinking about telecommunications industries. The hyper-dynamic industries occupied by Google, Apple, and Microsoft are not susceptible of definition, but the physical communications infrastructure pose barriers to entry for their owners, firms such as Verizon, with a market capitalization of over $200 billion. In *Verizon Communications v. Trinko*, 171 the Court unanimously held that Verizon did not violate antitrust laws by favoring their own customers over those of competitors. In a startlingly frank signal, Justice Scalia actually said that monopoly was "an important element of free enterprise" and that the opportunity to charge monopoly prices – at least for while – is what attracts "business acumen" in the first place; it induces risk-taking that produces innovation and economic growth. 172 That seems to be a case in which there is a danger that promoting Verizon's returns to capital is mistakenly conflated with promoting economic growth.

Antitrust law, with its fairly narrow focus on consumer welfare, at least runs the risk of driving a wedge between $r$ and $g$. As Eleanor Fox put it, "[t]he operational goal …

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172 540 U.S. at 405.
is to let business be free of antitrust unless its acts will decrease aggregate consumer surplus…" 173 This consumer welfare test asks if a business practice, heuristically, benefits consumers, and if so, the returns to private capital are not questioned. As Fox concedes, this is not an "indefensible modus operandi," but it is likely to allow enormous accumulations of wealth. It is hard to even guess at how much wealth is transferred by an antitrust law that does a better job of protecting private returns to capital than it does of spurring economic growth, so I will not attempt to do so. I observe, however, that a more conscious comparison of the impacts of antitrust policy on returns to private capital and on economic growth might be a step forward, not only for Piketty's project, but for synthesizing rival schools of antitrust thought.

C. Oil and Gas Subsidies

For just over a century, the Internal Revenue Code has contained tax benefits for capital projects undertaken for the purposes of exploration and extraction of oil and natural gas. 174 The most generous of these are the ability to expense "intangible drilling costs," ancillary costs that have no salvage value and are "incidental to and necessary for the drilling of wells and the preparation of wells for the production of oil and gas." 175 These include surveying, ground-clearing, and other site-preparation costs, as well as costs for chemicals, cement, and other supplies necessary to prepare for exploration or extraction. 176 These expenses may be deducted from income as ordinary expenses in the year they were incurred, rather than over a period of years under normal cost recovery accounting procedures, 177 a significant benefit in the form of deferred tax liability. 178 The Congressional Research Service reports that "[t]he purpose of allowing current-year expensing of these costs is to attract capital to what has historically been a highly risky investment." 179

Another tax benefit is the allowance of oil companies to take a deduction of 15 percent of gross income, against gross income, as a proxy for the fictional depletion of

173 Fox, supra note 128, at 2159.
175 26 U.S.C. §263(c).
177 26 U.S.C. §263(c).
178 Supra note 174, at 3.
179 Supra note 174, at 3.
their oil deposits. The United States is unusual among energy-producing countries in that oil and gas resources are generally owned by the surface landowner, not the government. This means that oil deposits are assets. Oil companies sought and obtained a recognition that their oil deposits should be depreciable just like bricks and mortar and other productive capital in other manufacturing industries. Rather than try to estimate the value of their deposit and deduct from their annual income taxes, owners of oil deposits may simply deduct 15 percent of their gross income as a generous estimate for the depreciable value of their oil and gas deposits.

These subsidies, dating back to 1913, succeeded in reducing the risk associated with oil and gas exploration, and caused much capital to flow into the oil and gas industries. One hundred and one years ago, these would have been justifiable on the grounds that it boosted economic growth. Subsidized oil and gas extraction in 1913 dramatically lowered energy prices, spurring the growth of new industries and new transportation opportunities. Were Thomas Piketty writing in 1913, he would have had to concede that the economic effects of these projects were very high, and moreover that $\Delta r < \Delta g$.

However, that was then and this is now. New technologies such as three-dimensional seismic analysis and horizontal drilling techniques have greatly reduced the risk of exploration. These tax benefits almost certainly do not stimulate any significant amount of extra oil or gas production. Moreover, renewable substitutes for fossil

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180 Supra note 174, at 3.
181 Thomas Merrill, Four Questions About Fracking, 63 CASE WEST. L. REV. 971, 977 (2013).
182 CRS Report, supra note 174, at 3.
183 CRS Report, supra note 174, at 3.
185 Mead, supra note 184, at 352.
186 See., e.g., Paul Davidson, Public Policy Problems of the Domestic Crude Oil Industry, 53 AM. ECON. REV. 85, 107 (1964) (“The depletion allowance is primarily an ad valorem subsidy to mineral rights owners.”).
fuels abound, some of them rivaling fossils in cost.\textsuperscript{188} Even if renewable energies do not supplant fossil fuels, they introduce an alternative that is in most cases less costly when taking into account the external costs of fossil fuel combustion.\textsuperscript{189} Thus, while these oil and gas tax benefits boost returns to private capital, their contribution to economic growth is minimal, and they likely subsidize behavior that is, net of external costs, less desirable than alternatives.

