Reviews and discussions of Thomas Piketty (trans. Arthur Goldhammer), *Capital in the Twenty-First Century* (Belknap Press of Harvard University Press, 2014): Doug Henwood, James K. Galbraith, Robert Paul Wolff, Paul Krugman, Robert M. Solow, Mike Konczal, Thomas Frank, Seth Ackerman, Mike Beggs, David Harvey

"The Top of the World," *BookForum* (April/May 2014)
An ambitious study documents the long-term reign of the 1 percent

By Doug Henwood

The core message of this enormous and enormously important book can be delivered in a few lines: Left to its own devices, wealth inevitably tends to concentrate in capitalist economies. There is no "natural" mechanism inherent in the structure of such economies for inhibiting, much less reversing, that tendency. Only crises like war and depression, or political interventions like taxation (which, to the upper classes, would be a crisis), can do the trick. And Thomas Piketty has two centuries of data to prove his point.

In more technical terms, the central argument of *Capital in the Twenty-First Century* is that as long as the rate of return on capital, r, exceeds the rate of broad growth in national income, g—that is, $r > g$—capital will concentrate. It is an empirical fact that the rate of return on capital—income in the form of profits, dividends, rents, and the like, divided by the value of the assets that produce the income—has averaged 4–5 percent over the last two centuries or so. It is also an empirical fact that the growth rate in GDP per capita has averaged 1–2 percent. There are periods and places where growth is faster, of course: the United States in younger days, Japan from the 1950s through the 1980s, China over the last thirty years. But these are exceptions—and the two earlier examples have reverted to the mean. So if that 4–5 percent return is largely saved rather than being bombed, taxed, or dissipated away, it will accumulate into an ever-greater mass relative to average incomes. That may seem like common sense to anyone who's lived through the last few decades, but it's always nice to have evidence back up common sense, which isn't always reliable.

There's another trend that intensifies the upward concentration of wealth: Fortunes themselves are ratcheting upward; within the proverbial 1 percent, the 0.1 percent are doing better than the remaining 0.9 percent, and the 0.01 percent are doing better than the remaining 0.09 percent, and so on. The bigger the fortune, the higher the return. Piketty makes this point by looking not only at individual portfolios but also (and ingeniously) at US university endowments, for which decades of good data exist. The average American university endowment enjoyed an average real return—after accounting for management costs—of 8.2 percent a year between 1980 and 2010. Harvard, Yale, and Princeton, in a class by themselves (with endowments in the \$15–\$30 billion range), got a return of 10.2 percent a year. From that lofty peak, the average return descends with every size class, from 8.8 percent for endowments of more than \$1 billion down to 6.2 percent for those under \$100 million. In short: Money breeds money, and the more money there is, the more prolific the breeding.

It was once believed, during the decades immediately following the Great Depression and World War II, that vast disparities in wealth were features of youthful capitalism that had been left behind now that the thing was reaching maturity. This theory was first enunciated formally in a 1955 paper by the economist Simon Kuznets, who plotted a curve representing the historical course of inequality that looked like an upside-down *U*: Kuznets's chart showed that disparities in wealth rose dramatically during the early years of growth and then reversed once a mature capitalist economy reached a certain (though none-too-specific) stage of development.

Kuznets's curve fit nicely with the actual experiences of the rich economies in what the French call the *Trente Glorieuses*, the "thirty glorious years" between 1945 and 1975, when economic growth was broadly shared and income differentials narrowed. In the United States, according to the Census Bureau's numbers (which have their problems—more on that in a moment), the share of income claimed by the top 20 percent—and within that group, the top 5 percent—declined during the glorious years. At the same time, the income of the remaining 80 percent gained.

But in the United States, the thirty glorious years were actually twenty-odd years; depending on how you measure it, the equalization process ended sometime between 1968 and 1974, again according to the census figures. Still, quibbles aside, the process of relative equalization went on for long enough that it felt like Kuznets was on to something with his curve. I say "relative" because these are still not small numbers: The richest 5 percent of families had incomes about eleven times those of the poorest 20 percent in 1974, the most equal year by this measure since the census figures started in 1947. But that number looks small now compared with the most recent ratio, almost twenty-three times in 2012.

While those census numbers—and similar statistical efforts based on surveys of households elsewhere in the world—are useful in outlining broad trends, they have a few serious problems. Most important, they don't account for the very rich, a topic of extreme voyeuristic and political interest. Plutocrats do not answer surveys. The Federal Reserve does a triennial Survey of Consumer Finances that makes special efforts to cover the rich, but by design the members of the Forbes 400 are excluded—for reasons of privacy, according to the survey's documentation. For serious analysis of the seriously rich, one needs to look at tax data, which is what Piketty (and his sometime collaborator Emmanuel Saez) has done.

Piketty's study is largely confined to a handful of rich countries—the United States, Britain, France, Germany, and Japan. These economies have the best data over the longest period of time—and besides, if you're studying wealth, these are the countries where the moneyed have disproportionately lived. The French data is particularly detailed, because the French Revolution instituted an elaborate registry of property. The French didn't do much to redistribute wealth—it was, after all, a bourgeois revolution—but they did a lot to catalogue it.

Most rich countries introduced income taxes in the early twentieth century, which made it possible to study the volume and structure of incomes with some precision and detail. But it's possible to journey further into the past for estimates of aggregate incomes and of the value of the capital stock. And indeed, much of *Capital in the Twenty-First Century* is devoted to outlining the contours of the value of that capital stock relative to incomes—an effective way of analyzing capital's relative heft over time. For Britain and France, the total value of the capital stock—owned, as is almost always the case, largely by the 1 percent (whether aristocrats or members of the bourgeoisie, whether it's France in 1780 or the United States in 2014)—was about seven times national income from 1700 until around 1910. (National income, roughly speaking, is the sum of all forms of income in a given economy—wages, profits, interest, dividends, and so on.) With two world wars and a depression, the capital stock fell to about three times national income. (Curiously, Piketty notes that the monetary destruction of paying for war through taxes and inflation did more damage to the capital stock than the physical destruction of combat itself.) It began to recover around 1950, but was inhibited by extremely high tax rates in the first postwar decades. As of 2010, the capital stock had recovered to between five and six times national income in Britain and France. Data begins later for Germany, but the pattern isn't dissimilar: a stock of capital about seven times national income in 1870, hammered down to just over two times in 1950, and a recovery to four times in 2010. The trajectory for the United States is much less dramatic: A capital stock of around three times national income in 1770 rose steadily to five times on the eve of the Great Depression, fell to about four times in 1940, but began recovering quickly, rising back steadily toward five times in 2010. The Second World War did little damage to the American rich, who largely inherited Britain's empire with the coming of peace and the Yalta accords in 1945.

Many interesting details emerge in Piketty's treatment of US economic history. Despite our distinction as the most unequal of the major economies today, America was a relatively egalitarian place (for white people) in the nineteenth and early twentieth centuries. But, speaking of white people, the liberation of the slaves after the Civil War was probably the greatest expropriation of capital in history. If one counts slaves as wealth—which, grotesquely, was how American society defined them from the country's founding through 1865—their value was about 150 percent of national income throughout the slavery era. And practically overnight, with Lincoln's 1863 Emancipation Proclamation, they were no longer someone's property.

After that, though, America largely lost its expropriating nerve. Not entirely so, however: Piketty reports that it was politically easier for America to institute the income tax in 1913 than it would be in European economies, given residual populist resentment of the rich. That, and endless waves of immigration, which continuously upset the economic hierarchy, kept the United States more egalitarian than Europe into the 1970s. From that point on, although the rich got richer nearly everywhere, the United States became the affluent world's undisputed inequality champ. It's also more unequal than lots of "emerging" countries, such as China and India.

Remarkably, despite those broad gyrations over the last two centuries, many continuities stand out in Piketty's historical narrative. One is the stability in the rate of return on capital—the same 4–5 annual percentage, decade in and decade out. Another is the preponderance of that magic 1 percent figure, which seemed like a polemical simplification in the Occupy days, but clearly has an actual historical basis.

But something *has* changed within that 1 percent: While it was once dominated by a population of rentiers, coupon clippers who barely worked if at all, it is now dominated, especially in the United States, by a group of star CEOs and financiers who flatter themselves that they're being paid for their extraordinary talents.

Economics as a discipline loves stories about equilibrium and convergence. Vast inequities should, in theory, be "competed away," as neoclassical economics likes to say. But mostly they're not. Globally, poorer countries should gain on richer ones as technology and education spread and mobile capital's search for higher returns makes the poor less poor. That has happened to some degree, but rapidly developing economies such as India and many African nations remain much poorer than the United States or Western Europe. In the case of personal wealth, old fortunes should decline and be replaced by new ones, just as manual typewriters were replaced by electric ones, and electric typewriters were superseded by computers. But in fact old money is remarkably persistent. Yes, we've seen the creation of a large number of new fortunes over the last few decades, a change from wealth's dark days of the mid-twentieth century. Bill Gates is the son of a well-off lawyer who was nowhere near a billionaire; Mark Zuckerberg sprang from the loins of a dentist and a psychiatrist. They are the very picture of modern new wealth. But despite those new fortunes, inheritance remains very important. David Rockefeller, worth $2.8 billion at the age of ninety-eight, is number 193 on the Forbes 400. Overall, Piketty concludes, it's likely that half or more of the wealth of the upper orders originates in inheritance.

And though Piketty doesn't explore this, I've long suspected that a major force for the repeal of the estate tax in the United States has been that the billionaires of the neoliberal age—the tech and finance moguls, some famous, some barely known—have been thinking about their legacy. The scions of the second Gilded Age want to see their grandchildren on the Forbes 400, just like David Rockefeller is a ghost of the first Gilded Age. I'm less sure whether they want to see their names on traditional foundations—maybe more the entrepreneurial kind. But it's clear that the political salience of the "death tax" is a reflection of a cadre of fortunes of a sort that was long out of fashion.

Piketty's book could have done with a pruning. It is original and very important, and deserves a wide audience. But even a connoisseur gets winded after four hundred pages, much less six hundred plus. It's often wordy and repetitive. But it is not in any sense heavy going. The prose is clear, and there's a minimum of math—Piketty, a professor at the Paris School of Economics, has little taste for conventional (meaning mostly American) economics. Early on, he is critical of his discipline's "childish passion for mathematics" and its lack of interest in other social sciences or culture. He often refers to novels, particularly those by the likes of Austen and Balzac, that illuminate the world of wealth—something you'd never find in the latest number of the *American Economic Review*. And he takes passing swipes at prestigious US academic economists, who generally find themselves near the top of the income distribution and who, not coincidentally, believe that that distribution of income is just and efficient.

But the major frustration of the book is political. Piketty clearly shows that short of depression and war, the only possible way to tame the beast of endless concentration is concerted political action. The high upper-bracket tax rates of the immediate postwar decades couldn't have happened without serious fears among elites—fresh memories of the Depression, threats from strong domestic unions, competition on a global scale with the USSR, which, for all its problems, was living proof that an alternative economic system was possible. As those things waned, upper-bracket taxes were lowered, wages and benefits were cut, and capital's increased mobility led to increased competition among jurisdictions to offer a "favorable investment climate"—meaning weak regulations, low wages, and minimal taxes. All these trends have contributed to the concentration of capital over the last thirty years, as wealth and power have shifted upward on an enormous scale. None of these features will be reversed spontaneously. Nor will they be altered through "democratic deliberation"—several times Piketty notes the hefty political power of the owning class—or improved educational access, as Piketty actually urges at one unfortunate point. Brushing up the working class's skill set is no match for the power of $r > g$.

Starting with the title, the eternally recurrent specter of Marx hangs over this book. Early into the first page of the introduction, Piketty asks, "Do the dynamics of private capital accumulation inevitably lead to the concentration of wealth in ever fewer hands, as Karl Marx believed in the nineteenth century?" Phrasing the question as something grounded in the past is a nice distancing technique, as the psychoanalysts say, but the answer is clearly yes. Several times, Piketty disavows Marx—just a few lines later he credits "economic growth and the diffusion of knowledge" for allowing us to avoid "the Marxist apocalypse"—but he also concedes that those prophylactics have not changed capitalism's deep structures and the tendency for wealth to concentrate. It seems, in other words, that Piketty's own research shows that the old nineteenth-century gloomster had a point.

Unlike most modern economists, Piketty at least credits Marx's ambition and profundity. But for Piketty, the main problem with Marx is his unequivocal call for political confrontation. Having described a process of inexorable material polarization—and with it, increasing plutocratic power over the state—Piketty remains distressingly moderate as he sounds out some of the political implications of his analysis. A major reason for his posture of socialist skepticism, he declares, is that he came of age as Soviet-style Communism was falling apart, which left him "vaccinated for life against the conventional but lazy rhetoric of anticapitalism."

Anticapitalist rhetoric need not be lazy—and for all the empirical sophistication of Piketty's work, his political thinking is hardly a model of complexity or effort. He mostly aspires to contribute to rational democratic deliberation about "the best way to organize society."

Still, while such deliberation is clearly necessary, political action cannot be factored out of that process just because we happen to have lived through the Cold War's unmourned collapse. It's energizing to see that a younger generation of political intellectuals, who were in grade school when the Berlin Wall came down, missed the anticapitalist vaccination. They might be able to take Piketty's data and cause some genuine trouble with it. Because serious trouble—

demonstrations, strikes, insurgent political movements—is what it will take to derail capitalism's inevitable tendency toward concentration. Short of that, it looks like we'll be continuing our journey along the road to a new serfdom.

Doug Henwood is editor of the *Left Business Observer* and host of *Behind the News*, a weekly radio show originating on KPFA, Berkeley. He is working on a study of the American ruling class.

"*Kapital* for the Twenty-First Century?"
Dissent
By James K. Galbraith

Capital in the Twenty-First Century
By Thomas Piketty (trans. Arthur Goldhammer)
Belknap Press, 2014

What is "capital"? To Karl Marx, it was a social, political, and legal category—the means of control of the means of production by the dominant class. Capital could be money, it could be machines; it could be fixed and it could be variable. But the essence of capital was neither physical nor financial. It was the power that capital gave to capitalists, namely the authority to make decisions and to extract surplus from the worker.

Early in the last century, neoclassical economics dumped this social and political analysis for a mechanical one. Capital was reframed as a physical item, which paired with labor to produce output. This notion of capital permitted mathematical expression of the "production function," so that wages and profits could be linked to the respective "marginal products" of each factor. The new vision thus raised the uses of machinery over the social role of its owners and legitimated profit as the just return to an indispensable contribution.

Symbolic mathematics begets quantification. For instance, if one is going to claim that one economy uses *more* capital (in relation to labor) than another, there must be some common unit for each factor. For labor it could be an hour of work time. But for capital? Once one leaves behind the "corn model" in which capital (seed) and output (flour) are the same thing, one must somehow make commensurate all the diverse bits of equipment and inventory that make up the actual "capital stock." But how?

Although Thomas Piketty, a professor at the Paris School of Economics, has written a massive book entitled *Capital in the Twenty-First Century*, he explicitly (and rather caustically) rejects the Marxist view. He is in some respects a skeptic of modern mainstream economics, but he sees capital (in principle) as an agglomeration of physical objects, in line with the neoclassical theory. And so he must face the question of how to count up capital-as-a-quantity.

His approach is in two parts. First, he conflates physical capital equipment with *all* forms of money-valued wealth, including land and housing, whether that wealth is in productive use or not. He excludes only what neoclassical economists call "human capital," presumably because it can't be bought and sold. Then he estimates the market value of that wealth. His measure of capital is not physical but financial.

This, I fear, is a source of terrible confusion. Much of Piketty's analysis turns on the ratio of capital—as he defines it—to national income: the capital/income ratio. It should be obvious that this ratio depends heavily on the flux of market value. And Piketty says as much. For example, when he describes the capital/income ratio plummeting in France, Britain, and Germany after 1910, he is referring only in part to physical destruction of capital equipment. There was almost no physical destruction in Britain during the First World War, and that in France was vastly overstated at the time, as Keynes showed in 1919. There was also very little in Germany, which was intact until the war's end.

So what happened? The movement of Piketty's ratio was largely due to much higher incomes, produced by wartime mobilization, in relation to the existing market cap, whose gains were restricted or fell during and after the war. Later, when asset values collapsed during the Great Depression, it mainly wasn't physical capital that disintegrated, only its market value. During the Second World War, destruction played a larger role. The problem is that while physical and price changes are obviously different, Piketty treats them as if there were aspects of the same thing.

Piketty goes on to show that in relation to current income, the market value of capital assets has risen sharply since the 1970s. In the Anglo-American world, he calculates, this ratio rose from 250–300 percent of income at that time to 500–600 percent today. In some sense, "capital" has become more important, more dominant, a bigger factor in economic life.

Piketty attributes this rise to slower economic growth in relation to the return on capital, according to a formula he dubs a "fundamental law." Algebraically, it is expressed as $r>g$, where r is the return on capital and g is the growth of income. Here again, he *seems* to be talking about physical volumes of capital, augmented year after year by profit and saving.

But he isn't measuring physical volumes, and his formula does not explain the patterns in different countries very well. For instance, his capital-income ratio peaks for Japan in 1990—almost a quarter century ago, at the start of the long Japanese growth slump—and for the United States in 2008. Whereas in Canada, which did not have a financial crash, it's apparently still rising. A simple mind might say that it's market value rather than physical quantity that is changing, and that market value is driven by financialization and exaggerated by bubbles, rising where they are permitted and falling when they pop.

Piketty wants to provide a theory relevant to growth, which requires physical capital as its input. And yet he deploys an empirical measure that is unrelated to productive physical capital and whose dollar value depends, in part, on the return on capital. Where does the rate of return come from? Piketty never says. He merely asserts that the return on capital has usually averaged a certain value, say 5 percent on land in the nineteenth century, and higher in the twentieth.

The basic neoclassical theory holds that the rate of return on capital depends on its (marginal) productivity. In that case, we must be thinking of physical capital—and this (again) appears to be Piketty's view. But the effort to build a theory of physical capital with a technological rate-of-return collapsed long ago, under a withering challenge from critics based in Cambridge, England in the 1950s and 1960s, notably Joan Robinson, Piero Sraffa, and Luigi Pasinetti. Piketty devotes just three pages to the "Cambridge-Cambridge" controversies, but they are important because they are wildly misleading. He writes:

'Controversy continued . . . between economists based primarily in Cambridge, Massachusetts (including [Robert] Solow and [Paul] Samuelson) . . . and economists working in Cambridge, England . . . who (not without a certain confusion at times) saw in Solow's model a claim that growth is always perfectly balanced, thus negating the importance Keynes had attributed to short-term fluctuations. It was not until the 1970s that Solow's so-called neoclassical growth model definitively carried the day.'

But the argument of the critics was not about Keynes, or fluctuations. It was about the concept of physical capital and whether profit can be derived from a production function. In desperate summary, the case was three-fold. First: one *cannot* add up the values of capital objects to get a common quantity without a prior rate of interest, which (since it is prior) must come from the financial and not the physical world. Second, if the actual interest rate is a financial variable, varying for financial reasons, the *physical* interpretation of a dollar-valued capital stock is meaningless. Third, a more subtle point: as the rate of interest falls, there is no systematic tendency to adopt a more "capital-intensive" technology, as the neoclassical model supposed.

In short, the Cambridge critique made meaningless the claim that richer countries got that way by using "more" capital. In fact, richer countries often use *less* apparent capital; they have a larger share of services in their output and of labor in their exports—the "Leontief paradox." Instead, these countries became rich—as Pasinetti later argued—by learning, by improving technique, by installing infrastructure, with education, and—as I have argued—by implementing thoroughgoing regulation and social insurance. None of this has *any* necessary relation to Solow's physical concept of capital, and still less to a measure of the capitalization of wealth in financial markets.

There is no reason to think that financial capitalization bears any close relationship to economic development. Most of the Asian countries, including Korea, Japan, and China, did very well for decades without financialization; so did continental Europe in the postwar years, and for that matter so did the United States before 1970.

And Solow's model did *not* carry the day. In 1966 Samuelson conceded the Cambridge argument!

2.

The empirical core of Piketty's book is about the distribution of income as revealed by tax records in a handful of rich countries—mainly France and Britain but also the United States, Canada, Germany, Japan, Sweden, and some others. Its virtues lie in permitting a long view and in giving detailed attention to the income of elite groups, which other approaches to distribution often miss.

Piketty shows that in the mid-twentieth century the *income* share accruing to the top-most groups in his countries fell, thanks mainly to the effects and after-effects of the Second World War. These included unionization and rising wages, progressive income tax rates, and postwar nationalizations and expropriations in Britain and France. The top shares remained low for three decades. They then rose from the 1980s onward, sharply in the United States and Britain and less so in Europe and Japan.

Wealth concentrations seem to have peaked around 1910, fallen until 1970, and then increased once again. If Piketty's estimates are correct, top wealth shares in France and the United States remain today below their Belle Époque values, while U.S. top income shares have returned to their values in the Gilded Age. Piketty also believes the United States is an extreme case—that income inequality here today exceeds that in some major developing countries, including India, China, and Indonesia.

How original and how reliable are these measures? Early on, Piketty makes a claim to be the sole living heir of Simon Kuznets, the great midcentury scholar of inequalities. He writes:

'Oddly, no one has ever systematically pursued Kuznets's work, no doubt in part because the historical and statistical study of tax records falls into a sort of academic no-man's land, too historical for economists and too economistic for historians. That is a pity, because the dynamics of income inequality can only be studied in a long-run perspective, which is possible only if one makes use of tax records.'

The statement is incorrect. Tax records are *not* the only available source of good inequality data. In research over twenty years, this reviewer has used *payroll* records to measure the long-run evolution of inequalities; in a paper published back in 1999, Thomas Ferguson and I tracked such measures for the United States to 1920—and we found roughly the same pattern as Piketty finds now.[*]

It is good to see our results confirmed, for this underscores a point of great importance. The evolution of inequality is not a natural process. The massive equalization in the United States between 1941 and 1945 was due to mobilization conducted under strict price controls alongside confiscatory top tax rates. The purpose was to double output without creating wartime millionaires. Conversely, the purpose of supply-side economics after 1980 was (mainly) to enrich the rich. In both cases, policy largely achieved the effect intended.

Under President Reagan, changes to U.S. tax law encouraged higher pay to corporate executives, the use of stock options, and (indirectly) the splitting of new technology firms into separately capitalized enterprises, which would eventually include Intel, Apple, Oracle, Microsoft, and the rest. Now, top incomes are no longer fixed salaries but instead closely track the stock market. This is the simple result of concentrated ownership, the flux in asset prices, and the use of capital funds for executive pay. During the tech boom, the correspondence between changing income inequality and the NASDAQ was exact, as Travis Hale and I show in a paper just published in the *World Economic Review*.

The lay reader will not be surprised. Academics, though, have to contend with the conventionally dominant work of (among others) Claudia Goldin and Lawrence Katz, who argue that the pattern of changing income inequalities in America is the result of a "race between education and technology" when it comes to wages, with first one in the lead and then the other. (When education leads, inequality supposedly falls, and vice versa.) Piketty pays deference to this claim but he adds no evidence in favor, and his facts contradict it. The reality is that wage structures change far less than profit-based incomes, and most of increasing inequality comes from an increasing flow of profit income to the very rich.

In global comparison, there is a good deal of evidence, and (so far as I know) none of it supports Piketty's claim that U.S. income today is more unequal than in the major developing countries. Branko Milanović identifies South Africa and Brazil as having the highest inequalities. New work from the Luxembourg Income Study (LIS) places Indian income inequality well above that in the United States. My own estimates place United States inequality below the non-OECD average, and my estimates agree with those of the LIS on India.

A likely explanation for the discrepancies is that income tax data are only as comparable as legal definitions of taxable income permit, and only as accurate as tax systems are effective. Both factors become problematic in developing countries, so that income tax data will not capture the degree of inequalities that other measures reveal. (And of oil sheikhdoms where income goes untaxed, nothing can be learned.) Conversely, good tax systems reveal inequality. In the United States, the IRS remains feared and respected, an agency to which even the wealthy report, for the most part, most of their income. Tax records are useful but it is a mistake to treat them as holy writ.

3.

To summarize so far, Thomas Piketty's book about capital is neither about capital in the sense used by Marx nor about the physical capital that serves as a factor of production in the neoclassical model of economic growth. It is a book mainly about the *valuation* placed on tangible and financial assets, the *distribution* of those assets through time, and the *inheritance* of wealth from one generation to the next.

Why is this interesting? Adam Smith wrote the definitive one-sentence treatment: "Wealth, as Mr. Hobbes says, is power." Private financial valuation measures power, including political power, even if the holder plays no active economic role. Absentee landlords and the Koch brothers have power of this type. Piketty calls it "patrimonial capitalism"—in other words, not the real thing.

Thanks to the French Revolution, registry of wealth and inheritance has been good in Piketty's homeland for a long time. This allows Piketty to show how the simple determinants of the concentration of wealth are the rate of return on assets and the rates of economic and population growth. If the rate of return exceeds the growth rate, then the rich and the elderly gain in relation to everyone else. Meanwhile, inheritances depend on the extent to which the elderly accumulate—which is greater the longer they live—and on the rate at which they die. These two forces yield a flow of inheritances that Piketty estimates to be about 15 percent of annual income presently in France—astonishingly high for a factor that gets no attention at all in newspapers or textbooks.

Moreover, for France, Germany, and Britain, the "inheritance flow" has been rising since 1980, from negligible levels to substantial ones, due to a higher rate of return on financial assets along with a slightly rising mortality rate in an older population. The trend seems likely to continue—though one wonders about the effect of the financial crisis on valuations. Piketty also shows (to the small extent that data allow) that the share of global wealth held by a tiny group of billionaires has been rising much more rapidly than average global income.

