have over workers—most importantly, by facilitating workers acting together to advance their interests. So too, when firms exploit consumers, as they so often do, there need to be better ways by which they can act together to seek redress—just the opposite of what has been happening as courts and Congress have narrowed the scope for class action suits.[92] We also need to curb the power corporate leaders have to advance their own interests at the expense of the other stakeholders in the future of the corporation, including shareholders, workers, and the communities in which the firm operates.[93] Measures to achieve this include greater transparency and more voice in decision making.[94]

In all these reforms, we seek not perfection, but to curb the extremes of twenty-first-century American capitalism. Presidents Carter and Reagan, and those following, rewrote the rules of capitalism in ways that led to a more unstable, less efficient, and more unequal economy—and an economy marked by pervasive market power.[95] The time is ripe to rewrite those rules once again. Doing that is a challenge because it entails politics, and our economic inequality has been translated into political inequality. We turn to that in Part II. But first, we take a closer look at how the globalization and financialization of our economy has contributed to the creation of market power and exploitation—and how changes in technology may make matters still worse.

CHAPTER 4

America at War with Itself over Globalization

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Globalization sits at the center of America's economic crisis. On one side, critics of globalization blame it for the plight of America's suffering middle class. According to President Trump, our trade negotiators got snookered by those smart negotiators from other countries. We signed bad trade deals that led to the loss of American industrial jobs.[1] This criticism of globalization has found enormous resonance, especially in the parts of the country that experienced deindustrialization.

By contrast, globalization's advocates claim that all of this is sheer nonsense. America has benefited from globalization. Protectionist policies put at risk all that has been gained through trade. In the end, they say, protectionism will not help even those who've lost their jobs due to globalization or seen their wages collapse. They, the US, and the entire world will be worse off. Globalization's advocates shift the blame for deindustrialization and the American malaise elsewhere: the real source of job loss and low wages for unskilled workers has been improved technology, and globalization is getting a bum rap.

For more than twenty years, I've been criticizing the way that globalization has been managed—but from a completely different angle.

From my perch as chief economist at the World Bank, it was obvious that the global rules of the game were tilted—not against, but in *favor* of the United States and other advanced countries at the expense of developing countries. The trade agreements were unfair—to the benefit of the US and Europe and to the detriment of developing countries.

The idea that our trade negotiators got snookered is laughable: we got almost everything we wanted in late-twentieth-century trade negotiations.[2] Over the opposition of those from developing countries, we secured strong intellectual property protections—which protected the intellectual property of the advanced countries, but not that of developing countries. We've succeeded in forcing countries to open up their markets to our financial firms—and even to accept those highly risky derivatives and other financial products that played a central role in our own financial collapse.

It's true that American workers have been disadvantaged—low-skilled workers in particular have seen their wages reduced, in part because of globalization. But that is partly because American negotiators got what they asked for: the problem was with how we managed globalization and with what we wanted—trade agreements simply advanced corporate interests at the expense of workers in both developed and developing countries. We as a country didn't do what we should have to help workers whom globalization was hurting. We could have ensured that globalization benefited all, but corporate greed was just too great. The winners didn't want to share their gains with the losers. Indeed, they liked it that wages were pressured down as American workers had to compete with workers from developing countries. It increased corporate profits all the more.

It might seem that President Trump and I are on the same side of this battle against globalization, but that is wrong. Fundamentally, I believe in the importance of the rule of law—of a rules-based system for governing international trade. Just as we need a rule of law within our economy—without that, no society can function—so too, we

need a rules-based international system.[3] Trump, by contrast, wants to return to the rule of the jungle: when there is a trade dispute between two countries, they "duke it out," and the stronger country wins. His misguided view is that since we are stronger than any single country we would win all of these battles, and we could then create an international trade regime that is a maidservant to US interests. He misses two critical points: why would anyone else join such a system, to be taken advantage of, rather than focus on trading and other economic relations with partners that behave and treat others decently? And other countries can, and would, get together, and while we're not much different in economic size than China and Europe (though within a short while China is slated to be more than 30 percent larger than the US), if the other two got together against us—or any of the other two are joined by large numbers in the "third world"—our seeming power advantage would quickly disappear.

TRUMP IS WRONG to blame globalization, whether unfair trade rules or unwanted immigrants, for the country's woes, but globalization's advocates are also wrong in arguing that globalization has played no role in the plight of the large parts of the population that have seen their incomes stagnate or decline, and that it's just technological progress that's to blame. The real onus of blame, though, should be on ourselves: we mismanaged the consequences both of globalization and of technological progress. If we had managed these well, both could have generated the blessing that their advocates claimed.

WE NEED BETTER, fairer international rules. But what America needs most is better management of the changes being brought about both by globalization and technology. There is an alternative—the progressive agenda that I lay out later in this book.

THIS CHAPTER DESCRIBES briefly why globalization hasn't lived up to its promises, and why President Trump has only made matters worse. I sketch out an alternative globalization, which will work better both for the rich countries and the poor and especially for workers in both—but not necessarily for the large multinationals who've taken over the globalization agenda.

The Pain of Globalization

Globalization has affected both jobs and wages. It's simplest to see its effects on low-skilled workers. When an advanced country like the US imports low-skilled, labor-intensive goods, the demand for low-skilled labor in the US falls, simply because we produce less of those goods here. If there is to be full employment, wages for low-skilled workers—adjusted for inflation—have to fall.[4] And if wages don't fall enough, unemployment increases. It's really that simple. Anybody who believes in the law of supply and demand should understand why globalization (in the absence of government programs to ameliorate its effects) hurts low-skilled workers.

The same goes for labor more generally: the US imports labor-intensive goods, and thus trade liberalization (opening up US markets to foreign goods by reducing tariffs or other trade barriers) reduces the overall demand for labor, and thereby also reduces (real) wages in equilibrium. Again, if wages don't fall, employment will.

Trade advocates similarly stress that trade increases the country's GDP, as it takes advantage of its comparative advantage (whether a result of specialization or resource endowments), and somehow, mystically, everyone will be better off—another instance of the belief in trickle-down economics. Even if the country as a whole is better off, it just means that everyone *could* be better off; the winners could share their gains with the losers so all would benefit; but it doesn't mean

they *will* share their gains—and in selfish capitalism American-style, they don't.

Moreover, advocates of globalization emphasize how exports create jobs, but they fail to mention the number of jobs destroyed by imports. If trade is roughly balanced, and if imports are more labor-intensive than exports, then overall, trade destroys jobs.