The cost to American taxpayers of these oil and gas subsidies is not very high: about $4 billion per year.\textsuperscript{190} But it is important to remember that these subsidies have existed for almost 100 years, and have cumulated a large amount of wealth over that time. Moreover, these subsidies stand as stark testimony of the willingness of lawmakers to suspend disbelief, and cling to implausible claims of economic growth as a justification for conferring benefits to capital owners. It is as if policymakers will endorse any proposal that purports, however speculatively, to boost economic growth. If a proponent says with a straight face that a proposal will boost economic growth – $\Delta g > 0$ in Piketty-speak – then private investors are given the blessings of enjoying fabulously high rates of return on their capital. That is the crux of the Piketty problem: as long as an argument is made that $\Delta g > 0$, then very high rates of return to private capital go unquestioned. There is often really no assurance that $\Delta g > 0$, or that policy will really pay for itself by inducing economic growth.

\textbf{D. Grandfathering}

There is perhaps no more pervasive subsidy propping up returns to capital than the common practice of grandfathering, or more generally "transition relief." New regulations often exempt existing regulatory targets in a variety of ways and to varying degrees. In environmental law, pollution sources or land uses may have a grace period from application of a new regulation, be subjected to a lower standard of compliance, offered some compensation for new regulation, or be exempted

\begin{itemize}
  \item \textsuperscript{189} Fossil fuels impose costs on others that are not fully taken into account by the fossil fuel industry or by consumers of fossil fuels, and are thus "external" to both. These costs can outweigh, sometimes very greatly, the pecuniary costs of producing energy. See, e.g., Anthony D. Owen, \textit{Renewable Energy: Externality Costs as Market Barriers}, 34 \textit{ENERGY POL'Y.} 632, 632-33 (2006); Tom Tietenberg & Lynne Lewis, \textit{ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS} 167 (10th, ed., 2012).
  \item \textsuperscript{190} CRS Report, \textit{supra} note 174, at 2.
\end{itemize}
altogether or indefinitely, or any combination of these techniques. It seems that it has especially been the case in environmental law that lawmakers worry about negative impacts on capital, and have tried to avoid reducing returns to private capital.

The normative discussion on grandfathering has been largely efficiency-oriented, centering on a discussion of how to allocate the "costs of legal transitions." A variety of concerns over grandfathering suggest that it introduces inefficient distortions, and by implication, reducing economic growth. Grandfathered status also represents an asset to incumbents holding them, and a barrier to entry for new entrants. This would have the ironic effect of slowing capital turnover delaying the achievement of the policy goals. Such a dynamic effect has the dual effect of


192 Huber, supra note 191, at 127 ("Both state and federal lawmakers have shied away from imposing the enormous costs associated with the mandatory retrofit, upgrade, or retirement of in-use diesel trucks... ").


194 Saul Levmore, Changes, Anticipations, and Reparations. 99 COLUM. L. REV. 1661, 1661-65 (1999) (arguing that it usually the private regulated party that is better able to anticipate change, and that grandfathering therefore represents a distorting subsidy); Nash & Revesz, supra note 191, at 1725 (noting that regulatory targets might, in anticipation of transition relief, have less incentive to anticipate foreseeable legal changes, for example, as a result of emerging public health or safety concerns.); Nash, supra note 191, at 811; Shi-Ling Hsu & James E. Wilen, Ecosystem Management and the 1996 Sustainable Fisheries Act, 24 ECOL. L. Q. 799, 810 (1997) (noting that if transition relief is pegged to historical baselines, the anticipation of new regulation may cause regulatory targets to boost their baselines in the hopes of securing a larger share of the impending transition relief.);


196 See, e.g., John A. List, Daniel L. Millimet & W. Warren McHone, The Unintended Disincentive in the Clean Air Act, 4 ADV. ECON. ANAL. & POL’Y, Article 2, 14 (2004); Randy
boosting returns to private capital and, by rewarding inefficient incumbents and penalizing efficient new entrants, reducing economic growth. Finally, grandfathering has an \textit{ex ante} effect of inefficiently stimulating the formation of capital by insuring against regulatory interference or obsolescence. An important component of risk facing new capital is the risk of premature obsolescence, due to regulatory action, to the emergence of superior alternatives, or due to some other unexpected shock. By insuring capital investors against this risk, even partially, grandfathering inefficiently inflates returns to private capital and induces over-investment in capital.\(^{197}\)

