Human Capital, Uncertainty, and Growth in the 21st Century

Thomas Piketty ignores the key features of both 'r' and 'g' in his now famous critique of capitalism

BRET SWANSON > May 15, 2014

In February, Facebook CEO Mark Zuckerberg paid $19 billion for a tiny company with 50 employees, $20 million in sales, no profits, and an easily replicable messaging technology. He followed it up with a $2-billion acquisition of Oculus, an even smaller (although very cool) virtual reality firm with barely any sales at all. At the time, we wrote that the 19 billion and 2 billion sums should be ignored as dollar figures. Instead, Zuckerberg's shopping spree was an attempt to diversify Facebook's uncertain business, using an overvalued currency — its stock, then trading at a market capitalization of $170 billion. The goal was to buy scale (WhatsApp, with its 450 million users) and innovation (Oculus, with its awe inspiring goggles). *Scale* to make up for the fact that, despite its astounding size, Facebook cannot expand forever, and could, given the downsides of popularity, actually shrink. And *deep innovation* to fill its relatively weak technology and product pipelines.

To some, these otherworldly sums are evidence of a runaway elite dealing with play money. To others, this scenario represents technological dynamism, the inherent difficulty of investment and valuation decisions in a harshly uncertain world, and, in the case of WhatsApp's Jan Koum, the ability to rise from worker (immigrant computer programmer) to capitalist (board member of Facebook).

The Argument

What would French economist Thomas Piketty say? Maybe he would sympathize with the former critique, embodied in the recent "techlash" against Silicon Valley. But we don't really know. Because his new book *Capital In The 21st Century* doesn't address many of the most salient features of our modern knowledge economy.

Piketty's argument is by now familiar. Capitalism contains a fatal flaw: the rate of return on capital is higher than the growth rate of the economy, or

$$r > g.$$

Over time this fundamental delta concentrates wealth at the very top and leads to an implosion of the political economy.

Last century's two world wars and the Great Depression, Piketty argues, interrupted this ever-widening gap between laborers and capital owners. But over the last several decades, the trend resumed, and is only going to intensify, moving toward what Marx called "infinite accumulation" of capital by the capitalists.

Through global income taxes of up to 80% and wealth taxes of up to 10% of assets, however, Piketty argues we might avoid this inequality vortex. He might call it an attempt to make the world safe for democratic capitalism. But those of us who share his purported concern for capitalism's success have some questions.

Does his voluminous data contain all the important information, or does it ignore or obscure important facts? Does the data say what he thinks it says? Does other data challenge or at least mitigate it? How likely is his prediction that **r** will substantially outgrow **g**? How useful, for that matter, is his definition of **r**? And his concept of capital? Is income in-

equality the right measure of inequality? Even if so, is inequality more important than absolute well-being? And if it is, would his prescriptions really help those he says are the losers in the inequality game?

FIGURE I.1. Income inequality in the United States, 1910–2010

Piketty's thesis, embodied in that simple inequality (pardon the pun) and bolstered by his now-familiar chart (to the right), is a bold claim. It has energized an already resurgent worldwide collectivist movement that, we now know, lay latent for decades. The thesis, however, is dependent on a controversial worldview, a particular framing of the questions, a long chain of debatable evidence and analysis, a crude understanding of "capital," and a deterministic formula for the political economy.

What Is Income?

A critique of Piketty might begin with the basic data and the definition of income. Scott Winship of the Manhattan Institute points to several omissions that affect the presentation of U.S. incomes, and likely for other nations. "The Piketty and Saez data for the U.S.," writes Winship, "indicate that between 1979 and 2012, the bottom 90 percent's income dropped by over $3,000 [in real terms]." "However, the official Census Bureau estimates indicate that the bottom 80 percent of households saw an increase of nearly $3,500." A difference of $6,500. Significant, but not enough to undo Piketty's argument.

Winship goes much further, however. He notes that Piketty does not account for changes in household size nor for crucial sources of income, such as public cash and non-cash benefits and private benefits like health insurance. For example, in 2012, $2.3 trillion in U.S. transfer income was not counted. If we include these factors, "median post-tax and -transfer income rose by nearly $26,000 for a household of four" — nearly $30,000 higher than Piketty's figure.

Diana Furchtgott-Roth looks at another basic problem with the income analysis — household makeup. Between 1960 and 2012 the portion of U.S. households with only one member has doubled to nearly 27% from just 13%. How so? For starters, we've got more unmarried singles and more widows living longer. Smaller households tend to earn less.

In an even more startling insight, new data shows that upper income households have, on average, 2.0 earners. Lower income households, however, average just 0.5 earners. High-income households thus have *four times* as many workers as low-income households and, unsurprisingly, dramatically out-earn them. Indeed, Alan Reynolds, author of the authoritative book *Income and Wealth*, notes that there are *six times* as many *full-time, year-round* workers in the top quintile as in the bottom quintile. We have millions more college-educated women at the top end of the workforce today than we did a half century ago. We also have many more no-earner households in the bottom quintile. These are big changes from the 1950s and 60s, Piketty's ideal decades for income equality, but they are not adequately accounted for in the book.

