Introduction to: *After Piketty: The Research Program Starting from Thomas Piketty's* Capital in the Twenty-First Century:

Capital in the Twenty-First Century, Three Years Later

Thomas Piketty's *Capital in the Twenty-First Century* is an astonishing, surprise bestseller.

Its enormous mass audience speaks to the urgency with which so many wish to hear about and participate in the political-economic conversation regarding this Second Gilded Age in which we in the Global North now find ourselves enmeshed.[1] *C21*'s English-language translator Art Goldhammer reports (this volume) that there are now 2.2 million copies of the book scattered around the globe in 30 different languages. Those 2.2 million copies cannot and should not but have an impact. They ought to shift the spirit of the age into another, different channel: post-Piketty, the public-intellectual debate over inequality, economic policy, and equitable growth ought to focus differently. We have assembled our authors and edited their papers to highlight what we, at least, believe economists should study *After Piketty* as they use the book to trigger more of a focus on what is relevant and important.

Outside of Economics

In social-science discussions outside of economics, we see Piketty's book as making a definite splash. Thomas Piketty's *C21* has achieved a major intellectual victory. It is shaping sociological, political-science, and political-economic debate, as outside-economics social-science discussions definitely feel the impact of Piketty's arguments about the likelihood and effects of rising inequality.

What is that impact on historians, sociologists, political scientists, and others? We believe that the best summary sketch of the impact of *C21* on the social sciences outside of economics is, somewhat paradoxically, written by an economist: Paul Krugman wrote in his *NYRB* review of *C21*, included herein.[2] The last historical period of great inequality—the First Gilded Age—showed that such great inequality was perfectly compatible with what was then seen as radical (white, male) democracy, for "then, as now, great wealth purchased great influence—not just over policies, but over public discourse." It was not just that wealth provided a megaphone with which to amplify the voices of the wealthy both in the corridors of power and in the public sphere. In addition, wealth induced sociological patterns of emulation. Wealth shaped images of worthwhile styles of life.

Krugman sees, we believe accurately, the same links from economic inequality to politics and sociology operating today, and if anything he sees them as operating more strongly today. It is as if political and sociological currents are responding not to what inequality is today but to what people perceive it likely to be a generation hence:

> a curious aspect of the American scene is that the politics of inequality seem if anything to be running ahead of the reality…. 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… as if a substantial part of our political class is actively working to restore Piketty's patrimonial capitalism… (this volume, p. XX TK XX).

Sociologists, historians, political scientists, and others now seem to us to be healthily and productively wrestling with these questions. That part of the splash made by *C21* seems, to us at least, to be on track.

Inside of Economics

However, inside of economics the reaction seems to us to be less healthy. Piketty's appearances in economics seminars draw standing-room-only crowds. But the flow of scholarship within economics on the full panoply of issues he raises in *C21* has, to date at least, has not been large. *C21* has not or has not yet had the impact that we, at least—definite fans that we are—think it ought to have had. *C21* ought, we think, to have done more and to be doing more to shape research agendas than it has.

We believe that it ought to because we believe that *C21* is, as Robert Solow writes in his contribution here, a very serious book. There is a great deal for economists to engage with. The Kaldor fact was that inequality—at least as driven by shifts in factor income shares—was by the mid-20th century no longer and would never again be an important changing economic factor. The Kaldor fact turns out not to be a fact—or, rather, to have been a transitory emergent historical pattern that has now dissolved. The Kuznets fact was that all or nearly all economies had or would go through an industrial age in which inequality rose and then a social-democratic mass-consumption age in which inequality fell and then stabilized. It, too, turns out not to be a fact—once again merely transient historical contingency. Given that these two facts are not facts, Solow calls for economists—and economics—to take the serious *C21* book as seriously as Piketty deserves. His call is a major part of our motivation for this book. The fact that economists as a discipline do not, as best as we can tell, appear to be responding optimally is the rest of our motivation.

Piketty's Claims

Therefore our questions are: How has Piketty moved the ball forward with respect to our understanding of the economy? What are the next steps for economic research to take, in light of what Piketty has done? In order to answer them, we need to first be clear on what the argument of *C21* is. As we see it, Piketty's best-seller makes five central claims about:

1. **The post-World War II Social Democratic Age in the Global North**—1945-1980, say—saw the industrial economies of the Global North as relatively egalitarian places (for native-born white men, at least). In them, relative income differences were moderated; long-standing racial wealth, income, and employment gaps were narrowed; and political voice was widely distributed throughout the population. In them, the claims of wealth to drive political directions and shape economic structures were kept within bounds—although not neutralized.

2. **That Social Democratic Age pattern was an unstable historical anomaly**. Unlike many scholars, Piketty sees the rise of the social welfare state as the consequence of declining power of the plutocratic elite. He traces declining post-tax inequality to the wars and the introduction of progressive taxation, but not the social insurance, labor standards, and welfare infrastructures set up in the late 19th and early 20th century. Because capital-destroying wars are an anomaly, the period of low inequality was as well.

