

CAPITALISM IN AMERICA

A HISTORY



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**AMERICA'S FADING
DYNAMISM**

THIS BOOK HAS REPEATEDLY shown that America's greatest comparative advantage has been its talent for creative destruction. America was colonized by pioneers and forged by adventurers who were willing to take unusual risks in pursuit of a better life. Arjo Klamer once called America a "caravan" society as opposed to the "citadel" society of Europe: Americans were always on the move in pursuit of new opportunities while Europeans built citadels to protect what they already had.¹ In the second half of the nineteenth century, almost two-thirds of Americans over the age of thirty made cross-country moves compared with only a quarter of Britons who moved across their Lilliputian island.² "Few of us are natives of the country," Edward Bates, later Lincoln's attorney general, wrote in 1849, "we are all adventurers, coming from a distance, to seek a fortune or make a name."³ Though Frederick Jackson Turner worried that America's pioneer spirit had ended with the closing of the frontier in 1893, the country's enthusiasm for mobility continued unabated.

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The United States has rightly regarded itself as a land of entrepreneurs, where it is easier than elsewhere to found companies and then, if you are lucky and determined, to turn those companies into giants. Many of America's greatest entrepreneurs came from nowhere to build giant businesses: Andrew Carnegie was a penniless immigrant and John D. Rockefeller was the son of a snake-oil salesman. Many of America's most successful businesspeople built their fortunes by satisfying the desires of ordinary people: think of Sears and Roebuck building a giant mail-order system to deliver goods to isolated farmers or Ray Kroc building an empire on buns and burgers. In Britain, great entrepreneurs celebrated their success by winding down their businesses and buying an estate and a title. In America, there is no higher aristocracy than the aristocracy of entrepreneurs.

At the same time, America excelled in the creation of the infrastructure that is necessary for a modern capitalist economy. It laid the foundations for its industrial takeoff by building roads and canals. It led the world in the construction of a modern railway and then highways. It was the first country to link the country together with relatively cheap and comprehensive domestic flights.

America prospered in large part because it accepted that destruction is the price for creation. The world's most liberal bankruptcy laws allowed companies to go out of business. The world's biggest internal market allowed people to move to places where their skills would be more generously rewarded. The United States accepted that ghost towns and shuttered factories are the price of progress.

There is some of this classic America still in place.⁴ The world's three most valuable companies at the time of this writing, Apple, Google, and Microsoft, are all American tech companies—and Amazon and Facebook come in at number six and seven. U.S. firms host 61 percent of the world's social-media users, undertake 91 percent of its searches, and invented the operating systems of 99 percent of its

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smartphone users. Google processes 4 billion searches a day. U.S. companies also control the infrastructure of the information economy. Amazon has almost one-third of the market for cloud computing, and its cloud-services division has grown by more than half over the past year.

Meanwhile, the United States dominates the commanding heights of global finance. The global market share of Wall Street investment banks has increased to 50 percent as European firms have shrunk and Asian aspirants have trod water. U.S. fund managers run 55 percent of the world's assets under management, up from 44 percent a decade ago. The most sophisticated new financial instruments, such as exchange-traded funds and mortgage-backed securities, were all made in America.

The United States is home to fifteen of the world's twenty leading universities and more than 60 percent of the world's stock of venture capital. America's share of the world's patents has increased from 10 percent when Ronald Reagan was elected to 20 percent today. For all the talk of China's rise, China's rulers send their children to study in American universities (and keep a gilded bolt-hole in New York in case things go wrong at home), and China's most innovative companies, such as Alibaba, list on the New York Stock Exchange, not on Shanghai's bourse.

The United States has a disproportionate number of the world's best global companies outside tech and finance too: Koch Industries, Procter & Gamble, and Johnson & Johnson are as good as any in the world. America's companies have emerged much strengthened after the corporate bloodbaths of the 1980s and 1990s. They have shed excess fat through repeated rounds of downsizing and restructuring. They have outsourced low-value-added jobs abroad. They have combined the ideas of two of the most influential business thinkers of the past thirty years into a winning formula. Jack Welch, the boss of

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General Electric for two decades at the end of the twentieth century, advised companies to leave markets that they did not dominate. Warren Buffett, the twenty-first century's best-known investor, extols firms that have a "moat" around them—a barrier that offers stability and pricing power.

Yet this highly productive America exists alongside a much more stagnant country. Look at any measure of creative destruction, from geographical mobility to company creation to tolerance of disruption, and you see that it is headed downward. The United States is becoming indistinguishable from other mature slow-growth economies such as Europe and Japan in its handling of creative destruction: a "citadel society," in Klamer's phrase, in which large parts of the citadel are falling into disrepair.

The Census Bureau reports that geographical mobility has been in decline for three decades. The interstate migration rate has fallen 51 percent below its average in the years 1948 to 1971 and has been falling steadily since the 1980s. The rate of moving between counties has fallen by 31 percent over the same period, and the rate of moving within counties by 38 percent. The new immobility is particularly striking for African Americans: having migrated in large numbers from the South in the first half of the twentieth century, they are now digging in. In 2010, 76 percent of African American mothers gave birth in the same state as their own mothers, compared with 65 percent of white mothers. A study of a cohort of 4,800 African Americans born between 1952 and 1982 shows that, as they grew into adults, 69 percent of the cohort remain in the same county, 82 percent remain in the same state, and 90 percent remain in the same region. The figures for the previous generation were 50 percent, 65 percent, and 74 percent.

It is getting much harder for Americans to move to economic hotspots. A typical New Yorker now spends about 84 percent of the

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national median salary on rent. This makes it impossible for a regular person from, say, Kansas to move to Manhattan. House prices are always going to be higher in successful economic clusters because so many people want to live there. But today's capitals of creativity, particularly San Francisco, are also capitals of NIMBY-ism, encrusted with rules and restrictions that make it much more difficult to build new houses or start new businesses. Chang-Tai Hsieh and Enrico Moretti estimate that if it were cheaper to move to America's high productive cities, the country's gross domestic product would be 9.5 percent higher due to the gains from better jobs.⁵

Other forms of mobility are also in decline. Upward mobility is becoming more difficult: Raj Chetty of Stanford University has calculated, on the basis of an extensive study of tax records, that the odds of a thirty-year-old earning more than his parents at the same age has fallen from 86 percent forty years ago to 51 percent today.⁶ A 2015 study by three Federal Reserve economists and a colleague at Notre Dame University demonstrated that the level of churning between jobs has been dropping for decades. One reason for this is that it's becoming harder to fire people—indeed, it's all but impossible to do so in the public sector—and employers are less inclined to take the risk of hiring them in the first place. Though America still has a more fluid labor market than most European countries, it is nevertheless moving in the European direction, with a cadre of protected workers who keep their jobs for longer periods and a growing group of people who are outside the formal labor market.

The United States is also losing the rugged pioneering spirit that once defined it. In 1850, Herman Melville boasted that “we are the pioneers of the world, the advance-guard, sent on through the wilderness of untried things, to break a new path in the New World.”⁷ Today many of the descendants of these pioneers are too terrified of tripping up to set foot on any new path. The problem starts with

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school. In 2013, a school district in Maryland banned, among other things, pushing children on swings, bringing homemade food into school, and distributing birthday invitations on school grounds.⁸ It continues in college, where professors have provided their charges with “safe spaces” and “trigger warnings.” It extends to every aspect of daily life. McDonald’s prints warning signs on its cups of coffee pointing out that “this liquid may be hot.” Winston Churchill once said to his fellow countrymen, “We have not journeyed across the centuries, across the oceans, across the mountains, across the prairies, because we are made of sugar candy.”⁹ Today, thanks to a malign combination of litigation, regulation, and pedagogical fashion, sugar-candy people are everywhere.

POTHoles VERSUS PROGRESS

Public investment in transportation has declined from 2.3 percent of GDP in the 1960s to about 1.7 percent today, less than Europe’s and far less than China’s. The roads, particularly in the Northeast and California, are full of potholes. New York’s John F. Kennedy International Airport is an embarrassing slum compared with, say, Shanghai’s Pudong International Airport. America’s trains are slow coaches compared with China’s bullet trains.