And yet, grandfathering is ubiquitous. Zoning laws commonly allow existing "non-conforming uses" to persist through a zoning change rendering it illegal, at least until there is some significant change to the property, such as a fire.\(^{198}\) Emissions standards for passenger vehicles are periodically tightened to require lower tailpipe emissions, but existing vehicles are only required to be inspected periodically for the worst emissions, and even then owners are only required to expend fairly minor sums of money to alleviate their vehicle emissions.\(^{199}\) Heavy-duty diesel engines, which are far more harmful and durable than passenger vehicle engines, are not required by federal law to comply with 2001 emissions standards if they were in use when the new regulation was promulgated.\(^{200}\) When Congress first required the registration of pesticides in 1972,\(^{201}\) it required that compensation, at fair market value, be paid to manufacturers of existing pesticides if those pesticides were cancelled or suspended under the new standards.\(^{202}\) More than half of all states have a "prior appropriation" means of distributing water rights that allocates water rights to first-users.\(^{203}\) In times of water scarcity, prior appropriation rights exclude all others, including conservation uses.\(^{204}\) More importantly, for our purposes, transition relief was made to mimic the

\begin{thebibliography}{9}
    
    
    197 Hsu, supra note 11, at 760-64.
    
    
    199 Huber, supra note 191, at 127.
    
    
    
    202 FEPCA §15
    
    
    204 Id.
\end{thebibliography}
expectations of capital owners in the form of their hoped-for stream of benefits, with effect of propping up returns to private capital (Piketty's $r$). So common is the provision of at least some transition relief\footnote{Maria Dimon, Daniel Cole, Thomas Sterner, and Elinor Ostrom, Grandfathering, Indiana University, Bloomington School of Public & Environmental Affairs Research Paper No. 2012-11-03 (2012), available at SSRN: \url{http://ssrn.com/abstract=2182573}.} that potential regulatory targets (such as polluters) can confidently count on it to partially insure against changes in legal rules that might jeopardize their capital.\footnote{Nash & Revesz, supra note 191, at 1726 ("[w]hen the government enacts a new legal regime with transition relief, it sends a signal to society at large that, in general, changes in legal standards will not govern existing actors.").} Transition relief has made the obsolescence and external costs of capital everybody's problem except the owners of that capital.

Why do we grandfather? In large part, an intuition about fairness makes it discomfiting to change the rules of the game on someone making a large investment in capital. The instinct to grandfather also hearkens back to concerns of regulatory uncertainty inefficiently stifling capital investment. The regular practice of grandfathering is an assurance that rules governing the operation of capital will not change arbitrarily. It has been argued in favor of grandfathering that regulatory bodies, not capital investors, are in a better position to anticipate new regulation.\footnote{See, e.g., W. Kip Viscusi, The Dangers of Unbounded Commitments to Regulate Risk, 135-140, in RISKS, COSTS, AND LIVES SAVED (R.W. Hahn, ed., 1996).} But to the extent that new regulation is meant to address changing market conditions and emergent harms of some product or process, it would seem to be the capital investors themselves that have the best information about their products or practices. It does not seem onerous for capital investors to undertake the due diligence of vetting the soundness of their investment on many dimensions, including its social costs. For example, as many chemicals used in hydraulic fracturing are known only to the oil or gas company using them,\footnote{Hannah Wiseman, Risk and Response in Fracturing Policy, 84 U. COLO. L. REV. 729, 763-64 (2013).} it would seem anomalous to require some assurance from a regulatory body that there will be no interference with their use.