If monetary policy responds by lowering interest rates, and the lower interest rates increase investment or consumption, full employment might be restored. But sometimes monetary policy doesn't work, or at least work well enough to achieve full employment. That helps explain why after the admission of China to the WTO in 2001, American unemployment increased and wages fell in those places that produced goods that were competitive with things being imported in growing volume from China.[5]

Even when monetary and fiscal policy work to return the economy *eventually* to full employment, globalization often leads to job destruction in the short run, as the loss of jobs from an onslaught of imports occurs faster than job creation from additional exports, especially when banks aren't lending much to new enterprises seeking to take advantage of the new opportunities offered, say, by a new trade agreement.[6]

Moreover, trade agreements and tax laws have effectively encouraged firms to move manufacturing abroad, destroying jobs at home. Not only are taxes lower, but also our trade agreements typically give American firms more secure property rights abroad than they have at home.[7] Such agreements typically protect firms against changes in regulations—protections that they do not have in the United States. If a changed regulation hurts a firm's bottom line, today or in the future, under the provisions of standard investment agreements, it can sue, and the suit will be heard by a corporate-friendly arbitration panel.[8] Historically, one of the reasons that firms located in the US as opposed to a developing country, where wages are so much lower, was that they felt "more secure." The government wouldn't just take away their property on a whim. Security of property rights has been one of the country's strengths. These trade agreements changed that, however. An American investor putting his money into Mexico or some other country covered by similar provisions is *more* protected: not only can't the foreign government take away his property without compensating him, but it also can't even change a regulation. In contrast, the US government can change regulations without providing any compensation. The US thus gave away its crucial institutional advantage arising from its rule of law and the security of property rights.

Why would a country so readily give away so much of its comparative advantage? The corporations demanded these provisions because they were in the corporations' *short-term interests.* These provisions gave them not only cheaper labor abroad but also at home, because they weakened workers' bargaining power. The threat of firms moving abroad became all the more credible. If corporations wanted to weaken workers' bargaining power, they couldn't have chosen a better way of doing so.[9]

Globalization hurt ordinary Americans in another way—depriving the country of tax revenues. Corporations were successful in ensuring that their profits wouldn't be taxed twice—in foreign countries where they operate and in the United States. But nothing was done to ensure that they would be taxed at least once. Globalization provided a way by which corporations could game countries against each other. Corporations persuaded governments that, unless they lower the corporate tax rate, they will relocate abroad. There are some footloose firms that have actually done this, giving some credibility to the argument.[10] Of course, having achieved lower corporate taxes in one country, they turn around to other nations, saying that if they don't lower their taxes businesses will leave. Not surprisingly, corporations love this race to the bottom.[11]

The argument that we had to lower corporate tax rates to compete with others was invoked by Republicans as they slashed the corporate tax rate from 35 percent to 21 percent in 2017,[12] just as it had been used earlier, in 2001 and 2003, as taxes on capital gains and dividends were cut. The earlier tax cuts didn't work—they didn't lead to higher savings, an increase in labor supply, or higher growth,[13] and there is no reason to expect that the 2017 cut will either. In fact, there are reasons to believe that Americans' incomes will be lower as a result of the tax cut ten years hence.[14] What really matters in attracting firms are things like a well-educated labor force and good infrastructure, and for these, you need taxes. The corporations want to free ride on others who they hope will finance these basic public investments.

As if this race to the bottom weren't bad enough, our corporations took advantage of arcane provisions in tax laws—typically put into the legislation by corporate lobbyists—to drive taxes actually paid lower and lower, well below the "official" tax rate, in some cases close to zero. America's effective corporate tax rate (taxes paid as a ratio of total profits) on multinationals plummeted, and by 2012 was just over half of the official top rate.[15] Google and Apple pretended that vast amounts of their profits originated from a few employees working in Ireland, and those profits were taxed at 0.005 percent.[16] It would be easy enough to get rid of these loopholes, and that was the original promise of the 2017 tax bill. But with the corporations in the driver's seat in writing the new tax law, this wasn't done. In fact, matters were made worse. Previously, there had been a provision, called an alternative minimum tax, which limited the extent to which corporations could scam the tax system. What was needed was to tighten this provision; instead, it was eliminated.

But for our corporations and our ultra-rich, low tax rates and massive loopholes weren't enough. "Fiscal paradises," secrecy havens like Panama and the British Virgin Islands, were created to avoid and evade taxes.[17] It would be an easy matter to close down these fiscal paradises. All that would be required is to cut their banks off from the US financial system unless they agreed to the transparency and other regulations that apply to US financial institutions. The economics of this and other reforms described here is easy: as we repeatedly note, the difficulty is the politics, the influence of the rich who will do what they can to keep their "benefits." Our banks and those in Europe helped create these fiscal paradises as part of their "services" to rich clients and themselves.[18]

Is globalization or technology the real culprit?

As was noted, the defenders of globalization blame changes in technology for workers' declining wages and the loss of jobs. Technology may decrease the demand for workers, especially for those with limited skills, and that too may cause lower wages and higher unemployment.[19] Many economists have tried to parse out what fraction of the increased unemployment or decreased wages is a result of globalization. With the two so intertwined, I think that's essentially impossible. The key observation is that, even if there had been no changes in technology, globalization on its own would have wreaked havoc on America's workers—in the absence of help from the government. And with changes in technology themselves putting workers under so much stress, globalization just compounded workers' misery.

Instead of helping American workers, though, government, especially in the US, has in many ways done just the opposite. Globalization weakened workers' bargaining power, but then legislation affecting unions and workers' rights weakened it further. Increasing minimum wages to keep up with the growth of the economy might have protected those at the bottom, but instead, minimum wages were not increased even in tandem with inflation.[20] In short, policy, technology, and globalization all are inextricably linked together in generating today's problems; the fact that unions were powerless against the forces of technology and globalization no doubt greatly weakened

them—why pay dues to unions that can't even keep real wages from falling? The weakening of unions contributed to unbalanced trade agreements and stagnating minimum wages. There was no one to fight for workers, no one to counterbalance the enormous influence of our corporations. The trade agreements were both a reflection and a cause of growing imbalances in economic power. The way globalization was managed added insult to injury: the plight of workers suffering from deindustrialization as a result of technological change was simply made worse.