The 2017 Report Card from the American Society of Civil Engineers puts some numbers to this general impression. The average age of the country’s 90,000 dams is fifty-six years. Thanks to the growing density of the population, the number of “high hazard” dams has risen to at least 15,500. There are an estimated 240,000 water main breaks a year, wasting more than 2 trillion gallons of treated water. The annual cost of airport congestion and delays is almost \$22 billion. Four in ten of the country’s 614,000 bridges are more than fifty

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years old, and one in nine is structurally deficient. More than half the country's locks are over fifty years old, and almost half the vessels that use them experience delays. Electric transformers are forty years old on average. The wiring of the electricity system is so old that it is sometimes impossible to transfer surplus power from, say, the Northeast to the South.¹⁰

The twenty-first century has seen some mind-boggling feats of building, as advances in materials technology and engineering techniques allow us to push the boundaries of physical creation. The Burj Khalifa in Dubai, completed in 2008, is the world's tallest building, at 2,716 feet. Dubai is also building the world's biggest airport, Dubai World Central, which will be able to accommodate more than 200 million passengers. The Donghai Bridge, completed in 2005 to connect Shanghai with the deep-city port of Yangshan, is one of the world's longest bridges, at twenty miles, but the Chinese are already adding a second bridge to deal with the growth in traffic. Embarrassingly, few of these engineering marvels are being built in America.

Americans are finding it harder to start companies than they did a generation ago and harder still to grow those companies once they have started them. The share of all businesses consisting of young firms (aged five years or younger) declined from 14.6 percent in 1978 to just 8.3 percent in 2011, even as the share of firms that were going out of business remained roughly constant at 8 to 10 percent. The share of total employment accounted for by young firms declined from 18.9 percent in the late 1980s to 13.5 percent just before the great recession. The proportion of people younger than thirty who owned stakes in private companies declined from 10.6 percent in 1989 to 3.6 percent in 2014.¹¹

The decline of creation has even extended to the tech sector. The number of young tech firms has declined since peaking in 2000. The number of IPOs has plunged—from an average of 547 a year in

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the 1990s to 192 a year more recently. In the 1990s, tech entrepreneurs used to dream of taking their companies public and becoming the next Bill Gates. Today they dream of selling their companies—or at least their bright ideas—to one of the established tech giants. They are supplicants to the established order rather than radical disrupters.

At the same time, the biggest companies are consolidating their hold over the commanding heights of the economy. Apple, Google, Amazon, and their peers dominate today's economy just as surely as U.S. Steel, Standard Oil, and Sears, Roebuck and Company dominated the economy of Roosevelt's day. The Fortune 100's share of the revenues generated by the Fortune 500 went up from 57 percent to 63 percent between 1994 and 2013.

The expansion of big companies and the decline in the rate of company creation means that the economy is becoming significantly more concentrated. The number of U.S. listed companies nearly halved between 1997 and 2013, from 6,797 to 3,485. The sales of the median listed public company were three times higher in 2013 than twenty years earlier. The *Economist* divided the economy into nine-hundred-odd sectors covered by America's economic census. Two-thirds of them became more concentrated between 1997 and 2012. The weighted average share of the top four firms in each sector rose from 26 percent to 32 percent. The consolidation was most pronounced in the most knowledge-intensive sectors of the economy.¹²

The decline in the rate of company creation since the 1980s does not necessarily indicate a decline of entrepreneurialism: lots of small companies are me-too enterprises that don't do anything to raise productivity. The United States saw an increase in the number of start-ups that went on to revolutionize their industries, such as Microsoft, Amazon, and Google. Established big companies such as John Deere also became more entrepreneurial. Nor is concentration

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proof of predatory monopolies. Joseph Schumpeter argued that concentration can be both a cause and a consequence of success. Successful companies race ahead of their rivals in order to enjoy the advantages of temporary monopolies. They invest the superprofits that they gain from those temporary monopolies in more R&D in order to stay ahead in the race. Great firms “largely create what they exploit,” as he put it.

That said, there are reasons for deep concern. Companies are protecting themselves from competition by building all sorts of walls and moats. This is particularly true of the tech giants. They are using network effects to dominate markets: the more people you have in your network, the more valuable those networks are. They are using convenience to squeeze out potential rivals: iPhones work easily with iPads, for example. They are highly aggressive in buying up patents and suing rivals for patent infringements.¹³

There is growing evidence that consolidation is slowing the rate of the diffusion of innovations through the economy. Schumpeter argued that one of the reasons capitalism is so dynamic is that successful businesses stand on ground that is “crumbling beneath their feet.” Fast followers are always “stealing” your secrets and improving upon them. This is uncomfortable for leading companies but good for society as a whole because it means that new ideas quickly spread throughout the entire economy. Worryingly, a group of researchers at the OECD, Dan Andrews, Chiara Criscuolo, and Peter Gal, argue that good ideas are taking longer to diffuse than in the past.¹⁴ The top 5 percent of elite firms, dubbed “frontier firms,” stay ahead for much longer than in the past, increasing their productivity, while the remaining 95 percent of firms remain stagnant. The information-technology industry is producing a class of superfrontier firms: the productivity of the top 2 percent of IT companies has risen relative to that of other elite firms. At the same time, technological diffusion

has stalled, in part because frontier firms can hire the most talented workers and cultivate relations with the best universities and consultancies.

DEATH FROM DESPAIR

The bottom of society suffers from a tangle of pathologies that are rendering a significant number of people unemployable. Nonwork is becoming a way of life in some areas, particularly areas that were once the cradle of the Industrial Revolution. In Scranton, Pennsylvania, 41 percent of those older than eighteen have withdrawn from the workforce. In Syracuse, New York, the figure is 42.4 percent.¹⁵ Nonwork often goes along with a life of petty crime and drug addiction: in particular an epidemic of opiates and methamphetamine is shortening lives and deepening social pathologies.

One of the most striking developments of recent years is that social pathologies that were once associated primarily with black America are now spreading to white America. For white high school graduates, the percentage of children born out of wedlock increased from 4 percent in 1982 to 34 percent in 2008. For white high school dropouts, the percentage increased from 21 percent to 42 percent. The comparative figures for blacks were 48 percent to 70 percent and 76 percent to 96 percent. Broken families create a cycle of deprivation: children who grow up in households without a father are more likely to drop out of school, produce illegitimate children, and become criminals. America's imprisonment rate is eight to ten times higher than those of the bigger European countries. Much of this has to do with the persistence of draconian drug laws that make felonies of relatively low-level drug offenses and lock those offenders up for long stretches. Imprisonment has desperate residual effects, in

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addition to costing the U.S. taxpayer \$74 billion a year: it prevents people from completing their educations, ensures that they associate with other prisoners, and provides them with a permanent stain on their reputations. One study found that 60 percent of those released from prison were unemployed a year after release.

Angus Deaton and Anne Case of Princeton University note that the life expectancy of white working-class Americans has actually started to decline, something that has not happened since the Industrial Revolution.¹⁶ The reduction in life expectancy is driven by an uptick in the number of “deaths from despair.” The number of deaths from drugs, alcohol-related liver diseases, and suicide is going up, while progress against middle-age killers such as heart disease and cancer is slowing down. The authors argue that the most plausible explanation of all this is the gradual “collapse of the white, high-school-educated working class after its heyday in the early 1970s” due to the disappearance of high-paying jobs and the accumulation of social dysfunction. During the golden age, working-class Americans could expect stable lives and long-term advancement. Now they are increasingly living marginal lives that, as their health deteriorates, will add to the burden on entitlement programs.

EXPLAINING STAGNATION

Why is America's vaunted dynamism fading? Three explanations are popular. The first is that America is losing its long-standing sources of economic leadership. The United States led the world in three great revolutions in education—creating a mass primary school system in the nineteenth century, and creating mass high school and university systems in the twentieth century. The proportion of seventeen-year-olds who completed high school rose from 6.4 percent in 1900

to 77 percent in 1970. The proportion of high school graduates who enrolled in university rose from 45 percent in 1960 to 63 percent in 2000. Claudia Goldin and Lawrence Katz of Harvard University estimate that educational attainment increased by 0.8 years per decade over the eight decades between 1890 and 1970, and that the improvement in educational attainment contributed 0.35 percentage points per year to the growth of productivity and output per person.