Grandfathering represents perhaps the starkest example of how legal rules and institutions have implicitly assumed the role of promoting and protecting capital. Small wonder that $r > g$; the ubiquity of grandfathering has elevated it to near norm status. A misguided instinct for fairness towards capital owners has diverted attention not only from other stakeholders impacted by capital, but from the larger question of the role of capital in a competitive economy.
E. Electric Utility Regulation

There is an area of American law that comes close to undertaking the dual analyses of returns to private capital and economic growth that I advocate in this review. Electric utility regulation in the United States (in the states where electricity generation remains regulated, which is most of them) treats electricity generation as a "natural monopoly," and grants generators the sole right to generate and sell electricity within a specified territory. However, the nature of utility regulation is that these sanctioned monopolists can only charge rates approved by a state commission or the Federal Energy Regulatory Commission ("FERC," in the case of interstate or wholesale electricity sales). Generally, rates are permitted in accordance with the formula

\[ R = O + B \cdot r \]

where \( R \) is the total allowed revenues (to be divided up among ratepayers), \( O \) is the allowed operating expenses, \( B \) is the company's "rate base," all those capital assets from which the company is permitted to earn a return, and \( r \) is the permitted rate of return. What is allowed to be included in the rate base is also a matter of commission adjudication, which must strike a balance between customers' interests in minimizing electricity rates (and therefore minimizing the rate base) and the utility's interest in passing through as much cost as possible to customers (and therefore maximizing the rate base). Commissions are guided by standards for when an asset such as a generating station can be included in the rate base: investments must be "prudently incurred," and must be "used and useful." It is expected that
commissions will allow utilities a return on capital that is less than what a monopolist would earn, but more than the average cost of capital.\(^{215}\)

This process is admirably explicit in its consideration of two competing concerns: consumer welfare and returns to private capital (for the utility). However, there is good reason to suspect that utilities have held an advantage in being able to "stuff" excess capital into their rate bases, and pass costs through to ratepaying customers. The "Averch-Johnson effect\(^{216}\) posits that regulated utilities will utilize more capital (as opposed to labor, which cannot be included in the rate base) than a cost-minimizing firm would utilize.\(^{217}\) This is a less efficient allocation of inputs than a cost-minimizing firm would make, and passes that inefficiency along to ratepayers in the form of higher rates. But it results in higher returns to private capital for shareholders of the utility (assuming it is an investor-owned utility). Empirical studies have generally confirmed this result, though not unambiguously.\(^{218}\)

It could be that as a matter of administrative law, there exists an inherent bias predicted by Averch and Johnson. However, for purposes of this Review, it is more important to notice that the administrative lawmaking surrounding rate base cases seems to tilt towards concern with returns to private capital and away from concern with ratepayer welfare. Several cases arose in the 1980s in which utilities sought to include in their rate base nuclear power plants that, while "prudent" at the time of investment, had become unnecessary in light of conservation measures that had sharply reduced electricity demand. In *Jersey Central Power & Light Co. v. Federal Energy Regulatory Commission*, the court held that FERC was required to make a finding as to whether it was "just and reasonable" to exclude the unamortized portion of a nuclear power plant from the rate base if it caused the utility to become financially distressed.\(^{219}\) The majority opinion, parenthetically, was delivered by none other than Judge Robert Bork, who had already made his mark on antitrust law in


arguing for a "total efficiency" test for anticompetitive conduct. But the more illuminating opinion was authored by Judge Starr, in concurrence, in which he tracks a body of jurisprudence and documents its departure from the "used and useful" standard which served for decades to discipline utilities and regulatory commissions against an Averch-Johnson bias. In counseling against the "ill-conceived and overly broad attack on the 'used and useful' principle," Judge Starr nevertheless emphasizes the need for balancing the interests of ratepayers and of investors, and concludes that this case called for greater attention to investor interests.

On a similar set of facts, in In re Limerick Nuclear Generating Station, the Pennsylvania Public Utility Commission similarly allowed the inclusion of an extraneous nuclear power plant into its rate base even though it was not "used and useful," because it was, at the time of investment, "prudently incurred." The case, one of only a few cases that even mention the Averch-Johnson effect, seemed utterly dismissive of a fairly developed and sophisticated body of research:

This concept, developed in the early 1960s, maintains that the utilities will invariably seek to overbuild their systems.... The Averch-Johnson phenomenon is no longer applicable. Even if it did apply in the early 1960s, there is little current credibility to the A-J phenomenon given the current depressed financial condition of the industry.

It is not my contention that these cases are wrongly decided. However, I do contend that the administrative lawmaking of utility regulation has gravitated towards a greater concern for rates of return on private capital, in large part through the erosion of the "used and useful" test. Over time, it seems that returns to private capital receive greater consideration than more general concerns of consumer welfare, capital productivity, or economic well-being.