3. That Social Democratic Age was preceded by **the Belle Époque**—so-called in Europe, and called the First Gilded Age in America. In that preceding epoch the claims of wealth, especially inherited wealth, to drive political directions and shape economic structures were dominant. In that age relative income and even more relative wealth differentials were at extreme values.

4. We are enmeshed in what appears to be **an era of transition**. While wealth concentration has just now returned to its early 20th century peak, Piketty shows that it remains the case that for the top 1 percent, earnings from labor, not capital still comprises the majority of income.[3] It has not yet transpired that the "The past devours the future."[4]

5. **It is most likely that we will see—the underlying dynamics of wealth generate powerful forces driving us to—a Second Gilded Age, another Belle Époque**, in which once again the claims of wealth, especially inherited wealth, to drive political directions and shape economic structures will be dominant, and in which relative income and even more relative wealth differentials will once again be at extreme values, and in which the benefit of access to modern advances in health and education ceases to be universal, stalling if not reversing relative convergence in wellbeing across groups and individuals.

The Structure of Piketty's Argument

The central argument for these claims that Piketty makes can itself be hastily sketched in seven analytical steps:

1. A society's wealth-to-annual-income ratio will grow (or shrink) to a level equal to its net savings and accumulation rate divided by its growth rate.

2. Time and chance inevitably lead to the concentration of wealth in the hands of a relatively small group: call them "the rich": a society with a high wealth-to-annual-income ratio will be a society with an extreme unequal distribution of wealth.

3. A society with an extremely unequal distribution of wealth will also have an extremely unequal distribution of income, for the wealthy will manipulate political economy or other factors in such a way as to keep rates of profit at substantial levels and so avoid what John Maynard Keynes called "the euthanasia of the *rentier*".[5]

4. A society with an extreme unequal wealth and income distribution will be one in which, over time, control over wealth falls to heirs and heiresses—an "heiristocracy".

5. And a society in which wealth, especially inherited wealth, is economically salient will be one in which the rich will have a very high degree of economic, political, and sociocultural influence—and will be an unpleasant society in many ways.

6. The twentieth century: (a) saw a uniquely high rate of economic growth due to the growth forces of the Second Industrial Revolution outlined by Robert Gordon and due to successful convergence of the Global North to the economic prosperity frontier marked by the United States; (b) saw wars, revolutions, general chaos, and socializing and progressive tax-imposing political movements generate uniquely strong forces pushing down the rate of accumulation; but (c) all of these forces are now ebbing if they have not already completely ebbed away.[6]

7. Hence—although we are far from the limit yet—the logic of (1) through (5) is now at work. It is substantially more likely than not to work itself to completion. It will deliver a society unpleasant in a number of ways in a half-century or so.

In Piketty's view, we are now more than a full generation into this process of the passing away of North Atlantic social democracy. This process, however, has not yet come to an end. It will, he thinks, take another two generations or more for the logic he sees driving us on our current trajectory to work itself through to its completion. We haven't, in Piketty's view, seen anything yet, at least as far as the Global North's return to its default pattern of plutocracy is concerned.

The Poverty of (Much) Piketty Criticism

Now, even in this oversimplified thumbnail form, this argument of Piketty's is not a simple argument. One would therefore expect that it would attract a large volume of substantive criticism. And, indeed, it has: there are a substantial number of effective and thoughtful critiques of Piketty. To note a few examples:

- Matt Rognlie seeks to cast doubt on step (3), and has taken John Maynard Keynes's side of the debate over whether accumulation that leads to a rising wealth-to-annual-income ratio leads in fact to a rate of profit that falls faster than the wealth-to-annual-income ratio grows, thus creating a society with a high degree of wealth but a low degree of income inequality.[7]

- Tyler Cowen casts doubt on (2), (4), and (5): He argues that creative destruction will break up or at least limit the salience of cross-generational dynastic accumulations. He further argues, echoing Friedrich von Hayek, that the "idle rich" are a valuable cultural resource precisely because they are not bound to the karmic wheel of earning, getting, and spending on necessities and conveniences, and so can take the long and/or heterodox view of things.[8]

- Acemoglu and Robinson point out that while Piketty "mentions policies and institutions … their role is ad hoc."[9]

- Still others hope for a new industrial revolution to create more low-hanging fruit and faster growth, accompanied by another wave of creative destruction, that will short-circuit (2), (4), (6), and (7).

- And there is the question of Piketty's neglect of human capital as an important form of property and a leveling factor in the modern age.