What is the policy concern? Piketty writes:

'[N]o matter how justified inequalities of wealth may be initially, fortunes can grow and perpetuate themselves beyond all reasonable limits and beyond any possible rational justification in terms of social utility. Entrepreneurs thus tend to turn into rentiers, not only with the passing of generations but even within a single lifetime. . . . [A] person who has good ideas at the age of forty will not necessarily still be having them at ninety, nor are his children sure to have any. Yet the wealth remains.'

With this passage he makes a distinction that he previously blurred: between wealth justified by "social utility" and the other kind. It is the old distinction between "profit" and "rent." But Piketty has removed our ability to use the word "capital" in this normal sense, to refer to the factor input that yields a profit in the "productive" sector, and to distinguish it from the source of income of the "rentier."

As for remedy, Piketty's dramatic call is for a "progressive global tax on capital"—by which he means a wealth tax. Indeed, what could be better suited to an age of inequality (and budget deficits) than a levy on the holdings of the rich, wherever and in whatever form they may be found? But if such a tax fails to discriminate between fortunes that have ongoing "social utility" and those that don't—a distinction Piketty himself has just drawn—then it may not be the most carefully thought-out idea.

In any case, as Piketty admits, this proposal is "utopian." To begin with, in a world where only a few countries accurately measure high incomes, it would require an entirely new tax base, a worldwide Domesday Book recording an annual measure of everyone's personal net worth. That is beyond the abilities of even the NSA. And if the proposal is utopian, which is a synonym for futile, then why make it? Why spend an entire chapter on it—unless perhaps to incite the naive?

Piketty's further policy views come in two chapters to which the reader is bound to arrive, after almost five hundred pages, a bit worn out. These reveal him to be neither radical nor neoliberal, nor even distinctively European. Despite having made some disparaging remarks early on about the savagery of the United States, it turns out that Thomas Piketty is a garden-variety social welfare democrat in the mold, largely, of the American New Deal.

How did the New Deal tackle the fortress of privilege that was the early twentieth-century United States? First, it built a system of social protections, including Social Security, the minimum wage, fair labor standards, conservation, public jobs, and public works, none of which had existed before. And the New Dealers regulated the banks, refinanced mortgages, and subdued corporate power. They built wealth shared in common by the community as a counterweight to private assets.

Another part of the New Deal (mainly in its later phase) was taxation. With war coming, Roosevelt imposed high progressive marginal tax rates, especially on unearned income from capital ownership. The effect was to discourage high corporate pay. Big business retained earnings, built factories and (after the war) skyscrapers, and did not dilute its shares by handing them out to insiders.

Piketty devotes only a few pages to the welfare state. He says very little about public goods. His focus remains taxes. For the United States, he urges a return to top *national* rates of 80 percent on annual incomes over $500,000 or $1,000,000. This may be his most popular idea in U.S. liberal circles nostalgic for the glory years. And to be sure, the old system of high marginal tax rates was effective in its time.

But would it work to go back to that system now? Alas, it would not. By the 1960s and '70s, those top marginal tax rates were loophole-ridden. Corporate chiefs could compensate for low salaries with big perks. The rates were hated most by the small numbers who earned large sums with (mostly) honest work and had to pay them: sports stars, movie actors, performers, marquee authors, and so forth. The sensible point of the Tax Reform Act of 1986 was to simplify matters by imposing lower rates on a much broader base of taxable income. Raising rates again would not produce (as Piketty correctly states) a new generation of tax exiles. The reason is that it would be too easy to evade the rates, with tricks unavailable to the unglobalized plutocrats of two generations back. Anyone familiar with international tax avoidance schemes like the "Double Irish Dutch Sandwich" will know the drill.

If the heart of the problem is a rate of return on private assets that is too high, the better solution is to lower that rate of return. How? Raise minimum wages! That lowers the return on capital that relies on low-wage labor. Support unions! Tax corporate profits and personal capital gains, including dividends! Lower the interest rate actually required of businesses! Do this by creating new public and cooperative lenders to replace today's zombie mega-banks. And if one is concerned about the monopoly rights granted by law and trade agreements to Big Pharma, Big Media, lawyers, doctors, and so forth, there is always the possibility (as Dean Baker reminds us) of introducing more competition.

Finally, there is the estate and gift tax—a jewel of the Progressive era. This Piketty rightly favors, but for the wrong reason. The main point of the estate tax is not to raise revenue, nor even to slow the creation of outsized fortunes *per se*; the tax does not interfere with creativity or creative destruction. The key point is to block the formation of dynasties. And the great virtue of this tax, as applied in the United States, is the culture of conspicuous philanthropy that it fosters, recycling big wealth to universities, hospitals, churches, theaters, libraries, museums, and small magazines.

These are the nonprofits that create about 8 percent of U.S. jobs, and whose services enhance the living standards of the whole population. Obviously the tax that fuels this philanthropy is today much eroded; dynasty is a huge political problem. But unlike the capital levy, the estate tax remains viable, in principle, because it requires that wealth be appraised only once, on the demise of the holder. Much more could be done if the law were tightened up, with a high threshold, a high rate, no loopholes, and less use of funds for nefarious politics, including efforts to destroy the estate tax.

In sum, *Capital in the Twenty-First Century* is a weighty book, replete with good information on the flows of income, transfers of wealth, and the distribution of financial resources in some of the world's wealthiest countries. Piketty rightly argues, from the beginning, that good economics must begin—or at least include—a meticulous examination of the facts. Yet he does not provide a very sound guide to policy. And despite its great ambitions, his book is not the accomplished work of high theory that its title, length, and reception (so far) suggest.

James K. Galbraith is professor at the Lyndon B. Johnson School of Public Affairs, the University of Texas at Austin, and author of the forthcoming book, *The End of Normal.*

* The American Wage Structure, 1920–1947." *Research in Economic History*, Vol. 19, 1999, 205–257. My 1998 book, *Created Unequal*, brought the pay-inequality story up from 1950 to the early 1990s. For a recent update, see James K. Galbraith and J. Travis Hale, "The Evolution of Economic Inequality in the United States, 1969–2012: Evidence from Data on Inter-industrial

Earnings and Inter-regional Incomes," *World Economic Review*, 2014, no. 3, 1–19, at http://tinyurl.com/my9oft8.

The Philosopher's Stone (Robert Paul Wolff)
"THOMAS PIKETTY, CAPITAL IN THE TWENTY-FIRST CENTURY, PART ONE"
March 28, 2014

CAPITAL in the Twenty-First Century, by French economist Thomas Piketty, is a big book [577 pages of text, 75 pages of notes, and an extensive on-line technical database that I have briefly sampled]. It is also, in my judgment, an important book worthy of your attention. In the next few days, I shall be doing my best to present in some orderly way my thoughts about it. In response to comments on this blog and an email or two, I have read several reviews of the book that have already appeared. That may have been a mistake, but I shall try not to confuse my own reactions to the book with things I have learned from those reviews.

Piketty presents himself as politically *engagé*, so it would be natural to cut to the chase and announce my view of whether he is a good guy or a bad guy, a comrade or an enemy. That impulse is all the stronger because his title is a deliberate allusion to Marx's great work, *Das Kapital*. The title, after all, is CAPITAL in the Twenty-First Century, not Capital in the Twenty-First Century. But I shall resist the temptation, because it would be a mistake. There is a great deal to learn from this book whether or not one situates oneself where Piketty does on the ideological spectrum [as I do not], and that must be the focus of my attention in the first part of this discussion.

A few general comments to orient you before I begin a close examination of the book. Piketty's central and urgent concern is *inequality*, in particular inequality in the ownership of capital. Using the French term *patrimoine*, or patrimony, which means inheritance, Piketty believes that unless strong [but unlikely] steps are taken by the nations of the world, we shall rapidly see a return to a patrimonial capitalism in which an ever larger fraction of an ever expanding capital is owned by a small proportion of the population who have inherited it rather than—any stretch of the imagination—earned it. A society of *rentiers* will be re-established of a sort we have not seen since the late nineteenth century, a society dominated, as we used to say in the United States, by coupon clippers. [Piketty's favorite example is Liliane Betancourt, heiress of the l'Oréal cosmetics fortune and the richest person in France. who, he laconically observes, "has not worked a day in her life."]

But though inequality is his central theme, Piketty does not arrive at a discussion of it until Part Three, The Structure of Inequality, 237 pages into the book. First, there is an extended discussion of Income and Capital [Part One] and The Dynamics of the Capital/Income Ratio [Part Two.] The foundation of Piketty's exposition, to which he devotes an enormous amount of time and many, many charts and tables, is an extraordinary mass of data he and his associates have assembled, reaching back as far as the beginning of the eighteenth century, on the composition and evolution of capital and income. Since philosophers typically know little or nothing and earn their reputations by thinking rather than actually observing the world, it would be natural for me and those like me to skip over Piketty's detailed description of the data he has collected and go right to the conclusions he draws. That too would be a big mistake, as big as the mistake of flipping past Marx's great tenth chapter in *CAPITAL* on The Working Day, the more than one hundred pages of details he gleaned from the Parliamentary Inspectors' Reports during his years in the Reading Room of the British Museum. Those of us who profess to care about the condition of the working class in America in 2014 [to steal a title from Engels' greatest work] really need to know something about how the world actually is and has been before we offer our proposals for its complete transformation.

Piketty and his colleagues have assembled an astonishing body of macroeconomic information about capital, income, profit rates, growth rates, shares of capital owned by, and shares of income going to, the top tenth, one-hundredth, thousandth, or ten-thousandth of the population in France, Britain, Germany, and America, and secondarily in Italy, the Nordic countries, certain South American countries, and, where possible, in Asia and Africa. The centerpiece of his data-driven analysis is France, for three reasons.

First of all, as a consequence of the work of the quite advanced royal *Intendants* of the Old Regime and of laws passed at the time of the French Revolution, robust French data are available on many important economic magnitudes for a continuous period of more than three hundred years. The data for Britain are good, but do not extend back so far. The American data start with the American Revolution but for various reasons are not really satisfactory until the late 19th century. The political fragmentation of what is now called Germany also makes its data prior to the late 19th century difficult to assemble. And beyond those nations, things go downhill rapidly. Piketty is committed to grounding his analysis in real facts, not in speculations or impressions, and his book is replete with *caveats* about the adequacy or inadequacy of the data underpinning this or that graph or table. One of the ways in which economists could honor Piketty's achievement is by undertaking to gather and analyze data for parts of the world he could not adequately discuss.

Second, Piketty is French, and quite naturally his frame of reference is defined by that fact in exactly the way that the frame of reference of American economists is defined by their being Americans. In the three centuries that Piketty contemplates, there are four pivotal periods that shape his understanding of the world: The Revolution [1789-1797, more or less], *La Belle Époque* [from 1871 to the beginning of WW I], the period of the two world wars and their interregnum [1914-1945] and *Les Trente Glorieuses*, the "glorious thirty years" from 1950-1980, a time in France of relatively much less inequality of ownership of capital, rapid economic growth, rising real wages, and the establishment of the modern French social democracy. The corresponding American historical eras or economic turning points would I suppose be the period of slavery, the period of the Western expansion, the late 19th century growth of the great industrial fortunes, the Crash and Great Depression, and the Boom Years [roughly coincident with *Les*

Trente Glorieuses.] All great social scientists orient themselves to the world in this manner—for Marx, the pivot of his life was of course the failure of the uprisings of 1848.

Finally, Piketty is still a young man [forty-two] who earned his doctorate at twenty-two with a detailed examination of French tax policy, and like all of us, he draws on his strengths when he comes to write his Big Book. [Happily, Marx resisted that temptation, so we are spared in *Das Kapital* a discussion of the Greek Atomists.]

Let me now give you an overview of what Piketty found, and what the focus is of his concern. Tomorrow I shall start telling you in some detail about the unfolding of his argument. In very broad strokes, Piketty found that from the beginning of the modern economic era [the eighteenth century] to the end of *La Belle Époque* Europe [but not in the same way America] was a patrimonial society in which the overwhelming preponderance of capital—land, buildings, factories, railroads, government bonds, shares of stock, patents, and so forth—as owned privately by a small segment of society who inherited rather than earned the capital they owned. By the eve of World War I 90% of the capital in Europe and 80% in America was owned by the richest 10% of the population. [Keep in mind that these aggregates include private ownership of land and private dwellings, not merely of shares of stock in industrial enterprises.] World Wars I and II and the Great Depression between them, combined with the enormous increase in the rates of inflation, had the effect of causing this share of ownership to plummet to levels never before recorded. As Europe and American recovered from the world wars and the Depression, during *Les Trente Glorieuses* or Boom Years, the inequality in the distribution of capital ownership recovered to pre-World War I heights, but with an important difference.

The Post-War period saw the emergence of a new class of rich, those whom Piketty calls "supermanagers," earning annual salaries in the millions or even hundreds of millions in their roles as top corporate and financial managers. Technically, these salaries count as income, not profits or, as Piketty calls them, using the French term, *rentes*. [I shall come back to this point much later, when I offer some comments on and criticisms of Piketty's work.] If we give at least lip service to the economists' fiction that these supermanagers are earning their marginal product, and therefore have a right to their salaries [lip service that Piketty both offers and withholds, exhibiting a deep ambivalence on the matter], then we might wish to say that although inequality has returned to pre-World War I heights, it is a fairer and more rational inequality. After all, say what you will about Mark Zuckerberg, he is no Liliane Betancourt.

However—and this is, in some very simple-minded sense, the message of the entire book—the ineluctable consequences of the relationship between the global growth rate and the global return on capital [g and r, as Piketty represents them] will, unless extraordinary and quite unlikely steps are taken, in the twenty-first century return us to a patrimonial capitalism in which capital is both very unequally owned and also is primarily inherited rather than earned. The world of the *rentier* will again be upon us.

Part Two, March 29, 2014

In the first part of *CAPITAL in the Twenty-First Century*, the central magnitude whose temporal evolution Piketty studies is the ratio of capital in a society to income. Since the first of these is a stock and the second is a flow [as economists say], he must convert one or the other in order to form a ratio of them, and he does this by studying the ratio of the capital in a society to the amount of income from all sources for one year, or annual national income. Piketty represents this ratio by the Greek capital letter β. Let us begin by making clear how Piketty is using these two terms. "In this book," he says, "capital is defined as the sum total of nonhuman assets that can be owned and exchanged on some market." [p. 46] "National income is defined as the sum of all income available to the residents of a given country in a given year, regardless of the legal classification of that income." [p. 43]

Right away, it is necessary to say something about these definitions, for they underpin everything in the book. First of all, note that the definition of "capital" deliberately excludes what economists, following Gary Becker, call "human capital." Picketty has some very unflattering things to say about Becker and those who follow him, justifiably in my judgment. Second, both of these terms are measured in monetary units—dollars, or Euros, as Picketty prefers throughout the book. This is standard operating procedure for economists, of course, and makes it possible to use the vast array of statistical information gathered by governmental and non-governmental agencies, but it poses certain problems of which we need to be aware. A share of stock is a piece of capital, as is a building, a tool, a stockpile of coal, a warehouse full of automobile tires, an acre of land, a patent, an insurance policy, and even a logo or a trademark. Now, a major stock market drop, like the one that precipitated the Great Recession of 2008-9, immediately strips away billions or even trillions of dollars from the market value of certain assets. From an accounting perspective, this is no different from a war in which massive destruction is done to factories and roads and bridges. Both count as losses of capital. But clearly there is a very great difference in reality. If a factory is bombed, it will take a good deal of labor and raw materials and planning and time to replace it, but a capital value equivalent to that of the factory may be lost and then regained in moments by a fluctuation in the price of shares in the corporation that owns the factory. Still and all, inasmuch as capital, on any construal, is a many-dimensional array of quite dissimilar things, how else can one examine its quantity and the movements in that quantity save by considering its value, which is to say its market value?

[At this point, as I begin to discuss the data Piketty presents and the conclusions he draws, I must issue a warning: There is a vast amount of important information in this book, and I cannot even make passing reference to more than a small selection from it. Please do not make the mistake of thinking that because I fail to mention something Piketty has failed to discuss it! The principal purpose of this multi-part discussion is to encourage you to read the book.]

When Piketty measures the value of β over the past three centuries, which is to say the ratio of national capital to national income, he finds that at the beginning of this period, in 1700, national capital in Britain or France was seven times the annual national income, [I confess that I have never been much for macroeconomics, and it took me a while to become comfortable with this way of thinking.] This ratio holds pretty much constant for a bit over two hundred years [during which time both capital and income increase, of course], although in the nineteenth century a significant portion of the 700% is accounted for by imperial holdings in Africa and Asia that bulk up the total. Then the onset of World War I, the interwar crash and inflation, and World War II produce a precipitous decline in the value of β, from 700% in 1910 to roughly 300% in 1950. From then on, the capital/income ratio recovers rapidly, so that after two generations or so it is back up to 650% in France and 600% in Britain.

Over this centuries-long period, there is a fundamental change in the composition of national capital. In 1700, the value of agricultural land in Britain is 400% of national income—57% of all capital—and nearly 500% of national income in France, or 70% of all capital. This ratio drops steadily and ever faster as we come into the 19th century, so that by 2010, the end of Piketty's survey, the value of agricultural land is no more than a few percentage points of national annual income. The land has not become less valuable in human terms, of course—we all still have to eat. But non-agricultural capital and housing—residential dwellings, factories, mines, government bonds, shares of stock, and so forth—take over from agricultural land as the principal components of national capital.

This U-shape characteristic of the β curve reappears again and again in the book as Piketty studies the evolution of national capital and national income and then studies the parallel evolution of capital and income in equality. This is a visual representation of one of the most interesting and important of Piketty's conclusions. Since this is, to my mind, the single most interesting thing I found in Piketty's book, I want to take some time setting it out and discussing it.

By taking so long an historical view, Piketty is able to show that the thirty-five year period of the two world wars and the intervening world economic crash was a world-historical anomaly that interrupted a long-term secular process of growth and persistent inequality in the capitalist world. The enormous explosion of growth in the thirty years following that anomaly can be seen, through Piketty's lens, **not** as the emergence of a new world order, more humane, more equal, less in thrall to inherited wealth, but as a quite natural recovery from the anomaly and re-establishment of a centuries-old pattern of extreme inequality in the ownership and control of society's capital resources and the income from them.

To be sure, a fundamental transformation has taken place over these two generations in the structure of inequality. The emergence of "supermanagers" and the [possibly temporary] appearance of a new somewhat propertied middle class for a time made income from wages and salaries more important than income from capital holdings as cause of inequality. But that change, significant as it is, is even now starting to give way to a re-appearance of *rentier* capitalism, which is to say capitalism in which ownership of capital rather than the wage earnings from commanding positions in the structure of capitalism becomes the dominant source of wealth.

Now—and this is, I think, brilliant of Piketty to recognize and document—the period of the two wars and *Les Trente Glorieuses* or Post-War Boom—just happens to coincide with the time when modern academic economists came into their own as the stars of the Academy and the oracles of modern Democracy, especially in America. Perhaps we should not be surprised that these distinguished gentlemen, many of whom were honored with the newly created Nobel Memorial Prize in Economic Sciences, took what was happening during their formative years as definitive, as a matter of pure theoretical necessity for all times and places. Finding themselves on the ascending side of a U-shaped curve, and more or less oblivious to the place of the U-shape in the larger historical picture, they quite naturally assumed that capitalism had solved the problem of crisis and inequality and was embarked on what they liked to describe as a balanced growth path. Or, as the old saying has it, they were born on third and thought they had hit a triple.

Those of you less enamored of Marx than we old loyalists may be forgiven for not recalling that the subtitle of *CAPITAL* is "Critique of Political Economy." Marx's book is *both* an anatomy of capitalist economy and society *and* a brilliant attack on the economists who preceded him. I think Piketty is quite conscious of engaging in an exactly similar two-pronged assault, *both* on the world of capital and income and inequality and growth, *and* on the world of academic economists. I think the single thing I like most about him is that after earning his doctorate at the age of 22, he went to teach at MIT, the Promised Land for young aspiring academic economists, but after two or three years got fed up and walked away from what would certainly have been a brilliant American academic career, to return to France. Mind you, he has been teaching at *les grandes écoles*, which rival the Ivy League in their exclusivity. But still!

Part 3, March 30, 2014

As I begin this third part of my discussion of Piketty's *CAPITAL in the Twenty-First Century*, I find myself overwhelmed by the sheer magnitude of the number of topics treated by Piketty. Once again, I urge you to read the book rather than relying on my comments, or any of the many reviews now appearing, to inform you adequately about it. This is one of those books that you really must make the effort to read for yourself.

Early in his book, Piketty states what he calls the First Fundamental Law of Capitalism, a "law" [really, as he explains, an accounting identity] that relates the ratio of capital to national income, β, to the national rate of return on capital, which he represents by the letter r, and the share of the income from capital in national income, which he represents as α. If thirty percent of all the income received by anyone in a nation over the course of a year comes from capital—in other words is profit rather than earned income—then α = 30% or .3. With these definitions, it follows necessarily that $\alpha = r \times \beta$, Piketty's First Fundamental Law.

This may not be obvious to all of you [it was not to me when I first read it], so let me take just a moment to explain. β is the ratio of the value of total national capital to the value of annual national income, so we may say that β = (national capital)/(annual national income). If we multiply the total value of capital by the profit rate, *r*, we get the value in a year of the profits from capital [since *r* is the yield from capital per year]. So *r* x β is just [*r* x (total national capital)] / (total income in a year), or (income from capital)/(total income), and that is what Piketty is calling *α*. In short, *α* = r x β. The point of stating this accounting equality is not to prove anything by it, but rather to break out the components of *α* so that we can study what happens when one or another of them varies. Later on, we shall see that Piketty is especially interested in examining the consequences of a long-term situation in which the profit rate, *r*, is significantly greater than the growth rate of the economy, *g*, a situation that did not obtain during *les trente glorieuses*, but which Piketty thinks does obtain now and is likely to obtain for the remainder of the twenty-first century. [The reason for this prediction, to get ahead of ourselves, is the rapid decline in the growth of population, but more that anon.]

Before I continue, let me on a lighter note pay homage to a simply lovely expositional device that Piketty has hit upon to flesh out the stark numbers of his graphs and charts. Early in the book, Piketty observes that prices in the eighteenth and nineteenth centuries were quite stable, as was the return to capital [about 5%]. During this time, the two principal sources of income from capital in France, and even in England [where capitalism developed rather earlier] were land and government bonds. One small segment of society—the wealthiest and most powerful—lived without working, as Liliane Betancourt would much later on, on their income from their capital holdings. The stability of the prices meant that in 1720, 1770, 1810, 1850, and even 1890, the same standard of living could be purchased with a given annual income. This made it possible for novelists to capture in a phrase the precise social standing of a character. "He has ten thousand pounds a year" or "he has fifty thousand francs a year" was all a novelist needed to write, and readers could be counted on to understand the standard of living the character and his family could afford, right down to the number of his household servants, the sort of carriages in which his family rode, the clothes they wore, the elegance of the balls they attended, and the suitability of suitors for his daughters. Running through Piketty's book is a delightful series of references to the characters of Jane Austen and Honoré Balzac. It is, for me at least, a distinct pleasure to encounter a truly cultivated economist, who evokes the literary richness of the writings of Adam Smith and Karl Marx. There is also a deeper purpose in Piketty's deployment of literary references, which he never mentions but which I am persuaded is consciously before his mind. The literary allusions allow Piketty to capture the complex relationship between the underlying reality and the surface appearance of capitalist society, something that Marx achieves by his deployment of ironic discourse and classical allusion.

One hundred sixty-seven pages into his book, Piketty enunciates another "Fundamental Law of Capitalism" relating β, the ratio of national capital to annual national income, to the social savings rate, *s*, and the growth rate of the economy, *g*. The law states that β = *s*/*g*. This, however, is not an accounting equality but what may be called a tendential law. That is to say, unless interrupted by some exogenous force—a war, a depression, a regime of governmental taxation—the ratio of national capital to national income will tend toward the ratio of savings to growth. For example, "if a country saves 12 percent of its national income every year, and the rate of growth of its national economy is 2 percent, then in the long run the capital/income ratio will be equal to six hundred percent: the country will have accumulated capital worth six years of national income." [p. 166]

Why is this important? Because if an economy grows very slowly, and if what is saved out of national income is for the most part held privately, then over time the country will come to be dominated by huge private capital holdings, which are passed on from generation to generation, resulting in what Piketty calls *patrimonial capitalism.* Just to be clear, the relationship between capital formation and the (savings/growth rate) is necessary, and not especially tied to private ownership of capital. Even if the capital is publicly owned, the ratio of capital to national income will be determined in the long run by the growth rate the society chooses and the savings rate it chooses. But for the entire period under Piketty's investigation, capital has been privately owned. Public capital holdings, as he shows, which are calculated by taking the total of public assets and subtracting the total of public debts, have oscillated around zero. This remains true even when we take into account foreign assets and debts, surprising though this may be. We are accustomed to panic-stricken talk about America being owned by the Japanese or the Chinese [depending on which decade you are living in], but the reality is quite other.

To summarize what I have tried to communicate thus far, Piketty argues that the period of the two world wars followed by a generation and a half of rapid growth was a temporary anomaly followed by a return to the long-term relationship between capital and national income. And because the rapid population growth of recent decades is slowing and is almost certain to slow further, resulting in a return to a long-term secular economic growth rate of 1% or a bit more, the logic of the law $\beta = s/g$ compels us to conclude that in the absence of heroic governmental intervention [the subject of Part Four of the book], we can look forward to a re-emergence of patrimonial capitalism, the capitalism of inherited wealth celebrated and anatomized by Austen, Balzac, and their contemporaries.