Since 1980, the United States has lost its pedagogical edge. The proportion of Americans finishing high school has either stagnated or declined depending on which measure you take (James Heckman found that the percentage of eighteen-year-olds receiving “bona fide” school diplomas had fallen to 74 percent in 2000). The United States currently ranks eleventh among the developed nations in high school graduation rates. Though the proportion of twenty-five- to thirty-four-year-olds receiving a BA from a four-year college has inched up from 25 percent to 32 percent, that rise conceals lots of significant problems: for example, America has declined from number one in the world in terms of the proportion of eighteen- to twenty-four-year-olds who go to college to no better than fifteenth. American numbers are even more depressing if you look at educational attainment rather than just years spent in education. The OECD’s Programme for International Student Assessment (PISA) tests for 2013 ranked American fifteen-year-olds seventeenth in reading, twentieth in science, and twenty-seventh in math.

The decline in America’s relative position can be seen by comparing different age groups. Americans aged fifty-five to sixty-four are more likely to have completed high school than their peers in the OECD’s thirty-four member states. Americans aged twenty-four to thirty-four are tied for ninth place in terms of finishing high school with four other countries. It is also the only country in which the graduation rate of those aged twenty-four to thirty-four is no higher than for those aged fifty-five to sixty-four.

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While the positive features of America's education system have been eroded, the negative features have become more pronounced. The system is poor at training nonacademic pupils for vocational jobs. Before the Second World War, high schools in New York City required "shop" courses, including carpentry and learning how to splice electric wires, but these were phased out even as companies complained about the shortage of skilled manual workers. The system is also extremely poor at controlling costs. The cost of higher education has risen by a factor of ten since 1950 and students have gone more and more into debt to afford it: student loan debt currently stands at nearly \$1.5 trillion, more than either outstanding credit card or automobile loan debt.

For most of its history, the United States has been the world's leading talent magnet. Fully 18 percent of the Fortune 500 list as of 2010 were founded by immigrants (among them AT&T, DuPont, eBay, Google, Kraft, Heinz, and Procter & Gamble). Include the children of immigrants and the figure is 40 percent. In 2012, immigrants represented about 13 percent of the U.S. population but founded 52 percent of Silicon Valley start-ups, contributed to more than 25 percent of global patents, and make up 25 percent of science and engineering workers with bachelor's degrees and 47 percent of those with PhDs. Yet the future supply of entrepreneurs and professionals is now being choked off by the country's increasingly hostile attitude to immigration and growing opportunities elsewhere. Other rich countries, such as Canada and Australia, are actively trying to woo high-quality immigrants. Indian and Chinese graduates now have many more opportunities at home.

There is much truth in all this. The United States is certainly dropping down international league tables. It also has a problem with a long tail of lower-performing schools. But it would be too much to expect the United States to maintain the sort of world domination

that it enjoyed after the Second World War. America is still a world leader in higher education. Fifteen of the world's twenty top universities are based in the United States. It is better than most other countries in providing people with second chances. There is no evidence that the economy would be better served if more people went to university: about 40 percent of college graduates have been unable to find a job requiring a college education. America doesn't need more baristas with BAs.

A second argument is that the IT revolution is disappointing compared with previous technology-driven revolutions. The second Industrial Revolution at the end of the nineteenth century produced a wide range of innovations that changed people's lives in every dimension: cars replaced horses, airplanes replaced hot-air balloons, electric lights replaced kerosene and gas. The IT revolution, the argument goes, is only affecting a narrow range of activities.

This is unconvincing. The IT revolution is touching ever more aspects of daily life. iPhones can do the work of thousands: they can help you find where you want to go, act as virtual secretaries, organize your book and newspaper collections. Uber uses information to revolutionize the taxi business. Airbnb uses it to revolutionize the hotel business. Amazon allows us to order from a vast virtual catalogue and have the goods delivered within a few days or even a few hours. Morgan Stanley estimates that driverless cars could result in \$507 billion a year of productivity gains in America, mainly from people being able to stare at their laptops instead of at the road.

The IT revolution provides a chance of extending to the service sector the sort of productivity gains that we are used to in the manufacturing sector. IBM and the Baylor College of Medicine have developed a system called KnIT ("Knowledge Integration Toolkit") that scans the medical literature and generates new hypotheses for research problems. Various bits of software regularly outperform legal

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experts in predicting the outcome of court decisions, from patent disputes to cases before the Supreme Court. New technology is enabling machines and paraprofessionals to take over many routine tasks from professionals. Programs developed by Kensho, a start-up, provide answers to financial questions such as what happens to technology stocks when there is a privacy scare. Nurses and physician assistants, equipped with computers and diagnostic tools, are doing more and more of the work once reserved for doctors. Online services and smartphone apps allow the laity to dispense with some professionals entirely, or at the very least increase their bargaining power. Every month, 190 million people visit WebMD—more than visit regular doctors in America. Educational apps are the second-most popular category in Apple's app store after games, and MOOCs (massive open online courses) are attracting millions of students. Judges and lawyers are increasingly resolving small claims through "e-adjudication." It is one of the techniques employed by eBay to settle the more than 60 million disagreements among its users each year. Contrary to the worries of economists such as William Baumol, who argued that productivity growth is inherently lower in the service sector than in the manufacturing sector, productivity growth is now limited not by the composition of the market (the manufacturing sector versus the service sector) but by the ability of innovators to develop new technologies. It is worth bearing in mind Paul David's insight that electricity didn't have much impact on productivity until companies reorganized their factories in the 1920s. The IT revolution may only be starting when it comes to productivity, particularly when it comes to the productivity of the service sector.

A third argument is that the growth rate of the workforce is decelerating. The American economy has repeatedly been boosted by the arrival of fresh waves of new workers—first farmworkers who abandoned the farm for higher paying jobs in the city and more recently

women who left nonpaying jobs in the household economy to join the workforce. Now it is suffering from the reverse problem: workers are leaving the workforce and beginning to claim their pensions. The percentage of people of retirement age in the total population has increased from 6.8 percent in 1940 to 11.3 percent in 1980, and to 13.1 percent in 2010, and is set to rise relentlessly for the next twenty-five years.

This is even more unconvincing than the IT argument. The biggest problem with the argument is that the baby-boom retirement has only just begun. There is also a more subtle problem: people can continue to work much later in their life than they used to, partly because they are remaining healthy for longer and partly because work is no longer as physically demanding as it used to be. Several countries, such as Sweden and the United Kingdom, are progressively raising their retirement ages in line with the growing longevity of the population.

So why is the country stagnating? The most important reason is the growth of productivity-suppressing entitlements—the collection of social benefits (primarily Social Security, Medicare, and Medicaid) that Americans enjoy simply by right of being Americans. Aside from a jump following the Second World War, the rise of entitlements was relatively modest for the first thirty years after the introduction of Social Security in 1935. Then it took off: between 1965 and 2016, social benefits increased at an average rate of 9 percent a year. The share of GDP going to social benefits rose from 4.6 percent to 14.6 percent, a huge displacement.

The United States is now encrusted with entitlements. Fifty-five percent of all U.S. households receive cash or in-kind assistance from at least one major federal entitlement program. Almost all Americans over sixty-five receive Social Security and Medicare. Eighty percent of Americans living in households headed by single mothers

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receive entitlement benefits and 58 percent of American children live in families that are claiming entitlements. About 120 million Americans (two-thirds of recipients) claim benefits from two or more programs, and about 46 million (almost a third) claim from three or more programs.

This entitlement regime only bears a loose relationship to need: over 90 percent of social insurance assistance goes to a single demographic group that is defined by age rather than need—people aged sixty-five and over. The government distributes about fifty thousand dollars a year in Social Security and Medicare benefits to the typical married couple who retired at age sixty-six in 2016, just six thousand dollars less than the median income of U.S. households in general. Yet these retirees have lived through some of the most prosperous years in American history. They can also expect to live longer than any previous retirees. The burden of supporting this gilded generation will fall on current workers who have had far fewer opportunities than their seniors and have to simultaneously provide for their own children.