Twenty-First-Century Trade Agreements

Over the past sixty years, tariffs have been vastly lowered. Today, trade negotiations typically focus on other issues, including regulations and other "non-tariff" trade barriers,[21] intellectual property, and investment. The Trans-Pacific Partnership (TPP), embracing 44 percent of global trade, signed in 2016 but which Trump abandoned on his first day in office, illustrates that point. Dropping the word "trade" from the title was a hint that trade, as we conventionally look at it, was not at the core of the agreement.[22] The net effect on US growth, when fully implemented, would have been only 0.15 percent of GDP, according to estimates from the government itself. Other less biased estimates thought that even that low figure was a gross exaggeration.[23]

If TPP and other recent agreements are not centrally about trade, what are they about? They are about investment, intellectual property, regulations, a host of issues that are of concern to businesses. The fight over these new issues is markedly different from the traditional conflict in trade negotiations over tariffs. Then, lower tariffs pitted the interests of producers in one country (who wanted protection) against those of another (who wanted to be able to enter a new market), with consumers the big beneficiary from lower prices. More recently, the conflict is often not between commercial interests in one country and those in another, but consumers in both countries and commercial interests in both. Ordinary citizens want to be protected against unsafe and unhealthy products that are bad for the environment; firms around the world simply want to maximize profits, and less scrupulous firms want the government to join them in the battle, driving another race to the bottom. The quest for regulatory harmonization (having common "standards") typically means harmonizing at the lowest possible level. The benefits of such harmonization are at best limited, and the costs can be significant, especially when corporations get their way and the common standard is a low one. Many Europeans worry about genetically modified food (GMO). They want it banned, or at the very least, clearly labeled. The US says that labeling will discourage Europeans from buying American products—and they're right. Accordingly, the US says that labeling is a trade barrier; but in that, they're wrong: each country should have the right to protect its citizens, its environment, and its economy in ways that it believes are appropriate. The *intent* of the GMO disclosure is not protectionism; it reflects genuine concerns of its citizens. Similarly, a big thrust of US trade policy over the past quarter century has been to force countries to open their markets to derivatives (the financial products which played such a central role in the 2008 crash)—to enhance the profits of American financial firms, even if such products impose dangerous risks on these countries' economies. The intent of many countries in restricting derivatives is not *protectionism*, but protecting their economies against a really dangerous financial product. I believe governments should have the right to such protections, and I empathize with countries that oppose trade agreements that try to restrict governments in these ways.

Intellectual property

Among the important trade issues today is intellectual property. Big Pharma—the makers of the expensive brand medicines—have tried to use intellectual property provisions of trade agreements to block

the much less expensive generic medicines, doing what they can, for instance, to force a delay in entry of this competition.

Getting a strong international agreement on intellectual property has been the dream of multinational corporations, and in 1995 they got some of what they wanted in the "Trade-Related Aspects of Intellectual Property Rights" (TRIPS) agreement.[24] The objective of the agreement wasn't to spur innovation. In chapter 3 we saw how intellectual property rights gave rise to monopoly power, enhancing profits, and poorly designed IPR regimes don't even spur innovation. TRIPS was really about increasing profits of Big Pharma and firms in a few other industries.[25] It was about ensuring a flow of money from poor developing countries and emerging markets to the US.[26] Not surprisingly, then, it wasn't a balanced agreement, even within the domain of intellectual property; it didn't recognize the intellectual property of developing countries, either that of the genetic resources that resided in their rich biodiversity that so many were working so hard to preserve, or in traditional knowledge.[27]

Protectionism Is Not the Answer

While globalization, and especially poorly managed trade liberalization, has contributed to deindustrialization, unemployment, and inequality, Donald Trump's protectionist policies won't solve any of these problems. Indeed, his mindless undoing of the global rules-based system may make some of them worse. Renegotiating trade agreements will neither reduce the trade deficit nor lead to a return of manufacturing jobs. This is because the trade deficit is determined largely by macroeconomic factors, not by trade agreements. Macroeconomic factors determine the exchange rate—which is simply the value of one currency in terms of another—and the exchange rate is critical in determining exports and imports. When the value of the dollar is high, we export less and import more.[28]

When a country, such as the US, saves so little that even its meager investment exceeds its savings, it has to bring in capital from abroad to finance the deficiency. When capital comes into a country, the exchange rate is driven up as investors convert their currencies to the local one. That is, when capital comes into the US, the value of the dollar increases relative to, say, the euro. American goods and services are then more expensive for Europe, causing a commensurate decline in American exports. It also means that the costs of European goods are lower, so the US imports more. This is the real rub: as the US imports more, jobs in the import-competing industry disappear. That's what gives rise to the demand for "protection"—protection from foreign imports, either by limiting the amount that can be imported or by taxing foreign imports (imposing tariffs). In highly competitive markets, even low tariffs can effectively shut out foreign sales.[29]

Because the overall trade deficit is just equal to the shortfall of domestic savings over domestic investment, the policies that matter in determining the trade deficit are those that affect overall national savings or investment. Thus the 2017 tax bill will have more impact on it than any bilateral trade agreement. Here's how it works: when the 2017 tax bill was passed, it enormously increased the government's future deficit and simultaneously increased the amount of capital the US would eventually have to import from abroad to finance it. This last will increase the value of the dollar (from what it otherwise would have been) and thereby the trade deficit. It's a simple relationship: an increase in the fiscal deficit typically leads to an increase in the trade deficit.[30] And this will be true regardless of Trump's success in negotiating trade agreements.

Trade agreements do matter, but more for the pattern of trade than for the trade deficit. Changes in the pattern of trade, in turn, affect the *bilateral* trade deficit (the trade deficit between any two countries), even as they leave the *multilateral* trade deficit (the overall trade deficit, the difference between the total value of US exports and imports)

largely unchanged. If the United States imposes, say, a 25 percent tariff on China, the US would import less apparel from China and more from some other country, say, Malaysia. And since comparable Malaysian clothes are slightly more expensive than those made in China (if they were not, we would already be importing clothes from Malaysia), the cost of apparel in the United States would increase. American standards of living would, in turn, decrease.

Importantly, regardless of Trump's success in renegotiating trade agreements, there is likely to be only limited return of manufacturing production to the United States.[31] Even if the production does return, it will be in our highly capital-intensive plants, using few workers. Further, there is no saying the new jobs will be in the same places as the ones lost. Protectionism will thus not solve the problem of those who have lost manufacturing jobs.

Consider the new trade agreement between US, Canada, and Mexico. It is designed to lead to slightly lower imports of Mexican auto parts. Even if the provisions work as intended, American cars will become more expensive and less attractive. We might gain a few more jobs in the production of car parts, but we would lose jobs in the production of cars because sales of American-made cars would decline.