In my effort to summarize Piketty's argument for you, inevitably I have omitted so much that I have managed to give a somewhat incorrect account, and at this point I need to correct that with regard to at least one important point. This concerns the distribution of wealth in contemporary capitalist societies. The best way to begin is with a paragraph-long quote from Piketty. This comes from the start of Chapter Eleven, "Merit and Inheritance in the Long Run."

"The overall importance of capital today, as noted, is not very different from what it was in the eighteenth century. Only its form has changed: capital was once mainly land but is now industrial, financial, and real estate. We also know that the concentration of wealth remains high, although it is noticeably less extreme than it was a century ago. The poorest half of the population still owns nothing, but there is now a patrimonial middle class that owns between a middle and a third of total wealth, and the wealthiest ten percent now own only-two thirds of what there is to own rather than nine-tenths." [p. 377]

The important point I have somewhat failed to capture is the emergence of a *patrimonial middle class.* Why "patrimonial?" Because the wealth of this large and politically significant middle class is for the most part inherited, in the form of housing, and also of financial assets. The first generation may have come up "the old-fashioned way," by hard work and self-sacrifice, but life and death being what they are, the children of these strivers start life with hefty portfolios, paid-up homes, and other forms of accumulated capital. Over time, the logic of the *s*/*g* ratio increases the predominance of inherited over earned income, resulting in ever sharper and more inflexible class divisions. What is more, the Great Recession of 2008-9 and the consequent evaporation of the money set aside by this middle class for their Golden Years threatens to drive their children back down into the ranks of the property-less, increasing the share of capital owned by the truly rich.

Part 4, March 31, 2014

One more example of the U-shaped curve, about which I have been talking for several days, this time with respect to what Piketty calls "the annual inheritance flow." In France [which, as usual, is his primary focus], we find that from 1810 until 1920, the period of remarkable stability in European capitalism, amounts of capital equal to between a fifth and a quarter of national income were passed on as inheritance each year from the dead to the living. During the first world war, this annual passing on of capital plummeted to 8%, and by of the second world war to 4% of national income, an astonishing change. This amount of capital being passed on from one generation to the next then recovered, so that by 2010, it had risen again to about 15%, and gives every indication of continuing to climb. Once again, those of us for whom the post-war period was the reality of our early years formed an impression of the fundamental fairness and openness of modern capitalist society that is simply wrong for the long run. Living during an anomaly, we naturally viewed it as the new normal, unaware that it was passing into history even as we grew up. At what level and when will the inheritance flow stabilize? Piketty explains that the answers to these questions depend on *g* and *r*, which is to say on the growth rate and the return to capital. He offers two scenarios, based on different guesses about the future of these two magnitudes, which suggest that the inheritance flow by the year 2100 is likely to stabilize somewhere between 16% and 23%. This in turn will determine just how patrimonial the capitalism of the future becomes.

Piketty has one way of representing the temporal evolution of this concentration of wealth that I had never seen before. It is a trifle tricky but very striking. Let me explain. He looks at each French age cohort [i.e., all the people born in France in the same year] and at the lifetime wage earnings of the bottom fifty percent of the working population of France. Then he asks this question: What fraction of each age cohort receives, *as inheritance*, an amount equal to the lifetime earnings of someone in the bottom half of the society? For example [using American magnitudes to make things more perspicuous], suppose that an American worker in the bottom half of the workforce earns on average in 2014 dollars $30,000 a year for a working lifetime of 45 years [age 10 to age 65]. That is total lifetime earnings of $1,350,000. Then ask, what fraction of this worker's age cohort inherits at least that much—1,350,000? [Just to be clear, the median wage for full-time workers in the U.S. 2013 was $776 a week, which works out to more than $1,800,000 for a fifty-two week year over forty -five years. But "median" means that all of the full-time workers in the bottom half of the workforce are *below* that amount. My figure of $1,350,000 is a guesstimate of the average of all lower fifty percent workers.]

Well, the answer for France is this: Way back in 1790, 10% of the age cohort inherited as much as a worker in the bottom half made in a life time. That proportion of the age cohort dropped, first slowly, then rapidly, until in 1920, it hit 2%. After WW I, only 2% of French heirs inherited as much as someone in the bottom half of his or her age cohort earned in a lifetime of working. Then the proportion of these heirs began to rise [*the same U-shaped curve again!*] so that by 1990 it had reached more than 13%. After a slight dip as a result of the Great Recession, which wiped out a good deal of inheritable capital in the form of the value of shares of stock, the proportion resumed its upward march.

Just stop and think for a moment about what this means [I assume the figures are not much different for Britain or America]. We are a society of two entirely separate and different worlds. Half of us labor day after day [if we are lucky] for a lifetime, managing, let us suppose, in all that time to earn on average more a million and a third dollars, which we use to pay taxes, pay for health care, pay for housing and food and clothing and education. And 12-14% of us **inherit** that much in one lump sum simply by having the brains and gumption to be born in to the right family. In a country the size of America, that endowed 13% is more than forty-million people. They loom so large in the public discourse and public consciousness that they define what it is to be an American. Meanwhile, 165 million men and women slog on, never seeing anything remotely like the life lived by the fortunate forty million.

This is perhaps the right time to turn our attention to the truly revolutionary consequence of the period of *les trente glorieuses*, the Boom Years—the emergence of an elite group of corporate executives and financial executives whose income, albeit earned income or wages and not income from capital, has made them multi-millionaires and billionaires. These people often own enormous portfolios of shares, frequently in the companies they manage, as was true of corporate magnates in earlier times. However, there is this important difference: the size of their ownership in the companies they run is a *consequence* of their positions as managers, not a *condition* of their positions. They own shares because they are managers [through stock options, for example]. They are not managers because they own shares.

This has been the subject of an considerable public discussion in America in recent years, as well as of a dramatic series of organized protests [the Occupy Wall Street movement], so I need not say a great deal about it by way of introduction. Piketty offers statistics aplenty on the wealth of the one percent, the one tenth of one percent, the one one-hundredth of one percent, and even, believe it or not, the one one-thousandth of one percent, and they are precisely as chilling as you might expect.

"Broadly speaking," Piketty tells us, "the rise of the super-manager is largely an Anglo-Saxon phenomenon." [p. 315] The charts tell the story. In 1910, the top1% of society was receiving 18% of national income in America, and 22% in Great Britain. With jogs up and down because of the Great Depression, this sank in 1970 to 8% in America and 6% in Britain. But then the curves turned upward again [the very same U-shaped curve]. This time, however, thanks to the emergence of the supermanagers, America took off like a rocket, reaching 18% in 2009, before the Great Recession. Already, however, that slight dip has been reversed and the share of national income going to The One Percent is again rising.

The standard academic economics explanation for the stratospheric salaries and bonuses being paid to the supermanagers is the theory of marginal productivity. Those super-salaries are not the result of inherited wealth. They are a measure of the value that the supermanagers add to the corporations for which they work.

As the old saying goes, don't get me started. If anyone is interested, when I return from my safari, calm, collected, in touch with nature and my inner primate, I will undertake to say a few well-chosen words about the theory of marginal productivity. But I do need to say something here. First of all [as Piketty knows full well], the magnitude of the super-salaries paid to the top corporate and financial executives varies considerably by country, although there is simply no ground for supposing that American corporate executives contribute a greater marginal product than French or German or Japanese corporate executives. Even if we were to grant that top executives make very large contributions indeed to the profits of their companies, the cross-national comparison certainly suggests that as much marginal product could be wrung from the sweaty toil of American CEOs in return for markedly smaller pay packages.

But there is another point that needs to be mentioned, though I am afraid I cannot put numbers on it in a way that one would need to in order to make it stick. Purely from an accounting point of view, the salaries and bonuses paid to top executives are *costs* of doing business. Like the wages paid to less well-remunerated workers, as well as the costs of raw materials, energy, and so forth, they must be subtracted from gross receipts before one can calculate the profits of the firm. In this way, those super-salaries differ from the dividends paid to shareholders, which truly are distributions of profits. In the good old days, when companies were run by their owners, one could, if one wanted to, break out the total take of the owner into a sum representing the wages of management and a sum constituting the return to capital. But we are a long way from those good old days, and by and large [Bill Gates and Jeff Bezos and Mark Zuckerberg notwithstanding] no identifiable *owners* of big corporations in the executive suites. I suggest that accounting practices to the contrary notwithstanding, much of what is received by corporate managers these days is actually a distribution to them of a share of the profits of the corporation. Strictly speaking, they have no right to that portion of the profits, for it far exceeds, in most cases, what they might be permitted to claim as a return on the shares of stock they own. It is a form of legalized theft, in which the Boards of Directors collude by authorizing the enormous pay packages. Marx understood that profit manifests itself in many guises, but unfortunately Marx is no longer on the required reading list for up and coming American students of Economics.

Piketty exhibits a curious ambivalence toward the theory of Marginal Productivity and the ideological rationalization it provides of the enrichment of the corporate elite. On the one hand, he scatters *caveats* and qualifications throughout his book, clearly aware [with a depth of understanding that I doubt I can match] of its theoretical limitations. On the other hand, he clearly thinks that a world of unequal earned income is greatly to be preferred to a world of unequal unearned income. It is not a future ruled by supermanagers that alarms him. It is the prospect of the return of patrimonial capitalism.

Conclusion, April 1, 2014

After 470 pages of dense data-driven analysis, full of truly appalling information about the unequal distribution of wealth and income in the modern world, we come at last to Part Four of *CAPITAL in the Twenty-First Century*, to which Piketty gives the title "Regulating Capital in the Twenty-First Century." These one hundred pages were a big disappointment to me. After everything I had read, I expected Piketty to come out swinging with a series of radical proposals for the thoroughgoing reformation of capitalism, if not its replacement by a new social and economic order. Instead, we get a discussion of taxation, followed by a utopian proposal for taxing world accumulations of capital. To summarize his recommendations in a sentence: Picketty offers reasons for thinking that taxation on incomes is not likely to halt or even slow the steady growth of patrimonial capitalism, and opts instead for a "global tax on capital." He appears to be aware of the impossibility of instituting such a global tax [who on earth would administer it?], but he writes as though he thinks that something might be accomplished, to start, in the European Economic Union. He has little or nothing to say about what might be done with the money raised by this tax, were it to be imposed. [He has in mind perhaps a 1% annual tax on wealth.]

Why this complete disconnect between the trenchant power of Piketty's analysis and the feebleness of his proposals for action? It is not enough to say that he is an economist, not an activist, for he is what the French call a man of the left, and his life choices constitute a rejection of the isolation from reality that he decries in the American academic world.

I am tempted, I admit, to trace the weakness of Piketty's proposals for change to a biographical passage [which I have been utterly unable to find, after hours of searching, but which I swear I read!] Piketty tells us that his parents took part in the Paris student demonstrations of 1968, but that he was born afterwards [in 1971] so that he is free of the Marxist [by which he seems to mean Stalinist] baggage of those times. [Please, please, if anyone knows where the passage is, tell me. It is driving me nuts.] Those demonstrations had a profound effect on the very geography of Paris. In the part of Paris where my little apartment is, the wonderful old cobblestones were ripped up and the streets were paved over so that future demonstrators would not have the materials for barricades ready to hand, while the Sorbonne, home territory to the rebellious students, was broken up into a number of branches and scattered all over the city, on the theory, I suppose, that this would discourage revolutionary activity.

Piketty has an extremely curious relationship to Marx. He has clearly read him, he refers to him frequently, and yet he cannot stop explaining why Marx has nothing important to teach us about capitalism, or indeed about capital. Here is an extract from the six page Conclusion that closes the book:

"The inequality $r > g$ implies that wealth accumulated in the past grows more rapidly than output and wages. This inequality expresses a fundamental logical contradiction. The entrepreneur inevitably tends to become a rentier, more and more dominant over those who own nothing but their labor. Once constituted, capital reproduces itself faster than output increases. The past devours the future." [p. 571]

With a few adjustments in jargon, that passage could have come straight from the pages of *Das Kapital*. Indeed, omit Piketty's weak, rather hesitant Part Four, and the entire impressive massing and analysis of data in the book could be viewed as an overwhelmingly powerful confirmation of Marx's dark vision of capitalism. And yet, Piketty shrinks from such an identification, dismissing Marx's theories as inadequately grounded in the available data and motivated by political concerns rather than economic insight. What is going on?

I honestly don't know, but I am going to hazard a guess, based on hints I find in the text. This portion of my remarks must be taken with even more than the usual helping of salt, because in addition to lacking any formal training as an economist, I also lack the sort of immediate familiarity with the French academic and intellectual scene that would help me to place Piketty in his intellectual milieu.

As we have seen, the object of Piketty's greatest concern is the re-emergence of patrimonial capitalism, of a capitalism dominated by those who have inherited their wealth rather than acquired it themselves. Many passages suggest that Piketty sees this as a question of fairness or social justice [there is even a footnote reference to Rawls at one point]. But another specter is haunting Piketty, the specter of *destabilization*. The threat of destabilization appears in the Introduction, where Piketty writes that "if the rates of population and productivity growth are relatively low, then accumulated wealth naturally takes on considerable importance, especially if it grows to extreme proportions and becomes socially destabilizing. ... Accumulation ends at a finite level, but that level may be high enough to be destabilizing." [p. 10] Several pages later, he writes, "The second conclusion, which is the heart of this book, is that the dynamics of wealth distribution reveal powerful mechanisms pushing alternately toward convergence or divergence. Furthermore, there is no natural, spontaneous process to prevent destabilizing, inegalitarian forces from prevailing permanently." [p. 21] And two pages further on, "there is a set of forces of divergence associated with the process of accumulation and concentration of wealth when growth is weak and return on capital is high [i.e., when r is significantly greater than *g* RPW] This process is potentially more destabilizing ... and it no doubt represents the principal threat to an equal distribution of wealth over the long run." [p. 23]

Nowhere in the almost six hundred pages of this huge book does Piketty ever tell us what he means by "destabilization." There is a tiny clue on page 472. "The main reason why the crisis of 2008 did not trigger a crash as serious as the Great Depression is that this time the governments and central banks of the wealthy countries did not allow the financial system to collapse and agreed to create the liquidity necessary to avoid the waves of bank failures that led the world to the brink of the abyss in the 1930s."

The brink of the abyss. Considering how bad things were in the '30s, what would have been so much worse as to qualify as an "abyss"? The only thing I can suppose Piketty has in mind is a political revolution. I cannot be sure because he never tells us, but I think the *destabilization* Piketty fears is a political uprising, outside of the usual procedures of democratic government, fueled by popular outrage at the extreme inequality of inherited wealth that he labels *patrimonial capitalism*.

Now, let us remember. Piketty is a man of the left, an advisor to the French Socialist Party and to its 2007 presidential candidate, Ségolène Royal. It is surely not democratic socialism that Piketty fears, at least not the rather tepid version that now passes for socialism in France. My speculation—and it really is only that—is that Piketty fears a right-wing uprising, a *revanchist* resurgence of the fascism that always lurks below the surface in modern Europe. [Just today, as I have been writing these words, I read that in local elections, the far right National Front party of Marine Le Pen has won upset victories in ten or eleven towns over the socialist candidates.] We on the left here in America have never had a viable nationally competitive socialist party [although, to be sure, my grandfather won election on a socialist ticket to the New York City Board of Alderman in 1917—our family's proudest day], so we may long for an uprising from the left. But we have also never suffered a fascist putsch. Well, as I say, this is all just speculation.

What do *I* think about the economic inequality whose history, tendency, structure, and lineaments Piketty has so brilliantly portrayed? Let me close this lengthy review by offering some observations, some suggestions, and some alternatives to Piketty's global tax on capital.

Piketty's central discovery, if we may call it that, is that contemporary capitalism is over the long run steadily transferring huge quantities of wealth from the poor to the rich, reconstituting thereby the inherited or patrimonial privilege and power characteristic of Europe in the eighteenth and nineteenth centuries. This fact may come as a surprise to professional economists, but it does not particularly startle those of us who have squandered our youth and idled away our maturity reading Karl Marx. *All* societies exist for the purpose of transferring wealth from those who create it—the poor—to those who do not—the rich. The academic professions exist for the purpose of rationalizing this transfer, the churches exist for the purpose of blessing it, and the arts exist for the purpose of decorating the transfer so as to make it as charming as possible [even though this often comes to nothing more than putting lipstick on a pig.]

In the early stages of the development of capitalism, capital, which is to say the accumulated and unconsumed product of past labor, is owned by those who manage its deployment for new production of goods and services. But as capitalism evolves, the structure of capital changes. The ownership of the capital remains private, but its organization is progressively socialized. [Once again, I must refer readers to my paper, "The Future of Socialism," archived at box.net and accessible via the link at the top of this blog.] The essential work of the management of capital is separated from ownership and placed in the hands of a cadre of professional managers [Piketty's "supermanagers," among them.] Modern multi-national corporations are marvels of the rational organization of capital. Their ownership, as opposed to their management, is dispersed among countless shareholders, who may well be wealthy individuals but may as well be pension funds of public employees.

Piketty's little inequality, $r > g$, conceals a vitally important truth. The rate of return on capital, r, is in part determined by the share of the annual product that goes to wages for those whose labor creates that product. Regardless of the fantasies of marginal productivity, invented to provide a quasi-mathematical excuse for the exploitation of the working class, there is nothing to stop a society from deciding collectively that the *entire* annual product of the economy shall be divided into one portion *saved* to create new capital, a second portion set aside to pay for social services and activities, and a third portion paid as wages to the individuals engaged in one way or another in the production of the annual output. Included in the second portion will of course be pensions for those no longer working, education for those not yet working, health care for those who need it [including those unable to work], and any other public undertakings democratically decided upon. *None of the annual product need be reserved as "profit" for those who hitherto have successfully asserted legal ownership of the society's accumulated capital*. In short, every society, including ours, has a real and continuing need for *capital*, but our society no longer has any need at all for *capitalists*.

How on earth can we transform modern capitalist society into a society without capitalists? After all, as good old Marx reminds us, "Philosophers have hitherto only *interpreted* the world in various ways; the point is to *change* it."

Well, I am about to depart on a two-week safari, so I will politely defer a full answer to this little question until I return [hem hem].

I remain enlightened by Piketty's book, educated by it, helped by it in thinking about the evolution of capitalism in America, and disappointed by the timidity of the concrete steps he proposes to address the threat of growing entrenched economic inequality. But that just means that we here in America have work to do. I urge you all to get a copy of *CAPITAL in the Twenty-First Century* and read it carefully. I believe it will repay the effort.

Paul Krugman, "Why We're in a New Gilded Age"
The New York Review of Books, May 4, 2014

Thomas Piketty, professor at the Paris School of Economics, isn't a household name, although that may change with the English-language publication of his magnificent, sweeping meditation on inequality, *Capital in the Twenty-First Century*. Yet his influence runs deep. It has become a commonplace to say that we are living in a second Gilded Age—or, as Piketty likes to put it, a second Belle Époque—defined by the incredible rise of the "one percent." But it has only become a commonplace thanks to Piketty's work. In particular, he and a few colleagues (notably Anthony Atkinson at Oxford and Emmanuel Saez at Berkeley) have pioneered statistical techniques that make it possible to track the concentration of income and wealth deep into the past—back to the early twentieth century for America and Britain, and all the way to the late eighteenth century for France.

The result has been a revolution in our understanding of long-term trends in inequality. Before this revolution, most discussions of economic disparity more or less ignored the very rich. Some economists (not to mention politicians) tried to shout down any mention of inequality at all: "Of the tendencies that are harmful to sound economics, the most seductive, and in my opinion the most poisonous, is to focus on questions of distribution," declared Robert Lucas Jr. of the University of Chicago, the most influential macroeconomist of his generation, in 2004. But even those willing to discuss inequality generally focused on the gap between the poor or the working class and the merely well-off, not the truly rich—on college graduates whose wage gains outpaced those of less-educated workers, or on the comparative good fortune of the top fifth of the population compared with the bottom four fifths, not on the rapidly rising incomes of executives and bankers.

It therefore came as a revelation when Piketty and his colleagues showed that incomes of the now famous "one percent," and of even narrower groups, are actually the big story in rising inequality. And this discovery came with a second revelation: talk of a second Gilded Age, which might have seemed like hyperbole, was nothing of the kind. In America in particular the share of national income going to the top one percent has followed a great U-shaped arc. Before World War I the one percent received around a fifth of total income in both Britain and the United States. By 1950 that share had been cut by more than half. But since 1980 the one percent has seen its income share surge again—and in the United States it's back to what it was a century ago.

Still, today's economic elite is very different from that of the nineteenth century, isn't it? Back then, great wealth tended to be inherited; aren't today's economic elite people who earned their position? Well, Piketty tells us that this isn't as true as you think, and that in any case this state of affairs may prove no more durable than the middle-class society that flourished for a generation after World War II. The big idea of *Capital in the Twenty-First Century* is that we haven't just gone back to nineteenth-century levels of income inequality, we're also on a path back to “patrimonial capitalism,” in which the commanding heights of the economy are controlled not by talented individuals but by family dynasties.

It’s a remarkable claim—and precisely because it’s so remarkable, it needs to be examined carefully and critically. Before I get into that, however, let me say right away that Piketty has written a truly superb book. It’s a work that melds grand historical sweep—when was the last time you heard an economist invoke Jane Austen and Balzac?—with painstaking data analysis. And even though Piketty mocks the economics profession for its “childish passion for mathematics,” underlying his discussion is a tour de force of economic modeling, an approach that integrates the analysis of economic growth with that of the distribution of income and wealth. This is a book that will change both the way we think about society and the way we do economics.

1.

What do we know about economic inequality, and about when do we know it? Until the Piketty revolution swept through the field, most of what we knew about income and wealth inequality came from surveys, in which randomly chosen households are asked to fill in a questionnaire, and their answers are tallied up to produce a statistical portrait of the whole. The international gold standard for such surveys is the annual survey conducted once a year by the Census Bureau. The Federal Reserve also conducts a triennial survey of the distribution of wealth.

These two surveys are an essential guide to the changing shape of American society. Among other things, they have long pointed to a dramatic shift in the process of US economic growth, one that started around 1980. Before then, families at all levels saw their incomes grow more or less in tandem with the growth of the economy as a whole. After 1980, however, the lion’s share of gains went to the top end of the income distribution, with families in the bottom half lagging far behind.

Historically, other countries haven’t been equally good at keeping track of who gets what; but this situation has improved over time, in large part thanks to the efforts of the Luxembourg Income Study (with which I will soon be affiliated). And the growing availability of survey data that can be compared across nations has led to further important insights. In particular, we now know both that the United States has a much more unequal distribution of income than other advanced countries and that much of this difference in outcomes can be attributed directly to government action. European nations in general have highly unequal incomes from market activity, just like the United States, although possibly not to the same extent. But they do far more redistribution through taxes and transfers than America does, leading to much less inequality in disposable incomes.

Yet for all their usefulness, survey data have important limitations. They tend to undercount or miss entirely the income that accrues to the handful of individuals at the very top of the income scale. They also have limited historical depth. Even US survey data only take us to 1947.

Enter Piketty and his colleagues, who have turned to an entirely different source of information: tax records. This isn't a new idea. Indeed, early analyses of income distribution relied on tax data because they had little else to go on. Piketty et al. have, however, found ways to merge tax data with other sources to produce information that crucially complements survey evidence. In particular, tax data tell us a great deal about the elite. And tax-based estimates can reach much further into the past: the United States has had an income tax since 1913, Britain since 1909. France, thanks to elaborate estate tax collection and record-keeping, has wealth data reaching back to the late eighteenth century.

Exploiting these data isn't simple. But by using all the tricks of the trade, plus some educated guesswork, Piketty is able to produce a summary of the fall and rise of extreme inequality over the course of the past century. It looks like Table 1 on this page.

As I said, describing our current era as a new Gilded Age or Belle Époque isn't hyperbole; it's the simple truth. But how did this happen?
krugman_2-050814

2.
Piketty throws down the intellectual gauntlet right away, with his book's very title: *Capital in the Twenty-First Century*. Are economists still allowed to talk like that?

It's not just the obvious allusion to Marx that makes this title so startling. By invoking capital right from the beginning, Piketty breaks ranks with most modern discussions of inequality, and hearkens back to an older tradition.

The general presumption of most inequality researchers has been that earned income, usually salaries, is where all the action is, and that income from capital is neither important nor interesting. Piketty shows, however, that even today income from capital, not earnings, predominates at the top of the income distribution. He also shows that in the past—during Europe's Belle Époque and, to a lesser extent, America's Gilded Age—unequal ownership of assets, not unequal pay, was the prime driver of income disparities. And he argues that we're on our way back to that kind of society. Nor is this casual speculation on his part. For all that *Capital in the Twenty-First Century* is a work of principled empiricism, it is very much driven by a theoretical frame that attempts to unify discussion of economic growth and the distribution of both income and wealth. Basically, Piketty sees economic history as the story of a race between capital accumulation and other factors driving growth, mainly population growth and technological progress.

To be sure, this is a race that can have no permanent victor: over the very long run, the stock of capital and total income must grow at roughly the same rate. But one side or the other can pull ahead for decades at a time. On the eve of World War I, Europe had accumulated capital worth six or seven times national income. Over the next four decades, however, a combination of physical destruction and the diversion of savings into war efforts cut that ratio in half. Capital accumulation resumed after World War II, but this was a period of spectacular economic growth—the *Trente Glorieuses*, or "Glorious Thirty" years; so the ratio of capital to income remained low. Since the 1970s, however, slowing growth has meant a rising capital ratio, so capital and wealth have been trending steadily back toward Belle Époque levels. And this accumulation of capital, says Piketty, will eventually recreate Belle Époque–style inequality unless opposed by progressive taxation.