It is in the nature of entitlement spending that most of it is on automatic pilot: people are enrolled and payments rise according to fixed formulas. So entitlements rise at a fixed rate regardless of how the economy is performing or who is sitting in the White House. Presidents can talk about the virtue of small government as much as they like. The core entitlement programs will inevitably expand as the population ages, prices increase, and health-care costs rise. The three basic entitlement programs—Social Security, Medicare, and Medicaid—now make up almost 50 percent of the federal budget, and that number is slated to rise over the coming decades regardless of partisan political advantage.

Presidents can make a difference to the pace of growth, however. Since 1965, spending on social benefits has, counterintuitively, risen faster under Republican presidents (10.7 percent a year) than under

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Democratic presidents (7.3 percent a year). Bill Clinton not only controlled spending on social benefits better than Ronald Reagan (4.6 percent a year versus 7.3 percent), he introduced radical changes to welfare (though admittedly with congressional Republican encouragement). George W. Bush added new drug benefits without providing a means for funding them, something a fiscally conservative president such as Bill Clinton would never have done. Both parties engage in competitive bidding for votes (some Republicans justify their willingness to spend public money on the grounds that if they don't spend it Democrats will). Even voters who consider themselves to be small government conservatives are wedded to entitlements—a position best expressed by the Tea Party activists who told Obama to keep his hands off “their” Medicare.

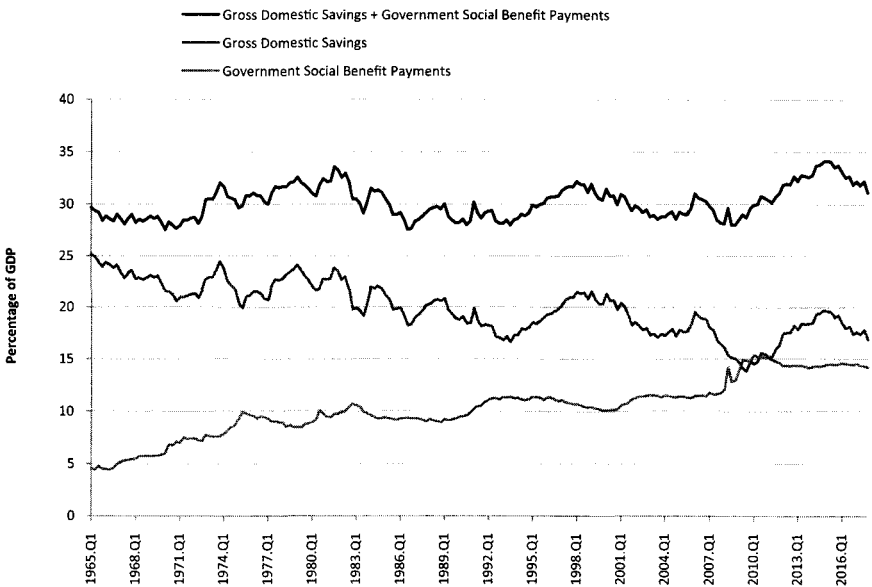
This story points to one of the oddities of entitlements that make them so difficult to reform. Americans like to think that they have “earned” their entitlements: they are simply getting back what they put into the trust funds plus interest. They make a sharp distinction in their minds between taxpayer-funded “handouts” (which can be cut) and “getting back what they put in” (which is sacred). In one AARP advertisement, a retiree proclaims, “I earned my Medicare and Social Security.” This is in fact an illusion. Americans are collectively putting in less than they are getting out: making up the actuarial shortfall would require a permanent tax increase of a third or a permanent cut in benefits of a fourth.¹⁷ Absent such changes, the Social Security trust fund will run out of money by 2034 and the Medicare fund will run out of money by 2029. But “my money returned” is an exceedingly powerful illusion that makes reform almost impossible. Victor Hugo once said that there is nothing more powerful in politics than an idea whose time has come. He was wrong: the most powerful thing in politics is a heavily subsidized benefit that the recipient believes they have fully paid for.

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Most important, federal entitlements are squeezing discretionary spending. The Steuerle-Roeper Fiscal Democracy Index measures how many of America's fiscal decisions are on automatic pilot and how many are open to discretion. In 1962, about two-thirds of all federal expenditures were discretionary. In the mid-1960s, that number began falling sharply, thanks to Johnson's entitlements. In 1982, the number had fallen below 30 percent. By 2014, the number stood at about 20 percent and is slated to fall below 10 percent by 2022.

Federal entitlements are crowding out domestic savings. The following chart portrays a surprising statistical stability: the sum of social benefits to persons (entitlements) and gross domestic savings (both as a percentage of GDP) has been trendless since 1965. The steady increase in entitlements as a percentage of GDP is mirrored by a decrease, on average, in gross domestic savings as a percentage of

GROSS DOMESTIC SAVINGS AND GOVERNMENT SOCIAL BENEFITS
PLOTTED QUARTERLY, Q1 1965 – Q4 2017



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GDP. This implies that entitlements are not only crowding out domestic savings, but they are also doing so on an almost dollar-for-dollar basis.

The primary driver of productivity (output per hour) is capital stock (or cumulative net investment). Gross domestic investment (net investment plus depreciation) is funded by (1) gross domestic savings and (2) since 1992, net savings borrowed from abroad (essentially America's current account deficit). Borrowing from abroad cannot be sustained indefinitely: such debt had already accumulated to \$8 trillion by the second quarter of 2016. Domestic investment must eventually rely on the nation's propensity to save and invest in capital stock, which is diminishing. Worryingly, there is overwhelming statistical evidence that a significant proportion of the surge in benefit spending has been funded by the government, preempting private savings, through taxation—savings that would otherwise have funded domestic capital investment and productivity growth.

One of the most important measures of business confidence and, hence, willingness to invest is what we call the cap-ex ratio: that is, the share of liquid cash flow that companies choose to convert into illiquid equipment or buildings. Somewhat surprisingly, it turns out that just two financial statistics “explain” nearly three-fourths of the variation in the cap-ex ratio observed two quarters in the future, which happens to be the approximate time between an investment appropriation and its actual expenditures. The first is the cyclically adjusted federal budget deficit or surplus, a measure of the degree of crowding in or crowding out of private investment spending. The second is the spread between the yield on U.S. Treasury thirty-year bonds less the yield on the five-year treasury notes. This acts as a proxy for the increasing degree of uncertainty associated with physical capital investments of ever-longer-lived assets: for example, software has a three- to five-year life expectancy and nineteen years for industrial equipment.

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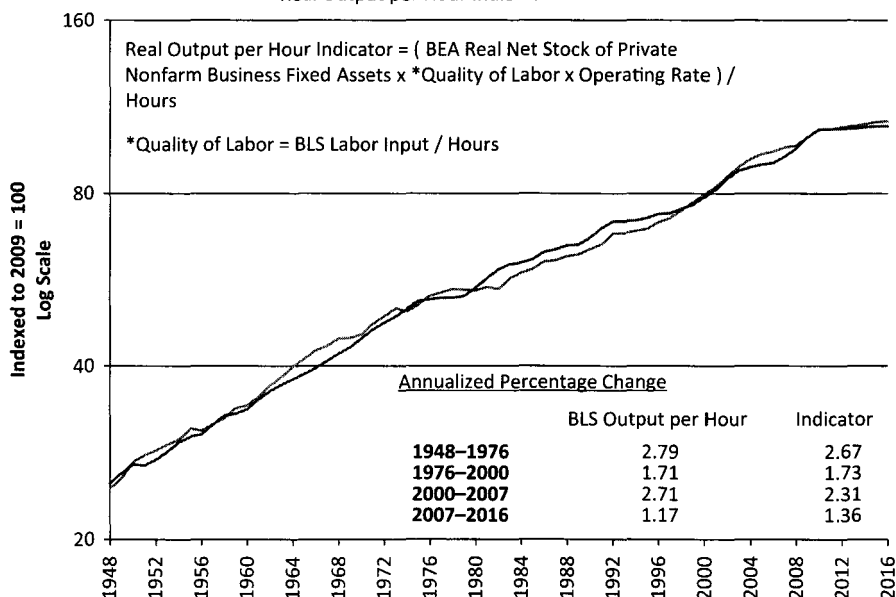
The federal surplus or deficit statistically accounts for half of the variation in the cap-ex ratio since 1970. The remaining half is evenly split between the yield spread and other unidentified factors. In addition, given that capital stock is the primary determinant of productivity (measured as output per hour), it follows that if the savings funding capital investment continues to be diverted to funding social benefit spending, productivity growth will be further impaired.