Reynolds exposes a number of other problems with traditional income comparisons. He shows, for example, that tax changes in the 1980s brought lots of income off of corporate

tax returns and onto individual tax returns — through Subchapter S's, partnerships, and LLCs. As individual tax rates were lowered and the tax code simplified, individual income reported by the top rose, but a significant portion of the rise was illusory — it was merely income that had previously been cloaked inside corporate tax returns. After the Tax Reform of 1986, the share of income reported by the top 1% of earners spiked by two percentage points between 1986 and 1988. This was likely an effect of the new tilt toward individual filing and the new treatment of stock options.

An opposite tax effect artificially depresses the measurable income of middle-income Americans — namely, tax-advantaged retirement accounts. As top earners were reporting more income through individual tax returns, the middle has reported relatively less. IRAs, 401(k)s, and private and public pension plans, among others, allow for untaxed build-up of capital gains and dividends. And the numbers aren't small. These accounts in the U.S. now hold around $20 trillion, mostly unaccounted for in Piketty's income data.

Immigration also affects income distributions. Huge numbers of low-skilled immigrants will tend to have low-wage jobs (high-wage jobs compared to their origin nation) that can depress the lower end of the income scale. But these immigrants are much better off. Is that inequality, or uplift?

Real changes in income patterns do of course take place over time, perhaps even moving in the direction Piketty suggests. But Piketty's data mostly does not reflect the complexities of taxes and transfers, total income, household shifts, tax regime changes, retirement accounts, immigration, and many other complicating factors.

Consumption Equality

The focus on *income* also ignores an arguably more important measure — *consumption*. What if the rich are making more money, but the non-rich are catching up with the rich in terms of standard of living? The numbers show the top and bottom quintiles' shares of *spending* have not changed since 1987. Furchtgott-Roth shows in 2012 the top quintile spent 2.5 times per person what the bottom quintile spent — the same ratio as in 1987. A more intuitive take, however, comes from Andy Kessler, who writes that

"as far as millionaires and billionaires are concerned, they're experiencing a horrifying revolution: consumption equality. For the most part, the wealthy bust their tail, work 60-80 hour weeks building some game-changing product for the mass market, but at the end of the day they can't enjoy much that the middle class doesn't also enjoy. Where's the fairness? What does Google founder Larry Page have that you don't have?

"Luxury suite at the Super Bowl? Why bother? You can recline at home in your massaging lounger and flip on the ultra-thin, high-def, 55-inch LCD TV you got for $700 . . . Or you can stream the game to your four-ounce Android phone while mixing up some chip dip . . . .

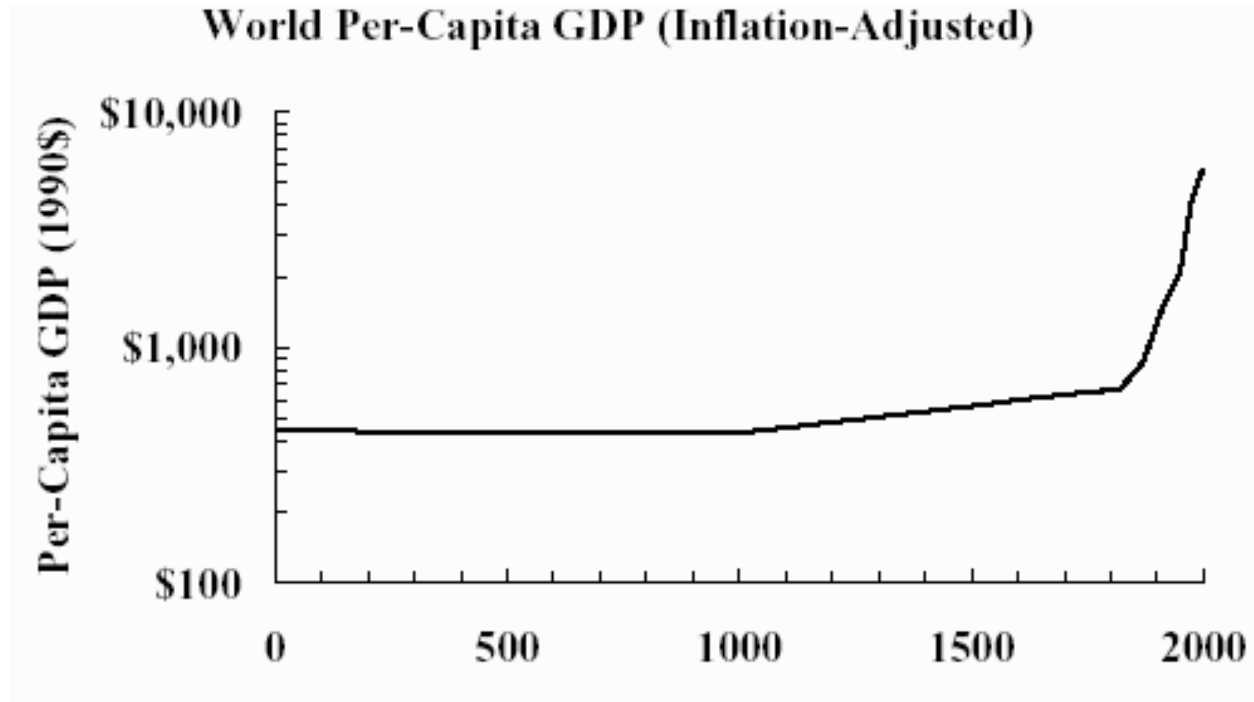
"The greedy tycoon played by Michael Douglas had a two-pound, $3,995 Motorola phone in the original 'Wall Street' movie. Mobile phones for the elite — how 1987. Now 8-year-olds have cellphones to arrange play dates.