Why? It's all about *r* versus *g*—the rate of return on capital versus the rate of economic growth.

Just about all economic models tell us that if *g* falls—which it has since 1970, a decline that is likely to continue due to slower growth in the working-age population and slower technological progress—*r* will fall too. But Piketty asserts that *r* will fall less than *g*. This doesn't have to be true. However, if it's sufficiently easy to replace workers with machines—if, to use the technical jargon, the elasticity of substitution between capital and labor is greater than one—slow growth, and the resulting rise in the ratio of capital to income, will indeed widen the gap between *r* and *g*. And Piketty argues that this is what the historical record shows will happen.

If he's right, one immediate consequence will be a redistribution of income away from labor and toward holders of capital. The conventional wisdom has long been that we needn't worry about that happening, that the shares of capital and labor respectively in total income are highly stable over time. Over the very long run, however, this hasn't been true. In Britain, for example, capital's share of income—whether in the form of corporate profits, dividends, rents, or sales of property, for example—fell from around 40 percent before World War I to barely 20 percent circa 1970, and has since bounced roughly halfway back. The historical arc is less clear-cut in the United States, but here, too, there is a redistribution in favor of capital underway. Notably, corporate profits have soared since the financial crisis began, while wages—including the wages of the highly educated—have stagnated.

A rising share of capital, in turn, directly increases inequality, because ownership of capital is always much more unequally distributed than labor income. But the effects don't stop there, because when the rate of return on capital greatly exceeds the rate of economic growth, "the past tends to devour the future": society inexorably tends toward dominance by inherited wealth.

Consider how this worked in Belle Époque Europe. At the time, owners of capital could expect to earn 4–5 percent on their investments, with minimal taxation; meanwhile economic growth was only around one percent. So wealthy individuals could easily reinvest enough of their income to ensure that their wealth and hence their incomes were growing faster than the economy, reinforcing their economic dominance, even while skimming enough off to live lives of great luxury.

And what happened when these wealthy individuals died? They passed their wealth on—again, with minimal taxation—to their heirs. Money passed on to the next generation accounted for 20 to 25 percent of annual income; the great bulk of wealth, around 90 percent, was inherited rather than saved out of earned income. And this inherited wealth was concentrated in the hands of a very small minority: in 1910 the richest one percent controlled 60 percent of the wealth in France; in Britain, 70 percent.

No wonder, then, that nineteenth-century novelists were obsessed with inheritance. Piketty discusses at length the lecture that the scoundrel Vautrin gives to Rastignac in Balzac's *Père Goriot*, whose gist is that a most successful career could not possibly deliver more than a fraction of the wealth Rastignac could acquire at a stroke by marrying a rich man's daughter. And it turns out that Vautrin was right: being in the top one percent of nineteenth-century heirs and simply living off your inherited wealth gave you around two and a half times the standard of living you could achieve by clawing your way into the top one percent of paid workers.

You might be tempted to say that modern society is nothing like that. In fact, however, both capital income and inherited wealth, though less important than they were in the Belle Époque, are still powerful drivers of inequality—and their importance is growing. In France, Piketty shows, the inherited share of total wealth dropped sharply during the era of wars and postwar fast growth; circa 1970 it was less than 50 percent. But it's now back up to 70 percent, and rising. Correspondingly, there has been a fall and then a rise in the importance of inheritance in conferring elite status: the living standard of the top one percent of heirs fell below that of the top one percent of earners between 1910 and 1950, but began rising again after 1970. It's not all the way back to Rasti-gnac levels, but once again it's generally more valuable to have the right parents (or to marry into having the right in-laws) than to have the right job.

And this may only be the beginning. Figure 1 on this page shows Piketty's estimates of global *r* and *g* over the long haul, suggesting that the era of equalization now lies behind us, and that the conditions are now ripe for the reestablishment of patrimonial capitalism.

Given this picture, why does inherited wealth play as small a part in today's public discourse as it does? Piketty suggests that the very size of inherited fortunes in a way makes them invisible: "Wealth is so concentrated that a large segment of society is virtually unaware of its existence, so that some people imagine that it belongs to surreal or mysterious entities." This is a very good point. But it's surely not the whole explanation. For the fact is that the most conspicuous example of soaring inequality in today's world—the rise of the very rich one percent in the Anglo-Saxon world, especially the United States—doesn't have all that much to do with capital accumulation, at least so far. It has more to do with remarkably high compensation and incomes.

3.

Capital in the Twenty-First Century is, as I hope I've made clear, an awesome work. At a time when the concentration of wealth and income in the hands of a few has resurfaced as a central political issue, Piketty doesn't just offer invaluable documentation of what is happening, with unmatched historical depth. He also offers what amounts to a unified field theory of inequality, one that integrates economic growth, the distribution of income between capital and labor, and the distribution of wealth and income among individuals into a single frame.

And yet there is one thing that slightly detracts from the achievement—a sort of intellectual sleight of hand, albeit one that doesn't actually involve any deception or malfeasance on Piketty's part. Still, here it is: the main reason there has been a hankering for a book like this is the rise, not just of the one percent, but specifically of the American one percent. Yet that rise, it turns out, has happened for reasons that lie beyond the scope of Piketty's grand thesis.

Piketty is, of course, too good and too honest an economist to try to gloss over inconvenient facts. "US inequality in 2010," he declares, "is quantitatively as extreme as in old Europe in the first decade of the twentieth century, but the structure of that inequality is rather clearly different." Indeed, what we have seen in America and are starting to see elsewhere is something "radically new"—the rise of "supersalaries."

Capital still matters; at the very highest reaches of society, income from capital still exceeds income from wages, salaries, and bonuses. Piketty estimates that the increased inequality of capital income accounts for about a third of the overall rise in US inequality. But wage income at the top has also surged. Real wages for most US workers have increased little if at all since the early 1970s, but wages for the top one percent of earners have risen 165 percent, and wages for the top 0.1 percent have risen 362 percent. If Rastignac were alive today, Vautrin might concede that he could in fact do as well by becoming a hedge fund manager as he could by marrying wealth.

What explains this dramatic rise in earnings inequality, with the lion's share of the gains going to people at the very top? Some US economists suggest that it's driven by changes in technology. In a famous 1981 paper titled "The Economics of Superstars," the Chicago economist Sherwin Rosen argued that modern communications technology, by extending the reach of talented individuals, was creating winner-take-all markets in which a handful of exceptional individuals reap huge rewards, even if they're only modestly better at what they do than far less well paid rivals.

Piketty is unconvinced. As he notes, conservative economists love to talk about the high pay of performers of one kind or another, such as movie and sports stars, as a way of suggesting that high incomes really are deserved. But such people actually make up only a tiny fraction of the earnings elite. What one finds instead is mainly executives of one sort or another—people whose performance is, in fact, quite hard to assess or give a monetary value to.

Who determines what a corporate CEO is worth? Well, there's normally a compensation committee, appointed by the CEO himself. In effect, Piketty argues, high-level executives set their own pay, constrained by social norms rather than any sort of market discipline. And he attributes skyrocketing pay at the top to an erosion of these norms. In effect, he attributes soaring wage incomes at the top to social and political rather than strictly economic forces.

Now, to be fair, he then advances a possible economic analysis of changing norms, arguing that falling tax rates for the rich have in effect emboldened the earnings elite. When a top manager could expect to keep only a small fraction of the income he might get by flouting social norms and extracting a very large salary, he might have decided that the opprobrium wasn't worth it. Cut his marginal tax rate drastically, and he may behave differently. And as more and more of the supersalaried flout the norms, the norms themselves will change.

There's a lot to be said for this diagnosis, but it clearly lacks the rigor and universality of Piketty's analysis of the distribution of and returns to wealth. Also, I don't *think Capital in the Twenty-First Century* adequately answers the most telling criticism of the executive power hypothesis: the concentration of very high incomes in finance, where performance actually can, after a fashion, be evaluated. I didn't mention hedge fund managers idly: such people are paid based on their ability to attract clients and achieve investment returns. You can question the social value of modern finance, but the Gordon Gekkos out there are clearly good at something, and their rise can't be attributed solely to power relations, although I guess you could argue that willingness to engage in morally dubious wheeling and dealing, like willingness to flout pay norms, is encouraged by low marginal tax rates.

Overall, I'm more or less persuaded by Piketty's explanation of the surge in wage inequality, though his failure to include deregulation is a significant disappointment. But as I said, his analysis here lacks the rigor of his capital analysis, not to mention its sheer, exhilarating intellectual elegance.

Yet we shouldn't overreact to this. Even if the surge in US inequality to date has been driven mainly by wage income, capital has nonetheless been significant too. And in any case, the story looking forward is likely to be quite different. The current generation of the very rich in America may consist largely of executives rather than rentiers, people who live off accumulated capital, but these executives have heirs. And America two decades from now could be a rentier-dominated society even more unequal than Belle Époque Europe.

But this doesn't have to happen.

4.

At times, Piketty almost seems to offer a deterministic view of history, in which everything flows from the rates of population growth and technological progress. In reality, however, *Capital in the Twenty-First Century* makes it clear that public policy can make an enormous difference, that even if the underlying economic conditions point toward extreme inequality, what Piketty calls "a drift toward oligarchy" can be halted and even reversed if the body politic so chooses.

The key point is that when we make the crucial comparison between the rate of return on wealth and the rate of economic growth, what matters is the *after-tax* return on wealth. So progressive taxation—in particular taxation of wealth and inheritance—can be a powerful force limiting inequality. Indeed, Piketty concludes his masterwork with a plea for just such a form of taxation. Unfortunately, the history covered in his own book does not encourage optimism.

It's true that during much of the twentieth century strongly progressive taxation did indeed help reduce the concentration of income and wealth, and you might imagine that high taxation at the top is the natural political outcome when democracy confronts high inequality. Piketty, however, rejects this conclusion; the triumph of progressive taxation during the twentieth century, he contends, was "an ephemeral product of chaos." Absent the wars and upheavals of Europe's modern Thirty Years' War, he suggests, nothing of the kind would have happened.

As evidence, he offers the example of France's Third Republic. The Republic's official ideology was highly egalitarian. Yet wealth and income were nearly as concentrated, economic privilege almost as dominated by inheritance, as they were in the aristocratic constitutional monarchy across the English Channel. And public policy did almost nothing to oppose the economic domination by rentiers: estate taxes, in particular, were almost laughably low.

Why didn't the universally enfranchised citizens of France vote in politicians who would take on the rentier class? Well, then as now great wealth purchased great influence—not just over policies, but over public discourse. Upton Sinclair famously declared that "it is difficult to get a man to understand something when his salary depends on his not understanding it." Piketty, looking at his own nation's history, arrives at a similar observation: "The experience of France in the Belle Époque proves, if proof were needed, that no hypocrisy is too great when economic and financial elites are obliged to defend their interest."

The same phenomenon is visible today. In fact, a curious aspect of the American scene is that the politics of inequality seem if anything to be running ahead of the reality. As we've seen, at this point the US economic elite owes its status mainly to wages rather than capital income. Nonetheless, conservative economic rhetoric already emphasizes and celebrates capital rather than labor—"job creators," not workers.

In 2012 Eric Cantor, the House majority leader, chose to mark Labor Day—Labor Day!—with a tweet honoring business owners:

> 'Today, we celebrate those who have taken a risk, worked hard, built a business and earned their own success.'

Perhaps chastened by the reaction, he reportedly felt the need to remind his colleagues at a subsequent GOP retreat that most people don't own their own businesses—but this in itself shows how thoroughly the party identifies itself with capital to the virtual exclusion of labor.

Nor is this orientation toward capital just rhetorical. Tax burdens on high-income Americans have fallen across the board since the 1970s, but the biggest reductions have come on capital income—including a sharp fall in corporate taxes, which indirectly benefits stockholders—and inheritance. Sometimes it seems as if a substantial part of our political class is actively working to restore Piketty's patrimonial capitalism. And if you look at the sources of political donations, many of which come from wealthy families, this possibility is a lot less outlandish than it might seem.

Piketty ends *Capital in the Twenty-First Century* with a call to arms—a call, in particular, for wealth taxes, global if possible, to restrain the growing power of inherited wealth. It's easy to be cynical about the prospects for anything of the kind. But surely Piketty's masterly diagnosis of where we are and where we're heading makes such a thing considerably more likely. So *Capital in the Twenty-First Century* is an extremely important book on all fronts. Piketty has transformed our economic discourse; we'll never talk about wealth and inequality the same way we used to.

New Republic
"Thomas Piketty Is Right"
By Robert M. Solow | April 22, 2014

Everything you need to know about 'Capital in the Twenty-First Century'

Income inequality in the United States and elsewhere has been worsening since the 1970s. The most striking aspect has been the widening gap between the rich and the rest. This ominous anti-democratic trend has finally found its way into public consciousness and political rhetoric. A rational and effective policy for dealing with it—if there is to be one—will have to rest on an understanding of the causes of increasing inequality. The discussion so far has turned up a number of causal factors: the erosion of the real minimum wage; the decay of labor unions and collective bargaining; globalization and intensified competition from low-wage workers in poor countries; technological changes and shifts in demand that eliminate mid-level jobs and leave the labor market polarized between the highly educated and skilled at the top and the mass of poorly educated and unskilled at the bottom.

Each of these candidate causes seems to capture a bit of the truth. But even taken together they do not seem to provide a thoroughly satisfactory picture. They have at least two deficiencies. First, they do not speak to the really dramatic issue: the tendency for the very top incomes—the "1 percent"—to pull away from the rest of society. Second, they seem a little adventitious, accidental; whereas a forty-year trend common to the advanced economies of the United States, Europe, and Japan would be more likely to rest on some deeper forces within modern industrial capitalism. Now along comes Thomas Piketty, a forty-two-year-old French economist, to fill those gaps and then some. I had a friend, a distinguished algebraist, whose preferred adjective of praise was "serious." "Z is a serious mathematician," he would say, or "Now that is a serious painting." Well, this is a serious book.

It is also a long book: 577 pages of closely printed text and seventy-seven pages of notes. (I call down a painful pox on publishers who put the footnotes at the end of the book instead of the bottom of the page where they belong, thus making sure that readers like me will skip many of them.) There is also an extensive “technical appendix” available online that contains tables of data, mathematical arguments, references to the literature, and links to class notes for Piketty’s (evidently excellent) lecture course in Paris. The English translation by Arthur Goldhammer reads very well.

Piketty’s strategy is to start with a panoramic reading of the data across space and time, and then work out from there. He and a group of associates, most notably Emmanuel Saez, another young French economist, a professor at Berkeley, and Anthony B. Atkinson of Oxford, the pioneer and gray eminence of modern inequality studies, have labored hard to compile an enormous database that is still being extended and refined. It provides the empirical foundation for Piketty’s argument.

It all begins with the time path of total—private and public—wealth (or capital) in France, the United Kingdom, and the United States, going back to whenever data first become available and running up to the present. Germany, Japan, and Sweden, and less frequently other countries, are included in the database when satisfactory statistics exist. If you are wondering why a book about inequality should begin by measuring total wealth, just wait.

Since comparisons over vast stretches of time and space are the essence, there is a problem about finding comparable units in which to measure total wealth or capital in, say, France in 1850 as well as in the United States in 1950. Piketty solves this problem by dividing wealth measured in local currency of the time by national income, also measured in local currency of the time. The wealth-income ratio then has the dimension “years.” The comparison just mentioned says in fact that total wealth in France in 1850 amounted to about seven years’ worth of income, but only about four years for the United States in 1950. This visualization of national wealth or capital as relative to national income is basic to the whole enterprise. Reference to the capital-output or capital-income ratio is commonplace in economics. Get used to it.

There is a small ambiguity here. Piketty uses “wealth” and “capital” as interchangeable terms. We know how to calculate the wealth of a person or an institution: you add up the value of all its assets and subtract the total of debts. (The values are market prices or, in their absence, some approximation.) The result is net worth or wealth. In English at least, this is often called a person’s or institution’s capital. But “capital” has another, not quite equivalent, meaning: it is a “factor of production,” an essential input into the production process, in the form of factories, machinery, computers, office buildings, or houses (that produce “housing services”). This meaning can diverge from “wealth.” Trivially, there are assets that have value and are part of wealth but do not produce anything: works of art, hoards of precious metals, and so forth. (Paintings hanging in a living room could be said to produce “aesthetic services,” but those are not generally counted in national income.) More significantly, stock market values, the financial counterpart of corporate productive capital, can fluctuate violently, more violently than national income. In a recession, the wealth-income ratio may fall noticeably, although the stock of productive capital, and even its expected future earning power, may have changed very little or not at all. But as long as we stick to longer-run trends, as Piketty generally does, this difficulty can safely be disregarded.

The data then exhibit a clear pattern. In France and Great Britain, national capital stood fairly steadily at about seven times national income from 1700 to 1910, then fell sharply from 1910 to 1950, presumably as a result of wars and depression, reaching a low of 2.5 in Britain and a bit less than 3 in France. The capital-income ratio then began to climb in both countries, and reached slightly more than 5 in Britain and slightly less than 6 in France by 2010. The trajectory in the United States was slightly different: it started at just above 3 in 1770, climbed to 5 in 1910, fell slightly in 1920, recovered to a high between 5 and 5.5 in 1930, fell to below 4 in 1950, and was back to 4.5 in 2010.

The wealth-income ratio in the United States has always been lower than in Europe. The main reason in the early years was that land values bulked less in the wide open spaces of North America. There was of course much more land, but it was very cheap. Into the twentieth century and onward, however, the lower capital-income ratio in the United States probably reflects the higher level of productivity: a given amount of capital could support a larger production of output than in Europe. It is no surprise that the two world wars caused much less destruction and dissipation of capital in the United States than in Britain and France. The important observation for Piketty's argument is that, in all three countries, and elsewhere as well, the wealth-income ratio has been increasing since 1950, and is almost back to nineteenth-century levels. He projects this increase to continue into the current century, with weighty consequences that will be discussed as we go on.

In fact he predicts, without much confidence and without kidding himself, that the world capital-income ratio will rise from just under 4.5 in 2010 to just over 6.5 by the end of this century. That would bring the whole world back to where a few rich countries of Europe were in the nineteenth century. Where does this guess come from? Or, more generally, what determines an economy's long-run capital-income ratio anyway? This is a question that has been studied by economists for some seventy-five years. They have converged on a standard answer that Piketty adopts as a long-run economic "law." In rough outline it goes like this.

Imagine an economy with a national income of 100, growing at 2 percent a year (perhaps with occasional hiccups, to be ignored). Suppose it regularly saves and invests (that is, adds to its capital) 10 percent of national income. So, in the year in which its income reaches 100 it adds 10 to its stock of capital. We want to know if the capital-income ratio can stay unchanged for next year, that is to say, can stabilize for the long run. For that to happen, the numerator of the capital-income ratio must grow at the same 2 percent rate as the denominator. We have already said that it grows by 10; for that to be 2 percent of capital, capital must have been 500, no more, no less. We have found a consistent story: this year national income is 100, capital is 500, and the ratio is 5. Next year national income is 102, capital is 510, the ratio is still 5, and this process can repeat itself automatically as long as the growth rate stays at 2 percent a year and the saving / investment rate is 10 percent of national income. Something more dramatic is true: if capital and labor combine to produce national output according to the good old law of diminishing returns, then wherever this economy starts, it will be driven by its own internal logic to this unique self-reproducing capital-income ratio.

Careful attention to this example will show that it amounts to a general statement: if the economy is growing at g percent per year, and if it saves s percent of its national income each year, the self-reproducing capital-income ratio is s / g (10 / 2 in the example). Piketty suggests that global growth of output will slow in the coming century from 3 percent to 1.5 percent annually. (This is the sum of the growth rates of population and productivity, both of which he expects to diminish.) He puts the world saving / investment rate at about 10 percent. So he expects the capital-income ratio to climb eventually to something near 7 (or 10 / 1.5). This is a big deal, as will emerge. He is quite aware that the underlying assumptions could turn out to be wrong; no one can see a century ahead. But it could plausibly go this way.

The key thing about wealth in a capitalist economy is that it reproduces itself and usually earns a positive net return. That is the next thing to be investigated. Piketty develops estimates of the "pure" rate of return (after minor adjustments) in Britain going back to 1770 and in France going back to 1820, but not for the United States. He concludes: "[T]he pure return on capital has oscillated around a central value of 4–5 percent a year, or more generally in an interval from 3–6 percent a year. There has been no pronounced long-term trend either upward or downward.... It is possible, however, that the pure return on capital has decreased slightly over the very long run." It would be interesting to have comparable figures for the United States.

Now if you multiply the rate of return on capital by the capital-income ratio, you get the share of capital in the national income. For example, if the rate of return is 5 percent a year and the stock of capital is six years' worth of national income, income from capital will be 30 percent of national income, and so income from work will be the remaining 70 percent. At last, after all this preparation, we are beginning to talk about inequality, and in two distinct senses. First, we have arrived at the functional distribution of income—the split between income from work and income from wealth. Second, it is always the case that wealth is more highly concentrated among the rich than income from labor (although recent American history looks rather odd in this respect); and this being so, the larger the share of income from wealth, the more unequal the distribution of income among persons is likely to be. It is this inequality across persons that matters most for good or ill in a society.

This is often not well understood, and may be worth a brief digression. The labor share of national income is arithmetically the same thing as the real wage divided by the productivity of labor. Would you rather live in a society in which the real wage was rising rapidly but the labor share was falling (because productivity was increasing even faster), or one in which the real wage was stagnating, along with productivity, so the labor share was unchanging? The first is surely better on narrowly economic grounds: you eat your wage, not your share of national income. But there could be political and social advantages to the second option. If a small class of owners of wealth—and it is small—comes to collect a growing share of the national income, it is likely to dominate the society in other ways as well. This dichotomy need not arise, but it is good to be clear.

Suppose we accept Piketty's educated guess that the capital-income ratio will increase over the next century before stabilizing at a high value somewhere around 7. Does it follow that the capital share of income will also get bigger? Not necessarily: remember that we have to multiply the capital-income ratio by the rate of return, and that same law of diminishing returns suggests that the rate of return on capital will fall. As production becomes more and more capital-intensive, it gets harder and harder to find profitable uses for additional capital, or easy ways to substitute capital for labor. Whether the capital share falls or rises depends on whether the rate of return has to fall proportionally more or less than the capital-income ratio rises.

There has been a lot of research around this question within economics, but no definitely conclusive answer has emerged. This suggests that the ultimate effect on the capital share, whichever way it goes, will be small. Piketty opts for an increase in the capital share, and I am inclined to agree with him. Productivity growth has been running ahead of real wage growth in the American economy for the last few decades, with no sign of a reversal, so the capital share has risen and the labor share fallen. Perhaps the capital share will go from about 30 percent to about 35 percent, with whatever challenge to democratic culture and politics that entails.

There is a stronger implication of this line of argument, and with it we come to the heart of Piketty's case. So far as I know, no one before him has made this connection. Remember what has been established so far. Both history and theory suggest that there is a slow tendency in an industrial capitalist economy for the capital-income ratio to stabilize, and with it the rate of return on capital. This tendency can be disturbed by severe depressions, wars, and social and technological disruptions, but it reasserts itself in tranquil conditions. Over the long span of history surveyed by Piketty, the rate of return on capital is usually larger than the underlying rate of growth. The only substantial exceptional sub-period is between 1910 and 1950. Piketty ascribes this rarity to the disruption and high taxation caused by the two great wars and the depression that came between them.

There is no logical necessity for the rate of return to exceed the growth rate: a society or the individuals in it can decide to save and to invest so much that they (and the law of diminishing returns) drive the rate of return below the long-term growth rate, whatever that happens to be. It is known that this possible state of affairs is socially perverse in the sense that letting the stock of capital diminish until the rate of return falls back to equality with the growth rate would allow for a permanently higher level of consumption per person, and thus for a better social state. But there is no invisible hand to steer a market economy away from this perversity. Yet it has been avoided, probably because historical growth rates have been low and capital has been scarce. We can take it as normal that the rate of return on capital exceeds the underlying growth rate.

But now we can turn our attention to what is happening within the economy. Suppose it has reached a "steady state" when the capital-income ratio has stabilized. Those whose income comes entirely from work can expect their wages and incomes to be rising about as fast as productivity is increasing through technological progress. That is a little less than the overall growth rate, which also includes the rate of population increase. Now imagine someone whose income comes entirely from accumulated wealth. He or she earns r percent a year. (I am ignoring taxes, but not for long.) If she is very wealthy, she is likely to consume only a small fraction of her income. The rest is saved and accumulated, and her wealth will increase by almost r percent each year, and so will her income. If you leave $100 in a bank account paying 3 percent interest, your balance will increase by 3 percent each year.

This is Piketty's main point, and his new and powerful contribution to an old topic: as long as the rate of return exceeds the rate of growth, the income and wealth of the rich will grow faster than the typical income from work. (There seems to be no offsetting tendency for the aggregate share of capital to shrink; the tendency may be slightly in the opposite direction.) This interpretation of the observed trend toward increasing inequality, and especially the phenomenon of the 1 percent, is not rooted in any failure of economic institutions; it rests primarily on the ability of the economy to absorb increasing amounts of capital without a substantial fall in the rate of return. This may be good news for the economy as a whole, but it is not good news for equity within the economy.

We need a name for this process for future reference. I will call it the "rich-get-richer dynamic." The mechanism is a little more complicated than Piketty's book lets on. There is some saving from labor income, and thus some accumulation of capital in the hands of wage and salary earners. The return on this wealth has to be taken into account. Still, given the small initial wealth and the relatively low saving rate below the top group, as well as the fact that small savings earn a relatively low rate of return, calculation shows that this mechanism is not capable of offsetting the forecast of widening inequality.