Companies are currently more averse to making long-term investments than they have been since the 1930s (excluding the atypical circumstances of the Second World War). There are several reasons for increasing uncertainty—America's growing deficits, its angry politics, its disappointing growth rate—but they are all fueled by the entitlement crisis that is driving up the deficit, reducing

CAPITAL STOCK AND PRODUCTIVITY

1948 – 2016

— BLS Real Output per Hour Private Nonfarm Business
— Real Output per Hour Indicator

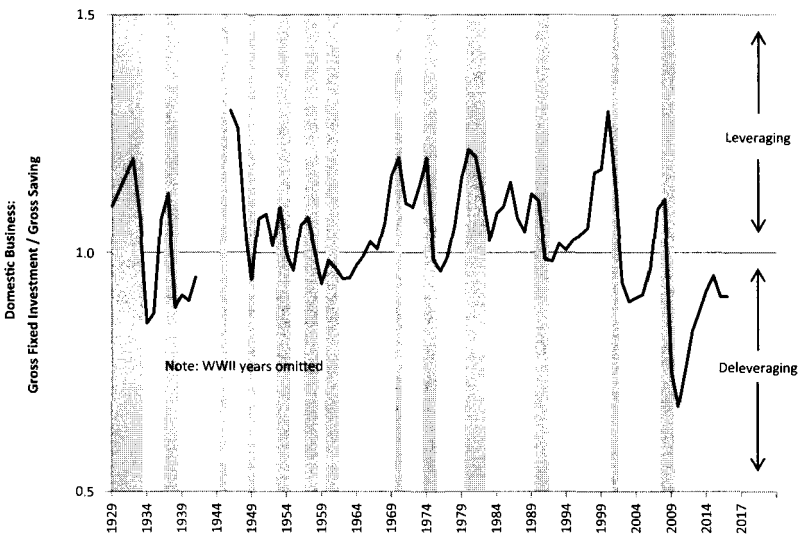


CAPITALISM IN AMERICA

productivity growth, and, as a result, poisoning GDP growth and politics (see chart below).

Much worse is to come: over the next twenty years the number of Americans aged sixty-five and over will increase by 30 million while the projected number of working-age Americans (eighteen to sixty-four) will increase by only 14 million. The combination of the sheer number of retirees with the legacy of decades of entitlement liberalization and expansion will create a fiscal challenge bigger than any that America has faced so far. Previous periods of high federal expenditure and debt increase have been driven largely by wars that have eventually come to an end and, as military outlays contracted, so did the debt. America is about to enter a period of high federal expenditure and debt driven by entitlements that stretch ahead, adamant and inescapable, as far as the eye can see. Left unchecked, this means a future of growing indebtedness and repeated fiscal crises.

SHARE OF CASH FLOW BUSINESSES CHOOSE TO CONVERT INTO FIXED ASSETS
PLOTTED ANNUALLY 1929–2017, WITH RECESSION SHADING



AMERICA'S FADING DYNAMISM

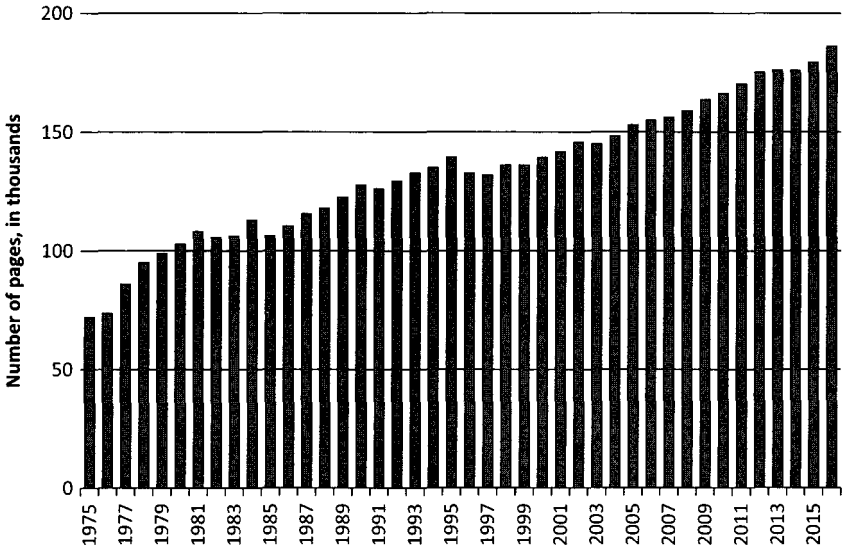
The third problem is the growth of regulation, which acts as a tax on entrepreneurs' two most valuable resources, their time and their ability to try new things. In the 1950s, the *Federal Register*, which lists all new regulations, expanded at an average of 11,000 pages a year. In the first decade of the twenty-first century, it expanded by an average of 73,000 pages a year. Federal laws and regulations now extend to more than 100 million words. State and local regulations add another 2 billion. The Dodd-Frank bill was 2,319 pages long. The 2010 Affordable Care Act is 2,700 pages long and includes a twenty-eight-word definition of a "high school." Medicare has 140,000 reimbursement categories, including twenty-one separate categories for "spacecraft accidents." Added to this is the fact that the American tax code contains 3.4 million words. This means that the land of the free has actually become one of the world's most regulated societies: in 2013, for example, it ranked twenty-seventh out of the OECD's thirty-five members when it comes to product-market regulation.

The collapse of Enron in 2001 added further to America's regulatory overload: the deregulatory language that had been so popular since the late 1970s suddenly seemed passé. The 2002 Sarbanes-Oxley legislation that followed Enron's demise reshaped general corporate governance. The 2010 Dodd-Frank Act tried to micromanage the financial services industry with thousands of pages of detailed regulations. Regulatory bodies have gotten bigger and more intrusive throughout the period of the recent slowdown. The Securities and Exchange Commission's budget reached \$1.6 billion in 2018, up from \$300 million in 1995. The Department of Justice has used the 1977 Foreign Corrupt Practices Act to challenge companies that have engaged in questionable behavior abroad far more recently than before 2000, and the average cost of a resolution under this act has risen, from \$7.2 million in 2005 to \$157 million in 2014.

America's regulatory overload makes it harder for the country to

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PAGES IN THE CODE OF FEDERAL REGULATIONS 1975 – 2016



live up to its image of itself as a society of problem solvers and innovators. It adds years to most infrastructure projects because officials have to jump through so many hoops (particularly, these days, environmental hoops). During the Great Depression, it took four years to build the Golden Gate Bridge. Today bigger highway projects take a decade just to clear the various bureaucratic hurdles before workers can actually get to work. When the New York Port Authority decided to upgrade the Bayonne Bridge, which arches spectacularly between Staten Island and New Jersey, so that new supertankers could glide underneath it, it had to get forty-seven approvals from nineteen different government departments, a process that took from 2009 to mid-2013. “The process is aimed not at trying to solve problems but trying to find problems,” Joann Papageorgis, the Port Authority official who drove through the adjustment, noted. “You can’t get into trouble by saying no.”¹⁸

AMERICA'S FADING DYNAMISM

Overregulation forces business founders to endure a Kafkaesque nightmare of visiting different government departments and filling in endless convoluted forms. To open a restaurant in New York, for example, you need to deal with eleven different city agencies. It costs Americans a huge amount of time or money: half of Americans hire professionals to do their taxes compared with a minuscule number of Britons. It even turns children trying to make money for charity into criminals. In 2011, county officials closed down a children's lemonade stand near the U.S. Open golf championship in Bethesda, Maryland, because the children, who were trying to raise money for pediatric cancer, didn't have a vendor's license.¹⁹

Corporate regulations inevitably impose a disproportionate burden on smaller companies because compliance has a high fixed cost. Nicole and Mark Crain of Lafayette College calculate that the cost per employee of federal regulatory compliance is \$10,585 for businesses with nineteen or fewer employees, compared with \$7,755 for companies with five hundred or more. The complexity of the American system also penalizes small firms. Big organizations can afford to employ experts who can work their way through these mountains of legislation; indeed, Dodd-Frank was quickly dubbed the "Lawyers' and Consultants' Full Employment Act." General Electric has nine hundred people working in its tax division. In 2010, it paid hardly any tax. Smaller companies have to spend money on outside lawyers and constantly worry about falling foul of one of the Internal Revenue Service's often contradictory rules. Based on a survey of small businesses, the World Economic Forum ranks the United States twenty-ninth in terms of ease of complying with regulations, just below Saudi Arabia.