To take another example, let's look at the highly publicized tariff the United States put on Chinese solar panels in 2018. It won't lead to the revival of the coal industry. It's not even likely to lead to the creation of an American solar panel industry. China has already gotten such a lead in the efficient production of solar panels that it will be difficult for the United States to catch up, especially taking into account the cost of American labor. More likely, solar panels used in the United States will continue to be manufactured in China, but the tariffs will make them more expensive and thus less attractive to American consumers and businesses. This will destroy jobs in installing solar panels—a nascent but booming sector that employed more than twice as many Americans as there are coal miners before new, higher tariffs were placed on solar panels. Predictions that tariffs would lead to less employment in these green jobs seem to have been borne out, and that means environmentally friendly energy production has been reduced.

Jobs were certainly destroyed in the process of globalization, but they will be destroyed again in the process of the reckless deglobalization proposed by Trump. The world has created efficient global supply chains, and wise nations take advantage of them. For America to walk away from these supply chains will make our firms less competitive. Most importantly, there are large costs of adjustment. Adjusting to globalization was hard, and we—and especially our workers—paid a high price. But we will pay another high price as we try to adjust to deglobalization.[32]

Global Cooperation in the Twenty-First Century

While protectionism won't help the US, or even those who have suffered from deindustrialization, it can have profoundly negative effects on America's trading partners and the global economy. During the past seventy years, the international community has created a rules-based system that facilitates commerce and cooperation. The US played a central role in the creation of this system. We did this not out of altruism, but because we believed that such a system was better for the entire world, including the US. It was believed that commerce and interchange would promote understanding across borders, and that would contribute to peace, making less likely the wars that had been a scourge over the previous century. It was also good economics: a rules-based, well-managed globalization held out the potential of benefiting all countries. And overall, the US overall economy was helped—the problem was that we didn't make sure that the fruits of that growth were equitably shared.

Trade wars and global cooperation

Now this rules-based global trading system is under attack. When President Trump first suggested he'd undertake a trade war with China, those both in and outside of the US seemed incredulous that it would happen. After all, it seemed too much against the interests of both sides, and especially corporate interests, which seemed to have long dictated US international economic policy. But Trump was never known either for rationality or consistency. The initial trade skirmishes in steel, aluminum, washing machines, and solar panels blossomed in 2018 into a full-scale trade war, with the US imposing tariffs on more than $200 billion of Chinese goods, and China retaliating. Trump is confident that the US will win, simply because the US imports from China more than it exports to China. But that reasoning is fallacious for several reasons. What matters are the instruments available to each side, the resolve, the capacity to do harm to the other side and to undo the harms that the other side would do, and the support within the country. Because China still is a more controlled economy than the US, it not only can target better what it does, but it can also better provide countervailing measures for those sectors that otherwise would be harmed. China has wanted to move away from dependence on exports, and the US is simply accelerating the process—and increasing China's resolve to advance its technological capacities. Moreover, the fraction of China's exports that are actually "made in China" is much smaller than for US exports, so a dollar decrease in China's exports has a much smaller impact on its economy than a dollar decrease in US exports has on the US economy.[33]

China also begins this trade war with its people more united behind its government; the US begins this trade war with large fractions, perhaps a majority, opposed.[34] And finally, there are many other economic and noneconomic actions that China could take, from squeezing American firms operating in China to acting more aggressively in the South China Sea.

Of course, everyone is likely to be the loser in the end, with the negative repercussions of protectionism extending far beyond direct economic channels. We need international cooperation on many fronts besides trade. For example, we need South Korea's and China's help in dealing with North Korea; we need Europe's help in dealing with Russia. Such help is less likely to be forthcoming if our countries are engaged in trade wars.

Globalization in a world with multiple value systems

Underlying the threat of a trade war are some deep grievances about the global trading system that go beyond those who have suffered as a result of the way it has been managed. Many advocates of globalization have assumed that we could have a free trade regime covering countries with deeply different systems of values. Values affect our economy—and comparative advantage—in pervasive and important ways. It is possible that a less free society could actually perform better in, say, an important arena like artificial intelligence. Big Data is crucial, and China has less inhibitions on the collection and use of data. Could or should Europeans complain that America's use of convict labor (prisoners make up almost 5 percent of the US industrial labor force) gives it an unfair advantage, since prisoners typically receive far less than the minimum wage? Or that America's failure to impose constraints on carbon emissions gives it an unfair advantage?

A quarter century ago, as the US and the West became increasingly engaged in trade with China, there was the hope that this engagement would accelerate their process of democratization. As was noted earlier, the West, and especially the US, interpreted the collapse of the Iron Curtain as the triumph of our economic and political system; it was only a matter of time until everyone, with perhaps the exception of a few rogue countries like North Korea, would see the light and adopt American-style democracy and capitalism.

But that was before the 2008 financial crisis, which showed the limits of American-style capitalism; before the election of Trump, which showed the limits of American-style democracy; and before China's President Xi abolished term limits for himself, which suggested that China might not be moving as fast as we hoped away from authoritarianism, and might in fact be moving in the other direction. China's distinctive economic model—some called it state capitalism, China refers to it as a "socialist market economy with Chinese characteristics"—had proven remarkably robust, and the country weathered the 2008 global crisis better than any other. Even though growth has now slowed, China's growth rate has been more than three times that of Europe, and twice that of the US. Its success, combined with its large foreign aid programs, were proving alluring to many countries in the third world trying to decide on an economic model for themselves.

Forty years ago, when China began its transition toward a market economy, no one could have imagined that this impoverished country would in less than half a century have a GDP comparable to that of the US. China's success in some advanced areas, like artificial intelligence and cyber security, has raised concerns not just about economic competition but about national security. Business interests too have become less enthusiastic about China: while they once had seen the country as a gold mine, higher wages, stronger environmental and other regulatory standards, and more intense competition from Chinese companies, all meant that China was no longer as profitable as it had once been, and future prospects seem even less bright.