There is yet another, also rather dark, implication of this account of underlying trends. If already existing agglomerations of wealth tend to grow faster than incomes from work, it is likely that the role of inherited wealth in society will increase relative to that of recently earned and therefore more merit-based fortunes. Needless to say, the fact that the aggregate of wage incomes grows only at a relatively slow rate does not exclude the possibility that outstandingly successful innovators, managers, entrepreneurs, entertainers, and others can accumulate large amounts of wealth in a lifetime and join the ranks of the rentiers. But a slower rate of growth certainly makes such success stories less likely. There will be more to say about this. Yet the arithmetic suggests that the concentration of wealth and its ability to grow will favor an increasing weight of inheritance as compared with talent.

Piketty likes to describe the distribution of income and wealth concretely, and not in terms of summary statistics. He looks at the proportions of the total claimed by the top 1 percent (sometimes also the top tenth of the 1 percent), the top 10 percent, the next 40 percent, and the bottom half. (He labels the 40 percent between the top decile and the median as the "middle class." There is an element of oxymoron in a middle class that lies entirely above the median; but I suppose this usage is no worse than the American habit of describing everyone between the clearly rich and the abjectly poor as being in the middle class.)

The data are complicated and not easily comparable across time and space, but here is the flavor of Piketty's summary picture. Capital is indeed very unequally distributed. Currently in the United States, the top 10 percent own about 70 percent of all the capital, half of that belonging to the top 1 percent; the next 40 percent—who compose the "middle class"—own about a quarter of the total (much of that in the form of housing), and the remaining half of the population owns next to nothing, about 5 percent of total wealth. Even that amount of middle-class property ownership is a new phenomenon in history. The typical European country is a little more egalitarian: the top 1 percent own 25 percent of the total capital, and the middle class 35 percent. (A century ago the European middle class owned essentially no wealth at all.) If the ownership of wealth in fact becomes even more concentrated during the rest of the twenty-first century, the outlook is pretty bleak unless you have a taste for oligarchy.

Income from wealth is probably even more concentrated than wealth itself because, as Piketty notes, large blocks of wealth tend to earn a higher return than small ones. Some of this advantage comes from economies of scale, but more may come from the fact that very big investors have access to a wider range of investment opportunities than smaller investors. Income from work is naturally less concentrated than income from wealth. In Piketty's stylized picture of the United States today, the top 1 percent earns about 12 percent of all labor income, the next 9 percent earn 23 percent, the middle class gets about 40 percent, and the bottom half about a quarter of income from work. Europe is not very different: the top 10 percent collect somewhat less and the other two groups a little more.

You get the picture: modern capitalism is an unequal society, and the rich-get-richer dynamic strongly suggest that it will get more so. But there is one more loose end to tie up, already hinted at, and it has to do with the advent of very high wage incomes. First, here are some facts about the composition of top incomes. About 60 percent of the income of the top 1 percent in the United States today is labor income. Only when you get to the top tenth of 1 percent does income from capital start to predominate. The income of the top hundredth of 1 percent is 70 percent from capital. The story for France is not very different, though the proportion of labor income is a bit higher at every level. Evidently there are some very high wage incomes, as if you didn't know.

This is a fairly recent development. In the 1960s, the top 1 percent of wage earners collected a little more than 5 percent of all wage incomes. This fraction has risen pretty steadily until nowadays, when the top 1 percent of wage earners receive 10–12 percent of all wages. This time the story is rather different in France. There the share of total wages going to the top percentile was steady at 6 percent until very recently, when it climbed to 7 percent. The recent surge of extreme inequality at the top of the wage distribution may be primarily an American development. Piketty, who with Emmanuel Saez has made a careful study of high-income tax returns in the United States, attributes this to the rise of what he calls "supermanagers." The very highest income class consists to a substantial extent of top executives of large corporations, with very rich compensation packages. (A disproportionate number of these, but by no means all of them, come from the financial services industry.) With or without stock options, these large pay packages get converted to wealth and future income from wealth. But the fact remains that much of the increased income (and wealth) inequality in the United States is driven by the rise of these supermanagers.

There is not much understanding of this phenomenon, and this book has little to add. Piketty is of course aware that executive pay at the very top is usually determined in a cozy way by boards of directors and compensation committees made up of people very like the executives they are paying. There is certainly an element of the Lake Wobegon illusion: every board wants to believe that "its" high executives are better than the median and deserve to be paid more than the median.

It is of course possible that "supermanagers" really are supermanagers, and their very high pay merely reflects their very large contributions to corporate profits. It is even possible that their increased dominance since the 1960s has an identifiable cause along that line. This explanation would be harder to maintain if the phenomenon turns out to be uniquely American. It does not occur in France or, on casual observation, in Germany or Japan. Can their top executives lack a certain gene? If so, it would be a fruitful field for transplants.

Another possibility, tempting but still rather vague, is that top management compensation, at least some of it, does not really belong in the category of labor income, but represents instead a sort of adjunct to capital, and should be treated in part as a way of sharing in income from capital. There is a puzzle here whose solution would shed some light on the recent increase in inequality at the top of the pyramid in the United States. The puzzle may not be soluble because the variety of circumstances and outcomes is just too large.

In any case, it is pretty clear that the class of supermanagers belongs socially and politically with the rentiers, not with the larger body of salaried and independent professionals and middle managers. So Piketty's foreboding vision of the twenty-first century remains to be dealt with: slower growth of population and productivity, a rate of return on capital distinctly higher than the growth rate, the wealth-income ratio rising back to nineteenth-century heights, probably a somewhat higher capital share in national income, an increasing dominance of inherited wealth over earned wealth, and a still wider gap between the top incomes and all the others. Maybe a little skepticism is in order. For instance, the historically fairly stable long-run rate of return has been the balanced outcome of a tension between diminishing returns and technological progress; perhaps a slower rate of growth in the future will pull the rate of return down drastically. Perhaps. But suppose that Piketty is on the whole right. What, if anything, is to be done?

Piketty's strong preference is for an annual progressive tax on wealth, worldwide if possible, to exclude flight to phony tax havens. He recognizes that a global tax is a hopeless goal, but he thinks that it is possible to enforce a regional wealth tax in an area the size of Europe or the United States. An example of the sort of rate schedule that he has in mind is 0 percent on fortunes below one million euros, 1 percent on fortunes between one and five million euros, and 2 percent above five million euros. (A euro is currently worth about $1.37.) Remember that this is an annual tax, not a onetime levy. He estimates that such a tax applied in the European Union would generate revenue equal to about 2 percent of GDP, to be used or distributed according to some agreed formula. He seems to prefer, as would I, a slightly more progressive rate schedule. Of course the administration of such a tax would require a high degree of transparency and complete reporting on the part of financial institutions and other corporations. The book discusses in some detail how this might work in the European context. As with any tax, there would no doubt be a continuing struggle to close loopholes and prevent evasion, but that is par for the course.

Annual revenue of 2 percent of GDP is neither trivial nor enormous. But revenue is not the central purpose of Piketty's proposal. Its point is that it is the difference between the growth rate and the after-tax return on capital that figures in the rich-get-richer dynamic of increasing inequality. A tax on capital with a rate structure like the one suggested would diminish the gap between the rate of return and the growth rate by perhaps 1.5 percent and would weaken that mechanism perceptibly.

This proposal makes technical sense because it is a natural antidote to the dynamics of inequality that he has uncovered. Keep in mind that the rich-get-richer process is a property of the system as it operates on already accumulated wealth. It does not work through individual incentives to innovate or even to save. Blunting it would not necessarily blunt them. Of course a lower after-tax return on capital might make the accumulation of large fortunes somewhat less attractive, though even that is not at all clear. In any case, it would be a tolerable consequence.

Piketty writes as if a tax on wealth might sometime soon have political viability in Europe, where there is already some experience with capital levies. I have no opinion about that. On this side of the Atlantic, there would seem to be no serious prospect of such an outcome. We are politically unable to preserve even an estate tax with real bite. If we could, that would be a reasonable place to start, not to mention a more steeply progressive income tax that did not favor income from capital as the current system does. But the built-in tendency for the top to outpace everyone else will not yield to minor patches. Wouldn't it be interesting if the United States were to become the land of the free, the home of the brave, and the last refuge of increasing inequality at the top (and perhaps also at the bottom)? Would that work for you?

(Robert M. Solow is Institute Professor of Economics emeritus at MIT. He won the Nobel Prize in Economics in 1987.)

Boston Review (April 29, 2014)
"Studying the Rich:" Thomas Piketty and his Critics
By Mike Konczal

In the 1790s, Frederick Eden, concerned about the economy and the realities of the poor, went into the British countryside and began to collect data on household budgets for poor agricultural laborers. He collected budgets himself, got additional data from "respectable clergymen," and hired others to get even more. The results were published in a major, groundbreaking work, *The State of the Poor*, in 1797. In the end, Eden had eighty-six families worth of data.

It is easy to overlook the achievement of Thomas Piketty's new bestseller, *Capital in the Twenty-First Century*, as a work of economic history. Debates about the book have largely focused on inequality. But on any given page, there is data about the total level of private capital and the percentage of income paid out to labor in England from the 1700s onward, something that would have been impossible for early researchers like Eden to assemble or comprehend. *Capital* reflects decades of work in collecting national income data across centuries, countries, and class, done in partnership with academics across the globe. But beyond its remarkably rich and instructive history, the book's deep and novel understanding of inequality in the economy has drawn well-deserved attention and criticism. By understanding the initial debate over the book, we can examine what is at stake in how *Capital* is understood.

The Stakes and the Dominoes
Piketty's book warns that capital and inequality are likely to make even greater strides in the next few decades; the influence of wealth and inheritance could make our economy look a lot more like the nineteenth century, with its dominance of dynastic fortunes, than the joint prosperity we have come to assume is the natural state of advanced economies. This is a grim prediction, but Piketty supports it with what he describes as two fundamental laws of capitalism. Instead of walking through these specific equations, it is easier to picture his argument as a series of three falling dominoes.

The first domino falls because the rate at which the economy grows (g), as a result of both productivity and population growth, is less than the rate of return on capital (r). As a shorthand, this is the much-discussed "r > g" equation, which Piketty describes as the central contradiction of capitalism, and the "principal destabilizing force" that yields stark class inequalities between owners of capital and others. As Piketty shows, this inequality has held for most of human history, with the exception of a brief period in this past century. And with growth slowing in the next few decades, if only as the result of slowing population growth, the differential will be even greater.

With growth slowing, the second domino falls: the amount of capital relative to a country's income goes up. This takes time, but eventually it will lead to an even larger capital stock compared to the economy as a whole. Consider the historical trend: in the late nineteenth century capital was five times the world income. It fell to under three times during the 1950s, but has now returned to those previous levels, and continues to increase.

Why does it matter? First, capital ownership is concentrated. In the United States, the top one percent own 35 percent of all capital, and the top 10 percent of wealth holders own roughly 70 percent. The bottom 50 percent have roughly 5 percent. Moreover, Piketty argues that "the past tends to devour the future"—wealth accumulated in the past becomes more dominant and commands more power and attention than wealth being created now. In France, for example, where the inheritance data is best, the wealth of the dead amounts to nearly twice that of the living.

As the amount of capital balloons relative to the size of the economy, the third domino falls. And if the rate of return on capital, "r", doesn't fall precipitously, capital will continue to take home an even greater share of the economic pie. Indeed capital's share of US national income has been increasing in recent years, from the low to high twenties. Piketty's projections show that this rate could rise to between 30 and 40 percent, placing it much closer to the value at the end of the nineteenth century.

Economists used to assume that the share of the economy that capital and labor took home was relatively stable and fixed. This stylized fact was discovered in the 1950s when postwar economists first looked at what data they could gather. This view embodied the postwar optimism that capitalism could work to ensure prosperity for workers and elites alike. But in fact, the fixed relationship between capital and labor in the 1950s was an anomaly. The enormous destruction associated with two world wars and the Great Depression had reset the dominoes and allowed for the mass prosperity in the postwar period. Piketty argues that the dominoes are starting to fall again.

Piketty's argument is convincing and well-supported. So what is the debate over? Much of the critical response to *Capital* has focused on Piketty's "$r > g$" equation and what "r," the rate of return on capital, is doing in Piketty's story. Generally, critics have come at him from two different directions. Though these debates aren't necessarily ideological, the directions tend to be affiliated with the right and the left respectively.

Piketty and the Economists to the Right

Piketty's book is hard to place in the genre of economic books. Popular economics books of the recent decades tend to simplify and reduce everything to pet economic theories, with the idea that economics and incentives can explain everything. *Capital* does not read like these books. Piketty writes, in contrast, with a historical depth and seriousness that goes beyond such cleverness. His engagement with the rest of the social sciences also distinguishes him from most economists. Whether discussing the rate of population growth or what determines why people save, Piketty always references cultural, historical, and psychological reasons alongside economic ones.

Many economists tend to build tight little stories and models, and then look outward at the data that may or may not fit. Piketty, on the other hand, starts with the remarkable data and then looks around at various models economists have deployed to see if those models fit. A useful example is the life-cycle theory of consumption, created in the 1950s by the economist Franco Modigliani. In this model, the primary role of savings is to finance retirement. Piketty takes an extra step to point out that this model was developed at exactly the moment when inheritance was at its historical lowest. He puts the model next to the data and concludes it doesn't tell us much. Rare for an economist—and the book is filled with brilliant moments like this: Piketty shows how economists often reflect the society around them when they create supposedly ahistorical or nonpolitical models.

But by not locking his own argument tightly to a model he also leaves himself vulnerable to criticism that there are trends towards equality he misses. Notably, some critical reviews, in both general and technical terms, have argued out that the third domino is unlikely to fall. The more capital there is, the less productive it will be at the margins, so the rate of return should fall. If it falls rapidly, the capital share of national income will not increase. Though the past will still suffocate the present when it comes to wealth, the full-blown crisis—where capital consumes more and more of what we create—can be avoided.

Since the book's publication, some economists, like Brad DeLong, have put this argument into a more formal model. And even positive reviewers of the book, such as Robert Solow, have been careful to observe that the returns on capital might fall, though they believe that the effects won't be that large to prevent capital's share from rising. Piketty counters that, to whatever extent this happens, the substitution rates he believes are in effect means that it won't happen fast enough. His evidence not only tracks the dominoes falling historically but suggests that they are *already* falling again.

Another interesting criticism from *National Review* is that Piketty doesn't try to ground his normative concerns about inequality in strictly economic terms or a model that predicts "the optimal level of inequality." And that is true. Although Piketty does reference John Rawls's idea that just inequalities are those that work to the greatest benefit of the least advantaged, he doesn't try to point out what an "optimal" amount of inequality would be, other than to point to the concern that we are shooting fast to return to levels not seen since the late nineteenth century.

But the book is an attempt to ground the debate over inequality in strong empirical data, put the question of distribution back into economics, and open the debate not just to the entirety of the social sciences but to people themselves. As Piketty says, the distribution of wealth "is too important an issue to be left to economists, sociologists, historians, and philosophers. It is of interest to everyone, and that is a good thing." He is right.

Piketty and Institutions of Politics and Power

If economists to Piketty's right are concerned that he doesn't ground his theory deep enough in economic models, economists and others to Piketty's left are concerned that he concedes too much to mainstream economics and not enough to politics.

Recently, there has been a strong recent resurgence on the left in emphasizing the way the state, through law, regulation, and public policy, necessarily structures markets. In this telling there is no such thing as a "free" market, just different choices about how to structure markets fundamentally based in politics and power. The idea of a "free" market is a vacuous, question-begging abstraction, invoked to defend the status quo or the interests of the wealthy. (A quick look at the titles of current academic works like *The Illusion of Free Markets*, *The Myth of Ownership*, and *The Progressive Assault on Laissez Faire* give a sense of the argument.)

This context explains what is at stake in the left critique of Piketty. Some economists, like Dean Baker, have argued that Piketty doesn't do enough to explain how financial regulations or patent protections could help deal with the problems he identifies. Others, like James Galbraith, invoke debates among midcentury Keynesians to argue that adding up capital and assigning it a return doesn't make sense as a model. More broadly, Piketty has been criticized for not acknowledging how institutions and politics influence the returns on capital: his theory of the dominoes is too focused on economic forces.

So, while economists to Piketty's right think he should create a model that predicts the rate of return on capital (his *r*) based on the state of the economy, rather than historical data, economists to Piketty's left want him to emphasize the idea that many different rates of return are consistent with the character of the economy; "r" is a function of institutions and political decisions. Those on the left also worry that the debate over *Capital* could devolve into, as the economist Suresh Naidu argues, a "bastard Pikettyism" that just navel-gazes at the mathematical economic models discussed above, instead of a more critical, broader inquiry of how capital works in economies and societies.

Piketty doesn't clearly state the role institutions and political action are meant to play in his theory of the evolution of inequality. Nonetheless, scattered throughout the book are clear signs that he is thinking about the institutional arrangements that can influence the return on capital.

Piketty writes: "It is important to stress that the price of capital…is always in part a social and political construct: it reflects each society's notion of property and depends on the many policies and institutions that regulate relations among different social groups, and especially between those who own capital and those who do not." The most obvious and extreme example of this is that human beings were part of the capital stock under slavery in the South. Once that system of property was destroyed, they were no longer part of capital.

And he argues that the labor market "is a social construct based on specific rules and compromises," where the minimum wage and social norms play just as much of a role as skills and education. Piketty also finds that the 1950s had an even lower level of capital accumulation than expected because real estate and stock prices were at very low levels, partially as a result of rent control and tighter financial regulation.

In a particularly telling example, Piketty notes how his theory doesn't work when he uses stock market valuations for German companies. But it does work when he uses the book value, or the value of the individual investments of each firm. Why? Because under the German "stakeholder model," more of the economic value is kept within the firm itself instead of being distributed to those who own stake in it.

These passages surely suggest that Piketty believes that "*r*" is not simply a fixed economic parameter, and that something can be done about "*r*" as a political project. Why doesn't Piketty embrace this idea, or at least make more of it in his theory?

The answer is partially driven by the numbers. If "*r*" is consistent across countries and centuries with radically different infrastructures, institutions, philosophies, and populations, structural and institutional changes are unlikely to make a big difference. Piketty emphasizes that the trends he finds are not the result of the various "market imperfections" that economists break out to justify government action. If anything, he argues, a more efficient market could increase the rate of return on capital and accelerate inequality.

Though he equivocates on this point, the text suggests that Piketty believes social democratic reforms outside high taxation are incapable of changing these dynamics. Though he spends an interesting chapter discussing it, he assigns no role in combating "$r > g$" to the growth of the social state that ensures access to health, education, and income security. Labor unions and the regulatory state are missing or underdeveloped in his analysis. Though those are essential to a more just society, Piketty ultimately believes that the wars, the Great Depression, and the high progressive taxation created as a result of war mobilization are what challenged and changed the dynamics of inequality.

In an especially revealing passage on French rentiers at the turn of the last century, Piketty writes that "universal suffrage and the end of property qualifications for voting…ended the legal domination of politics by the wealthy. But it did not abolish the economic forces capable of producing a society of rentiers."

This is a remarkable provocation for liberals. Piketty is, in a way, saying: go ahead and make whatever reforms you want. Break up the banks. Pass the campaign finance package of your dreams. Reach deep into the bag and pass all the non-reformist reforms that you can think of. All your reforms can't guarantee that you are safe from the logic of $r > g$. Reforms won't change the nature of capital: to accumulate, eat up a larger share of the economy, and let the past dominate the future. What then?

The Gaze of Social Science

While Arthur Goldhammer's translation of *Capital* from the French reads excellently, the only thing that arguably gets lost in moving the text from France to the United States is Piketty's solution—the "useful utopia" of a global wealth tax. Piketty strongly hints that the proposed tax is meant to convince members of the European Union to act, noting that large countries like the United States and China have their own ability to act through means that small, interconnected countries cannot.

Policies evolve from identifying a problem. Whether or not it is feasible, Piketty's suggestion for a global wealth tax evolves from identifying the problem as global and systemic. And here I think this book signals a major change in the debate over inequality.

First, the rosy picture that economists have painted about the nature of inequality has been displaced. The idea that labor's share of the economy is more or less fixed, an essential element of the mantra that a rising tide lifts all boats, has been dealt a serious, if not fatal, blow.

The idea that the inequality is necessary for a well-functioning society has also been thrown into question. In the wake of the financial crisis and Great Recession, more and more research institutions are finding that higher equality corresponds to better growth, or at least has no negative effect. The causation here might be difficult to prove, but the research suggests that we can no longer take for granted that that growing inequality is a necessary evil for a better economy.

Second, the debate over wealth and taxes is back. Many economists argue that capital income shouldn't be taxed at all, since it is unfair to tax people because they happen to save, as if it is simply a choice in the marketplace. There are, however, significant advantages to owning wealth, including security, political power, the ability to direct private investment, and much more. These benefits need to be subject to democratic scrutiny.

Tax policy needs to go beyond raising revenues. *Capital* argues that high taxes can direct income towards more productive and less economically harmful uses, such as keeping incomes within in a firm rather than enriching super-managers; or tax revenues can help to direct inheritances for use for the public good. In Piketty's analysis, the decline of high marginal tax rates are the main culprit in the large growth of inequality internationally since the 1980s. Since this major transfer of resources didn't cause an increase in economic productivity, the cost of undoing it will be minimal for the economy as a whole.

Whether more Democrats can speak this language will be a major test of whether Piketty's argument has real political momentum. Recall that during the fiscal cliff Democrats debated only where to set the highest marginal income tax rate as a matter of labor income; the question whether it would be wise to increase inheritance taxes or capital gains to old levels or even further was not on the table. As a start, David Brooks is already saying that the center and the right should respond to Piketty with a beefed-up inheritance tax.

But there's a bigger question at stake here. Back in the 1790s when Eden was trying to understand the economy, he went and observed the poor. His small data set was enough for him to conclude that England's system of relief for the poor was "the parent of idleness and improvidence." His techniques were deployed during the nineteenth century to observe workers when socialist unrest began across Europe. As Alice O'Connor has noted, this "poverty knowledge" industry continued through the entirety of the twentieth century, with various explanations for how and why the poor were poor.

As Foucault argued, the ability of social science to know something is the ability to anthropologize it, a power to define it. As such, it becomes a problem to be solved, a question needing an answer, something to be put on a grid of intelligibility, and a domain of expertise that exerts power over what it studies. With Piketty's *Capital,* this process is now being extended to the rich and the elite. Understanding how the elite become what they are, and how their wealth perpetuates itself, is now a hot topic of scientific inquiry.

Many have tried to figure out why the rich are freaking out these days. Their wealth was saved from the financial panic, they are having a very excellent recovery, and they are poised to reap even greater gains going forward. Perhaps they are noticing that the dominant narratives about their role in society—avatars of success, job creators for the common good, innovators for social betterment, problem-solving philanthropists—are being replaced with a social science narrative where they are a problem to be studied. They are still in control, but right to be worried.

"The problem with Thomas Piketty: 'Capital' destroys right-wing lies, but there's one solution it forgets"

After Capital *we'll never talk income inequality or meritocratic myths the same way. But we must talk unions.*

By Thomas Frank, *Salon*, May 11, 2014

What makes Thomas Piketty's *Capital in the Twenty-First Century* such a triumph is that it seems to have been written specifically to demolish the great economic shibboleths of our time. The stock market is not an instrument of economic democracy, it seems; nor does every natural-born American get a chance to run (which is to say, to loot) a Fortune 500 company. The gap between the billionaires and the rest of us is not really a matter of talent or education, we learn; nor do the rich really deserve every last penny of their winnings. Yet it seems that those winnings, once won, multiply relentlessly as time passes, in a way that far outstrips wages even in the best years.

The effect of knowing all these things is a healthy one, like when a fever breaks and all those fanciful explanations for things that we had imagined turn out to have been just a dream. The simplest explanations are in fact the true ones, and we owe Piketty thanks for reminding us of this. However, he also has a serious historical blind spot, and it leads even he to wander into the land of make-believe at times, particularly when he is proposing solutions. This is unfortunate, because in reality the simple remedy for inequality has been staring at us all along. We merely need to sober up and look it in the face.

I was puzzled at first by the extraordinary success of Piketty's book; despite his commitment to cant-free prose, it is not an easy read. Besides, most of what Piketty tells us has been told to us before, many times over, in a three-decade long parade of forgotten treatises and sad New York Times stories on downsizing and deindustrialization. But there is something about dispassionate statistical proof, comprehensively brought together, that warms the liberal heart. Virtually the same phenomenon played itself out several decades ago with Kevin Phillips's *The Politics of Rich and Poor*, another relentless, data-heavy book on inequality that duly mounted the best-seller lists back in 1990.

If the world of letters was as coldly mathematical as the world of capital, we could now say that any debate over inequality is over: There can be no doubt that we are fast approaching a nineteenth-century-style distribution of wealth. That's why the overwhelming sensibility of Piketty's magnum opus is a dark fatalism, a feeling that mankind is groping blindly while in the grip of a determining force far larger than ourselves—namely, Piketty's now-famous return on capital, growing wealth from generation to generation and always outstripping wages—that has only slackened on rare occasions.

One of the best things about Piketty's masterwork is his systematic demolition of his own discipline. Academic economics, especially in the United States, has for decades been gripped by a kind of professional pretentiousness that is close to pathological. From time to time its great minds have grown so impressed by their own didactic awesomeness that they celebrate economics as "the imperial science"— "imperial" not merely because economics is the logic of globalization but because its math-driven might is supposedly capable of defeating and colonizing every other branch of the social sciences. Economists, the myth goes, make better historians, better sociologists, better anthropologists than people who are actually trained in those disciplines. One believable but possibly apocryphal tale I heard as a graduate student in the '90s was that economists at a prestigious Midwestern university had actually taken to wearing white lab coats—because they supposedly were the real scientific deal, unlike their colleagues in all those soft disciplines.