"In 1991, a megabyte of memory was $50, amazing at the time. Given its memory, today's 32-gigabyte smartphone would have cost $1 million back then, certainly an exclusive item for the wealthy. Heck, even 10 years ago, 32 gig cost 10 grand. But no one could build it — volume was needed to drive down both cost and size and attract a few geeks to write some decent apps.

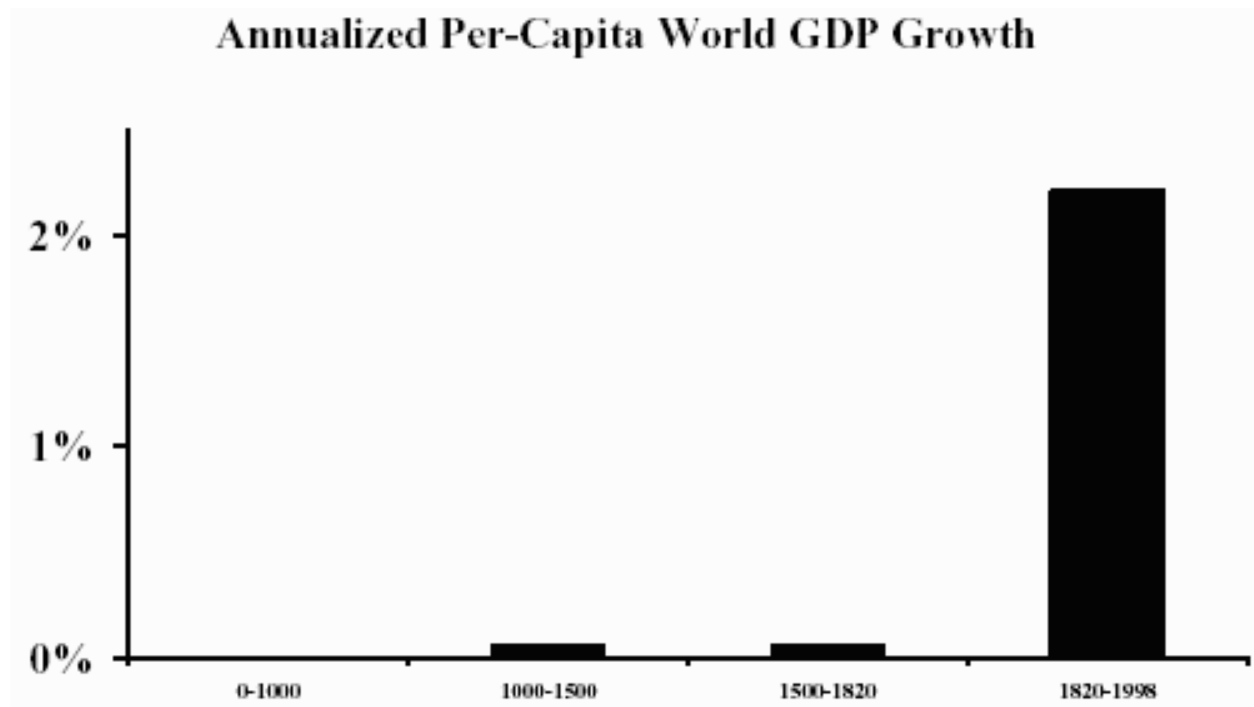
"Just about every product or service that makes our lives better requires a mass market or it's not economic to bother offering. Those who invent and produce for the mass market get rich. And the more these innovators better the rest of our lives, the richer they get but the less they can differentiate themselves from the masses whose wants they serve. It's the Pages and Bransons and Zuckerbergs who have made the unequal equal: So, sure, income equality may widen, but consumption equality will become more the norm."