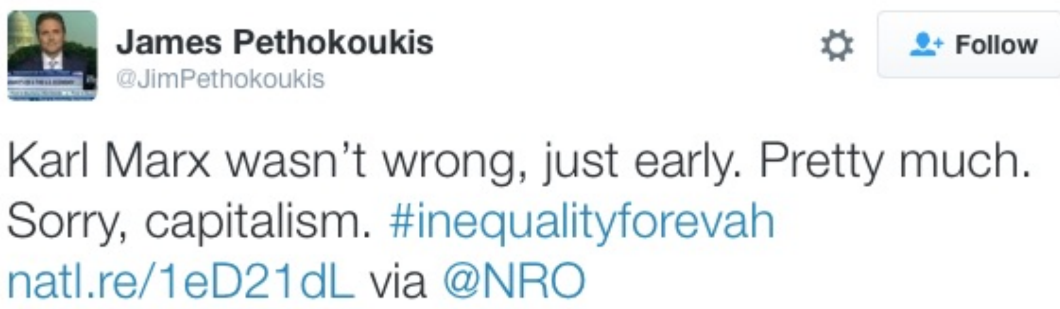
All in all, however, what has impressed us has been the limited substantive meat in the critiques of Piketty's overall chain of argument. The argument is complex and multi-stepped. All such arguments are vulnerable. Our coverage and reading of the critiques is far from complete: we try to survey the critiques of Piketty, but find ourselves reduced by the volume to simply surveying the surveys. And in our view we see a remarkable number of arguments that same to us to be largely substance-free. They come in the forms of amateur psychological diagnosis, red-baiting, misconstructions of Piketty's argument, miscalibrations of economic growth models, data errors, and more.

The nadir, perhaps, comes from the pen of Allan Meltzer of Carnegie-Mellon and of Stanford University's Hoover Institution. It accuses Thomas Piketty of being a Frenchmen, a former MIT Professor, and a co-author of Emmanuel Saez at MIT, where... the IMF's Olivier Blanchard, was a professor.... He is also French. France has, for many years, implemented destructive policies of income redistribution…[10]

On the one hand, it is disappointing to see critiques that do not look much like academic analyses, but more like things designed to reassure standard billionaires hoping to establish a dynasty.

On the other hand, it is clear that the urge to set forth even low-substance critiques plus the book's 2.2 million copies is powerful evidence that *C21* has struck a very loud—if not resonant—chord. Many, many find that it is worth engaging. The question is: how?

We want to help to drive a constructive engagement with Piketty's *Capital in the Twenty-First Century*. We want critique—sharp critique. But we want effective, useful critique that contributes to the advance of knowledge. We do not want things like:



that misrepresent Piketty's argument and in so doing subtract from rather than adding to global knowledge. And we want to encourage work that will build on Piketty, and carry his data collection and his theoretical arguments further.

We believe that the contributors we have assembled have accomplished this task. And so we have written this introduction to set the stage for them. Here in this introduction we ask:

1. Is it—the argument of Thomas Piketty's *C21*—right?

2. Do we care?

3. What are the implications?

4. And what do we economists do next?

(1) Is Piketty Right?

The first question is: Is Piketty right? Or, at least, if Piketty is not definitely right, is he presenting a plausible and disturbing scenario: something to worry about, and perhaps something to take action about in the hopes of turning the forecasts of *C21* into a self-denying prophecy?

Here the answer strongly appears to us to be: yes.

Piketty is right in maintaining that here in the Global North, as far back as we can look, ownership of private wealth—with its power to command resources, dictate where and how people would work, and shape politics—was always highly concentrated. Piketty is right in maintaining that 150 years—six generations—ago, in the Belle Époque-First Gilded Age, the ratio of a typical Global North country's total private wealth to its total annual income was about six. Piketty is right in maintaining that in the Age of Social Democracy some 50 years—two generations—ago, that capital-income ratio was about three. And Piketty is right to note that over the past two generations that wealth-to-annual-income ratio has been rising rapidly.

More debatable is whether the rise in wealth-to-annual-income ratios is driven by the forces Piketty highlights. And much more debatable is whether the rise in income inequality is being driven by a rise in wealth inequality that is itself a consequence of the rise in economy-wide wealth-to-annual-income ratios. These points are contestable, and are contested. But we would expect them to be contestable. There are lots of other influences on the distribution of income besides the forces Piketty places at center stage—some of which he writes about himself. Those forces have not yet had time since the end of the Age of Social Democracy to work themselves out. Piketty's main argument is not about the causes of how things are now, but about what things will be like in 50 years and more. Notwithstanding that, there are plenty of indications available to us in the world today that substantial features of the last Gilded Age have recurred: a rising capital income share, a rising coincidence of labor with capital incomes, rising persistence of inter-generational fortunes impregnable from assault by the tax authorities.

Of further debate is the bandwidth for institutions, politics, or social movements to move beyond his fairly deterministic theory of the future. While Piketty often gives lip-service the role of non-economic forces and encourages the reader to consider what the other social sciences might have to tell us, in the end, his argument is based on a simple economic inequality. The institutional changes required to propel this vision forward are baked in. There are a variety of ways that institutions as they actually are may hamper his vision, however. As Heather Boushey points out in this volume, an "heiristocracy" will almost certainly require a move away from gender equity—a trend that women and their allies may be prepared to fight against.