Piketty blasts it all to hell. His fellow economists may have mastered the art of spinning abstract mathematical fantasies, he acknowledges, but they have forgotten that measuring the real world comes first. In the book's Introduction this man who is now the most famous economist in the world accuses his professional colleagues of a "childish passion for mathematics and for purely theoretical and often highly ideological speculation"; he laughs at "their absurd claim to greater scientific legitimacy, despite the fact that they know almost nothing about anything." In a shocking reversal, he calls on the imperial legions of economic pseudo-science to lay down their arms, to "avail ourselves of the methods of historians, sociologists, and political scientists"; the six-hundred-page book that follows, Piketty declares, is to be "as much a work of history as of economics."

They may be weeping in the gothic halls of your local econ department, but when I read that, I wanted to cheer. As I wrote on Salon several months ago, the growing plutocracy is a subject for all of us; in Piketty's words, it "is too important an issue to be left to economists, sociologists, historians, and philosophers."

Unfortunately, Piketty's enthusiasm for disciplines other than economics is more theoretical than anything else. *Capital in the Twenty-First Century* draws overwhelmingly on data, data derived overwhelmingly from France and the UK. Whenever Piketty moves away from numbers and tries to describe life in the United States, things go wrong in a hurry. The worst example first: Piketty tells us that, unlike the French, Americans feel "no nostalgia for the postwar period" because our economy didn't grow rapidly in those years. In fact, American GDP often grew by 5 and 6 percent in the '50s and '60s and Americans have felt intense sweet wistfulness for those days ever since "American Graffiti" came out in 1973. To be fair, Piketty corrects himself several hundred pages on, but then not because he's looked around and noticed the four decades of '50s-revival crap Americans have so eagerly consumed, but because of a stray nostalgic remark by his fellow economist Paul Krugman. It's all moot, I guess, because before long and without any explanation he reverts to his original position of nostalgia denialism.

Piketty's command of American political history is, quite simply, abysmal. He announces that the U.S. "never became a colonial power," which would be news to the people of the Philippines, not to mention the Sioux. He describes Herbert Hoover as a "liquidationist" though that was Hoover's own term for the policies that Hoover rejected. About the presidency of Franklin Roosevelt—ordinarily an important period for students of inequality—Piketty seems to know almost nothing, except that FDR used wage and price controls during World War II. At one point, he comes close to denying the existence of Rooseveltian liberalism altogether, writing that for we benighted Americans "the twentieth century is not synonymous with a great leap forward in social justice." As for the great right turn of the Eighties, he asserts repeatedly and with virtually no documentary evidence that it happened because America was falling behind Germany and Japan in economic growth—in other words, that the galaxy of nutty anxieties that fuel modern right-wing politics can be easily deduced from a few lines on a graph.

There are numerous other examples in Piketty's enormous book of this weird blind spot concerning all things American; indeed, you could write an entire review just cataloguing them.

Now, none of these blunders are fatal or even very damaging to Piketty's main argument about the snowballing nature of wealth, but misunderstanding America so dramatically nevertheless carries a penalty. To write about *capital* while misapprehending the history and culture of the world's greatest proponent of *capitalism* makes the next act in the program—proposing a solution to inequality—nearly impossible. Piketty goes on to suggest remedies that are fanciful in the extreme, even as workable solutions that arise directly from the American experience are all around us.

It is useful to recall, when considering what to do about inequality, that an uncomplicated hatred of caste, privilege, and perpetuities runs deep in the American grain. I was reminded of this a few months ago when I pulled from my shelf a forgotten classic on the subject, the 1939 book *The Ending of Hereditary American Fortunes* by Gustavus Myers, a journalist of the muckraking persuasion. The story begins appropriately enough in 1776, when Thomas Jefferson, then a delegate to the Virginia legislature, began the fight to abolish primogeniture and entail, the archaic laws that maintained enormous landed estates from one generation to the next. As the American revolution proceeded, state after state got on board with Jefferson, levelling our would-be aristocracy in an explosion of straight-up class warfare. Wrote one Jefferson biographer who is quoted by Myers:

"That distinguished class, whose existence as a social caste had been forever destroyed, reviled the destroyer [i.e., Jefferson] from this time forth with reckless animosity; and even to the second and third generation, the descendants of many of these patrician families vindictively cursed the statesman who had placed them on a level with the rest of their countrymen."

As Gustavus Myers tells the story, there were victories and defeats in America's long war against inherited privilege, until finally we get to the twentieth century and the estate tax, which make up the final chapters in the journalist's account. Although it was established in 1916, the tax on inheritance was raised to deliberately confiscatory levels in 1935. The rationale then was as plain as it was in Jefferson's day: Americans raised that tax because Americans detest aristocracy. "Great accumulations of wealth cannot be justified on the basis of personal and family security," said President Roosevelt, on the occasion of demanding the massive increase in estate taxes. "In the last analysis such accumulations amount to the perpetuation of great and undesirable concentration of control in a relatively few individuals over the employment and welfare of many, many others."

Check the IRS website today, however, and you will find that critical moment in tax history explained not as the expression of a leveling social policy but merely as a way to "generate needed funds." Our contemporary debate over inequality is the same: a bland, technical matter of think-tanks and academic conferences and debates among professional economists—just another problem for the experts to solve. It is as though we have completely forgotten the democratic passions that drove our ancestors.

Well, the right certainly hasn't. Their *policies* may give us things like perpetual trusts—legal instruments designed to cement the privileges of the plutocracy many generations into the future—but the right's *rhetoric* always goes back to sympathetic souls like Jeffersonian family farmers who are supposedly put at risk by the "death taxes" of those grasping government elites.

Thomas Piketty, for his part, understands the danger of restricting the great inequality debate to economists only, and he is also oddly well-informed about the history of the estate tax in the United States. But when he turns his attention to solutions, the best he can do is propose a "global wealth tax" that would probably ring the big-government alarm bell of even the staunchest liberals, and that Piketty himself admits to be a "utopian ideal" that will never happen.

This simply will not do. There are countless other options available to us before we have to turn to some unaccountable international IRS. As Gustavus Myers told us back in 1939, bringing the aristocracy to heel is entirely within our power and our tradition, and American statesmen from Jefferson to FDR (the man on the nickel, the man on the dime) have taken enthusiastic part in the business of leveling. There is nothing utopian about it at all. It is not an opium dream to imagine that Grover Norquist and company might one day be defeated or that the estate tax might be brought back in full Rooseveltian force; both are eminently possible, if only the Democrats would pull their heads out of their butts.

Turning to the problem of income inequality here in the United States, there is an even simpler solution, by which I mean a more realistic solution, a solution that builds on familiar American traditions,that works by empowering average people, that requires few economists or experts, that would involve a minimum of government interference, and that proceeds by expanding democracy and participation rather than by building some kind of distant and unapproachable global tax authority: *Allow workers to organize*. Let people have a say on the basic issues affecting their lives.

Piketty's biggest blind spot is that he has virtually nothing to say about labor unions. He starts Chapter 1 of *Capital* with an anecdote about a bloody strike in South Africa and he returns to that same tragic episode at the very end of the book, but in between he addresses the matter almost not at all. Piketty talks a good game about democracy, but like other economists who have made inequality their subject, he prefers solutions that are handed down from the lofty heights of expertise.

The best remedy for inequality, however, is the one that comes up from below. Economists may not think very highly of those hardened people in SEIU t-shirts—some of them smoke too much, some are suspicious of "free trade," some of them (gasp!) didn't go to college—but the fact remains that in nearly every particular they represent the obvious and just about the only social force on the ground in America that might bend the inequality curve the other way.

It is not a coincidence that labor's rise in the 1930s happened at the same time as the One Percent's fall from grace, nor is it a coincidence that labor's long decline has been almost a mirror image of the One Percent's recovery of its nineteenth-century heaven. These things happened the way they did because labor's most basic function is to turn the bright light of democratic scrutiny on economic power. When labor is strong, our composers write things like "Fanfare for the Common Man" and blue-collar workers buy cars and boats and snowmobiles.

When labor is weak, we bow down before "job creators" and McMansions sprout like mushrooms after a rainstorm.

Consider the crazy imbalance in the current capital-labor split, which is the central thread holding together Piketty's enormous book. Well, having strong unions that are able to negotiate effectively would remedy this situation almost by definition. That's the idea of unions in the first place.

Consider the problem of out-of-control executive compensation, of Piketty's "supermanagers" who stuff their pockets with stock options simply because no one will stop them: As it happens, this is an issue of particular significance to organized labor, as you will learn from one look at the AFL-CIO's shocking website, "Executive Paywatch." Allowing workers to bargain fairly with bosses would put the brakes on the runaway CEO freight train instantly.

The disappearing middle class? This is labor's grievance par excellence. The minimum wage? Labor is always the loudest voice calling for an increase. Stratospheric college tuition and student debt? The AFL-CIO has been admirably forthright on the issue. Social Security and the rest of the welfare state? There is no more dedicated supporter than organized labor. Were labor strong instead of weak, privatization and the other attacks on the welfare state would probably never even come up. Certainly no Democratic president would be able to say, as Barack Obama did in one of his debates with Mitt Romney, that his own position was "somewhat similar" to the Republican's on this issue.

Nor is it utopian or even unrealistic to imagine labor staging a comeback. It would probably happen overnight if the workplace rights we are told we enjoy actually had force behind them. A large percentage of American workers consistently tell pollsters they'd like to have some kind of collective bargaining organization at work, and yet only a tiny sliver of them actually have such organizations—6.7% in the private sector, according to the latest data. The reason for the difference, to put it bluntly, is that management doesn't want their workers to have such organizations, and bosses routinely threaten and fire workers who try to bring such organizations together, law or no law.

A powerful labor movement is not the complete solution to plutocracy, as we know from certain European countries, but it would go a long way toward addressing the problem in its out-of-control American form. What we need is not some all-powerful UN tax collector to descend on the United States, but our own elected officials to protect the rights we already have on paper. Organized labor has suggested one possible remedy: the Employee Free Choice Act, which Obama supported but which got nowhere in Congress. Others have proposed protecting union membership with Civil Rights laws, thereby allowing workers who are fired for joining a union to sue their bosses directly rather than going through a labyrinthine Federal bureaucracy. Other changes—helping new bargaining units to negotiate their first contract with management, or enhancing the penalties incurred by bosses for misbehaving—would be so technical they would go unnoticed by everyone except the Chamber of Commerce itself, and yet their impact on inequality would probably be significant.

The outrage of soaring inequality is ultimately, as Piketty reminds us, a challenge to democracy itself. That the beginning of a solution might come from extending the logic of democracy to the workplace would make for an appropriate storybook ending to this saga of plutocracy unbound. In reality, of course, it will be messy. There will be fights within the labor movement and a thousand lesser fights over local and even trivial issues. But that's what democracy looks like.

Thomas Frank is a *Salon* politics and culture columnist. His many books include *What's The Matter With Kansas*, *Pity the Billionaire* and *One Market Under God*. He is the founding editor of *The Baffler* magazine.

"The Imperialist and Scientistic Pretensions…or The Secret and Not-So-Secret Sins, of Economics"

By Patrick S. O'Donnell
Religious Left Law, 5/11/2014

In his Salon review of Piketty's *Capital in the Twenty-First Century* (Belknap Press of Harvard University Press, 2014), Thomas Frank writes:

"Academic economics, especially in the United States, has for decades been gripped by a kind of professional pretentiousness that is close to pathological. From time to time its great minds have grown so impressed by their own didactic awesomeness that they celebrate economics as 'the imperial science'— 'imperial' not merely because economics is the logic of globalization but because its math-driven might is supposedly capable of defeating and colonizing every other branch of the social sciences. Economists, the myth goes, make better historians, better sociologists, better anthropologists than people who are actually trained in those disciplines. One believable but possibly apocryphal tale I heard as a graduate student in the '90s was that economists at a prestigious Midwestern university had actually taken to wearing white lab coats—because they supposedly were the real scientific deal, unlike their colleagues in all those soft disciplines.

Piketty blasts it all to hell. His fellow economists may have mastered the art of spinning abstract mathematical fantasies, he acknowledges, but they have forgotten that measuring the real world comes first. In the book's Introduction this man who is now the most famous economist in the world accuses his professional colleagues of a 'childish passion for mathematics and for purely theoretical and often highly ideological speculation'; he laughs at 'their absurd claim to greater scientific legitimacy, despite the fact that they know almost nothing about anything.' In a shocking reversal, he calls on the imperial legions of economic pseudo-science to lay down their

arms, to 'avail ourselves of the methods of historians, sociologists, and political scientists'; the six-hundred-page book that follows, Piketty declares, is to be 'as much a work of history as of economics.'"
I'd like to point out to those (understandably) not familiar with, let alone failing to have kept abreast of, the academic economics literature* of, say, the last three decades or so, that this critique of the profession by Piketty is hardly new. In fact, it's been made with eloquence, passion, and persistence—and in some circles at least, with devastating effect—by Deirdre (formerly Donald) McCloskey (who is not at all of Leftist suasion), beginning with *The Rhetoric of Economics* (University of Wisconsin Press, 1985), continuing through *Knowledge and Persuasion in Economics* (Cambridge University Press, 1994), and again, in a little gem (58 pgs.!), *The Secret Sins of Economics* (Prickly Paradigm Press, 2002). Much of what Piketty is saying here sounds virtually word-for-word what she has been saying for several decades now. In the latter book, for instance, she laments the appalling extent and degree of institutional and historical ignorance of her better-known colleagues in the profession, as well as their corresponding "cultural barbarism," dated and simplistic (because crudely positivist) conceptions of science, and "high school" ethics, in addition to otherworldly mathematical formalism.

McCloskey has courageously and cleverly attempted to persuade her colleagues in economics to rely far less on mathematical formalism and a "scientistic style," and far more on the "whole rhetorical tetrad—the facts, logics, metaphors, and stories necessary" [….] that can render economics "more rational and more reasonable," not to mention accessible to a literate public. As she notes, "[i]t would of course be idiotic to object to the mere existence of mathematics in economics," and indeed, mathematics in economics, used properly if not modestly, is a "virtue," but "[l]ike all virtues it can be carried too far…, becoming the Devil's work, sin." Pure theory and econometrics, for instance, have too often been purchased at the expense of old-fashioned empiricism and intelligent inquiry into and observation of the real world (hence the need for journals like *Real World Economics Review*). Worship at the altar of qualitative theorems and statistical significance is otherworldly, consciously or otherwise designed to have its practitioners don the priestly mantle of "hard science" (as exemplified by physics). In McCloskey's words:

"It is not difficult to explain to outsiders what is so dramatically, insanely, sinfully wrong with the two leading methods in high-level economics, qualitative theorems and statistical significance. It is *very* difficult to explain it to insiders, because the insiders cannot believe that methods in which they have been elaborately trained and which are used by people they admire most are simply unscientific nonsense, having literally nothing to do with whatever actual scientific contribution (and I repeat, it is considerable) that economics makes to the understanding of society. So they simply can't grasp arguments that are plain to people not socialized in economics."

Related critiques have been made by others, including S.M. Amadae in *Rationalizing Capitalist Democracy*: *The Cold War Origins of Rational Choice Liberalism* (University of Chicago Press, 2003), and in several articles and books by Philip Mirowski. Two works by Christian Arnsperger, *Critical Political Economy*… (Routledge, 2008), and *Full-Spectrum Economics*: *Toward an inclusive and emancipatory social science* (Routledge, 2010), proffer a programmatic focus on transforming the discipline from within and without, serving up a plethora of provocative if not utopian possibilities for fundamentally altering the character of the discipline. I think it's also useful to examine writings suggestive of "political economy" in the broadest sense—like Gandhi's—that are clearly well outside the parameters of neoclassical economics: see, for example, B.N. Ghosh's *Gandhian Political Economy* (Ashgate, 2007), and *Beyond Gandhian Economics*: *Towards a Creative Deconstruction* (Sage Publications, 2012).

* And without implying I've come anywhere close to mastering same.

"Piketty's Fair-Weather Friends"
Jacobin (5.29.14)
By Seth Ackerman

Piketty's warnings of a capitalism without meritocracy are being challenged by an ossified economic theory.

In a Jacobin essay last fall, Mike Beggs and I argued that the themes of inequality and social class — central issues to the classical economists who founded the discipline two centuries ago — have been forcing their way onto the agenda of mainstream economics inch by inch after a century of neoclassical neglect. But this Occupy-era development has left the field in an awkward place: its theories and methods, inherited from the class-averse neoclassical tradition, are badly adapted to its newfound subject — leaving economists to face the return of the social question woefully unprepared.

Then came the Piketty phenomenon, an unprecedented explosion of popular and scholarly discussion of the economics of inequality. And not just inequality as it appears in dry distribution tables. To a remarkable extent for a work of modern economics, Piketty's book explores social class in all its rich historical dimensions.

It pierces the veil of income shares to observe the medieval peasants, civil servants, and coupon-clipping rentiers who populated them. It inquires into the differing types of property held by families of contrasting social stations — the penchant for real estate of the interwar French middle class, the imposing bulk of enslaved humans in the antebellum US capital stock, the surprisingly sophisticated securities portfolios of Belle Époque legatees. All this is a welcome reminder of an older style.

It's been pointed out that in France, where *Capital in the Twenty-First Century* was first published, Piketty and his book got nothing like the rock-star reception they found in America. The difference, it seems clear, was due to the book's relentless prepublication promotion here by a cadre of prominent liberal economists and friendly commentators who have long sought to push the subject of inequality to the center of American public debate. Obviously, they've succeeded more than they could have guessed.

But as the book is digested, it's increasingly doubtful whether (or how) its arguments can be reconciled with the MIT-style economic paradigm to which Piketty's most ardent American promoters — liberal economists like Joseph Stiglitz, Paul Krugman, Brad DeLong — swear allegiance. Piketty is having trouble on his liberal flank.

He's having trouble on his left flank, too. For example, Thomas Palley, a left economist formerly with the AFL-CIO, has expressed the fear that after the excitement dies down, "Piketty's book may end up being Gattopardo economics that offers change without change" (a reference to Giuseppe di Lampedusa's 1963 novel of the Italian *Risorgimento* in which a nineteenth-century nobleman tells his uncle that 'if we want things to stay as they are, things will have to change'). Suresh Naidu likewise warns of the potential for a "bastard Pikettyism" — a mainstreamed re-interpretation of the book that domesticates its critical messages.

In a response almost calculated to confirm Palley's fears, Paul Krugman, the very model of the MIT liberal, chimed in. For him, the lesson of *Capital in the Twenty-First Century* is that mainstream theory has shown its worth: "You really don't need to reject standard economics either to explain high inequality or to consider it a bad thing."

Does *Capital In the Twenty-First Century* represent a new departure for modern economics? Is Palley right to fear that Piketty's book will be domesticated? Is Krugman right to hold it up as a vindication of the mainstream? And does it make a difference?

Discussions of inequality usually focus on the distribution of income. But Piketty's most original and important arguments concern the distribution of wealth. That's a significant choice, because when it comes to the income distribution, neoclassical economics has erected a towering theoretical apparatus that economists are permitted to embrace or extend but never question or disregard, except at the cost of ostracism and marginalization.

At the heart of the neoclassical apparatus lie the twin concepts of marginal productivity and the aggregate production function (more on these below), and as Thomas Palley has written, when it comes to these totems, "you are either in or out." Thus, as soon as an economist who aspires to theoretical originality wishes to investigate the dynamics of income distribution, she's liable to find herself swiftly tangled in a conservative straightjacket.

By stressing wealth distribution, rather than income, Piketty is able to do a partial end-run around the iron wall of marginal productivity, for there's no canonical theory of wealth inequality with the same untouchable stature. The literature that does exist, and which Piketty draws on to yield his famous r > g, is far humbler and less central to economic theory than the marginalist doctrine.

This stream of analysis, which Joseph Stiglitz played a key role in developing in the 1960s, focuses on the essentially multiplicative nature of wealth accumulation — the fact that money begets money in compound fashion — and then studies how that process unfolds over time in the presence of random "shocks" to wealth (anything from wastrel heirs to disastrous family investments) that inevitably occur as the generations pass. It's mostly a mathematical framework, adding relatively little in the way of economic content.

Piketty harnessed this framework to produce a three-fold discovery. First comes $r > g$: the fact that, all else equal, both the inequality of wealth and the importance of inherited wealth will converge to a very high level if the realized rate of return on private wealth stands higher than the economy's growth rate. Coupled to this is an amazing empirical finding: that the "raw" rate of return (this is not Piketty's term) *has* in fact always stood much higher than the growth rate. Astoundingly, it's been largely steady for centuries.

Finally comes the third part of the syllogism. Piketty concludes that the only reason magnitudes of inheritance and wealth inequality in our own lifetime have been so much less than in the Gilded Age is that for an exceptional period in the twentieth century, while the growth rate was relatively high, the realized rate of return — the rate wealth owners actually get to keep, after capital losses and taxes — fell far below its "raw" rate.

And that was due to precipitous capital losses on real estate and bonds that accompanied strict postwar rent controls and financial repression, as well as high taxes and outright physical destruction — all exceptional factors in an era of world wars. From now on, Piketty argues, capitalism can be expected to slide back toward the nineteenth century norm.

What has made Piketty's arguments about wealth distribution so explosive is the central place he gives to the phenomenon of rentier inheritance. If the past forty years have shown us anything, it's that rich societies have a surprisingly elastic tolerance for spiraling income inequality. To be sure, readers of liberal weeklies and perusers of op-ed pages — in other words, the target market for *Capital In the Twenty-First Century* (and reviews about it) — encounter a lot of hand-wringing about inequality in their news diets and on their Facebook feeds. But alongside that disquiet, there's also a deeply rooted embrace of meritocracy as an ideal, and a stubbornly pervasive inability to perceive modern capitalism as anything but meritocratic.

Piketty deliberately sets out to disturb that complacency by raising the specter of a return to the dynastic wealth of the Gilded Age. It's this type of inequality he finds most troubling, as it "radically undermine[s] the meritocratic values on which democratic societies are based." It was on these grounds, in fact, that the review of *Capital* in *Libération*, where Piketty himself writes a regular column, slashed it, only somewhat unfairly, for being built on a "conservative myth" seeking to distinguish earned from unearned privilege.

Thus, while there are many things to be found in the book, it's this notion of r > g as a Marx-like "defect" at the heart of the capitalist system, driving the system toward its own discrediting, that seems to have caught the imagination of so many liberal readers and commentators. "Piketty Explains Why It Took Until Now For An Economist To Expose The Flaw In Capitalism," a *Huffington Post* headline blares. "The very structure of free-market capitalism insures the flow of wealth from the bottom to the top," summarizes a Daily Kos blogger. And Piketty seems to encourage that interpretation; he speculates that it was the climate of Cold War ideological competition that prevented postwar economists from perceiving the mechanism he's uncovered.'

But Piketty's professional reception has run into trouble. Now that the book's arguments are being digested, the same liberal, MIT-style economists who did so much to thrust Piketty's book into the spotlight are expressing serious doubts — and the reason goes back to marginal productivity theory. That theory might end up resembling less a wall that Piketty could circumvent than a maze in which he will find himself trapped.

Marginal productivity theory lies at the deep core of mainstream economics. It's supposed to explain production and distribution, and together with utility theory, which deals with consumer preferences, it makes up something like neoclassical economics' "operating system" — the language in which almost every proposition must be embedded in order to work.

As a theory stating that competitive capitalism rewards every participant with an income equal to the value of his or her contribution to the economy's output, it's also the essential basis on which conservatives like Gregory Mankiw morally justify the existing income distribution — though liberal adherents like Paul Krugman furiously insist it has no moral implications whatsoever.

But marginal productivity theory has not held up well to scrutiny. If you've read far enough into the reviews of Piketty's book, you've probably already come across references to a mysterious academic debate of the 1950s and 1960s called the Cambridge Capital Controversies, which pitted MIT neoclassicals like Paul Samuelson and Robert Solow against a group of Cambridge University economists, including Joan Robinson and Piero Sraffa, who sought to revive and perfect aspects of the earlier classical approach of David Ricardo and Marx. Popular attempts to recount that debate tend to get needlessly bogged down in the abstract. They typically focus on the brain-teaser question of whether it's possible to quantify the "amount" of capital in the economy, given that this capital stock is made up of a vast number of heterogeneous goods, from jackhammers to hard drives. And that was, in fact, the issue that first got the debate started.

But what the argument was fundamentally about was whether the marginal productivity theory of income distribution — marginalism — is a logically coherent theory. Although carried out in technical terms, the debate had strong political overtones. (Note that Solow served in the

Kennedy White House, whereas Sraffa had smuggled in the paper for Gramsci to write the *Prison Notebooks*).

At its heart, the controversy opposed two visions of the capitalist economy. In the neoclassical vision, the most fundamental forces shaping the division of society's produce are the supply and demand for labor and capital, and behind them, the technical facts of technology, scarcity, and consumer tastes. In this vision, the income distribution can be explained by the old platitudes "when the price goes up, less is bought," and "when more is supplied, the price goes down."

In the Cambridge vision, social, historical, and political forces — class struggle — are the essential factors in setting the income distribution. Once that distribution is fixed, the rest of the economy adjusts around it.

Anyone who's taken an intro economics course might remember the way marginal productivity is explained in textbooks. Usually it goes something like this: When an employer adds more workers to her fixed stock of capital, the workers' marginal productivity — the amount of extra output made possible by adding the last extra worker — gets smaller and smaller as more workers are added. (Think of more and more workers crowding inefficiently around a lone machine.)