American firms complain that it is unfair for China to demand joint ventures (which include sharing of intellectual property) as a condition of entry. China responds that no one is forcing any firm to enter China; they enter, knowing the conditions.[35] China is a developing country—albeit a large one—with a per capita income a fifth that of the US. It is working hard to close the gap between it and more advanced countries, especially the gap in knowledge, and in a few areas, some of considerable importance, it has managed to do so. There is no international law or even norm proscribing joint ventures, with all that entails.[36]

China's success today, however, is broad-based, and not just dependent on joint ventures with companies from the West or stealing intellectual property. In some areas like social media and artificial intelligence, it is already at the forefront. The number of patents it is receiving is increasing dramatically.[37] In many other areas, it has already largely closed the knowledge gap separating it from the advanced countries. The Trump administration in its trade with China is trying to close the barn door after the horses have escaped.[38]

As we put behind us ludicrous ideas that trade with China will quickly lead to a democratic China, there is a real question: How can there be fully open trade with a country with such a different economic system? What does it mean to have a "level playing field," for instance, with a country with little regard to privacy concerns but with a willingness to engage in censure and block websites that it finds politically distasteful? In a more muted form, this issue has long been debated. The emerging markets and developing countries argue that there can't be a fair global trading system as long as the US and EU insist on subsidizing agriculture—the sector on which billions of poor people around the world depend for their livelihood. The US claims that hidden subsidies permeate the Chinese economy; China claims that such subsidies are present in all economies—including in the large agricultural subsidies, the massive bailouts to the financial sector, and the enormous research expenditures of the defense department, some of the benefits of which (like Boeing passenger planes) get translated into consumer products. Europe too has objected to these hidden airplane subsidies, just as the US complains about the more transparent European assistance to Airbus.

WE ARE NOW confronting the reality that different countries will organize their economies in fundamentally different ways, reflecting their values and beliefs. Not everyone wants American-style capitalism, with its corporate power and inequality. And certainly, not everyone wants China's level of intrusion in the economy or its lack of concern for privacy. A values-free system of unfettered globalization can't work; but neither will a system in which the rules of the game are dictated by one country or another. We will have to find a new form of globalization, based on some version of peaceful coexistence, recognizing that even if we have markedly different economic systems, there are still large areas where we can fruitfully engage in commerce. We will need a minimal set of rules—some version of a rule of law, what might be thought of as a basic set of rules of the road. We can't force others to adopt our regulatory system, nor should we be forced to adopt theirs. And it will be a lot better for all of us if these rules are global, multilateral, and can be agreed upon by all countries.

Fixing Globalization

Protectionism isn't the answer either to the problems facing the US or the rest of the world. But neither is doubling down on globalization as it's been managed. Doing the same thing we've done for the last third of a century won't work any better in the coming decades. That is likely to result in still more suffering, still more political turmoil.

We've seen how in the past, globalization has been managed on a set of false premises: that everyone is a winner (without government intervention, there are large losers); and that globalization is *simply* a matter of good economics (in fact, the way it's been managed has advanced a corporate political agenda that has weakened workers' bargaining power and increased corporate power, especially in certain sectors). In the name of globalization—to keep countries competitive—workers have been told that they must accept lower wages, worse working conditions, and cutbacks in essential government services that they depend on. How can such policies possibly lead to an increase in workers' living standards? We now know that the growth benefits in the advanced industrialized countries have been exaggerated, and the distributive effects underestimated.

Of course, those emerging markets, like China, that have managed globalization well have enjoyed enormous success. China avoided the instability associated with short-term capital flows—hot money that could come in and out overnight. It encouraged foreign investors, and did so in a way that allowed it to narrow the knowledge gap that separated it from more developed countries. It encouraged exports, maintaining overall a stable exchange rate, and at earlier stages in its development (though not recently), keeping the value of its currency slightly lower than it otherwise would have been. Most importantly, while it allowed inequality to grow, it made sure that almost everyone benefited from globalization (moving, as we noted earlier, 740 million people out of poverty).

It is tempting to say that their growth has been at the expense of the advanced countries; but that would be wrong. The standard argument that trade can be mutually beneficial *to both countries* is, by and large, correct (if governments manage risks and opportunities well); but large groups within a country can be worse off unless government takes offsetting measures. In the US, government didn't take the required measures, and the results are what we should have expected.[39]

Globalization's impact goes far beyond economics. Much has been made of the increases in life expectancy as medical knowledge spreads globally; or the global recognition of gender rights, as ideas spread globally. We've seen how global tax avoidance and evasion

has robbed countries of the revenues needed to provide basic public services. At the same time, the way globalization has been managed has often undermined communities, and in some cases, even nation-states. Local storekeepers are often the pillars of a community. But these local stores are now being driven out by large chains with their distinct advantage in buying cheap goods abroad. The loyalties of the managers of these stores are with the company more than with the community, and the managers often don't stay in one place long enough to plant roots.

The rules of globalization have been far from ideal. They have protected corporations' interests at the expense of workers, consumers, the environment, and the economy. Big Pharma has won more protection for its expensive drugs, at the expense of lives all over the world. Big corporations have gotten an intellectual property regime that has tilted the playing field in their favor over small businesses, and put profits over lives and the environment, and even over long-term growth and innovation. As we've made it easier for multinationals to avoid taxes, more of the tax burden falls on workers and small businesses. So too, providing more secure property rights for investments abroad through our investment agreements than those at home makes no sense.

There is an easy list of reforms: our investment agreements should focus on one thing—making sure that American firms are not discriminated against.[40] The intellectual property provisions of our trade agreements too should focus on ensuring access to generic medicines, not ensuring high profits for Big Pharma. In addition, we should worry more about the use of globalization for tax avoidance and evasion.

Almost surely, we would get better international trade rules if we arrived at them through a more open and democratic process. Currently, the agreements are negotiated by the US Trade Representatives (USTR), behind closed doors—but not fully closed. Corporate representatives are effectively at the table, as the USTR discusses with them what to negotiate for although members of Congress are often shut out, with the USTR even refusing to share its negotiating position.[41]

Most importantly, though, whatever the rules, we have to help ordinary citizens adjust to the changing economy, whether the changes come from globalization or technology.[42] Markets on their own are not good at making transitions, in transforming the economy. Countries that have helped their people with the transition, such as some of those in Scandinavia (for instance, Sweden and Norway), have a more dynamic economy, a polity that is more open to change, and a higher standard of living for their citizens. This requires active labor market policies that help people retrain and find new jobs; and industrial policies that ensure that new jobs get created as fast as old jobs get destroyed and that help places that are suffering from large job losses find new economic opportunities.[43] It also requires good systems of social protection so that no one falls between the cracks. But those managing globalization and our economies have demanded cutbacks in these programs—allegedly to compete in a globalized world—just when we need them most.

It's easy—at least from an economics perspective—to rewrite the rules of globalization and to manage globalization better. Later in this book (in chapter 9) I explain some of the ways in which both globalization and changes in technology can be better managed—so that all, or at least most, citizens benefit and few if any are left behind.

CHAPTER 5

Finance and the American Crisis

Finance was central to the creation of today's economic, social, and political malaise: in the economic crisis that America endured for almost a decade as well as in the increase in inequality and the slowing of growth. Resources—including some of the most talented young people—went into finance rather than into strengthening the *real* economy. A sector that should have been a means to an end, the more efficient production of goods and services, has become an end in itself. No modern economy can perform well without a well-functioning financial market that serves society, and that's why it's essential to reform the financial sector so that it serves society, rather than the other way around.