The rapid convergence of rich and non-rich life spans also bolsters the consumption equality argument. As Don Boudreaux and Mark Perry note, the average U.S. life span, at 79, is five years longer than in 1980 and a decade longer than in 1950, and the gap between white and black life spans is lower than ever. White American life spans are 30 years longer than they were a century ago, and African American lifespans are 40 years longer. Boudreaux and Perry conclude that

"Even though the inflation-adjusted hourly wage hasn't changed much in 50 years, it is unlikely



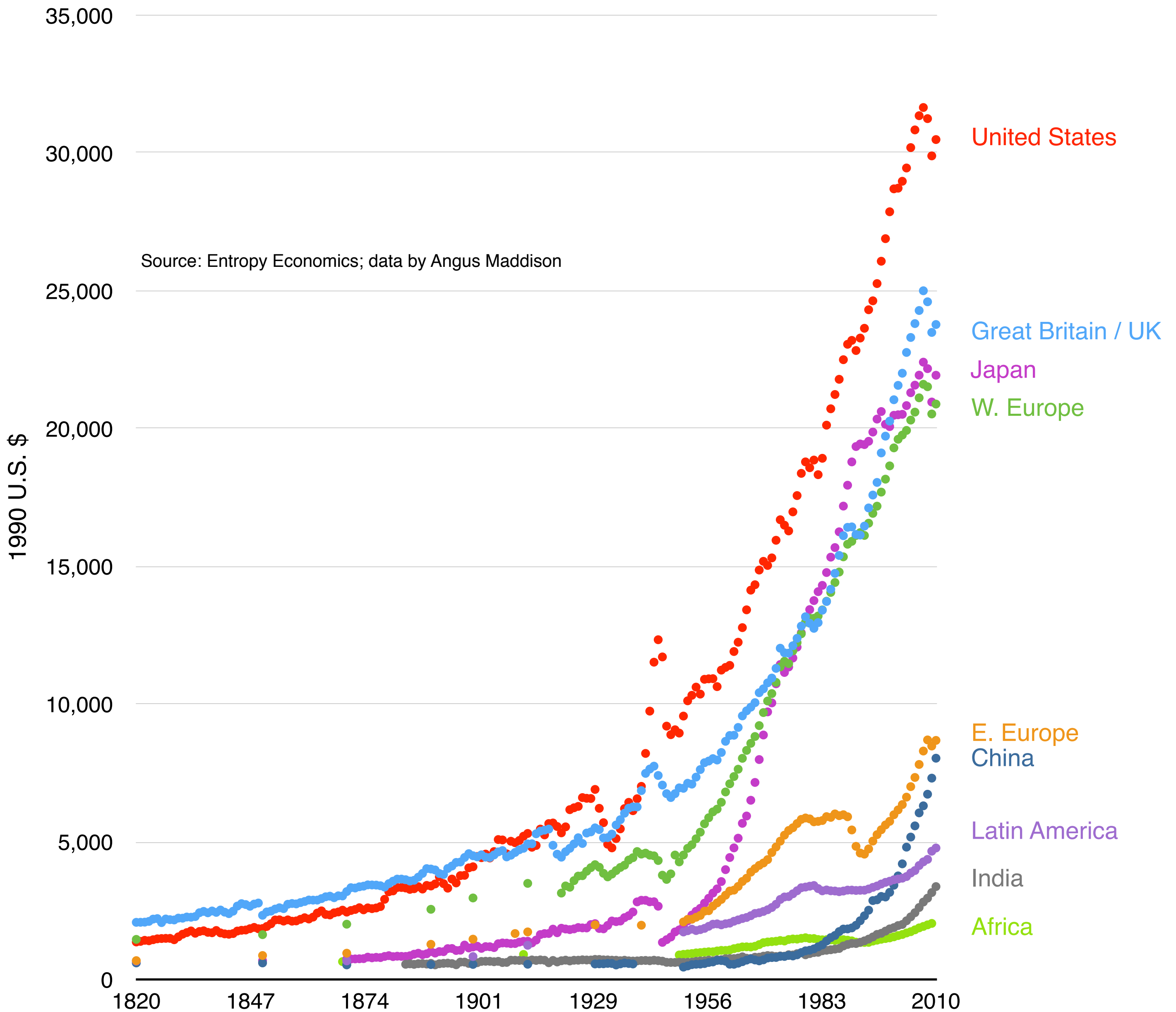
Source for both charts: William J. Bernstein; data by Angus Maddison



that an average American would trade his wages and benefits in 2013 — along with access to the most affordable food, appliances, clothing and cars in history, plus today's cornucopia of modern electronic goods — for the same real wages but with much lower fringe benefits in the 1950s or 1970s, along with those era's higher prices, more limited selection, and inferior products."