Result: the number of workers a firm is willing to employ will depend on the going wage in the marketplace; the higher the wage, the lower the desired employment. If the market wage is $10 an hour, a firm will keep hiring more workers, with each worker yielding a smaller marginal product than the last, until the last worker's marginal product touches $10 (of output) per hour. Then the firm will stop. Any further workers would have marginal products less than their $10 wage, and thus would be unprofitable to hire. (Why pay a worker $10 an hour to get $9 an hour worth of output?)

If some non-market force were to push *up* the wage — a strike, a law — some number of existing workers would immediately be rendered unprofitable and these will be laid off. This mechanism supplies a rationale for applying the platitude "when the price goes up, less is bought" to the purchase of human labor.

In the Cambridge capital debate, this textbook theory was advanced by *neither* side. It's a fairy tale told to undergraduates. Textbook writers are fond of it for two reasons. First, for its pedagogical utility, since it's easier to explain than the real theory. Second, to indoctrinate the young in a certain style of thought. But as for the leading mid-century neoclassicals, they had long disavowed any claim that this story could logically explain the income distribution, for a simple reason: whether or not such marginal products actually exist in the real world is an entirely empirical question, and the answer is that they generally don't.

Machines and tools are typically designed to be used by a fixed number of workers. On a given day, a machine might be used more intermittently, or more frequently, depending on how busy things get on the shop floor. But each machine will almost always have a normal capacity, based on an intended number of users, that firms naturally try not to exceed. A shovel is made to be used by one digger; a desktop computer by one mouse-wielder.

Today, empirical studies of manufacturing industries are unanimous in finding that per-worker productivity is constant, not diminishing, as more are put to work in a factory; while even in fast food joints (as this riveting online tutorial for McDonalds managers makes clear) the volume of sales per worker does not depend on how busy the store is, except maybe during the graveyard shift, due to a residuum of fixed labor costs.

It's important to note what this means: if workers' productivity stays constant rather than diminishing as more are employed in a firm, then it would be irrational for a firm to lay off some workers just because, say, a strike or a minimum wage law hiked up their wage. The employer would get the worst of both worlds: a lower profit margin on every unit of output produced (because of the higher wage) and fewer units produced (because of the laid-off workers). Rather, her best option would be to keep producing as much as she can manage to sell while simply accepting the lower profit rate, assuming profits are still being made. Analyzed in this way, there's no necessary reason why the platitude "when the price goes up, less is bought" ought to apply to human labor.

But the neoclassical economists on the MIT side of the Cambridge debate already knew all that. They were defending a more sophisticated version of marginal productivity theory that was subtler and, in a way, simpler.

It argued as follows: when the wage is hiked up — again, think of a strike or a law — labor-intensive goods get relatively more costly to produce, while capital-intensive goods get relatively cheaper to produce. (And the opposite happens when the wage goes down, or when the interest rate — the cost of capital — falls, perhaps due to higher savings.) As a result, consumers switch their purchases from labor-intensive to capital-intensive goods, while firms and entrepreneurs building new lines of business choose more capital-intensive, rather than labor-intensive, techniques.

It is these shifts in *buying* that should (not immediately, but in the long run) cause demand for labor to fall — resulting in higher unemployment, and ultimately pushing the wage back down again. In other words, when consumers and businesses choose what to buy, they are exerting demand for labor or capital through their purchases, and naturally they choose the cheapest options. This was how Samuelson, Solow, and the others on the neoclassical side of the Cambridge controversy hoped to apply the platitude "when the price goes up, less is bought" to human labor or to capital.

And this was the argument that the Cambridge University side defeated — most fundamentally Piero Sraffa in his 1960 book *Production of Commodities By Means of Commodities*. The problem with the neoclassicals' argument was that it treated "capital" as if it were a homogenous substance distinguishable from labor. In reality, capital consists of many different capital goods, which are themselves produced by labor — as well as by other capital goods, which are in turn produced by other labor and other capital goods, and so on forever.

Thus, when a consumer buys a consumer good, or a firm buys a capital good, they are not simply exerting demand for that specific good. They are also implicitly demanding a whole chain of other inputs: the labor needed to produce that good, as well as the capital goods needed to produce it, as well as the labor and capital goods needed to produce *those* capital goods, and so on. (Hence the title of Sraffa's book.)

In other words, the problem with heterogeneous capital goods is not so much that they're heterogeneous; it's that each capital input was once an output, and had its own inputs in turn.

Once capital is correctly analyzed in this way, it becomes clear that a rise in the wage does not necessarily make labor-intensive goods relatively more costly to produce, as the neoclassicals had assumed. It will certainly make the *labor* they require more expensive. But what about the (specific) capital goods they require? The answer is, it all depends on the complex pattern of input-output relations in the economy as a whole — how many units of good A it takes to produce good B, how many of good B to produce good C, etc., for all the millions of goods in the economy.

This casts fundamental doubt on the MIT neoclassicals' method of applying the old platitudes to labor. Once this neoclassical story — where the relative demands for labor and capital are dependent on their relative prices — is "debunked," to use Paul Samuelson's contrite term, the competitive market economy no longer contains any necessary mechanism pushing the various wage rates or the profit rate to any determinate level.[1]

Rather, history and custom, as well as politics, laws and struggle, will determine who gets what. It's a system of grab what you can.

But mainstream economics never really absorbed the lessons of the Cambridge capital debate. For one thing, most economists these days are only dimly aware of the controversy — usually via stray comments heard from professors in grad school, or throwaway lines in advanced textbooks. For another, those comments are not necessarily innocuous: The Cambridge controversy was a powerful moment of collective identity-formation for the intellectual tradition Paul Krugman calls "saltwater economics." (It was in a paper doing battle with Joan Robinson that Samuelson first invoked an 'MIT school'' of economics.)

In that sense, it's unsurprising we should find marginal productivity to be the point where Piketty's sweeping vision of modern inequality would run into trouble with the economics mainstream.

The problem for the book is that its gloomy forecast of a return to "patrimonial capitalism" is based on the prediction that over the next decades, the gap between r and g will widen due to a fall in the growth rate (*g*). No one has a problem with the prediction of falling growth — all else equal, this will happen simply if population growth slows, as it almost certainly will. The problem is that if growth slows while the rate of saving (i.e. investment) stays constant, capital will start accumulating faster than output is rising, meaning the measured capital-output ratio will increase.

But marginal productivity theory sees a rise in the capital-output ratio as an increase in the "supply of capital," which, in classic supply-and-demand logic, ought to bring about a reduction in its "price" — that is, a fall in r. According to the theory, this should neutralize the effect on the *r-g* gap.

In his faint-praise review of Piketty's book, Larry Summers was unyielding on this point: "Economists universally believe in the law of diminishing returns," he insisted, in a line resounding with the thud of a fist pounding a lectern. Piketty's forecast of rising *r - g* must be rejected, Summers concluded, because "as capital accumulates, the incremental return on an additional unit of capital declines."

Piketty had of course been aware of this issue when he wrote the book, and he made an attempt to reconcile his argument with conventional theory. He contended that as growth slows and the capital-output ratio rises, *r* might decline (as theory predicts) but the magnitude of the decline might still be small enough to permit a net widening in the *r - g* gap.

The technical term for the quantitative relationship involved (that is, between the size of a change in the capital-output ratio and the size of the change in *r* that supposedly results, or vice versa) is the elasticity of substitution: the higher the elasticity, the smaller the "response" of *r* to a given change in the volume of capital. When the elasticity is higher, it's taken to signify that the force of diminishing returns to capital is weaker, due to richer technological opportunities for labor-saving investment.

As Summers pointed out in his review, "economists have tried forever to estimate elasticities of substitution with many types of data," so there's a large literature on the subject. This is the so-called production function literature, which tries to apply marginal productivity theory empirically by estimating the supposed causal relationships between quantities of labor and capital inputs, on the one hand, and the quantity of output on the other. Piketty's argument was that the elasticity needed for his forecast to come true isn't all that much higher than at least a few of the estimates found in the existing production function literature.

But in saying so, he made a crucial error. He confused two different ways of measuring the elasticity: the usual (gross) measure, which counts depreciation as part of the return to capital, and his own (net) measure, which doesn't.

When this discrepancy is accounted for, the elasticity Piketty requires turns out to be far, far higher than any known estimate. This was first pointed out in mid-April by Matt Rognlie, an MIT graduate student and blogger. The problem was ruefully acknowledged by Brad DeLong, the former Clinton administration economist, who is sympathetic to Piketty's project. Summers's review a month later in the journal *Democracy* sealed the judgment: Piketty "misreads the literature by conflating gross and net returns to capital," Summers wrote. "I know of no study suggesting that measuring output in net terms, the elasticity of substitution is greater than 1, and I know of quite a few suggesting the contrary."

A reader at this point could be forgiven for feeling confused. Didn't Piketty gather his own data? He did, of course. That Herculean effort by him and his team of international colleagues, compiling statistics on historical rates of return and capital volumes in many countries going back to the eighteenth century, is the one point on which all reviews are unanimous in their praise.

As Piketty makes clear, those data — which he's made freely available on the internet for anyone to check — are indeed "explained" by a net elasticity of 1.3-1.6, which would indicate an extremely weak force of diminishing returns to capital. Yet it's also true that this figure is far higher than any found in the existing literature — probably more than twice as high as the highest typical estimates.

What should we make of this?

First, Piketty's estimate of the elasticity of substitution can't really be compared with those in the literature. His is based on economy-wide data covering decades and centuries while estimates in the literature typically cover only a few years, and often just a few industries. Moreover, his pertain to all private wealth, while the literature focuses narrowly on production capital. These are very different concepts.

But most importantly, given the flawed marginalist theory behind it, and it's even more flawed basis of measurement — a subject there's no space to go into here, but which marks a fundamental critique of the production function literature advanced in an important book published just two months before Piketty's — the elasticity of substitution simply cannot be regarded as a meaningful measure of an economy's technology (or anything else), or as providing any clue to its future.

What's essential, rather, is Piketty's empirical demonstration that the rate of return on wealth has been remarkably stable over centuries — and, *contra* Summers, with no visible tendency to vary in any consistent way against the "supply of capital."

Therefore, if we expect growth to slow, the most reasonable expectation is that the *r - g* gap will in fact increase, and inherited wealth will expand.

But so what? Suppose it all comes true: growth slows, the *r - g* gap widens, and both wealth inequality and inheritance balloon. What real difference would that make in a world already swimming in inequality? Piketty thinks a return to dynastic wealth will fatally erode capitalism's legitimacy. I'm not so optimistic.

One hundred years ago, as Arno Mayer and Sven Beckert have shown us, rich bourgeois both in Europe and America projected an aristocratic image of cultivated leisure. When Thorstein Veblen called his era's rich a leisure class in 1899, he didn't even feel the need to provide evidence. Today, by contrast, the rich have ostentatiously aligned themselves with the popular insistence that work must attend wealth.

The phenomenon is documented by the sociologist Shamus Khan in his recent ethnography of St. Paul's, the elite New England boarding school that once educated generations of Vanderbilts and Rockefellers. Khan found that the mores of today's students (and their parents and teachers) bear little resemblance to those of the past:

"[T]he new elite are not an entitled group of boys who rely on family wealth and slide through trust-funded lives. The new elite feel their heritage is not sufficient to guarantee a seat at the top of the social hierarchy, nor should their lives require the exclusion of others. Instead, in certain fundamental ways they are like the rest of twenty-first-century America: they firmly believe in the importance of the hard work required to achieve their position at a place like St. Paul's and the continued hard work it will take to maintain their advantaged position. Like new immigrants and middle-class Americans, they believe that anyone can achieve what they have, that upward mobility is a perpetual American possibility. And looking around at their many-hued peers, they are provided with experiential, though anecdotal, evidence that they are correct."

However much richer the rich may get in the coming years, it seems unlikely that they'll ever revert to the old-regime social values of the monocle-and-tuxedo era. No matter how many millions they bequeath to their children, they will raise them to work; they will muster their accumulated advantages to secure them the best jobs; and they will urge their children to "do what they love." As individuals, those children will be visible to the public mainly as the occupants of prestigious posts with high salaries, rather than as possessors of trust funds (much less titles).

All of which suggests that an increase in *r - g*, if it comes, may merely represent a glacial deepening of the current pattern of inequality, rather than some shocking qualitative change. And that brings us to a lacuna in Piketty's analysis that Paul Krugman and other reviewers of *Capital* have rightly pointed to. The skyrocketing of top-end income inequality we've actually witnessed so far in the English-speaking world has mainly come in the form of inflated "labor" earnings, rather than pure capital income.

Those earnings accrue mostly to those Piketty calls "supermanagers" — that is, corporate higher-ups. But Piketty has little new to say about what determines their incomes, and Krugman charges that in that sense the book falls short as an overall analysis of modern inequality.

Before tackling the question of *why* managers' incomes have ballooned, we should pause to note an important fact: "earned incomes," like those of the supermanagers, can bring about a rise in inherited wealth even without any increase in $r - g$.

Think about how $r - g$ works: it increases the pace of wealth accumulation for capital income earners relative to labor income earners, for any given pattern of saving rates between the two groups. But the same logic can apply *within* the universe of labor-earners — that is, between the top earners (say, the top 1% or 5%) and everyone else. To the extent that the growth rate of labor income at the top exceeds that for the bottom — call it $t > b$ — the relative pace of wealth accumulation for the top group will be faster than for the bottom (for any given pattern of saving rates). And as long as the children of top labor earners are disproportionately likely to become top labor earners themselves — which is true in spades — then top wealth will accumulate across generations, not just over lifetimes, and top labor earners will become not only high-paid "workers" but heirs as well.

On the surface, this dynamic differs from Piketty's $r > g$ scenario in that Piketty's rentiers can be totally idle, rather than being worker-heirs. But if we admit that mores have changed, and that tomorrow's heirs will most likely work even if they don't "need" to, the distinction between $r > g$ and $t > b$ collapses.

At least in the United States, then, we're probably already living in the early years of Piketty's dystopia. There's no need to quibble over elasticities of substitution.

Which brings us back to marginal productivity theory. Manacled to that concept as their "baseline" theory of income distribution, most liberal economists have done no better than Piketty in their efforts to account for the elephantine growth of these managerial incomes. They've had to depict that growth as the result of "rents," due to imperfections located within specific managerial labor markets, causing incomes there to diverge anomalously from supposed marginal products.

For example, many (including Piketty himself) have argued that rising managerial income is due to distorted bargaining over executive pay within publicly traded corporations, where millions of dispersed shareholders must delegate the job of executive wage bargaining to boards with cronyish relationships to their own CEOs. Another tack is to emphasize the role of the finance industry and the rents its workers earn from excessive Wall Street risk-taking, spurred by high leverage and faulty regulation.

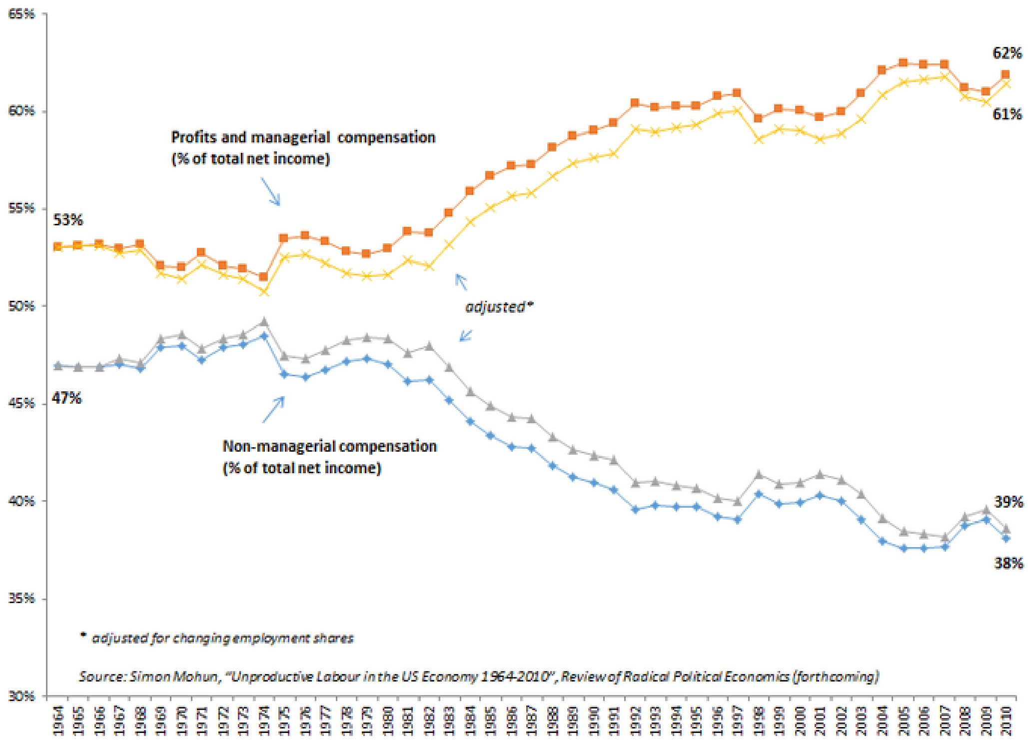
The problem with these arguments is that neither financiers nor public company executives have led the swelling of high-end incomes over the past several decades. Rather, the single largest contributor has been the income growth of managers in *closely-held* corporations *outside* the finance sector — that is, firms with only a few shareholders, where the controlling owners are almost always the managers themselves, usually family members. Think of the Koch brothers: as executives and 84% owners of Koch Industries, they may or may not pay themselves a salary, but it hardly matters, since most of the money would be coming out of their own pockets anyway.

Thus it turns out that at both the individual and the aggregate levels, the incomes of supermanagers are in fact an inseparable blend of "labor" and "capital" income. At the aggregate level, the increase in top 1% incomes has shown up in the data as a fairly even mix of higher salaries and higher self-employment profits.

As for the individual level, the only comprehensive evidence on this question comes from a well-known 2009 paper by John Bakija and his colleagues, using IRS data. When they examined the top 0.1% of earners — who far more than doubled their share of national income between 1979 and 2005 — they found that 70% of that increase went to corporate managers and non-managerial financial workers. But of that 70%, more than half (37%) went specifically to owner-managers in closely-held nonfinancial corporations, like the Koch brothers, while only a tenth (8%) went to salaried managers in public traded nonfinancial companies, i.e. those who face absentee shareholders.

As for finance, there's been no tendency for its executives' pay to outpace that of nonfinancial executives. On the contrary: even during the bubble years of the 2000s, top 0.1% finance executives in public companies saw their pay rise by 52%, while nonfinancial executives' rose 58%. The industries with the biggest pay hikes were not banks, but transport, restaurants, and wholesale trade.

The statistical image that emerges from these numbers is neither Piketty's vision of rising returns to "capital" as such, nor Krugman's picture of an increase in returns to managerial "labor." Rather, we see the burgeoning of a general *surplus*: an excess of national income over and above what's needed to pay the nation's non-managerial workers, appropriated broadly by all those who control capital — whether as shareholders, managers, or financiers. The picture looks something like this chart, based on data from a forthcoming paper by Simon Mohun of the University of London, which roughly estimates the share of US national product paid out to non-managerial workers in all industries since 1964:



Here we return to the vision of the classical economists — Adam Smith, Ricardo and Marx — who saw the income distribution as the outcome of a historical struggle between capitalists and those who employ them, with no "equilibrium solution" possible.

The particular history this chart recounts has been told before, by writers like Doug Henwood and J.W. Mason, though maybe the definitive version still waits to be told: how resurgent capitalists in the 1970s and 1980s, emboldened by a weakened working class, drafted managers tightly into their ranks using the tools and personnel of Wall Street, and reshaped the economic landscape. (Note the sheer size of the shift in this chart: had it not occurred, the average non-managerial worker's compensation would be more than 20% higher today.)

Just how the spoils of that twentieth-century victory get handed down to future generations is a matter that will no doubt depend on the multiplicative dynamics of capital in the twenty-first century, as Piketty claims. But whether those numbers spell a social crisis or just more of the same will depend on how the next chapter of the struggle is written.

---

[1] In a *tour de force* reconstruction of the history of distribution theory, Michael Mandler has shown that even using the neoclassical general equilibrium approach, it's impossible to build a model without arbitrary restrictions in which wage and profit rates can be pinned down by technologies, preferences and endowments, unless at least one of two key features of real capitalist production is omitted: fixed production coefficients and capital accumulation over time. (The latter is usually omitted.) That's why to the end of his life Paul Samuelson pinned his

faith in marginal productivity on the dubious possibility that perhaps real-world production might not be so well described by fixed coefficients after all.

[2] Even if we accepted Summers's beliefs about diminishing returns, there would be good reason to doubt their relevance to Piketty's forecast of $r - g$. Diminishing returns to capital will only affect $r - g$ under the assumption that the predicted growth slowdown will have no effect on the saving-investment rate. That's the neoclassical assumption, which sees investment ('in the long run') as driven purely by individual saving preferences. Piketty plays along with this story, but in reality slower population growth will likely mean less investment.

"A General Without an Army"

By Mike Beggs
Jacobin (5.30.14)

For all Piketty's mainstream respectability, it is only the radical left and the labor movement — not treasuries and central banks — that can push his program.

"Capital is back." That's the title of the long paper that first presented the core data and many of the concepts for Piketty's book — the *Grundrisse* for his *Capital*, coauthored with Gabriel Zucman. The title captures perfectly what is so striking about Piketty's approach to inequality. Conventional treatments have for years focused mainly on inequalities of income from work. The book returns the discussion to capital and labor.

But Piketty doesn't only focus on the labor-capital distribution of income, since the distribution of capital itself obviously matters. If ownership of capital were spread evenly across the population, these functional shares would hardly matter. In fact, however, capital ownership is highly concentrated, and likely to become more so, since capital breeds capital.

The conventional economic wisdom has long been that the labor-capital split doesn't matter much because labor and profit shares are constant. According to the Cobb-Douglas aggregate production function, which has been the textbook standard since the 1950s, the parameters are such that an increase in the quantity of one factor relative to the other affects their marginal productivities in just the right way to keep their shares stable. This is extremely convenient, because it keeps the analysis simple, and by coincidence it also seemed to fit the data.

The notion was also an ideologically comforting one, since it suggested there was not much point in worrying about inter-factor distribution, and no point fighting it. This "stylized fact" was often wheeled out to persuade the labor movement that if nominal wages grew faster than labor productivity, it would still never make inroads into profits, but only drive inflation.

But Piketty's long-range data shows that this stability was limited to the postwar decades and is not an eternal law. For much of the nineteenth century in Britain, capital took more than forty percent of total income; its share collapsed around the time of the First World War, and fluctuated between twenty and thirty percent for the rest of the twentieth. France saw a similar, though more volatile, trajectory.

More recently, the capital share in rich countries has been rising: from fifteen to twenty percent in 1970 to twenty-five to thirty percent in the 2000s. Average labor income has not kept up with average labor productivity growth.

Piketty interprets this within the framework of the aggregate production function. He accepts the standard neoclassical argument that, at least in the long run, the rate of return on capital equals — and is explained by — its marginal productivity, i.e. the value produced by an additional unit of capital, with a given labor force and level of technology. He also accepts that there are decreasing returns to capital: again, holding the labor supply and level of technology steady, the more capital, the lower its marginal productivity will be.

Piketty departs from the standard story only in his estimate of the parameters of the production function relating inputs to outputs. For him, the key is that these parameters must be subject to change. In the agricultural societies of the eighteenth and nineteenth centuries, capital was mostly agricultural land. It was good for a limited range of production processes: growing crops, grazing livestock. In such conditions, rent would be sensitive enough to the relative abundance of land so that the more there was in a geographic area, the lower the income share of landowners would be.

Now, however, capital can augment production in many different physical ways, so that it is not as subject to diminishing returns. Increasing capital intensity will still, he predicts, reduce its marginal productivity, and thus the rate of return on capital, but not by as much as the Cobb-Douglas parameters suggest. If the capital-output ratio rises, capital's share of income also rises. And Piketty projects that it is indeed due to rise.

This part of the argument is framed by one of Piketty's "fundamental laws of capitalism": over the long run, the ratio of capital to income will tend towards the proportion of national income saved, divided by the rate of income growth. The reason is simple arithmetic. If the capital-income ratio is lower than that, capital grows faster than income; if it is higher, capital grows more slowly than income. Only at that point do capital and income grow at the same rate and so maintain a steady ratio.

Much in Piketty's analysis turns on the contrast between the long run and the short run. The approach of the actual capital-income ratio to its stable ratio is very slow: a modest shift in the saving rate or growth rate could take years or decades for the ratio to fully adjust to.

The "law" is meant to describe "long-term evolutions, fundamental trends that in many cases cannot be appreciated on time scales of less than thirty to forty years or even longer." Of course, the capital-income ratio could move for other, "short run" reasons: a stock market or real estate boom or bust, or the widespread destruction of capital in war. But to focus attention as Piketty does on the very long-run point of attraction is to treat such events as ephemeral, however massive their impact.

All this means that though capital and labor are back in the center of the distributional question, there is not much class struggle — at least not at the level of "long-term evolutions" and "fundamental trends."

For the labor movement, the message of Piketty's "fundamental laws" is not much different from that of the old "stylized facts." The wage and the profit rate are still determined by the marginalist parameters of the production function, presumed to be essentially technological in nature. The growth rate depends on demographics and technological advance. The savings rate depends ultimately on private decisions, and mostly those of corporations and people with high incomes and wealth.