Since the founding of the Republic, there has been a worry that powerful banks could undermine popular democracy—that was why so many opposed the creation of the First National Bank, and President Andrew Jackson declined to renew it when its twenty-year charter came to an end in 1836. Those worries have proven more than justified in recent years, as became clear with attempts to regulate the banks, to prevent a recurrence of the 2008 crisis. More than three-quarters of Americans believed strong regulation was needed. Yet, done about it, see Stiglitz, *The Price of Inequality*; and Stiglitz, *The Roaring 90s*. Investor Stephen M. Silberstein has pushed, so far unsuccessfully, for legislation in California that would have tied corporate tax rates to CEO compensation; see also Gary Cohn, "Overcompensation: Tying Corporate Taxes to CEO Pay," *Capital & Main*, Aug. 6, 2014. Over the past few years, there have been a rash of popular books addressing the country's system of incentive pay and more broadly, its system of corporate governance. See, for instance, Steven Bavaria, *Too Greedy for Adam Smith: CEO Pay and the Demise of Capitalism*, 2nd ed. (Chestnut Ridge: Hungry Hollow Books, 2015); Michael Dorff, *Indispensable and Other Myths: Why the CEO Pay Experiment Failed and How to Fix It* (Berkeley: University of California Press, 2014); Steve Clifford, *The CEO Pay Machine: How it Trashes America and How to Stop it* (New York: Blue Rider Press, 2017); and Lynn Stout, *The Shareholder Value Myth: How Putting Shareholders First Harms Investors, Corporations, and the Public* (San Francisco: Berrett-Koehler, 2012).

95. This book emphasizes the role of market power—the increase of that of large corporations and CEOs, the domination of that of workers and consumers, and how we need to rewrite the rules of the market economy that have resulted in more power to CEOs and corporations and less power to workers and consumers. But these are representative of a larger set of changes to the rules of the game that have to be made if we are to achieve a more dynamic and equitable economy. See Stiglitz et al., *Rewriting the Rules of the American Economy*.

CHAPTER 4: AMERICA AT WAR WITH ITSELF OVER GLOBALIZATION

1. Deals that Trump repeatedly called "the worst ever."
2. Leading, for instance, to NAFTA (North American Free Trade Agreement) in 1994 or to the creation of the World Trade Organization in 1995. There are a host of other bilateral trade agreements, for instance between the US and Chile and the US and Korea.
3. For a popular account, see Daron Acemoglu and James A. Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* (New York: Crown Business, 2013).
4. Modern economic science had long established that without active government intervention, trade between countries with large wage differences would result in the lowering of wages in the advanced country. It had provided ample warning of what in fact has happened. (The results were first established by Paul Samuelson and Wolfgang Stolper in 1941 ("Protection and Real Wages," *Review of Economic Studies* 9, no. 1 [1941]: 58–73). See also Samuelson, "International Trade and the Equalisation of Factor Prices," *Economic Journal* 58, no. 230 [1948]: 163–84.

   Thus, trade between the US and China has fundamentally different consequences than trade between two regions with roughly equal wages, such as Europe and the US. For a more extensive discussion of these issues, see Stiglitz, *Globalization and its Discontents Revisited* and *Making Globalization Work*.
5. See David H. Autor, David Dorn, and Gordon H. Hanson, "The China Syndrome: Local Labor Market Effects of Import Competition in the United States," *American Economic Review* 103, no. 6 (2013): 2121–68.
6. The list of problems with globalization is not meant to be complete. For instance, globalization often increases risk, in particular, increasing risks against which firms and households can't insure. For a fuller discussion, see Stiglitz, *Globalization and its Discontents Revisited*.
7. The relevant provisions are contained in investment agreements embedded in trade agreements, for instance, Chapter 11 of NAFTA. These provisions are now a standard part of all of our trade agreements, though they really are about investment, not trade. Not surprisingly, they were put there at the behest of large corporations, who have expressed opposition to any trade agreement that does not include them.
8. Decreases in the value of investments that arise when a regulation is changed are called regulatory takings. Congress and courts have consistently found that corporations in the US are not entitled to compensation for regulatory takings, but our investment agreements have provided for such compensation. Corporations are allowed to sue governments directly, and disputes are resolved through systems of arbitration where the corporations appoint one of the three arbitrators. This system has been justly criticized. See, for instance, Joseph E. Stiglitz, "Regulating Multinational Corporations: Towards Principles of Cross-Border Legal Frameworks in a Globalized World Balancing Rights with Responsibilities," *American University International Law Review*, 23, no. 3 (2007): 451–558, Grotius Lecture presented at the 101st Annual Meeting of the American Society for International Law, Washington, DC, Mar. 28, 2007; and "Towards a Twenty-first Century Investment Agree-

ment," Preface in *Yearbook on International Investment Law and Policy 2015–2016*, eds. Lise Johnson and Lisa Sachs (New York: Oxford University Press), xiii-xxviii, available at http://ccsi.columbia.edu/files/2014/03/YB-2015-16-Front-matter.pdf.

9. There is other evidence that globalization was designed to advance corporate interests, at the expense of workers and society more generally. The Republican advocates of globalization typically strongly opposed trade adjustment assistance—the kind of help to those displaced by globalization which would have ensured that globalization had fewer large losers. Anyone wanting to ensure broad long-term support for globalization would, of course, have wanted to do everything they could to reduce the likely opposition from those suffering greatly from globalization. Our corporate leaders, however, were more focused on the short-term gain in lower wages and worsening of working conditions that resulted from their stronger bargaining position.

   So too, the design of intellectual property provisions, especially those related to pharmaceuticals, increased profits of the pharmaceutical companies, at the expense of consumers and government (which picks up much of the resulting higher costs of medicine.)

10. These are called "inversions." Often, little changes other than the *official* headquarters. Where business actually occurs remains unchanged. The fact that these firms are so willing to move shows their deep lack of loyalty—their only true loyalty is to money and profits. Yet, the US government fights for their interests in international forums and in trade negotiations, showing once again the power of campaign contributions. The drug companies illustrate best what is at issue: the drugs give rise to few jobs; often they are manufactured in China, not the US. They have arranged their affairs to pay little taxes—they shift their patents to a low tax jurisdiction as part of a strategy of tax avoidance. Yet, central provisions of recent trade agreements—and the most controversial—are designed to disadvantage generic medicines, resulting in higher profits for Big Pharma. Thus, American citizens are actually hurt as a result of the higher prices. Even Obama, who prided himself in his efforts to lower the cost of medicine, in the TPP (the Trans-Pacific Partnership Agreement) betrayed his principles.