Even if overregulation provides big companies with short-term advantages, it handicaps them in the longer term, making them more bureaucratic and less innovative. Established companies expand the

size of departments that deal with compliance rather than innovation. They employ senior managers who invest their time in schmoozing politicians and wooing bureaucrats rather than improving their products. The biggest cost of regulation is that it leads to the bureaucratization of capitalism—and thereby kills the spirit of entrepreneurial innovation.

One particularly depressing example of regulation is the rise of the license raj. In 1950, only 5 percent of jobs required licenses. By 2016, that number had risen to 30 percent. (The comparative figure in the United Kingdom was 13 percent.) The license raj extended its tentacles into occupations that pose no plausible threat to health or safety, such as florists, handymen, wrestlers, tour guides, frozen-dessert sellers, secondhand booksellers, and interior decorators.²⁰ Getting a license is time-consuming. Aspiring barbers in Texas have to study barbering for more than a year and aspiring wigmakers in Texas have to take 300 hours of classes and pass written as well as practical exams. Alabama obliges manicurists to sit through 750 hours of instruction before taking a practical exam. Florida will not let you work as an interior designer unless you complete a four-year university degree and a two-year apprenticeship and pass a two-day examination. Morris Kleiner of the University of Minnesota calculates that licensing boosts the income of licensees by about 15 percent. In other words, it has about the same impact on wages as membership in a trade union does. (Trade unionists who are also protected by licenses enjoy a 24 percent boost to their hourly wages.) Kleiner also argues that licensing slows job creation: by comparing occupations that are regulated in some states but not in others, he found that job growth between 1990 and 2000 was 20 percent higher in unregulated occupations than in regulated ones. The growth in occupational licenses also reduces geographical mobility because it requires a lot of investment of time and effort to get a new license.

The roots of this regulatory explosion reach back to the New Deal and FDR's Brain Trusters, who fervently believed that government should control a far greater share of economic decision making. But enlargement proved self-reinforcing: the coterie of new "regulators" quickly found "problems" (real or imagined) that needed to be addressed, and these government-sponsored solutions required new officials to administer and monitor them. And so on and so forth in a never-ending process.

ENTER TRUMP

Stagnation inevitably soured America's mood and roiled its politics. In almost every survey since the 2008 financial crisis, a majority of voters have told pollsters that the country is on the wrong track. Maverick political movements such as the Tea Party came from nowhere and seized the public imagination. In 2016, Donald Trump, a real estate mogul who had never stood for public office, shocked the country, the world, and probably himself by beating Hillary Clinton, one of the most experienced politicians in the country, for the presidency, with the slogan "Make America Great Again." Trump is unique among a long line of presidents. The closest historical parallel to Trump is Andrew Jackson, who was carried to the presidency on a wave of enthusiasm for the "common man" and revulsion at the patrician establishment. But Jackson's populism existed side by side with his unflinching support for the discipline of a gold standard. Indeed, Jackson was such a foe of paper money (and, famously, of the Second Bank of the United States) that he required all purchases of government land to be paid for in specie. Trump's populism knows no such discipline.

Since Trump's election, the economy has begun to recover from a

near decade of stagnation. The stock market reached new heights, rising sharply straight after his election, with investors anticipating a more pro-business climate. Unemployment continued to decline. Blue-collar wage growth outstripped the rest of the economy. The wealth effect kicked in: the continued rise in house prices coupled with the sharp rise in stock prices and business asset prices added significant support to GDP. Trump addressed some of business's most pressing concerns. Federal agencies almost stopped promulgating new regulations, though how far this was a matter of deliberate policy and how far the result of the president's failure to fill administrative positions is not clear. His tax bill, which was passed by a Republican-dominated Congress and signed into law on December 22, 2017, sharply cut corporation tax. Trump's tax bill seems to have been inspired by the Republic of Ireland, which reduced its corporate tax rate from 32 percent in 1998 to 12.5 percent in 2003. On the other hand, he has pursued a dangerous policy on trade, withdrawing from the Trans-Pacific Partnership, imposing a 25 percent tariff on steel imports from various countries, notably China, and a 10 percent tariff on aluminum, and threatening another \$150 billion worth of tariffs on Chinese imports.

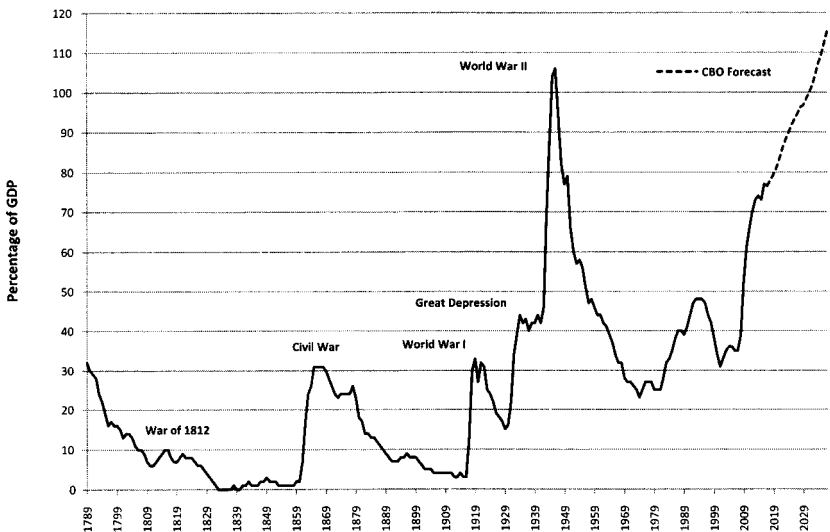
The country's deeper problems are also growing. Incumbent companies continue to entrench themselves, not least because of their mastery of the "swamp" that Trump has singularly failed to drain. The regulatory state remains huge. The capital repatriation that is being spurred by Trump's tax reforms will increase domestic capital investment only if investors can get a reasonable rate of return; otherwise, increased cash flow will end up as higher dividends for shareholders and increased liquid assets. Trump's policy of simultaneously cutting taxes and boosting spending, particularly on infrastructure, will, if implemented, eventually increase debt and force

AMERICA'S FADING DYNAMISM

policy makers to put their foot on the brake, particularly as the White House shows no interest whatsoever in addressing the country's ballooning entitlements (see chart below).

At this writing there are growing signs that America is in the early stages of stagflation—a dangerous combination of stagnation and inflation that can prove stimulating at first but which eventually brings wreckage in its wake, as it did in the 1970s. Record low unemployment is putting pressure on wages. But the legacy of historically low productivity growth, with nonfarm business output per hour growing at an annualized rate of less than 1 percent between 2011 and 2016, continues to dog the economy. Despite the current upturn, the deeper causes of America's fading dynamism remain unaddressed.