Moreover, both David Grewal and Marshall Steinbaum argue for a history of inequality as arising from the rise (in Grewal's case) and fall (in Steinbaum's) of

what be termed an “ideology of capitalism” and an associated body of law and policy. A “free market” independent of mercantilist or monarchical authority developed alongside the bourgeoisie of the 18th century and entered into a political alliance with the *ancien regime* in the 19th. Piketty argues that capitalism itself, rather than its ideology, is responsible for ever-widening inequality, and as such it was the exogenous world wars of the 20th century that briefly derailed it. But they also derailed its ideology, and that was not so exogenous.
Piketty’s argument is contestable and contested right now because the signal he focuses on is not yet emerging or has barely emerged from the noise. But that is what we would expect to see if his argument were in fact correct.

However, that is also what we might well see if his argument were in fact badly off-base.

More secure is Piketty’s claim that the pattern of the “euthanasia of the rentier” expected by authors like Keynes, Rognlie, and others who assume the identity of wealth with productive capital in some neoclassical production function of income might have substantial empirical problems. Those authors expect large swings in societal wealth-to-annual-income ratios to be associated with large swings in society-wide rates of profit, with profit rates high when capital is scarce relative to annual income and low when capital is abundant.

Thomas Piketty's response to this is, roughly: Rognlie’s argument sounds very good in neoclassical economic theory, but fails in historical practice. Supply-and-demand tells us that when the economy's wealth-to-annual income ratio varies, the rate of profit should vary in the opposite direction. But history tells us, to the contrary, that the annual rate of profit has plodded along at some 4% or 5%, largely independent of the relative scarcity or abundance of wealth. So much the worse for the logic supply-and-demand.

Here we have an apparent historical fact: the relative invariance of the rate of profit to what aggregate neoclassical production functions tell us should be its principal source of variation. But here Piketty does not put forward a theory. He might argue that physical capital, total wealth, rent-seeking political-economy, and government-enforced monopoly rents work in an iron quadrilateral to maintain the rate of profit willy-nilly no matter what the logic of production and the marginal-product theory of distribution say. He might argue that technology is such that physical capital does not face sharply decreasing marginal returns and so that the capital-income ratio and capital share move together and not inversely. He might argue that in the past what he calls “capital” was overwhelmingly agricultural capital in the form of land and in the future “capital” will overwhelmingly be information capital and that the neoclassical growth model was a valid first-order approximation only for the short interval that was the Age of Social Democracy. He might follow Suresh Naidu, in this volume, who argues that capital's share of national income, far from obeying the rules of marginal productivity pricing, is in fact determined by power, and the total stock of what Piketty and the neo-classicals call both wealth and capital is actually financialized claims on a forthcoming stream of revenue—not the result of lengthy accumulation, so to speak, but of political control of the future. But Piketty does not take a stand. This seems to be a substantial hole in the book. It points out what is perhaps the most important and urgent research task opened up by Piketty. Is the apparent constancy of the rate of profit a robust reality? And if it is, what forces and factors maintain the constancy of the rate of profit.

In this book, Devesh Raval tries to advance the ball here. He reinforces the Rognlie-Keynes “euthanasia of the rentier” point that capital and labor are not substitutable enough to sustain Piketty’s argument. If the story behind the constancy of the rate of profit isn’t that marginal capital continues to be productive as it is accumulated, what is it? Is there a story? One possible story is provided by Michael Spence and Laura Tyson, who see Piketty as very much barking up the wrong tree. Inequality is growing and will continue to grow. But its growth will not be driven by the factors in Piketty’s growth models. It will be driven by the coming of the information age, and the shape of information-age technology which for the first time does make human labor a substitute for rather than a complement to capital by greatly reducing the necessity of using human brains as routine cybernetic control mechanisms for basic matter manipulation and basic information processing.

Branko Milanovic has a different critique here: that Piketty’s arguments are appropriate only for the institutional setup that Milanovic calls “new capitalism”. In what we would tend to call advanced social democracy—in which the state and society powerfully put their thumbs on the scales to equalize the distribution of claims to income that flow from “old property” and also to create “new property” in the form of citizen entitlements—there is no connection between the capital share and inequality in the distribution of income. And in what Milanovic calls “classic capitalism” (and Karl Marx would call “petit bourgeois society”) the distribution is driven by the Ricardian triad of labor, capital, and land—and the dynamics are substantially different. Milanovic’s contribution is that the correspondence between fractional and personal distribution is a peculiar, and contingent, historical phenomenon—one that could easily be reversed.

Is Piketty's argument right?

At the moment the answer is "perhaps". Not only does a great deal turn on the robustness of each of the links in his argument, but his argument is also conditional on the Global North's remaining on its current political-economic trajectory. So a lot turns on what we take that phrase "current political-economic trajectory" to mean. Under some interpretations of that phrase Piketty will surely be right. Under others he will surely be wrong. And we do need to distinguish which is which.

(2) Do We Care?

The second question is: Do we care?

Some—perhaps many—say that we do not care. There is one often-made thread of argument that we simply should not care about inequality. In fact, according to this thread, inequality is good: It is an engine of faster economic growth, by incentivizing human capital acquisition and engendering social mobility. It is not a problem for an economy, a society, or a country at all.