It is worth remembering that most electricity generation remains regulated in spite of a push in the 1990s to deregulate electricity markets. When electricity deregulation was introduced as a liberalization measure to reduce electricity prices, it drew nearly

220 810 F.2d at 1188-1194 (Starr, J., concurring).
221 810 F.2d at 1188.
222 810 F.2d at 1191.
223 810 F.2d at 1193.
unanimous approval. Almost all of the parties, from integrated electric utilities to consumer groups to rural electric cooperatives, agreed: electricity deregulation could work, if done properly (their way).227 But when proposals became concrete and winners and losers became tangible, opposition hardened228 and put an abrupt halt to deregulation in most states.229

This is the nature of the bias in favor of capital. Capital represents concrete, identifiable interests, which juxtapose strongly against broader, less identifiable, economically inchoate interests, resulting in a bias in favor of capital, and systemically greater emphasis on returns to private capital. Utilities law, as an example of this bias, has thus paid far more attention to the owners of capital than to the welfare of its ratepayers or any other broader public interest.

IV. Zooming Out: Why Do These Laws Come About?

A slightly different version of Piketty's story has been told before. In The Rise and Decline of Nations,230 the late economist Mancur Olson described a one-way ratchet of increasing unemployment, stagflation, and the ultimate economic decline of nations.231 Over time, Olson argues, a country with a stable political environment allows special interest groups to develop. Special interest groups exist only to engage in rent-seeking – the achievement of favorable government policy that secures above-normal rents for members of the special interest group.232 Why else would members of special interest group pay dues, unless they expect the group to obtain benefits they could not obtain themselves as individuals?233 Drawing upon Olson's earlier magnum

229 Fifteen states have either fully deregulated or are in the process of deregulating electricity markets, while seven have suspended their deregulation plans. U.S. Department of Energy, Energy Information Administration, Status of Electricity Restructuring by State (September, 2010), available at: http://www.eia.gov/cneaf/electricity/page/restructuring/restructure_elect.html. The remaining states are not actively considering electricity deregulation at all.
231 OLSON, supra note 230, at 181-237.
232 OLSON, supra note 230, at 41-47.
233 OLSON, supra note 230, at 41-47.
HSU – RISE AND RISE OF THE ONE PERCENT

opus, The Logic of Collective Action, how else can one even explain the existence of special interest groups, given the potential for within-group free-riding?

The provocative result of Olson's work is that this decline is almost inevitable. Over time, special interest groups form, they secure enough above-normal wealth, and what is left over is below-normal wealth for everybody else. Once special interest groups gain a foothold, their influence over policy grows, and their gains at the expense of society cumulate. Exceptions to inexorable decline exist, but are uncommon. A large and sudden shock from a trade liberalization might scramble the economic order faster than special interest groups can form or mobilize. Or, disruptive technologies might lead to a creative destruction. But absent such serendipitous shocks, the die is cast. While Olson is primarily concerned with allocative inefficiency and Piketty with distributive effects, it is striking to notice the parallels of their theses. Both see a one-way ratchet, not a cycle. Both see their stories as mostly inevitable, checked only by random, infrequent, exogenous shocks. But why, save for the few exceptions, should spirals be inevitable? Why can't developed countries stave off the tyranny of special interest groups and periodically re-invent their economic identities? In Piketty-world, why can't the ninety-nine percent rise up in electoral anger and smite down the one percent?

There is one answer for both Olson's and Piketty's puzzles. In both cases, a narrow segment of society – Piketty's one percent and Olson's special interest groups (though there is clearly overlap) – garner above-normal rents, use them to invest in capital, and then use legal rules and institutions to protect that capital. This has the effect of both widening wealth inequality and blocking reform. For Piketty, the missing piece was the use of law to secure outsized rents for the one percent, while for Olson, the missing piece was the use of law to protect capital, developing an elaborate legal super-structure around it to protect it from changes in its legal or economic environment. The legal system is used in Piketty's world to obtain capital and in Olson's world, to protect capital from regulatory interference and reform. As a matter of political economy, these sorts of provisions are easy to obtain. For example, Boris Bittker predicted in 1955 the emergence of a trend that:

though leaderless and planless, may become an almost irresistible movement for a taxpayer's option to deduct capital investments, either

235 OLSON, supra note 230, at 137.
236 OLSON, supra note 230, at 61-65. JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 83 (Taylor & Francis e-Library 2003 ed. 1942). "Creative destruction" is the term coined by Joseph Schumpeter to describe how new innovations replace the old.

39
Governments at all levels have demonstrated an inclination to use "carrots" instead of "sticks" to achieve policy goals, and the carrots frequently take the form of some capital promotion or protection. Scattered throughout the Internal Revenue Code are carrot-like provisions that lower the cost of private capital or increase the returns to private capital. This two-staged exploitation of the legal system has the dual effects of exacerbating wealth inequalities and grinding legal and economic reform to a halt.