FEDERAL DEBT HELD BY THE PUBLIC
1789 – 2017, CBO FORECAST 2018 – 2037



FIXING AMERICA'S GROWTH MACHINE

It is easy to be pessimistic about America's ability to address these problems. Social Security is not called the third rail of politics for nothing. The financial system has been prone to booms and busts since the onset of the Industrial Revolution. America's current political crisis has deep roots. In particular, the history of social benefits in the United States has exposed a deep-seated inability to square benefits with their funding. For all that, addressing these problems is far from impossible for the country that has turned a wilderness into the most powerful economy on earth.

There are several inspiring examples of countries that have successfully reformed their entitlement problems, examples that provide both general encouragement and practical blueprints. The most encouraging story is Sweden. For most of the twentieth century, the Swedish government kept on getting bigger: the government offered more and more benefits to the people and extracted higher and higher taxes to pay for them. Public spending as a share of GDP nearly doubled from 1960 to 1980 and peaked at 67 percent in 1993. The public sector added more than a million new workers between 1950 and 1990, at a time when the private sector added no new net jobs whatsoever. In 1976, Astrid Lindgren, the creator of Pippi Longstocking, received a tax bill for 102 percent of her income, and produced a fairy story about a writer, Pomperipossa, who gave up producing books for a carefree life on the dole, providing economists with a new phrase, the Pomperipossa effect.

Eventually the system hit the wall. In 1991, Sweden was plunged into what was known locally as the "black-of-night crisis": the Swedish banking system seized up, foreign investors lost confidence in the

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government, and mortgage rates briefly rose to 500 percent. Carl Bildt's conservative government introduced a succession of radical measures to put the country back on the right track. Sweden reduced public spending as a proportion of GDP from 67 percent in 1993 to 49 percent today. It reduced the top rate of tax and scrapped a mare's nest of taxes on property, gifts, wealth, and inheritance. The government bound itself in a fiscal straitjacket whereby it must produce a surplus over the economic cycle. Its public debt fell from 70 percent of GDP in 1993 to 37 percent in 2010, and its budget moved from an 11 percent deficit to a surplus of 0.3 percent over the same period. In 1998, the Swedes changed their system from a defined-benefit to a defined-contribution system, thereby assuring solvency. They introduced an element of privatization by allowing Swedes to put some of their pension money into a private system. Today, more than half of the population has at some point actively chosen to participate in the private market (the money for those who choose not to participate goes automatically into a state-run investment fund). Above all, they raised the retirement age to sixty-seven and introduced an automatic mechanism that raises the retirement age along with life expectancy. There is even a circuit breaker that kicks in when the economy is in recession: pensions go down if the economy can't afford them.

The Swedes introduced their radical reforms on the basis of cross-party consensus, recognizing that their "people's home," as the founders of the welfare state called it, could survive only if it managed its household finances responsibly. They also continue to worry away at the problem. The government has appointed a "commission on the future" that is trying to grapple with the implications of an aging society.

The United States is a much bigger country than Sweden—indeed, Sweden has about the same population as New York City—and far

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less consensus-oriented. But Sweden nevertheless holds important lessons for America, especially in its willingness to switch from a defined-benefit to a defined-contributions system that would, by definition, automatically solve the country's Social Security funding problem (no more can go out of the fund than comes in). But many other changes are applicable as well. Sweden's example shows that even the most government-addicted country can change course. Government can shrink as well as expand. Sweden also employed techniques that can be used by all democracies—depoliticizing entitlement spending by handing over reforms to a group of wise men and women and relying as much as possible on automatic formulas such as linking retirement age to expected life spans.

The United States can also draw some encouragement from the changing face of aging. The easiest way to save money is to raise the retirement age. The retirement age is currently set to rise to sixty-seven in 2022. The CBO calculates that you can add another 1 percent to GDP with a few modest tweaks to that change: bring the date forward, raise the age to seventy rather than sixty-seven, and then index it to life expectancy. Simply indexing benefits to price inflation rather than wage inflation would also save money.

The urgency of addressing this problem was underlined by the actuaries of the Social Security Trust Fund in the fund's 2017 annual report. Noting that the current system is severely underfunded, the actuaries argued that, if Social Security is to remain solvent in the long term, America has no choice but to do one of two things (or a combination of the two) forthwith: increase taxes on payrolls by 4.3 percentage points (an increase of over a third) or cut future benefits by 25 percent. The Medicare Board of Trustees also added their voices to these worries in their 2017 report, arguing that Medicare faces "a substantial financial shortfall that will need to be addressed with further legislation. Such legislation should be enacted sooner

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rather than later to minimize the impact on beneficiaries, providers and taxpayers.”

There are no doubt people who argue that it's barbaric to oblige people to work a bit longer before receiving state benefits. But the retirement age was fixed at a time when life expectancy was much shorter. Today the average sixty-five-year-old retiree can look forward to another 19.5 years of life, compared with 12.7 years for men and 14.7 years for women in 1940 (five years after the system was set up in 1935). The retirement age was also fixed at a time when most people wore out their bodies in hard physical work. Today people are living longer and healthier lives. The Urban Institute, a think tank, calculates that 46 percent of jobs in America make almost no physical demands on their workers whatsoever.¹⁷ Companies are learning how to adjust their workplaces to make life easier for older workers. BMW has introduced “geronto-friendly” changes to some of its production lines, such as new chairs, comfier shoes, magnifying lenses, and adjustable tables that have made older workers just as productive as their younger colleagues. Abbott Laboratories, a large U.S. health-care company, allows veteran staff to work for four days a week or take up to twenty-five extra days of vacation a year. A study of U.S. firms founded between 1996 and 2007 conducted by the Kauffman Foundation discovered the highest rate of entrepreneurial activity among people aged fifty-five to sixty-four—and the lowest rate among twenty- to thirty-four-year-olds.¹⁸ Ray Kroc was in his fifties when he began building the McDonald's franchise system, and Colonel Harland Sanders was in his sixties when he started the Kentucky Fried Chicken chain.

The second big problem is the fragility of the financial system exposed by the 2008 financial crisis. That crisis has already led to a decade of stagnation. Another such crisis might do something even worse: undermine the legitimacy of the entire system at a time when populist anger is already fierce.

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Modern capitalist economies need an innovative financial system if they are to work efficiently. Innovative financial systems improve the funding of new plants and ideas and thereby generate higher productivity and rising standards of living: think of the way that new forms of bonds helped to promote the development of mold-breaking companies in the 1980s. Sluggish capital systems starve the wider economy of investment and thereby suppress growth and retard living standards. That said, too many recent innovations have been problematic: they increase risk by promoting leverage or reducing transparency. They thus convert financiers from agents of improved productivity into rent seekers.

This creates a delicate problem: how do you guard against the destructive side of financial innovation without blunting the constructive side? One unhelpful solution has been to produce detailed rules about what financial institutions can do. This was the approach that was adopted by the Dodd-Frank legislation, on the basis of a notion of how the financial system works that significantly deviated from the reality of markets. This approach is replete with dangers: it promotes a culture of box ticking, slows down innovation, empowers lobbying groups, and, most fatally of all, leaves lots of room for financial innovators to outthink bureaucrats.

A much better solution is also a simpler one: increase the amount of capital reserves that banks are required to keep in order to operate. In the run-up to the financial crisis, banks on average kept about 10 percent of their assets as equity capital. Lehman Brothers' tangible assets fell to about 3 percent. If regulators had forced them to keep, say, 25 percent, or even better, 30 percent, to reduce the probability of contagious default—the root of the financial crisis—2008 would have been angina rather than a heart attack. Non-financial corporations rarely face insolvency because they hold back almost half their assets with equity. Both Bear Stearns and Lehman Brothers survived the

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Great Depression intact in part because they were partnerships in which partners risked their own capital and so watched every investment with an eagle eye. Brown Brothers Harriman, which stayed as a partnership while other investment banks were going public, refrained from engaging in the risky practices that became so common on Wall Street and emerged virtually unscathed from the financial crisis, its credit ratings high and its balance sheet much smaller but exemplary. Sadly it would probably be impossible to force investment banks to return to the partnership form that protected them so well from disaster. They simply require too much capital to operate in a globalized world. In the absence of such discipline, the least we can do is to demand that public companies accept, in return for the privilege of going public, the obligation to hold large capital buffers to protect against the temptation to gamble with other people's money.