"G" is for Global Growth

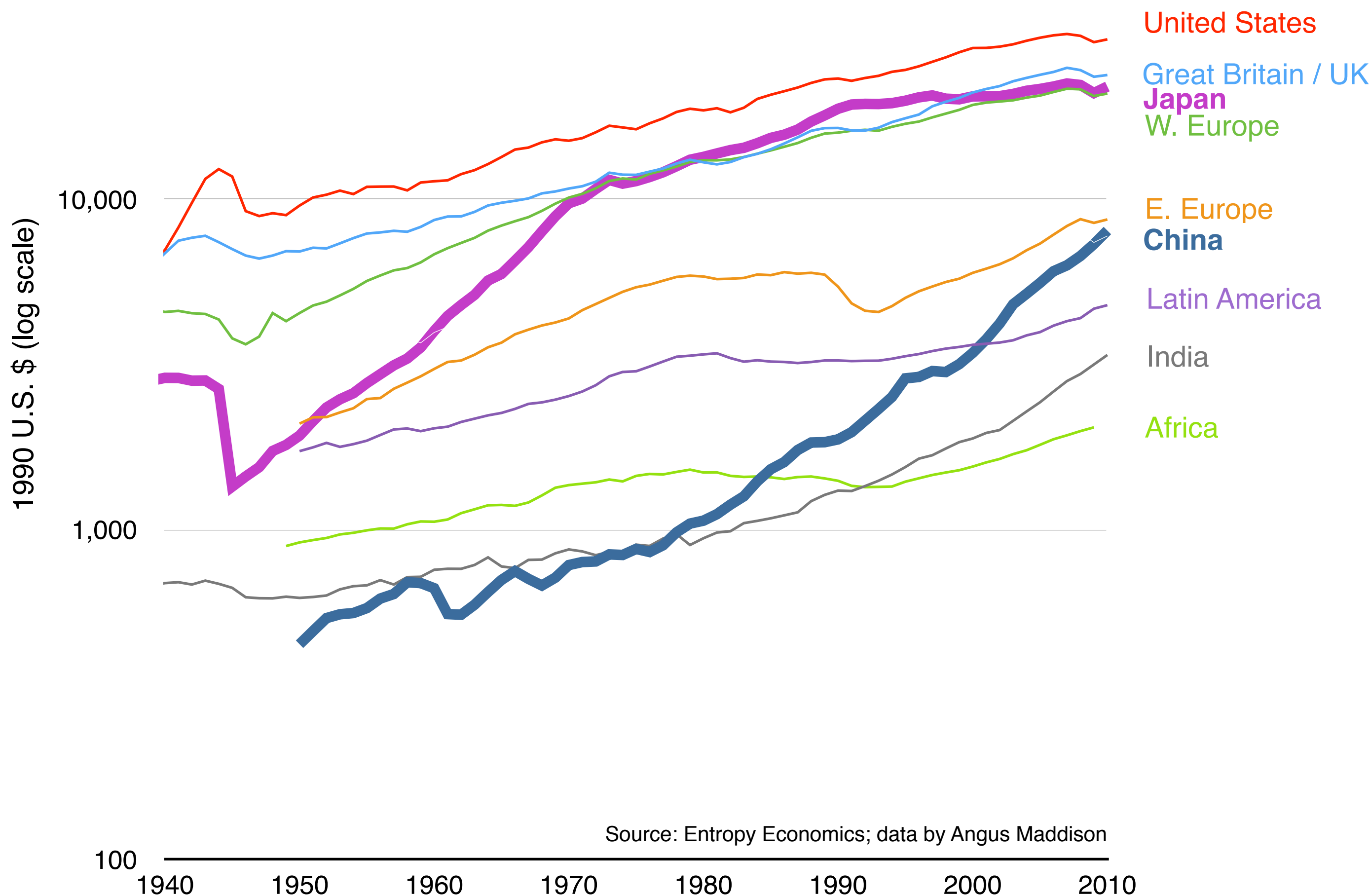
"By almost any measure," Bill Gates wrote in his 2014 Annual Letter, "the world is better than it has ever been." As the charts on page 4 show, income for most of history was flat. Then, in the 1700 and 1800s, everything changed. The Enlightenment and then the Industrial Revolution enshrined knowledge and capital, and income and wealth exploded — at least in the West. Not so for the rest of the world. Human and financial capital flocked to the places that treated it well. The places that did not respect capital remained, for the next few hundred years, nearly as poor as they had been for the previous millennium.



Then, after World War II, Japan embraced technology, entrepreneurship, and economic liberalism, embarking on a multi-decade campaign of tax reductions (in every year between 1950 and 1974, except 1960) and other market reforms. Its economy quickly rose from the ashes and grew faster, for longer, than anyone thought possible. In the process it spurred a number of other Asian Tigers to follow its lead. By the 1970s, Japan had caught up with Western Europe and was thought to be *the* new economic threat to the United States.

About this time, the sleeping giant awoke. By the end of Mao's Great Leap and Cultural Revolution, China was, by some measures, as poor as it had been in 1280. Beginning in the late 1970s, however, China dramatically opened up its economy. First it cut marginal tax rates on 600 million peasants to zero from nearly 100%. Then it cut marginal tax rates to zero from nearly 100% on the so-called Township and Village Enterprises. It opened the Special Economic Zones to products, technologies, and commercial knowledge from the rest of the world, and it consciously began a massive campaign to send students abroad and to welcome foreign scholars in.

China passed India, then Africa, then Latin America, and has now almost reached parity with Eastern Europe. China, though, now has



a much broader spectrum of income inequality. Everyone used to be desperately poor, with a few slightly less poor government officials. China still has desperately poor people who have not yet joined the modern economy. Yet they also have hundreds of billionaires. Most importantly, several hundred million people have leapt from peasanthood to middle class prosperity in three short decades. More inequality *and* vastly improved lives for a sixth of the world's population. All thanks to capitalism.