11. The race to the bottom takes many other forms: banks, for instance, said that unless regulations were loosened, they would relocate their activities elsewhere. The result was a regulatory race to the bottom. The 2008 global financial crisis was among its consequences.

12. Taxes are only one of many variables that affect where firms locate, as we have already noted. But even focusing just on taxes, lowering taxes will induce firms to relocate if the country from which we are trying to steal jobs doesn't respond. If they lower their taxes, we get no advantage. At the end, the only winners from this race to the bottom are the corporations who stirred up this race in the first place.

13. See chapters 1 and 9 for some of the evidence and the theoretical analyses that explain why these tax measures did not have the benefits claimed by their advocates.

14. In part, because of the large deficit that the tax cut will generate, in part because the bill favored real estate speculation and discouraged economic activity in the most dynamic parts of the economy, and especially their investments in infrastructure and education. Standard modeling suggests that the level of gross national income (taking into account that to finance the deficits, we will have to borrow abroad, and that the higher level of national debt will crowd out some private investment) in ten years, in 2027, will likely be at or below current levels. I am indebted to Jason Furman, chairman of President Obama's Council of Economic Advisers, for these calculations, based on joint work with Robert Barro of Harvard University (personal correspondence).

15. The effective corporate tax rate was 18.6 percent. "International Comparisons of Corporate Income Tax Rates," CBO, Mar. 8, 2017, available at https://www.cbo.gov/publication/52419.

16. When the EU got wind of Apple's secret deal with Ireland, it ordered Apple to pay 13 billion euro (a little more than 14.5 billion dollars).

17. The extent of the use of these secrecy havens for tax avoidance, money laundering, and other nefarious activities was exposed by the release of two treasure troves of documents by the Investigative Consortium of Investigative Journalists, one called the Panama Papers, which mostly had documents from law firm Mossack Fonseca, the other the Paradise papers, which had documents from law firm Appleby.

18. While it's clear that, accordingly, the banks and their corporate and ultra-rich clients will resist tamping down on these fiscal paradises, it's also clear that it can be done. After 9/11 the US became concerned about their use for terrorism, and successfully managed to

greatly narrow the use of the fiscal paradises for these purposes. In fact, there has been some progress both in curbing some of the worst extremes, with large fines imposed against some banks for egregious activities involved in tax evasion. These successes have shown, however, how much more could and should have been done.

19. Such changes in technology are referred to as "skilled-biased." While toward the end of the twentieth century, much of the increase in inequality was blamed on skill-biased technological change, there is a growing consensus that it can account for only a fraction of the increase in inequality over the past two decades. Even skilled workers are having a hard time. See, for example, the discussion of skill-biased technological change in Piketty, *Capital in the 21st Century*, and John Schmitt, Heidi Shierholz, and Lawrence Mishel, "Don't Blame the Robots: Assessing the Job Polarization Explanation of Growing Wage Inequality" (Economic Policy Institute, November 19, 2013).

    There's a deeper question: with unemployment among the unskilled already so high and their wages so low, why has our market economy proceeded to innovate in ways that increase their unemployment and lower their wages? Something is wrong with an innovation system that rather than directing research at real societal needs—such as saving the planet from climate change—exacerbates existing social problems.

    There is an old and distinguished literature, dating back to the 1960s, explaining the direction of technological change, whether it increases the productivity of skilled or unskilled labor, capital or natural resources. See Emmanuel M. Drandakis and Edmond S. Phelps, "A Model of Induced Invention, Growth, and Distribution," *Economic Journal* 76 (Dec. 1966): 832–40; William Fellner, "Two Propositions in the Theory of Induced Innovations, *The Economic Journal* 71, no. 282 (1961): 305–8; Charles Kennedy, "Induced Bias in Innovation and the Theory of Distribution," *Economic Journal* 74, no. 295 (1964): 541–7; and Paul A. Samuelson, "A Theory of Induced Innovation along Kennedy-Weisäcker Lines," *The Review of Economics and Statistics* 47, no. 4 (1965): 343–56. More recently, I have attempted to explain why market solutions are typically inefficient, putting too little emphasis on saving natural resources and too much emphasis on saving labor and especially unskilled labor. These problems have been exacerbated by monetary policies in the post-2008 crisis world, which have reduced the cost of capital, making it relatively more attractive to save labor.

20. This, of course, also contributed greatly to the increase in inequality. See David H. Autor, Alan Manning, and Christopher L. Smith, "The Contribution of the Minimum Wage to US Wage Inequality over Three Decades: A Reassessment," *American Economic Journal: Applied Economics* 8, no. 1 (2016): 58–99. The latter finds that about a third of the growth in US inequality between the median and the bottom 10 percent is due to the declining real value of the minimum wage.
21. Tariffs, by increasing the costs of imports, discourage trade. But there are a host of other provisions that make imports less competitive. Agriculture goods are often excluded because they don't meet our "phyto-sanitary conditions." Europe's regulations concerning genetic modified organisms (GMO), discussed below, similarly make it difficult for American wheat and corn farmers to export there. Many of these regulations are justified—they reflect genuine societal concerns about health and safety. However, some of these regulations are imposed mainly to discourage imports. Distinguishing the two situations is often difficult.
22. Though calling the agreement "partnerships" was itself somewhat misleading. It was a partnership where the US dictated almost all the terms. The name of trade agreements has long been famously misrepresentative. NAFTA, the North American *Free Trade* Agreement, was not a free trade agreement, which entails the elimination of all barriers to free trade, including subsidies. The US kept all of its massive agricultural subsidies. TPP was often referred to as a free trade agreement, but its 6000 pages with specific agreements affecting myriad sectors shows that this and other trade agreements more appropriately should be viewed as *managed* trade agreements.
23. See "Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors" (United States Trade International Commission, Investigation No. TPA-105-001, USITC Publication 4607, 2016). Another study found negative effects for growth of the US economy. Jeronim Capaldo, Alex Izurieta, and Jomo Kwame Sundaram, "Trading Down: Unemployment, Inequality and Other Risks of the Trans-Pacific Partnership Agreement" (Global Development and Environment Institute working paper 16-01, Tufts University, 2016). The usual champions of trade liberalization found, perhaps not surprisingly, somewhat larger positive effects than the US government did, at least by 2030: Peter A. Petri and Michael G. Plummer (Peterson Institute for International Economics) and the World Bank both

estimated that the TPP would increase annual GDP by 0.5 by 2030. See World Bank Group, *Global Economic Prospects: Spillovers amid Weak Growth. A World Bank Group Flagship Report* (Washington, DC: World Bank, 2016), 219–34.