The objection to such a large capital requirement for all financial intermediaries is that, even if you phase it in over several years, it will suppress banks' earnings and therefore their lending. History, however, suggests otherwise. In the United States from 1870 to 2017, with rare exceptions, commercial banks' net income as a percentage of their equity capital ranged from 5 percent to 10 percent a year regardless of the size of their capital buffers. That rate edged higher in the run-up to the crisis of 2008, presumably reflecting greater risk associated with a marked expansion of commercial bank powers, but only modestly higher.

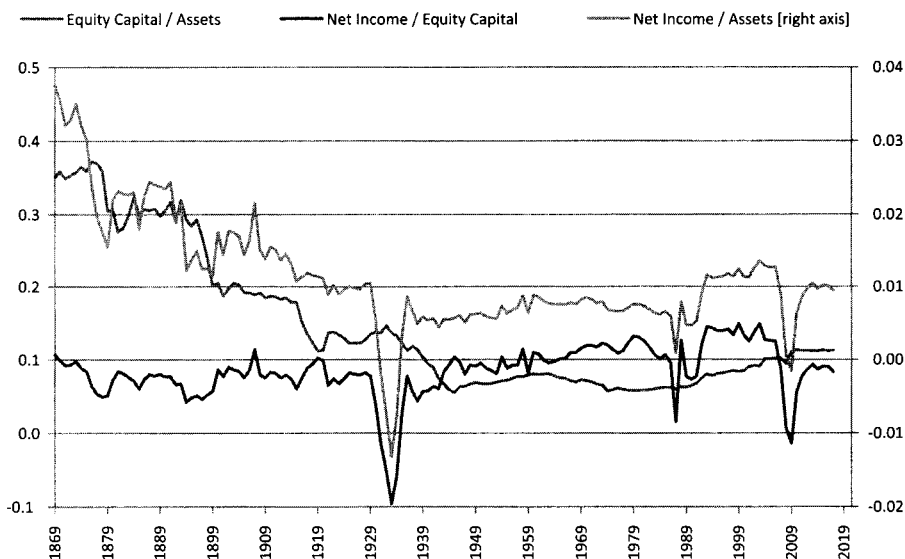
Banks compete for equity capital against all other businesses. The ratio of after-tax profits to net worth for America's non-financial corporations has, not surprisingly, displayed a similar range for nearly a century, as has the earnings price yield of U.S. common stock since 1890. In the wake of banking crises over the decades, rates of return on bank equity dipped but soon returned to this narrow range. The sharp fall of 2008, for example, was reversed by 2011. Minor dips

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quickly restored net income to its stable historical range. In 2016, the rate was 9 percent. The only significant exception occurred in the Great Depression. But even then, profit rates were back to 1929 levels by 1936.

What makes the stability of banks' rate of return since 1870 especially striking is the fact that the ratio of equity capital to assets was undergoing a marked contraction followed by a modest recovery. Bank equity as a percentage of assets, for example, declined from 36 percent in 1870 to 7 percent in 1950 because of the consolidation of reserves and improvements in payment systems. Since then, the ratio has drifted up to today's 11 percent. So if history is any guide, a gradual rise in regulatory capital requirements as a percentage of assets (in the context of a continued stable rate of return on equity capital)

U.S. COMMERCIAL BANKS*
PLOTTED ANNUALLY 1869–2017



*U.S. national banks prior to 1934.

CONCLUSION

will not suppress phased-in earnings since bank net income as a percentage of assets will, of arithmetic necessity, be competitively pressed higher, as it has been in the past, just enough to offset the costs of higher equity requirements. Loan-to-deposit interest rate spreads will widen and/or noninterest earnings must rise.

With lending risks sharply curtailed, a significant reduction in bank supervision and regulation will become feasible. Lawmakers and regulators will need to worry much less about the quality of the banks' loan and securities portfolios since any losses would be absorbed by shareholders, not taxpayers. This would enable the government to retire the leviathan of the 2010 Dodd-Frank Act. Government would no longer have to interfere with banks' primary economic function: to assist in the directing of the nation's scarce savings to fund our most potentially productive investments. It would also be able to focus its regulatory energies where they would be much better employed: stamping out fraud.

Thickening capital buffers and cracking down on fraud will not solve all the problems with financial intermediaries: that is an impossible task. People will always accumulate too much risk. Innovators will always dance with danger: the shadow banking system may well be the next source of crisis. Because it can never be at rest, capitalism can never be risk-free. But it will do more than our current well-intentioned but misguided arrangements to reduce the risk of contagion while preserving the dynamism of the financial system.

UNLOCKING AMERICAN GROWTH

We started the book by summoning up an imaginary meeting of the World Economic Forum in Davos in 1620 and argued that nobody would have imagined that America would eventually become

CAPITALISM IN AMERICA

the world's most powerful economy. It is fitting to end it by readdressing the same question. Will America continue to dominate the world in the same sort of way as it has for the past hundred years? Or will we perhaps see another surprise—a fall from grace that is as unexpected as the previous rise to grace?

For the first time since it replaced Britain as the world's leading economy, the United States is now being challenged by another great power. China's economy is bigger than America's when judged in terms of purchasing power parity: \$21.3 trillion compared with America's \$18.6 trillion as of 2016. Its manufacturing output overtook America's more than a decade ago. Its exports are 50 percent larger. A 2017 Pew survey reveals that more people think that China is a bigger economic power than the United States in Britain (46 percent versus 31 percent), Germany (41 percent versus 24 percent), and Canada (42 percent versus 32 percent). China is a very different kettle of fish from imperial Britain—far larger in brute terms such as the size of its population and its landmass and, with growth rates reaching 10 percent in recent years, far more dynamic.

China's current success is happening at a time when the United States sometimes looks as if it has lost its way. America's politics have taken a populist turn. America sometimes seems to be unhappy with the global institutions (the IMF, the World Bank, the WTO, and even NATO) that it fathered and did so much to reinforce its power in the twentieth century.

The United States will probably enjoy less dominance in the twenty-first century than it did in the twentieth: China will account for a growing share of the world's GDP, and Europe is unlikely to tear itself apart as it did in the twentieth century. But the United States is still a long way ahead of China in terms of GDP per head: \$57,608 versus \$8,123 (or \$15,395 at purchasing power parity). And it is doing a better job of preserving its share of global GDP than is Europe.

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China also shows no signs of replacing the United States as the pacesetter of the global economy. America leads in all the industries that are inventing the future, such as artificial intelligence, robotics, driverless cars, and, indeed, finance. And for all its problems with populism, America has something precious that China lacks: a stable political regime that both constrains the power of the president and allows for the successful transition of power from one leader to the next. So far there are no tales of American billionaires buying escape-hatch homes in Shanghai or Beijing.

The United States has bounced back from previous disappointments. In the 1930s, America suffered from one of the longest and deepest depressions in history. Then it emerged from the Second World War as by far the world's most powerful economy and entered into twenty years of sustained growth. In the 1970s, America's economy was plagued by stagflation and its companies lost out to Germany's and Japan's. In the 1980s and 1990s, America seized the opportunities provided by the IT revolution and globalization to regain its position as the world's most dynamic economy. There is good reason to think that America can pull off the same trick again.

America's problems are problems of poor policy rather than senescent technology. This does not mean that they are insignificant: unless we fix them, the U.S. growth rate will be permanently reduced. But it does at least mean that they are fixable. Some suggest that America is mired in a swamp of low growth. We prefer to think that it is trapped in an iron cage of its own making: out-of-control entitlements and ill-considered regulations are forcing it to perform well below its potential, entitlements because they divert resources to consumption and away from the savings that fund capital expenditure and hence productivity improvement, and regulations because they make the distant future more uncertain, thereby discouraging businesses from investing in projects with long-term payoffs. This is

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an optimistic vision: Swamps by their nature are hard if not impossible to get out of. Cages can be escaped from provided you have the right keys.

We have shown that America has all the keys that it needs to open the cage. The great question is whether it has the political will to turn them.