Japan's run from 1945 through the 1980s, and China's from 1978 to the present are highlighted in the chart on page 6. Many factors were of course in play, but none were more important than these nations' friendly treatment of financial, human, and knowledge capital.

Redistributive efforts (through foreign aid, for example) can in some cases ameliorate the worst plights of the poor. But they have been grossly ineffective, and often harmful, in spurring self-sustaining growth and modernization. Reforms of institutions and cultural attitudes toward capital and entrepreneurship, on the other hand, have produced sustainable and spectacular results.

China is the best thing that has happened to India. Looking next door at China's astounding growth, India was forced to examine and begin reforming its hyper-regulatory socialist state. A generation before, Deng Xiaoping was in India's shoes. Looking across the sea to Hong Kong and Japan, Deng saw the future. His new dictum — "to get rich is wonderful" — repudiated Mao's catastrophic focus on equality.

Globalization — the liberalization of human and financial capital — lifted **g** and thus the fortunes of a few billion people. But this massive scale also created markets so large that the firms, entrepreneurs, and investors who best served and leveraged this scale reaped unprecedented rewards. Especially in the hyper-scalable arenas of info-tech and finance.

Piketty himself notes that between 1987 and 2013, the globe's number of billionaires per capita jumped from five per 100 million to 30 per 100 million. On what planet is a six-fold increase in billionaires-per-capita, with a simultaneous 80% worldwide reduction in severe poverty, not a cause for celebration?

Cliff Asness of AQR Capital summed it up well: "Capitalism's longitudinal and cross-sectional success is overwhelming evidence of the power of freedom."

Don't Know Much About History, Don't Know Much About 'R' and 'G'

Piketty argues that growth, **g**, is likely to remain subdued for decades to come, perhaps in the 1% per capita range. But he projects real returns on capital, **r**, will be high, perhaps 5-6%. If capitalist wealth compounds at **r** and labor income at **g**, the gulf expands exponentially. The uber-capitalists are then so wealthy they gain control of not just the economy but of politics, too, and enact policies to cement their position of dominance. The masses don't like this and revolt.

We do not think this scenario will come to pass because Piketty's analyses of **r**, **g**, and the associated political dynamics are all flawed.

First, the idea that there are discrete groups of labor and capital is no longer useful, if it ever was. To the extent the middle class owns capital in homes and pensions and retirement accounts, labor is participating in the supposed outsize growth of **r**. Many one-percenters, meanwhile, are workers with lots of human capital who turn their entrepreneurial labor into financial capital. Which is which? See the problem with the old definitions?

Second, the prediction of slow growth is just that, a prediction. Demographics do present a challenge. But the far bigger challenge is current policy in the U.S. and Europe that restricts dynamism and slows innovation. With a shift in policy, we see no reason **g** could not return to a higher long run path of around

3%. Growth is the real solution to Piketty's dilemma.

Third, the notion that elite "rentiers" can easily and forever compound wealth at 5-6%, especially in a low growth environment, is aggressive to say the least. As the vice-chair of a $30-billion pension fund, we can attest that shooting for such returns, with an appropriate risk profile, is no simple endeavor. Asness of AQR, with over $105 billion under management, notes that expected returns have fallen. "Institutional investors are in a quandary," he writes. "They commonly target 5 percent real annual returns, or 7 to 8 percent nominal returns. Starting from today's prices for stocks and bonds, the likelihood of actually achieving those returns is low."

Marc Andreessen, the inventor of the Web browser and now a Silicon Valley venture capitalist, grappled with the Piketty in an extended Twitter stream — so thoughtful, we dubbed it a tweatise. Among other points, Andreessen (@pmarca) asked, "if capital compounding will work so well for the 1%, isn't that a result of a world awash with [opportunities] to productively invest capital? . . . And isn't that world the opposite of the 'secular stagnation'/'innovation is dead' world so many economists believe we are in?" "My day job," he concluded, "is trying to find investment [opportunities] where I can build businesses than can someday rent-seek," and "I can tell you it's not that freaking easy."

Fourth, the assertions that the super wealthy lobby (1) as a monolithic block or (2) for policies that favor capital over labor are both incorrect. Many of them do lobby for self-serving policies. But often they are regulatory and tax favors or rules that make life difficult for their competitors or disruptive innovators. Some wealthy people support neutral policies that would boost both **r** and **g** across the economic spectrum. Others support policies that more narrowly favor their own business or cultural interests.

The politically engaged wealthy are often fierce opponents. For every Koch brother, there are two George Soros's and Warren Buffett's.

Mr. Buffett favors higher tax rates on young entrepreneurs, who are potential rivals, but Buffett avoids high tax rates himself by sheltering income and giving away some $50 billion to charitable foundations. Buffett candidly admitted the scheme to *Fortune*. "I will do anything that is basically covered by the law to reduce Berkshire's tax rate," he said. "For example, on wind energy, we get a tax credit if we build a lot of wind farms. That's the only reason to build them. They don't make sense without the tax credit."