Of course, capital is not always just a vehicle for private greed. There are many legitimate, welfare-enhancing reasons for boosting returns to private capital. First, capital and labor are almost always complementary to some extent. Activating capital will usually create jobs. Most policymakers can find capital-labor complementarities in a variety of settings (for legislators, most commonly in their district), and much lawmaking is thus oriented towards the creation of jobs, which is accomplished indirectly through the creation of capital. Second, policymakers widely believe that political and regulatory uncertainty inefficiently suppresses capital formation, so that protecting capital from the whims and caprices of regulators and politicians is economically efficient. Finally, it is true that capital produces positive externalities; exactly how much is usually uncertain. But unlocking critical markets may generate consumer surplus well in excess of a capital-promoting government expenditure.

As I have written in another article, these policy considerations in favor of promoting capital are valid, but are commonly over-emphasized relative to the downsides of

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240 The Cobb-Douglas production function, which every economics student learns about in undergraduate economics, posits production as a function of the quantity and productivity of just two types of inputs: labor and capital. Charles W. Cobb & Paul H. Douglas, *A Theory of Production*, 18 (supplement) AM. ECON. REV. 139 (1928). The now-familiar Cobb-Douglas formulation, \( Y = AL^aK^b \), with \( Y \) representing output, \( L \) representing labor, and \( K \) representing capital, is a foundational relation in economic theory.
The operation of capital may have latent externalities (for example, adverse environmental effects) that may not be fully appreciated by either capital investors or regulators at the time of capital acquisition. Capital could also have a latent inefficiency; some capital becomes obsolete quickly. But the potential for these latent downsides are rarely scrutinized carefully, and receive much less attention than the alleged upsides. This asymmetry in attention has created a built-in bias in legal rules and institutions favoring the formation and protection of capital, leading to an overabundance of capital in some markets. It is an inefficient bias because while the benefits of capital formation are readily apparent, the latent externalities and inefficiencies of that capital are not, with the result that the social costs of ill-formed capital are suboptimally high. For purposes of this review, a pro-capital bias is noteworthy because while it boosts returns to private capital, there is usually little assurance that it will do much for boosting economic growth.

V. A Force of Convergence: Education

Any examination of the causes of wealth inequality must at least acknowledge the role of education. Piketty makes clear that he believes that education plays a central role in compressing wealth inequality. He also acknowledges that educational systems, especially higher education, are in need of reform.

Formal education, job-related skills, and some other forms of useful knowledge are often referred to as "human capital." While human capital is most easily understood as formal schooling or on-the-job training, there are many forms of human capital, some of them informal. Microsoft co-founder Bill Gates and Apple co-founder Steve Jobs, both college dropouts, owe a considerable amount of their success to informal human capital they acquired at early, formative stages of life.

242 Hsu, supra note 11, at 720-22.
243 Hsu, supra note 11, at 744-60 (describing overabundance of capital in oil and gas, mining, and electricity industries).
244 Piketty, supra note 2, at 313.
245 Piketty, supra note 2, at 483-84.
246 GARY S. BECKER, A THEORETICAL AND EMPIRICAL ANALYSIS, WITH SPECIAL REFERENCE TO EDUCATION 17 (1994).
247 For example, Becker's original empirical work focuses on the measurable benefits of schooling and on-the-job training. BECKER, supra note 253, at 17-21.
248 MALCOLM GLADWELL, OUTLIERS: THE STORY OF SUCCESS 15-22 (2008) (describing the unusual early opportunities that Gates had to work on computer programs. For example: "[t]hose five years, from eighth grade through the end of high school, were Bill Gates's Hamburg, and by any measure, he was presented with an ... extraordinary series of opportunities...." Id, at 18.); WALTER ISAACSON, STEVE JOBS 3-20 (2011).
Human capital is absolutely vital to economic growth. Productivity is observed to be clearly, consistently and significantly greater in the presence of human capital.249 Fundamentally, economic growth occurs because either latent markets are opened up or because innovation expands an economy's production possibility frontier.250 Human capital drives innovation, which is itself an engine for economic growth, but also facilitates the adoption of new technologies, as higher-skilled workers with richer human capital are more able to adapt to changes in technology.251 Better still, human capital can produce knowledge spillovers, as interactions among skilled individuals generate mutually beneficial enhancements to human capital.252 In addition, the widespread dissemination of human capital is generally a force of convergence. Human capital is a resource that has the potential to compensate for a lack of wealth. This potential for human capital is enormous: the late Nobel Laureate Gary Becker, who pioneered work on human capital, estimated that the value of the stock human capital was perhaps four times that of physical capital.253 So human capital plays a dual role in compressing inequality: by boosting \( g \), economic growth, and also by compensating for a lack of wealth.