What is a problem, this thread of argument maintains, is poverty—especially dire poverty.

And, this thread continues, we are now much richer than our predecessors of six generations ago were. Back then Gilded Age or Belle Époque levels of inequality caused not just poverty but dire poverty. Hence back then inequality was a serious problem. Now, however, because the Global North is so much richer, the amount of inequality that back then caused dire poverty does not cause dire poverty today. In fact, it does not cause anything that we should call "poverty" at all—at least not if we take a historical perspective.

In the United States, policy-oriented organizations like Third Way argue that America's middle class is doing just fine. They point to the rise in real incomes—in no small part due to the added hours and earnings of women—as an indicator that Piketty's measures of the top 1 percent are just getting the story wrong. In the academy, many point to the great advances of medical care, sanitation, public education, literacy, disease eradication, and proliferation of leisure activities, to mention only a few, and claim that there is no prospect for reversing these gains in absolute wellbeing regardless of what happens to the top 1%.

This is an old argument—250 years old, in fact. It was Adam Smith who argued in his *Wealth of Nations* that your average working-class Briton lived in greater material comfort than an African king. It was Adam Smith who argued in his *Theory of Moral Sentiments* that the consumption of the rich was limited by the size of their stomachs, and thus that most of what they spent even on themselves was in fact a contribution to the leisure and the comfort of their underlings.

However, this argument is probably wrong. Granting that economic growth above bare Malthusian subsistence up to Britain's eighteenth-century Augustan Age was impressive, and granting that economic growth since then has been magnificent, there are still powerful and important reasons to care not just about what by historical standards is dire poverty and poverty, but about inequality and about what we call "poverty" today—even if the poor do have dishwashers, smartphones, and televisions:

First, anyone who has looked at the distribution of medical care in the United States and our abysmal health outcome statistics relative to other rich countries cannot help but see that inequality is a factor that leads enormous investments of resources to deliver little of ultimate value in the sense of human well-being and human satisfaction. The point generalizes beyond the health sector: an unequal economy is one that is lousy at turning productive potential into societal well-being. We could be doing better—and with a more equal income and wealth distribution would be.

It's hard to prove causality from inequality to health or other social welfare indicators, but a data point that illustrates the struggles facing parts of the United States left out of the new gilded age is found in the research of Anne Case and Angus Deaton. They show that the rise in mortality among middle-aged Americans from suicides and drug overdoses—both conditions that are associated with economic malaise—between 1999 and 2013 has been so large that it is similar to the rise in mortality caused by the AIDS crisis through 2015.[11] Similar findings document that once-narrowing gaps in employment, health, and overall wellbeing have stopped closing, and in some cases, re-opened.[12]

Second, as noted above, established wealth, especially inherited wealth, is by its nature hostile to the creative destruction that accompanies rapid economic growth, for it is established wealth that is creatively destroyed. Plutocrats and their ideologues like to claim that too equal an income distribution destroys incentives to work and turns us into a 'nation of takers.' But a return to the inequality levels of the 1960s would not turn us into Maoist China. In the relevant range of levels of inequality, it is much more likely that higher inequality will slow growth by depriving the non-rich of the resources to invest in themselves, their children, and their enterprises; It will further slow growth by focusing effort on helping the rich keep what they have at the cost of squelching the development of the new.

There is ample evidence across the United States that elites are engaged in what some call "opportunity hoarding."[13] We hear a lot about how the rich are able to garner human-sized airplane seats and now their own haven within a cruise ship, but there are areas where their consumption limits the potential for others.[14] Elites are increasingly opting out of public schools, which deprives those schools of valuable parental engagement as well as income to the extent these elites then fail to support levies for school financing. In the limit, such elite withdrawal leaves public schools open to political assault from forces hostile to the whole idea of universal free and equal high-quality public education.

Third, a society in which plutocrats deploy their resources to have not just a loud but an overwhelming voice will be a society in which government sets about to solve problems of concern the plutocrats and not the people. And that is unlikely to be a good society.

This too, pushes against a high growth society. The extent to which plutocrats are given the option of rent-seeking or trying to win in the competitive marketplace, they are likely to seek to close the door behind them. Case in point: as policymakers struggle to rein in the anti-competitive bent of newly-powerful platform-based firms, we are seeing a win for those who arrive first—and peanuts for the rest. This kind of economy keeps prices high and stifles innovation, neither of which bode well for economic dynamism.

Fourth, the predominance of wealth in the exercise of power extends far beyond the sphere of formal politics, well into the workplace, the home (even into the bedroom), and to civil society. Reliance on private wealth to finance higher education has already made that sector far more unequal, with very expensive mediocrity the lot of anyone unlucky enough not to gain access to its most restricted precincts (which explicitly favor the children of their alumni and implicitly those applicants similar to them), and with a greater degree of restriction on the curriculum and on the views of the personnel who teach it than obtain under a system that owes its existence to the continued support of the public.