Tax *credits* help existing businesses. Low tax *rates* help entrepreneurs. Tax credits or subsidies give existing businesses guaranteed profits (or rents). Low tax rates without subsidies or credits force firms to produce innovative products that consumers want and that the world needs. But there are no guarantees.

Venture capital, for example, is a crucial source of innovation and growth, **g**. But venture capital requires the possibility of large profits from a few investments to make up for the nearly certain large losses in most of its investments. The same is true for a wide range of private equity investments.

Under a Buffett-Piketty regime, the profits of younger would-be capitalists are taxed away before they can reinvest them and challenge the status quo with innovative but risky ideas. Mr. Buffett's personal **r** goes up, and the economy's **g** goes down, reinforcing the very gap Piketty warns against.

Government subsidies and a complex, high-rate tax code help boost **r** for specific individuals, often those in the top 0.1% who befriend politicians and hire the best tax lawyers. But these policies, because they shift resources away from entrepreneurial ventures and toward guaranteed returns and unproductive activities, reduce **g** and thus widen the gap Piketty wants to close.

Hassett of AEI was among the first to expose the fifth problem on our list — Piketty's flawed estimate for the elasticity of the substitution of capital. Piketty thinks that capital replaces labor at a very high rate — for his thesis of explosive wealth to work, he needs an elasticity greater than one (1.0). But as Hassett shows, the vast bulk of technical literature comes up with an estimate of around 0.6. Larry Summers agrees: "I think [Piketty] misreads the literature by conflating gross and net returns to capital."

Matt Rognlie summed up this critique: "the formal apparatus in Piketty's book simply is not capable of generating the results he touts. There are two very simple issues that break it quantitatively – first, the distinction between elasticities of substitution in the gross and net production functions; and second, the fact that as **g** falls, an extraordinarily high elasticity of substitution is necessary to prevent **r** from falling along with it and actually compressing the arithmetic gap between **r** and **g**."

In addition, four French researchers expose an empirical problem. They show that nearly all of of the capital-share increase in Piketty's data can be attributed to rising home prices in recent decades. Because homes are partially consumption goods and their true value as capital assets should be based on rents, these price increases (which are unlikely to continue, as we've already seen in the housing bust) do not support Piketty's explosive wealth accumulation thesis. Or as Hassett says, you can't substitute housing for labor.

The Impossibility of an Infinite Accumulation Machine

Facebook may have paid $19 billion for WhatsApp. But if messaging technologies or the tastes of the world's teenagers change (and they will), that investment could plummet in value. Mark Zuckerberg could try to withdraw his ownership stake in the $153-billion-market-cap Facebook and invest it in Piketty's mythical **r**, earning a

Reviews and Critiques of *Capital in the 21st Century* — click for links

Kevin Hassett of the American Enterprise Institute

Garett Jones in *Reason*

Tyler Cowen in *Foreign Affairs*

Matt Rognlie at Marginal Revolution (also here)

Alex Tabarrok at Marginal Revolution

Chris Demuth in *The Wall Street Journal*

Scott Sumner at EconLog

John Goodman of NCPA

Arnold Kling at arnoldkling.com

Steve Forbes in *Forbes*

Louis Woodhill in *Forbes*

Diana Furchtgott-Roth of e21 (also here)

Scott Winship of e21 (also here and here)

Clive Crook in Bloomberg View

Alan Reynolds of the Cato Institute — his book *Income and Wealth* is an excellent prebuttal to Piketty

The Economist (the British magazine)

Aaron Hedlund of Baylor

James Dorn of the Cato Institute

George Cooper (also here)

Richard A. Epstein of Hoover Inst. (also here and here)

Nassim Nicholas Taleb of NYU

Robert Solow in *The New Republic*

Paul Krugman in the *New York Review of Books*

Brad Delong of UC Berkley

Matt Yglesias at Vox.com

Jamie Galbraith of U. Texas

Larry Summers in the journal *Democracy*

guaranteed 5%. But as soon as Zuckerberg tried to do it, the value of Facebook and thus his fortune would vanish. So he tries desperately to find ways to sustain Facebook's value — like giving 12% of his company to a tiny messaging app maker that he hopes will grow faster than Facebook's expected value will shrink.

Great fortunes are often only fortunes on paper, tied up in uncertain entrepreneurial ventures or otherwise prone to the black swans of world markets and politics. Stan Veuger of the American Enterprise Institute looked at Piketty's analysis of the *Forbes* lists of the world's richest people from 1987 and today. Piketty, Veuger shows, merely added up the list's total wealth from each year and calculated a rate of return — about 7%. But Piketty's method doesn't follow the same people over time. The two lists are composed of different individuals!

Veuger looked at the top 10 from 1987, then examined those same people's fortunes last year, and found their wealth only compounded at a 0.5% rate. "What happened?" Veuger asked. "Some of the world's wealthiest lost much of their fortune when asset bubbles burst or their companies went under (that would be an example of a very low return to capital!), and one of them was accused of bankrolling Osama bin Laden. If it weren't for Wal-Mart, the wealthiest people in the world would actually have lost about half of their wealth in the last 25 years."