Human capital tends to be undersupplied relative to physical capital for two reasons. First, from an individual viewpoint, human capital is a riskier investment than an investment in physical capital. If an expected return on physical capital such as a hot dog stand is equal to the expected return on human capital such as a bachelor's degree

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253 Gary S. Becker, *A Theoretical and Empirical Analysis, with Special Reference to Education* 17 (3d ed., 1993) ("Education and training are the most important investments in human capital.").
in English, a risk-averse individual would be more inclined to invest in the hot dog stand. That is because human capital cannot be bought or sold like physical capital can, so diversifying a capital stock requires more time and resources normally available to an individual. By contrast, the transferability of physical capital means that an individual does not need to diversify. A hot dog stand in a diversified economy has a positive salvage value; it can always be sold. But an education cannot; it is "stuck" to the individual having it. All other things being equal, individuals would choose the less risky, physical capital. Second, human capital is undersupplied because it confers positive externalities in a way that physical capital generally does not: human capital is knowledge, and the greater the stock of knowledge the greater the knowledge spillovers, and the higher the rate of accumulation of more knowledge. Knowledge begets more knowledge, and does so more easily if there is more knowledge to begin with. Unfortunately, the political economy of human capital development is generally not favorable.

How then, can human capital be created and mobilized to become a force of convergence? Whatever the answer is, it will require spending money. In the United States, funding for education uncontroversitely lags. The fact that money is poorly spent in some places has become a political bludgeon, and education virtually everywhere has suffered, at all levels. Perhaps most prominently, funding for primary and secondary public schooling is almost certainly too low. Educational and human development research now produces a near-consensus that early childhood learning is at least as important, and probably more important than, learning occurring

255 Supra note 254, at 950.
256 Acemoglu & Angrist, supra note 251, at 10-11; Heckman, supra note 252, at 5 ("Early learning begets later learning...")
Skills beget skills and learning begets learning, so that the earlier in life an individual acquires skills (i.e., forms human capital), the more likely she is to build on those skills to acquire other skills. If resources are scarce, then the best investment of government dollars for human capital promotion would target young children for early childhood learning and social skill development, not older workers for job retraining.

Economists Claudia Goldin and Lawrence Katz argue in their book, *The Race Between Education and Technology* (which Piketty cites with approval), that American economic dominance of most of the twentieth century was a product of its extraordinarily egalitarian and compulsory public schooling, which created a broadly educated work force that was able to adapt to a changing technological environment. Apart from generating outsized returns for female students and African-American students, compulsory free public schooling generated positive network effects by lifting up an entire populace. The failure of the United States to replicate this educational boost for the latter part of the 20th century is, as Goldin and Katz argue, a large part of the country's economic underperformance over this same period.

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260 "[A]n explosion of research in the neurobiological, behavioral, and social sciences has led to major advances in understanding the conditions that influence whether children get off to a promising or a worrisome start in life." FROM *NEURONS TO NEIGHBORHOODS: THE SCIENCE OF EARLY CHILDHOOD DEVELOPMENT* (Jack P. Shonkoff and Deborah A. Phillips, eds., 2000).

261 Heckman, *supra* note 252, at 5 ("Early learning begets later learning...").

262 Heckman, *supra* note 252, at 5-6.


267 GOLDIN & KATZ, *supra* note 264, at 78 (Table 2.5, showing higher returns for education for women for college and business school, but not high school).


Tax laws work to the disadvantage of higher education, vis-à-vis physical capital. Tuition is not deductible, but cost of acquisition of physical capital is.\textsuperscript{271} Several tax credits and deductions were made available as part of the American Recovery and Reinvestment Act of 2009,\textsuperscript{272} but amount to no more than $2,500 per student from qualifying families, or a similarly modest tax deduction for non-qualifying families.\textsuperscript{273} The late economist and human capital pioneer Theodore Schultz complained:

\begin{quote}
Our tax laws everywhere discriminate against human capital. Although the stock of such capital has become large and even though it is obvious that human capital, like other forms of reproducible capital, depreciates, becomes obsolete, and entails maintenance, our tax laws are all but blind on these matters.\textsuperscript{274}
\end{quote}