That is not to say Piketty completely ignores what he takes to be ephemeral. The ups and downs of financial markets, the back and forth of politics, are bound up with shorter trends "of ten to fifteen years or even longer," he writes. These are "often counterbalanced in the end, but for the people who live through them they often appear, quite legitimately, to be the most significant realities of the age." Some of these short-term deviations involve movements of income shares that seem to have nothing to do with shifts in marginal productivity.

Piketty devotes a few pages to the class struggle in France and the US since World War II. The basic trends and episodes will be very familiar to readers of political-economic histories. In France, there is a wage explosion after May 1968, a diminishing of capital's share in the 1970s amid political-economic turmoil, and a reversal under Mitterrand in the 1980s. In the US, a moderation of income inequality in the 1950s and 1960s, and then an explosion of high incomes since the Reagan era.

But the labour movement is oddly and strikingly missing from Piketty's narrative: he tells us that May 1968 was about "cultural and social issues that had little to do with the question of wages," but then that de Gaulle ended the crisis with a twenty percent increase in the minimum wage. The rest of the story is mostly concerned with further political adjustments of the minimum wage.

For a book telling the story of distribution under centuries of capitalism, and with nearly 700 pages to tell it, it is amazing to see only three references to trade unions: they are mentioned twice on consecutive pages, for their importance in establishing minimum wages in Germany and Sweden; and then, on the last page, their activists are exhorted to pay attention to economic statistics, however dull they may seem. There is nothing on the rise, plateau and decline of the Western labor movement.

At one point Piketty does raise the possibility that the shift in the production function parameters he estimates from the data could be interpreted in terms of bargaining power instead of — or as well as — technological change. But it is left to others to explore that possibility.

Throughout the book, Piketty fights a number of skirmishes with aspects of conventional theory: time preference as an explanation of the interest rate, the life-cycle model of saving, marginal productivity as an explanation of high managerial incomes. It is not at all his aim to set up an alternative set of models. His weapon is always "the data," and his stance is that of the empiricist, distrustful of theory, preferring instead to deal pragmatically with the ocean of facts by mapping it, finding ingenious ways to represent its structures. Piketty is brilliant at this, and it is the source of everything that is great about *Capital*.

But it also means a somewhat *ad hoc* treatment of all the phenomena he dismisses as "short term" and transitory.

In the book's introduction, he explains that he quit an enviable position in an American economics department at age twenty-five because he was repelled by the abstraction and inattention to data, arguing that "economics should never have sought to divorce itself from the other social sciences and can advance only in conjunction with them." In the conclusion, he pulls no punches, claiming that high-level economics has come to "rely on an immoderate use of mathematical models, which are frequently no more than an excuse for occupying the terrain and masking the vacuity of the content." It is unfortunate that Piketty does not engage more with those economic traditions that have for many years been working along the lines he lays out.

The sense of a missed opportunity is most painful in Piketty's summary dismissal of the "Cambridge capital controversies," which played out in the journals especially in the 1960s. This debate was about the validity of explaining the return on capital with the device of an aggregate production function. The main point of Joan Robinson and her Cambridge, England, fellows was that aggregate capital could not be quantified independently of distribution. Capital could be measured, as Piketty does, by adding up the market value of assets at some point in time. But this value would itself depend on the going real wage and rate of profit, among other things. It could not legitimately be used as an independent quantity to *explain* distribution.

As James Galbraith has already pointed out, Piketty seems to have completely misunderstood the debate. In his telling, it was all about whether the capital-income ratio was flexible enough to make for relatively smooth growth. To back up his claim that the controversy involved "a good deal of confusion" all round, he claims that the Cambridge UK side had set up an anti-Keynesian MIT straw man, and assures the reader that the Massachusetts side of the debate "were fully convinced that the growth process is unstable in the short run and that macroeconomic stabilization requires Keynesian policies." But this is a *non sequitur*. The debate had little to do with the value of macroeconomic stabilization.

Piketty characteristically concludes that the controversy could have been avoided if only both sides had access to "the historical data needed to clarify the terms of the debate." This misses the point entirely, since the actual historical data on the value of capital will always reflect the distributional conditions of the their time.

Frankly, it is hard to believe Piketty has had much exposure to the debates at all. A search of the footnotes and appendices finds no references to the original papers to substantiate his interpretation. (The same can be said of his repeated, preposterous claim that Marx did not consider the possibility of technological change in his treatment of growth and distribution.)

It is unfortunate that Piketty got the wrong impression of the view from Cambridge, England, because it could have been well-suited to his overall argument. Contrary to what many now seem to believe, the intent of Robinson, Pasinetti, and others, was never to deny the meaningfulness or even quantifiability of capital at the level of the whole economy. Nor was it about a mere aggregation problem. It was simply to establish that the quantity of capital was not independent of income distribution and thus could not be treated as an exogenous variable in a model purporting to explain distribution over the long run.

For the Cambridge, England, tradition, distribution is something to be studied historically because there is no single long-run equilibrium position. The real wage and profit rate evolve over time, influenced by a range of institutional and market forces. Macroeconomic factors — which Piketty ignores as transitory— are critical in the short-run, but the long-run is no more than an accumulation of short-runs.

This is not to abandon explanation, but simply to admit the limits of abstraction and a need for real historical analysis. Piketty, too, calls for history and rails against purely abstract models. But in his core argument, he pits the long-run against the merely transitory, and the choice of which factors to treat as independent in the long run comes straight from standard Solow-Swan growth models.

I have got this far without explaining exactly what Piketty means by "capital." He means wealth, or net worth, and not simply "means of production":

"I use the words 'capital' and 'wealth' interchangeably, as if they were perfectly synonymous… It includes the sum total of nonfinancial assets (land, dwellings, commercial inventory, other buildings, machinery, infrastructure, patents, and other directly owned professional assets) and financial assets (bank accounts, mutual funds, bonds, stocks, financial investments of all kinds, insurance policies, pension funds, etc.), less the total amount of financial liabilities (debt)."

This definition is crystal clear, but Piketty does not give the reader much sense of how unusual it is. It follows from this definition that the means of production owned by firms are not counted directly as part of a country's aggregate capital. Rather, their shares and debts are presumed to reflect the value of the means of production (along with the value of intangibles like intellectual property and 'goodwill'), so it is these financial assets, owned by households, that are counted instead. As he explains in the online appendices, this allows him to evade the difficult problems of valuing firms' capital stock.

This definition of capital makes it even odder that Piketty is comfortable to use it as a variable in an aggregate production function, as if this financial capital were a simple "input." He is of course well aware that these financial values ride up and down with the fluctuations of financial and real estate markets. He acknowledges that the long upward trend in stock and real estate prices over the last few decades have increased the aggregate value of capital quite apart from has happened to net savings. But he once again resorts to the long-run/short-run divide, arguing that "price effects" are transitory and that "volume effects" — i.e., the accumulation of capital by net savings — dominate in the long-run.

In many countries, the market value of corporate equities and debt has risen substantially relative to the values of firms' net assets since the 1980s. But Piketty argues that this simply reflects a recovery from the declines of the Great Depression and the world wars. The long bull market we lived though was just a return to normality! This is a very casual way to deal with something that makes a big difference to his central variable. Pure capital gains (i.e. adjusted for the accumulation of real assets by corporations) account for a substantial proportion of the rise in the capital-income ratio since 1970 in many countries: about a quarter in the US, Japan and France; more than half in the UK, more than a third in Australia.

There are also big differences between countries at a given point in time. In the 2000s, the ratio of market to book value of corporations in Germany and Japan was only around half that of the US and UK — and this makes a substantial difference to the recorded value of capital.

On the other hand, there are things to be said for Piketty's definition of capital. He puts all forms of wealth on the same footing, and in a major sense, they are. They are all vehicles for carrying purchasing power into the future, and all are expected to generate returns for their owner. Because wealth owners are free to adjust their portfolios as they see fit, their prices should adjust so as to roughly equalise expected rates of return, adjusted for risk and liquidity. Any asset gives its holder a share in society's income, whether it be a share, a bond, a piece of factory equipment or a house. (The last makes clear that the return need not involve an actual monetary flow: living in a house you own saves you rent, and the national accounts deal with owner-occupied by 'imputing' a rental flow from resident to owner, even though they are the same person.)

So Piketty's definition of capital as net wealth gives us a fuller picture in some respects than we get from one restricted to instruments of production. For that matter, it compares favorably with a narrow focus on the debtor-creditor relationship, which has been in vogue among radicals these past few years. Owners of all forms of wealth, not just creditors, enjoy unearned income simply by virtue of that wealth, and all of this income is derived from our collective production.

Geoffrey Hodgson has argued that Piketty's treatment is a return to an older, more useful, intrinsically monetary conception of capital. There is some truth to that — but there are important implications that Piketty barely discusses. A financial definition of capital calls for some explanation of the relationship between monetary interest rates and rates of return in production, and raises fundamental questions about the workings of capital markets. But this could be another potential point of contact between Piketty's framework and radical political economy.

For all the problematic aspects of Piketty's central argument, the work is still of great value. It is a model of social science communication: clear and absorbing, readable by the general public, while providing the technical details for specialists online. The data he has assembled is tremendously useful, and freely available online to anyone who wants to use it to tell other stories, deepening or questioning his own account. This has already been happening — for example, earlier iterations of Piketty's statistics have been important to the Marxian analysis of fellow Frenchmen Gerard Duménil and Dominique Lévy.

Regardless of whether Piketty has *explained* what he describes, or whether he had justified his predictions, his description is very important. It is useful and fascinating to get details, for example, on exactly how the structure of wealth in the rich world today compares with that of the turn of the twentieth century. Then, around 90 percent of wealth was held by the top 10 percent. Now, in Europe and the United States, the next 40 percent have between a quarter and a third of it. Not much has changed for the bottom half of the population (with 5 percent of the wealth), but it is surely important politically that a substantial proportion of the population now have some limited degree of wealth.

The rise of a "partrimonial middle class" is hardly a new observation, but it is helpful to have it quantified and put in comparative perspective. And Piketty shows his real talent for excavating meaning from the data by considering exactly what it means for the life cycle experience of different generations. The rise of the capital-income ratio since the 1950s has been combined with this spread of some wealth to the upper-middle strata to create a new social configuration: what he calls "the society of *petits rentiers*."

As he shows with his long-run data on France, for much of the twentieth century the transmission of wealth from parents to children was unusually unimportant for most of the population. That is changing drastically. Among the parents of the baby boomers, only 2-4 percent inherited (or were gifted) amounts equal to the lifetime earnings of the bottom 50 percent of workers. Among the baby boomers, 5-8 percent received such windfalls.

For those born since 1970, Piketty projects that figure to rise to more than 12 percent. A larger group — though still a minority — will receive smaller but not insignificant inheritances. For all the importance of the 1 percent to overall distribution, their lives are alien for most of us. The pettier inequalities are perhaps just as important to everyday experience: among the people we know, some can buy a house or pay Ivy League tuitions; others cannot.

This is just one of a number of ingenious statistical set-pieces throughout the book, tangential to the main argument but insightful. There is an exploration of unequal returns among the wealthy, cleverly exploiting the records of private university endowments, since the accounts of wealthy households are not available. There is a discussion of the impact of slavery and emancipation on American capital, and another on the long decline of agricultural landed wealth and its replacement by urban residential real estate. There are riffs on attitudes to wealth in nineteenth-century novels and twenty-first-century police procedurals; on why the United States pioneered "confiscatory" high marginal income tax rates; on primogeniture, equipartition and the dynamics of dynasties.

Then there are Piketty's judgments and political proposals. Needless to say, there is no call for #fullcommunism. There is a rote recital of the things liberals feel they need to say to make sure serious people don't confuse them with communists: growing up in the 1980s left him "vaccinated for life against the conventional but lazy rhetoric of anti-capitalism, some of which simply ignored the historic failure of Communism and much of which turned its back on the intellectual means necessary to push beyond it."

But let's be clear: there are conservatives calling Piketty a socialist, and conservatives calling Obama a socialist, and the former are a little closer to the truth. He is a true social democrat, and the positions he puts here are to the left of anything in mainstream politics for decades.

Paul Krugman recently took James Galbraith and Thomas Palley to task for bringing up the Cambridge capital controversy in their takes on Piketty (as if Piketty himself had not raised the subject himself). Krugman complained that there is "a long if bizarre tradition among some left-leaning economists that sees the notion that factors of production are paid their marginal products… as somehow implying an acceptance of the moral right of capitalists to keep their spoils." But this was never the point: there was no need to go to all the trouble of the Cambridge controversies for that. Joan Robinson always recognised — insisted — that even if you accepted the neoclassical framework as an explanation, it provided no justification for distribution. Capital goods can certainly be considered productive, but there is nothing productive about *owning* capital, and "the apparent rationality of the system of distribution of the product between the factors of production conceals the arbitrary nature of the distribution of the factors between the chaps."

It is one thing for Krugman and other 33rd degree Operating Thetans to understand and acknowledge that reality. But it is hard to deny that for the general population, the exoteric doctrine — what you might pick up from the op-ed pages or a semester or two of economics —

is that marginal productivity means people generally get what they add to output, and what could be fairer than that?

Piketty is rather more reserved than Joan Robinson, but he politely undermines the idea that wealth-owners *deserve* their returns. He writes that our society seems unable to face honestly that much income has no connection to effort, and traces the changing connotations of the terms "rent" and "rentier." Once, they referred simply to the return on any asset and the owners who enjoyed them; but in the twentieth century, "rent" came to be associated with market imperfections, and "rent-seekers" were the parasites who exploited them. Yet capital income, writes Piketty,

"… is not an imperfection in the market: it is rather the consequence of a 'pure and perfect' market for capital… There is something in this notion that is an affront to common sense and that has in fact perturbed any number of civilisations, which have responded in various ways, not always benign… Nevertheless, rent is a reality in any market economy where capital is privately owned."

Someone once said that Marx and Marshall took the classical antipathy to land-rents in opposite directions. Marx showed that capital was much like land and so its owners just as parasitic. Marshall showed that land was very much like capital and so its owners were not so bad after all. Piketty leans back towards Marx in this respect at least. He tries to undermine any sense that modern society is meritocratic, at least where wealth accumulation is concerned. He estimates that in France, two-thirds of wealth is inherited, and projects that this will rise to 80-90 percent. American demographic growth has slowed this trend down somewhat, but he estimates that at least half of wealth is inherited.

He does not presume the deservedness of "earned fortunes" either: as he notes, "self-made" billionaires continue to accumulate long after their innovations. (In truth, he vacillates on this — Steve Jobs 'fully deserves his fortune,' but maybe not Bill Gates.)

Of course, Piketty is not calling for the expropriation of the expropriators. That falls under his category of responses "not always benign." This is largely the age-old liberal fear of Jacobinism: the rich might not deserve their positions, but levelling brings unpredictable social upheaval and potential catastrophe. It is mixed with a more serious (but still familiar) technocratic argument. The incomes of the wealthy and very-high earners are unfair and unjustifiable individually, but the rationality of the economic system depends on the pursuit of exceptional returns:

"[P]rivate property and the market economy do not serve solely to ensure the domination of capital over those who have nothing to sell but their labor power. They also play a useful role in coordinating the actions of millions of individuals, and it is not so easy to do without them."

It must be admitted that, after the Soviet experience, the burden of proof on this point still rests with socialists, and we need to take it seriously.

Meanwhile, Piketty's reform program is far from negligible. He endorses as a matter of course traditional social-democratic demands, such as steeply progressive income taxes. He is not much worried about inequalities of income from labor, except at the bottom and very top, and his proposals here are quite conventional — a minimum wage, a return to high top marginal income tax rates, and education. The call for the education palliative may induce yawns, but at least he goes beyond the platitudes and shows he means it — endorsing free publicly-funded higher education.

The book culminates in a "utopian" proposal for a progressive global wealth tax. In itself, this is anticlimactic after the dark picture painted over the previous 500 pages. He suggests a 1 percent tax on net wealth above 1 million euros; 2 percent above 5 million, and perhaps confiscatory 5-10 percent rates on fortunes above 1 billion euros. Given an average rate of return on capital of 5 percent, this is not nothing, but it seems mainly designed to stop things from getting worse rather than moving towards egalitarianism.

Ultimately, the real immediate practical difference Piketty's intervention could make is within struggles around the public sector and tax-system redistribution within individual rich countries. He is at his most radical in his critique of austerity and his proposed solution to the Eurozone debt quagmire. He argues that the debt could be effectively repudiated without default, by repaying it in a stroke by a large, one-off progressive capital tax, spreading the burden across the wealthy in general (not only bondholders), and abandoning austerity entirely.

This logic can be extended to budget "crises" everywhere — the risk of social security "going bust," of rising health costs, of just plain cramped, stretched, or inadequate public services and benefits. Or, if these things are already adequate, we may collectively decide we want them better than adequate because they are more important than the luxury cars and vacations of the fortunate. Piketty's framework can make it clear that it is never really about whether "the government" can afford this or that, but about how the output of our collective productive power is distributed.

The irony is that for all Piketty's reasonableness and respectableness, it is only the radical left and the labor movement that will push his program, if anyone is going to. However much his book has changed the conversation on inequality within economics and in the media — and it is really too soon to tell whether this is game-changer or flash-in-the-pan — his technocratic solutions are never going to come from the treasuries and central banks, or from the world's center-left parties.

Almost unanimously, reviews have highlighted the never-going-to-happen nature of the book's modest proposals. Piketty himself presents his global wealth tax only as "a utopian idea… a worthwhile reference point." Subtract the feel-good last couple of chapters from the book, and we are left with a dark and pessimistic picture.

If these moderate reforms are inconceivable, what does that say about capitalism and its future? Here, the burden of proof is with the liberals — are they going to take Piketty seriously and make a go of it?

"Afterthoughts on Piketty's *Capital*"

David Harvey

Thomas Piketty has written a book called *Capital* that has caused quite a stir. He advocates progressive taxation and a global wealth tax as the only way to counter the trend towards the creation of a "patrimonial" form of capitalism marked by what he dubs "terrifying" inequalities of wealth and income. He also documents in excruciating and hard to rebut detail how social inequality of both wealth and income has evolved over the last two centuries, with particular emphasis on the role of wealth. He demolishes the widely-held view that free market capitalism spreads the wealth around and that it is the great bulwark for the defense of individual liberties and freedoms. Free-market capitalism, in the absence of any major redistributive interventions on the part of the state, Piketty shows, produces anti-democratic oligarchies. This demonstration has given sustenance to liberal outrage as it drives the Wall Street Journal apoplectic.

The book has often been presented as a twenty-first century substitute for Karl Marx's nineteenth century work of the same title. Piketty actually denies this was his intention, which is just as well since his is not a book about capital at all. It does not tell us why the crash of 2008 occurred and why it is taking so long for so many people to get out from under the dual burdens of prolonged unemployment and millions of houses lost to foreclosure. It does not help us understand why growth is currently so sluggish in the US as opposed to China and why Europe is locked down in a politics of austerity and an economy of stagnation. What Piketty does show statistically (and we should be indebted to him and his colleagues for this) is that capital has tended throughout its history to produce ever-greater levels of inequality. This is, for many of us, hardly news. It was, moreover, exactly Marx's theoretical conclusion in Volume One of his version of *Capital*. Piketty fails to note this, which is not surprising since he has since claimed, in the face of accusations in the right wing press that he is a Marxist in disguise, not to have read Marx's *Capital*.

Piketty assembles a lot of data to support his arguments. His account of the differences between income and wealth is persuasive and helpful. And he gives a thoughtful defense of inheritance taxes, progressive taxation and a global wealth tax as possible (though almost certainly not politically viable) antidotes to the further concentration of wealth and power.

But why does this trend towards greater inequality over time occur? From his data (spiced up with some neat literary allusions to Jane Austen and Balzac) he derives a mathematical law to explain what happens: the ever-increasing accumulation of wealth on the part of the famous one percent (a term popularized thanks of course to the "Occupy" movement) is due to the simple fact that the rate of return on capital (r) always exceeds the rate of growth of income (g). This, says Piketty, is and always has been "the central contradiction" of capital.

But a statistical regularity of this sort hardly constitutes an adequate explanation let alone a law. So what forces produce and sustain such a contradiction? Piketty does not say. The law is the law and that is that. Marx would obviously have attributed the existence of such a law to the imbalance of power between capital and labor. And that explanation still holds water. The steady decline in labor's share of national income since the 1970s derived from the declining political and economic power of labor as capital mobilized technologies, unemployment, off-shoring and anti-labor politics (such as those of Margaret Thatcher and Ronald Reagan) to crush all opposition. As Alan Budd, an economic advisor to Margaret Thatcher confessed in an unguarded moment, anti-inflation policies of the 1980s turned out to be "a very good way to raise unemployment, and raising unemployment was an extremely desirable way of reducing the strength of the working classes…what was engineered there in Marxist terms was a crisis of capitalism which recreated a reserve army of labour and has allowed capitalists to make high profits ever since." The disparity in remuneration between average workers and CEO's stood at around thirty to one in 1970. It now is well above three hundred to one and in the case of MacDonalds about 1200 to one.

But in Volume 2 of Marx's *Capital* (which Piketty also has not read even as he cheerfully dismisses it) Marx pointed out that capital's penchant for driving wages down would at some point restrict the capacity of the market to absorb capital's product. Henry Ford recognized this dilemma long ago when he mandated the $5 eight-hour day for his workers in order, he said, to boost consumer demand. Many thought that lack of effective demand underpinned the Great Depression of the 1930s. This inspired Keynesian expansionary policies after World War Two and resulted in some reductions in inequalities of incomes (though not so much of wealth) in the midst of strong demand led growth. But this solution rested on the relative empowerment of labor and the construction of the "social state" (Piketty's term) funded by progressive taxation. "All told," he writes, "over the period 1932-1980, nearly half a century, the top federal income tax in the United States averaged 81 percent." And this did not in any way dampen growth (another piece of Piketty's evidence that rebuts right wing beliefs).

By the end of the 1960s it became clear to many capitalists that they needed to do something about the excessive power of labor. Hence the demotion of Keynes from the pantheon of respectable economists, the switch to the supply side thinking of Milton Friedman, the crusade to stabilize if not reduce taxation, to deconstruct the social state and to discipline the forces of labor. After 1980 top tax rates came down and capital gains – a major source of income for the ultra-wealthy – were taxed at a much lower rate in the US, hugely boosting the flow of wealth to the top one percent. But the impact on growth, Piketty shows, was negligible. So "trickle down" of benefits from the rich to the rest (another right wing favorite belief) does not work. None of this was dictated by any mathematical law. It was all about politics.

But then the wheel turned full circle and the more pressing question became: where is the demand? Piketty systematically ignores this question. The 1990s fudged the answer by a vast expansion of credit, including the extension of mortgage finance into sub-prime markets. But the resultant asset bubble was bound to go pop as it did in 2007-8 bringing down Lehman Brothers and the credit system with it. However, profit rates and the further concentration of private wealth recovered very quickly after 2009 while everything and everyone else did badly. Profit rates of businesses are now as high as they have ever been in the US. Businesses are sitting on oodles of cash and refuse to spend it because market conditions are not robust.

Piketty's formulation of the mathematical law disguises more than it reveals about the class politics involved. As Warren Buffett has noted, "sure there is class war, and it is my class, the rich, who are making it and we are winning." One key measure of their victory is the growing disparities in wealth and income of the top one percent relative to everyone else.

There is, however, a central difficulty with Piketty's argument. It rests on a mistaken definition of capital. Capital is a process not a thing. It is a process of circulation in which money is used to make more money often, but not exclusively through the exploitation of labor power. Piketty defines capital as the stock of all assets held by private individuals, corporations and governments that can be traded in the market no matter whether these assets are being used or not. This includes land, real estate and intellectual property rights as well as my art and jewelry collection. How to determine the value of all of these things is a difficult technical problem that has no agreed upon solution. In order to calculate a meaningful rate of return, r, we have to have some way of valuing the initial capital. Unfortunately there is no way to value it independently of the value of the goods and services it is used to produce or how much it can be sold for in the market. The whole of neo-classical economic thought (which is the basis of Piketty's thinking) is founded on a tautology. The rate of return on capital depends crucially on the rate of growth because capital is valued by way of that which it produces and not by what went into its production. Its value is heavily influenced by speculative conditions and can be seriously warped by the famous "irrational exuberance" that Greenspan spotted as characteristic of stock and housing markets. If we subtract housing and real estate – to say nothing of the value of the art collections of the hedge funders – from the definition of capital (and the rationale for their inclusion is rather weak) then Piketty's explanation for increasing disparities in wealth and income would fall flat on its face, though his descriptions of the state of past and present inequalities would still stand.

Money, land, real estate and plant and equipment that are not being used productively are not capital. If the rate of return on the capital that is being used is high then this is because a part of capital is withdrawn from circulation and in effect goes on strike. Restricting the supply of capital to new investment (a phenomena we are now witnessing) ensures a high rate of return on that capital which is in circulation. The creation of such artificial scarcity is not only what the oil companies do to ensure their high rate of return: it is what all capital does when given the chance. This is what underpins the tendency for the rate of return on capital (no matter how it is defined and measured) to always exceed the rate of growth of income. This is how capital ensures its own reproduction, no matter how uncomfortable the consequences are for the rest of us. And this is how the capitalist class lives.

There is much that is valuable in Piketty's data sets. But his explanation as to why the inequalities and oligarchic tendencies arise is seriously flawed. His proposals as to the remedies for the inequalities are naïve if not utopian. And he has certainly not produced a working model for capital of the twenty-first century. For that we still need Marx or his modern-day equivalent.

(David Harvey is a Distinguished Professor at the Graduate Center of the City University of New York. His most recent book is *Seventeen Contradictions and the End of Capitalism*, published by Profile Press in London and Oxford University Press in New York.)