Fifth, an unequal society in one in which employers can and do exploit their ability to pick winners and losers—and are driven to indignant outrage by the idea of a collective worker voice.

Labor Economist David Weil sees increasing inequality both driving in part and being driven in part by a 'fissuring of the workplace". In the past large corporations would in a relatively-efficient Coasian way serve as islands of central planning in the sea that was the market economy, with workers at all levels: skilled professionals, mid-level administrators, and manual workers. Such a workplace is inevitably subject to strong egalitarian pressures: the presence of high-wage professionals pulls up everyone's calculus of what the firm can afford to pay its manual workers and what its manual workers deserve. But with increasing inequality it becomes potentially profitable to break the coordination efficiencies if so doing can relax egalitarian sociological pressures. We need to find out how strong the forces Weil identifies are, and whether they are a peculiar case or suggest that high inequality is likely to interfere with efficiency along a broad front.

Sixth, an unequal society is one in which who you know matters more to your ultimate wellbeing than what you know, and one thing we can tell by observing the behavior of the rich and their acolytes is that native ability to suck up to the rich is not equally distributed throughout the population. The rich prefer people who are like themselves, and a society in which "who the rich like" determines the distribution of wellbeing is unlikely to preserve the gains of racial and gender equality made during the Social Democratic era.

Moreover, Arthur Okun's argument in *Equality and Efficiency: The Big Trade-Off* that a good society was one that made a proper choice of a point on the equality-efficiency frontier appears, in retrospect, to be in all likelihood substantially wrong if we try to apply it to our day.[15] More equality may well go along with greater efficiency.

So: Yes, we should care. We do care.

(3) What Are the Implications?

Suppose that Piketty has established that the Global North a century hence is highly likely to have a much higher wealth-to-annual-income ratio than today—and even that inherited wealth will be a much greater proportion of total wealth than it is today. Does this necessarily entail an unfavorable distribution of economic power and resources, an economy that falls short of its potential according to some utilitarian benchmark that takes account of declining marginal utility of wealth? Is it in fact that case that a high wealth-to-income ratio even mean that society must be grossly unequal?

Piketty says "yes". On these issues he follows Marx, and Marx's insight that in a market economy with transferable wealth an egalitarian property distribution is unstable. From a starting point of equal division time and chance will inevitably produce a large and extended upper tail with the size and a length heavily and positively dependent on the magnitude of r - g, where r is not the safe interest rate but the average economy-wide rate of profit, and on the magnitude of the risk associated with capital returns. Thus an economy with a high wealth to income ratio and a high capital and other forms of wealth share in national income will be an unequal economy.

Piketty's argument is thus:

> Many shocks… contribute to making the wealth distribution highly… demographic shocks… shocks to rates of return… to labor market outcomes… differences in taste parameters that affect the level of saving…. A central property of this large class of models is that… the long-run magnitude of wealth inequality will tend to be magnified if the gap r − g is higher…. A higher gap between r and g allows an economy to sustain a level of wealth inequality that is higher and more persistent over time… a distribution that has a Pareto shape for top wealth holders… [with] the inverted Pareto coefficient (an indicator of top-end inequality) is a steeply rising function of the gap r − g… see in particular Champernowne 1953; Stiglitz 1969… Piketty and Zucman (2015, section 5.4)…
> In this class of models, relatively small changes in r − g can generate very large changes in steady-state wealth inequality…. It is really the *interaction* between the r − g effect and the institutional and public policy responses—including progressive taxation of income, wealth, and inheritance; inflation; nationalizations, physical destruction, and expropriations; estate division rules; and so on—which in my view, determines the dynamics and the magnitude of wealth inequality…

And, in Piketty's view, at least as expressed in the book, the interaction is likely to be an unhelpful one: greater wealth inequality will raise the demand for egalitarian policy responses, but it will also raise the ability of those with wealth to block such policy responses. The book portrays the forces favoring the formation of a dominant plutocracy as being so strong that they can be countered only by world wars and global revolutions – and even then, the correction is only temporary.

Note that we said: "at least as expressed in the book". Since the publication of the book, Thomas Piketty has not played the role of a doomsayer, bringing the message of inescapable rising inequality and encouraging a passive response. Instead, he has embraced the role of a celebrity public intellectual. And the message he has carried to all corners of the world is not the message expected from a passive chronicler of unavoidable destiny. If we look at what Piketty does – rather than what he writes – it is clear that he believes we can collectively make our own destiny, even if the circumstances are not what he, or we, would choose.

Branko Milanovic has a relevant critique here, not of Piketty-as-public-intellectual but of Piketty-as-author. In his view, these arguments of Piketty's (and before him of Marx) are appropriate only for the institutional setup that Milanovic calls "new capitalism". There are other institutional setups possible in the future. Indeed, we have seen others in the past In what we would tend to call advanced social democracy—for example, the post-World War II institutional order in which the state and society powerfully put their thumbs on the scales to equalize the distribution of claims to income that flow from "old property" and also to create "new property" in the form of citizen entitlements—there is no connection between the capital share and inequality in the distribution of income. And in what Milanovic calls "classic capitalism" (and Karl Marx would call "petit bourgeois society") the distribution is driven by the Ricardian triad of labor, capital, and land—and the dynamics are substantially different.