For Piketty's mechanism to work, he needs the wealthy to reinvest all their income. But the lament over "inequality" is in large part about gaps in conspicuous consumption. Moreover, reinvested capital will benefit workers, while consumed wealth will benefit the wealthy. In other words, for his infinite accumulation machine to work, he needs the rich not to spend like the rich — which would encourage consumption equality and also boost the wages of labor. But if the rich do spend like the rich, it will break his machine — boosting consumption inequality and lowering capital investment and thus wages but slowing the compounding of wealth. The rich can't both enjoy and accumulate all the world's wealth. The theory is a mess of contradictions.

A Policy of Poverty

The real world prescriptions, however, are even worse than the academic theory.

Piketty discounts the role of transfers and the notion of consumption equality. Yet he advocates confiscatory income and wealth taxes to ameliorate "inequality." But if the wealth tax is not to be used for transfers and to boost consumption equality, then what is it for? Is it purely punitive? To bring the top down?

One could say it is to fund education. But the problem with education is not money. One could say it is to fund basic research in physics, technology, biology, and medicine. But to the extent more good ideas came from this research, it would be the cognitive elite (the researchers themselves and those who take new discoveries and commercialize technologies based on them) who would reap the largest near-term income rewards. Lower income people, meanwhile, would likely reap big consumption rewards in terms of non-monetary standard of living increases (like many health improvements today that often don't show up in income or wealth figures). But Piketty is not interested in these beneficial non-income effects.

When pressed, Piketty says innovation and fertility are two ways to boost growth. For sure. But a wealth tax is a sure way to stifle both. Do we want smart investors with deep knowledge investing the money, or do we want unintelligent governments with little knowledge investing the money — or transferring it for consumption purposes. (This of course presumes the proposed taxes could actually capture substantial net revenues.)

Is Jeff Bezos lounging, living off of dividends? No, he is engaged in relentless and serial conquests of existing and new industries, from the book and the cloud to the *Washing-*

ton Post and space exploration. As for Amazon's ownership of a very large percentage of the world's cloud computing resources — five times more than the next 14 competitors combined, according to Gartner — has this "capital accumulation" sucked profits away from the masses? Quite the opposite. Amazon's profit margins are minuscule, and often negative. Yet its super-cheap cloud platform has enabled a booming industry of entrepreneurial software developers and retail cloud services, many of which have yielded fortunes.

Nobel laureate Robert Shiller wants a progressive income tax indexed to the level of inequality. More inequality, more taxes. "If billionaires turn into multibillionaires, we don't let it happen. If you want to make $10 billion and spend it on yourself, we won't let you. We will take a good fraction of it, and you'll still be a billionaire, so what?" Surely, it would be simple to construct a full-proof inequality index. What could go wrong?

Garett Jones sums up the futility of taxing capital to benefit labor. "The Boston University economist Christophe Chamley and the Stanford economist Kenneth Judd," Jones writes, "came up independently with what we might call the Chamley-Judd Redistribution Impossibility Theorem: Any tax on capital is a bad idea in the long run, and that the overwhelming effect of a capital tax is to lower wages. A capital tax is such a bad idea that even if workers and capitalists really were two entirely separate groups of people — if workers could only eat their wages and capitalists just lived off of their interest like a bunch of trust-funders — it would still be impossible to permanently tax capitalists, hand the tax revenues to workers, and make the workers better off."

The Real Rentiers

One reason Piketty gives for taxing away wealth is to reduce the possibility of the wealthy rigging the political system in their own favor. But why not just target political favoritism itself? What's easier? Enacting Piketty's self-described "utopian" wealth tax on a coordinated global scale? Or shrinking the opportunities for political favoritism — for example, by ending too-big-to-fail banking, hyper-regulation, and government hand-outs to friendly firms.

Piketty's prescription would only make matters worse. To the extent a wealth tax increases and centralizes the power of government, it also expands the opportunities and incentives to for political gamesmanship. A less intrusive government with a low, flat tax would dramatically reduce the opportunities or need to rig the system.

Maybe Piketty doesn't want the wealthy to exit the political space. Perhaps he wants them more beholden to the politicians — and the academics and technocrats. Capitalism alone creates alternate power centers beyond politics. Maybe that's what drives the technocrats and academics crazy.

We should narrowly target the real rentiers — the crony collectivists, who profit not by serving the public with creative products and services but by poaching the public through political favoritism.

Summary Judgment

Piketty underestimates middle class and lower class incomes. He overestimates how easy it is to compound wealth without risk. He focuses on the old paradigm of labor and land but mostly ignores the far more meaningful underpinnings of the 21st century economy, namely knowledge and human capital. He lumps all workers into "labor" and all investment into "capital," although the overlap between, and the variation within, each category is substantial and growing. He overestimates the elasticity of capital substitution. He presumes profits are surpluses that flow to consuming rentiers, rather than the crucial source of constant regeneration that capitalism needs. And his policies would undermine the key roles of information and entrepreneurship in the rising tide of global wealth. EE