Fundamentally, the Internal Revenue Code simply does not recognize human capital as capital. In part, it may be because of a prosaic problem: what would be the amortization period for a college degree? Still, even an implausibly long amortization period, say the average lifetime of a taxpayer obtaining a college degree, is better than no deduction at all. As opposed to routine deduction of the costs of acquiring physical capital, educational expenses are deductible in only some very narrow circumstances. Tellingly, educational expenses are deductible if incurred under circumstances in which the education is likely to enhance private returns. IRS Regulation 1-162-5 will allow educational expenses to be deducted if the education “maintains or improves skills required by the individual in his employment or other trade or business.” But if it is general learning or education, then it is a non-deductible personal expense.\textsuperscript{275} Nor are educational expenses deductible if the education is required to meet the “minimum educational requirements of a business or trade.” So the expenses of a J.D. degree are

\begin{quote}
274 Theodore W. Schultz, \textit{Investment in Human Capital}, 51 Am. Econ. Rev. 1, 13 (1951). It is true that higher education is financed by foregone earnings, which are not taxed, suggesting that perhaps acquiring human capital should not enjoy a tax benefit. Michael J. Boskin, \textit{Notes on the Treatment of Human Capital}, NBER Working Paper 116 (1975). However, especially in this era of high tuition, tuition is likely to be a larger cost than foregone earnings.
\end{quote}
not deductible, but for a practicing tax lawyer that has already passed the bar exam, an
L.L.M. degree in tax is deductible.276 Similarly, education to qualify for a new trade or
business is non-deductible. So persons finding themselves in an obsolete trade or
business are discouraged from retooling and shifting into a new trade or business. One
would think that it would be desirable to incentivize a labor force to be adaptive to
new developments, but the tax law is evidently not the vehicle for doing so. It does the
opposite.

While this review does not purport to be a manifesto or a treatise on educational
reform, it highlights the reasons for prioritizing funding for education at all levels.
Human capital is generally undersupplied in any case. But more pertinent to this
review, if one shares Piketty's concern over inequality, then it is clear that the
development of human capital is critical. It is difficult to figure out how to boost
economic growth, but one necessary (not necessarily sufficient) condition is the
development of a strong base of human capital. If resources are scarce, then spending
government resources to boost returns to private capital in the hopes that there will
also be resultant economic growth, will generally be a more fanciful proposition than
simply funding education.

VI. Conclusion

The problem with the inequality debate is that arguments advocating or opposing
wealth redistribution usually take on the nature of an accounting dispute. If
redistriptionists argue that the top one percent earn almost 20 percent of the country's
taxable income, the top one percent can counter that they also pay 35 percent of the
country's income taxes.277 The point isn't whether the rich are "paying their fair share"
of taxes. There is no fair share. There are only value choices about wealth distribution.

Piketty's proposed global wealth tax is a responsive and efficient way of combating
the forces of divergence, but there are a number of political predicates and obstacles
that render such a proposal improbable for the near-term. This review offers an
alternative. I urge a closer examination of legal rules and institutions for their separate
effects on returns to private capital, and their contribution to economic growth. It
seems that up to this point, a legal rule is considered desirable if it is believed to
contribute positively to economic growth. If so, the returns to private capital are not
questioned. This approach suffers from two problems. First, it runs the substantial risk

276 I am indebted to my colleague Steve R. Johnson for this example.
277 Kevin McCormally, Where Do You Rank as a Taxpayer? Kiplinger, January 17,
of producing false positives. Legal rules or policies usually have interested proponents, and under Mancur Olson's view, if the proponents are special interest groups, the proffered rule or policy is likely to produce supranormal rents for members of that group but reduce overall welfare. There are strong incentives to present a very optimistic projection for economic growth under the proffered rule or policy. Second, it is important not to ignore returns to private capital. What Piketty's work illustrates is that for a proposed rule or policy, separate evaluations should be made of its effect on returns to private capital and its effect on economic growth. The latter determination is very challenging, but some attempt would be superior to the current approach of essentially trusting private businesses to make that determination, or that private wealth inevitably trickles down to the less wealthy. In addition to applying a new test to prospective changes in law, it seems desirable to revisit some past changes, comparing them against prior rules as a baseline. In particular, revisiting antitrust laws and some of the financial sector deregulations might be fruitful.

Finally, this review calls for a refocus on human capital as an alternative to the kinds of non-human capital that serve as the focus of Piketty's book. The federal government spends about $107 billion on education in the United States; that sum is about one-fifth of the outlays for Medicare, and one-eighth of that of Social Security. Providing funding for education is necessary but not a sufficient condition for economic growth. But adequate funding is a necessary condition; we can be certain that economic growth will not occur without proper funding.

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