More than one and two-thirds centuries ago Karl Marx dismissed Branko's critique as reflecting an irrational and unattainable longing for a "petty-bourgeois socialism" that could never be attained and that if it did develop by accident could never be maintained.

But that casual dismissal does not mean that Milanovic is wrong.

Piketty's world is particularly grim because it's predetermined. So long as the rate of profit is above the rate of growth, we're destined to move towards everincreasing inequality. The only thing we can do is figure out how to tally up the massive wealth and tax it—if we can overcome the ability of wealth to protect itself by constraining political options.

As Gareth Jones points out in his chapter, this is a tall order in no small part because capital has stepped outside the purview of the nation state. The rise of wealth from industrialization occurred alongside the coalescence of the nation state in Europe and elsewhere. The state was a means of promoting the accumulation of capital. Capital today aims often to avoid the confines of place or citizenship, choosing instead to wander the globe in pursuit of not only profits, but unfettered access to those profits—as we've seen with Gabriel Zucman's pioneering research on tax havens and with such other improvements in our ability to survey the global wealth landscape as the release of the Panama Papers.

(4) What Do We Need to Understand?

For all these reasons, we judge that *C21* is a serious book warning us of likely—but not inevitable—distressing consequences of certain aspects of the future historical path that the world economy appears to have embarked on roughly thirty years ago or so. That raises the natural questions of: Do we need to buy insurance? And what kinds of insurance ought we to buy? However, as Abraham Lincoln said in his "House Divided" speech in Springfield, IL on June 16, 1858, such questions are in a sense premature: We need "first [to] know where we are, and whither we are tending…", for only after after knowing that "could [we] then better judge what to do, and how to do it…" The next move must be, as John Maynard Keynes liked to say, "with the head". And we have organized this book to set out our view of the agenda with respect to what we need to better understand.

When readers face a book as sprawling as this one is, they badly need help orienting ourselves. We have tried to help. This introduction leads off a first, orienting, section of the book. In it, we editors, Art Goldhammer, Bob Solow, and Paul Krugman set out our different perspectives on *C21*-as-phenomenon and on *C21*-as argument-with-implications.

What is this thing "capital" that *C21* is about? Piketty offers definitions. But as is so often the case when a single concept is at the core of a striking and contestable argument, whether the concept can bear the argumentative load attached to it, and indeed what the concept really means, become contestable, uncertain, and worth examination. The second section of the book thus examines the concept of "capital" from five different viewpoints. Deresh Raval points out that Piketty presents his argument in economic-theoretic terms as a derivation from the historical fact that at the aggregate level capital and labor are highly elastic in substitution. Yet there is a great deal of research, much of it by Raval himself, strongly suggesting that at the micro level that is simply not the case—and here the aggregate should indeed be the simple average of the micro. He highlights a puzzle at the center of any reading of *C21:* Is it at its core an argument that at the margin capital continues to be productive as it is accumulated? And if that is not the case, what is left of the argument? Suresh Naidu provides a possible response to Raval's puzzle, contrasting a "domesticated" Piketty, working within the machinery of an aggregate neoclassical economic production function, and a "wild" Piketty who breaks free. Naidu's answer is that what remains is a political-economic argument about how the wealthy in a Gilded Age structure property in such a way as to protect and increase the salience of the rents they extract.

The other three papers in this second section find flaws in Piketty's deployment of and use of the concept "capital":

First, a great deal of the argument of *C21* is that the 20th century was exceptional—that as far as the dynamics of wealth inequality are concerned, the 21st century is much more likely to be like the 19th and the 18th centuries. Daina Ramey Berry critiques the image of those earlier centuries that Piketty draws in *C21*. In her reading of history, slavery was a much more salient institution in the "primitive accumulation" and extraction of wealth than Piketty allows for, both in terms of the depth and breadth of direct exploitation that it allowed and in how potential competition from slavemasters and their lash-driven shackled workers eroded the bargaining power of even free labor. If the factors she adduces are salient, that suggests that a free-labor 21st century may see it much harder to sustain a Second than the 18th and 19th centuries found it to create a First Gilded Age. Or does it? As Branko Milanovic might point out, barriers to international migration are a form of labor unfreedom, and one that becomes more salient the wider the gulf between the Global North and the Global South.

Second, a great deal of the argument of *C21* assumes that the only truly real forms of wealth are government-created rent and debt amortization flows, physical assets—land, buildings, machines—and control of the organizations that deploy such physical and financial assets. High wages are, in Piketty's view, more a chance and transitory outcome of favorable supply and demand conditions than a true, durable source of wealth and thus a factor in driving the evolution of inequality. Eric Nielsen says: no. And he sketches out the immense potential damage that would be done to Piketty's argument should human capital be a 21st century form of wealth on equal footing with other forms.

And, third, Mike Spence and Laura Tyson argue that while land and industrial capital were salient factors in the dynamics of the evolution of wealth and its distribution in the past, that will not be true in the future and is not even true now. Rather, they argue, one needs to hybridize *C21* with an argument like that of *The Second Machine Age* by Brynnjolfsson and MacAfee to create a framework for the inequality debate that we should be having to understand our likely future.

In an intellectual bridge between the examination of "capital" and our survey of dimensions of inequality, David Weil—former Administrator of the Wages and Hours Division of the US Department of Labor—points out the importance the "Fissured Workplace". Rather than one large corporation employing workers of all skill levels and all job types, as was the case in the past, increasingly jobs are outsourced to other corporation and other locations. Workers who would once have been employees, and thus entitled to de jure and de facto privileges associated with membership in a corporate business enterprise considered as a sociological community, are now excluded. The result is a race to the bottom—and a force that was not operating in the 19th century tending to raise inequality in the 21st no matter what the other economic factors affecting the capital-labor split.

After examining the concept of "capital" and the functions it needs to perform in the argument of *C21*, we then turn in the book's third section to authors who examine various dimensions of the inequality that an unequal distribution of capital can create. Mariacristina De Nardi, Giulio Fella, and Fang Yang point out that a high capital-to-annual-income ratio and a large capital share in income do not directly translate one-for-one into a determinant degree of higher inequality. And they examine the links and the slippage there is there. Branko Milanovic notes that the links between property ownership and control on the one hand and real on-the-ground inequality on the other depend critically on how the political system manages its political-economic institutions. Christoph Lakner criticizes Piketty's *C21* for telling the story of inequality as a comparative story of inequality within nation states, thus missing the elephant which is that the evolution of equality across nation states has been more decisive since the start of the Industrial revolution as a determinant of global inequality. Gareth Jones further critiques the absence of 'space' from *C21*, in which geography serves only as a "container for data" rather than a context for inequality and exploitation to play out. How geography enables and propagates inequality in a globalized world is, in his view, a salient factor completely omitted from *C21*. And Heather Boushey examines the potential feminist-economics effects of the creation of a "heiresstocracy": historically, gender relations become especially fraught and difficult even for women one would adjudge as having considerable social power when one's status and standing seriously depends on who one's parents and in-laws are.

In two papers, Mark Zandi and Salvatore Morelli than take us in a different direction. They begin the very important task of trying to assess how economic stability at the level of managing the business cycle and encouraging growth changes in an environment of rising inequality. Their conclusion is not quite the old academic standard "more research is needed". They both see serious risks—but risks that can, perhaps, be managed or compensated for.

Finally in this section, Emmanuel Saez points out how very much we do not know about inequality—and how badly, if we are to understand where we are and whither we are tending, we need to:

- disaggregate our systems of National Income Accounts to include distributional measures.
- devote more resources to measuring wealth inequality.
- understand the effects of regulation and taxation on inequality.

The fourth section of the book contains a different set of challenges to Piketty's argument. Four papers take big-institutional-intellectual-history perspectives. Ellora Derenoncourt wishes that Piketty had done more to address the deep institutional-historical origins of high degress of wealth inequality, and fills in the gap by deploying Daron Acemoglu, James Robinson, and Simon Johnson's dichotomy between "extractive" and "inclusive" institutions with a twist, for institutions that are "inclusive" and "developmental" for "citizens" may well be "extractive" and "exclusive" for "subjects". David Grewal sees the coming of the First—and the Second—Gilded Age as largely baked in the cake with the legal-political philosophical shift in the 17th and 18th centuries that turned absolute dominion over property from an edge case to the canonical way that western societies thought about the control of concrete and abstract things and the responsibilities of "owners".

Marshall Steinbaum makes a convincing case that the post-World War II social democratic era of relatively low inequality was itself the result of the genocidal political and military catastrophes of the first half of the twentieth century and of the role played by those catastrophes in discrediting the pre-World War I First

Gilded Age unequal capitalist political-economic order. And Elisabeth Jacobs tries to puzzle through how politics can be both everywhere and nowhere in Piketty's story *C21* contains an argument that asserts both that there are fundamental laws of economics and that there are historically-contingent and institutionally-prescribed processes that shape growth and distribution.

We want to highlight this last, for it points to a contradiction that seems to us to be at the heart of *C21*'s dual nature as work of scholarship and as global intellectual phenomenon. On the one hand, Piketty's central thesis is that our reversion to the economic and political patterns of the Gilded Age is to be expected as normal for a capitalist society. On the other hand, Piketty himself as a celebrity public intellectual is not behaving like a passive chronicler of unavoidable destiny. He is acting as if he believes that the forces he describes in his book can be resisted—that we collectively make our own destiny, even if the circumstances under which we make it are not those of our choosing.

And then Thomas Piketty tells us what he thinks of our arguments, critiques, extensions, and explorations.

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Endnotes

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