24. It is worth noting the use of language: by referring to intellectual property *rights*, it gave to these provisions a standing similar to that of human rights—even as the consequence of IPR, by raising prices of life-saving medicines to a level that made them unaffordable to many in the developing world and emerging markets, was to deny the most fundamental right, the right to live. By referring to them as *Trade Related* Intellectual Property Rights, it seemed to give legitimacy to including them in a trade agreement, even though the provisions affected intellectual property of goods whether traded or not, and even though there was an already existing international body that was supposed to be setting international standards for intellectual property, WIPO (the World Intellectual Property Organization) in Geneva.

    While the pharmaceutical industry has provided the major impetus for the IPR provisions in trade agreements, it is not alone. Entertainment (films) played a particularly important role in shaping provisions related to copyright. See the earlier discussion of "Mickey Mouse."

25. Interestingly, when the US dropped out of TPP, the remaining countries proceeded with a trade agreement, now called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and they dropped the most noxious health provisions that the US had insisted upon.

26. The intellectual property regime has resulted in a drain of money out of developing countries and emerging markets to pay for the use of intellectual property. The US received more than $17 billion in royalties and licensing fees from developing countries in 2016 (author's calculation based on data from the United States International Trade Commission).

27. Traditional knowledge includes that related to foods (a US company was granted a patent on India's traditional food, basmati rice) and medicines (US patents were granted for medicinal uses of turmeric and neem oil, well known in traditional Indian medicine).

    TRIPS and similar provisions in subsequent trade agreements also adversely affected developing countries in other ways, including in provisions related to agriculture (seeds). See, for instance, Mario Cimoli, Giovanni Dosi, Keith E. Maskus, Ruth L. Okediji, Jerome H. Reichman, and Joseph E. Stiglitz (eds.), *Intellectual Property Rights: Legal and Economic Challenges for Development* (Oxford: Oxford University Press, 2014).

28. When Trump finally figured that out, he ordered his Secretary of Treasury to reverse long-standing policies that the US believed in a "strong" dollar. As he tried haltingly to enunciate this new policy, havoc broke out in the exchange rate market, but only for a short while. The words of the secretary of the treasury, or even the president (even a president who is taken seriously) typically affect markets only for a short while, before underlying economic forces restore their dominance.

29. Thus, in March 2018, Trump announced 25 percent tariffs against foreign steel from certain countries: this increases the price Americans who want to buy steel from these countries have to pay by 25 percent. China's sales were essentially cut off.

30. The fiscal and trade deficits typically move so closely together that they are often referred to as the twin deficits. There are a few instances where this does not happen because of other ongoing changes in the economy. When the US lowered its fiscal deficit in the 1990s, the trade deficit did not come down in tandem because of the boom in investment that was occurring simultaneously.

31. With or without new trade agreements, in a limited number of niche markets, there will be some return of manufacturing (sometimes called onshoring), as new technologies, such as 3-D printing, allow some production to occur closer to the point of consumption.

32. As we have noted, Trump's policies, taken as a whole, are likely to increase the trade deficit (from what it otherwise would be). Not surprisingly, then, in spite of Trump's promise to reduce the trade deficit, in his first year in office it increased by more than 10 percent, from $502 billion in 2016 to $552 billion in 2017. There are, of course, many other factors that impinge on both the exchange rate and the trade deficit. If, for instance, there is pessimism about the future of the country, those in the country may try to get their money out of the country, and this will drive down the exchange rate. Thus, investors worried about the implications of a large fiscal deficit for the future of the economy may try to take their money out of the country, and thus the short-run impact of the passage of legislation creating a larger fiscal deficit may be to depress the exchange rate. Over the medium term, however, the forces we have just described tend to dominate.

33. Professor Lawrence J. Lau, in *The China–U.S. Trade War and Future*

Economic Relations (Hong Kong: Chinese University Press, 2018), has shown that focusing on value added reduces the magnitude of the apparent bilateral trade deficit by 40 percent. (By the same token, with a low fraction of value added in China, a 25 percent tariff will induce many companies to relocate at least the final stages of production.) He estimates that the impact on the Chinese economy of the US trade war will be at most to reduce GDP by just over 1 percentage point, easily absorbed in an economy growing at more than 6 percent a year.

34. The *Washington Post* conducted a poll with George Mason University that showed 56 percent of US voters thought the trade war was bad for US jobs. See Aaron Blake, "How Trump's Trade War with China Could Go Sideways on Him," *Washington Post*, July 7, 2018.
35. There have been two other complaints concerning China's stance on intellectual property. One is that it refuses to enforce conventional IPR. While these charges were common a decade or so ago, they are heard less often today, perhaps because Chinese firms themselves are getting an increasing number of patents, and want strong enforcement. The second is cybertheft. While under the Obama administration, there was an agreement to curtail this, it appears not currently being enforced. Because it is done secretly, it is hard to know the magnitude on either side, but it appears to be significant and growing. US complaints about intellectual property rights conflates these three different issues, and would be more effective if attention were directed particularly at cybertheft.
36. The irony is that it might have been possible to reach an international investment agreement that addressed such issues but American negotiators, representing interests of their business community, "overreached," demanding not just protection against discrimination, but also compensation for changes in, say, regulations.
37. Chinese firms receive about ten times as many US patents as they did ten years ago. See Susan Decker, "China Becomes One of the Top 5 U.S. Patent Recipients for the First Time," *Bloomberg*, Jan. 9, 2018.
38. Critics of the US position also noted that it is hypocritical: the US stole or took advantage of others' intellectual property (sometimes unintentionally) in the nineteenth and early twentieth centuries, e.g., the Bessemer process for making steel (See Philip W. Bishop, *The Beginnings of Cheap Steel* [Project Guttenberg, http://www.gutenberg.org/files/29633/29633-h/29633-h.htm]). The critical innovation in flight was by a Brazilian, done years earlier, not the Wright Brothers. So too for many of the important advances that led to the automobile. Now that the US has climbed up the ladder, it wants to make it more difficult for others to follow, the central message in Ha-Joon Chang's forceful book, *Kicking Away the Ladder: Development Strategy in Historical Perspective* (New York: Anthem, 2002).

39. Of course, there are always concerns about "unfair" trade practices, and the WTO rules were designed to provide a basic set of rules to prevent such practices. When a country violates these rules, it can be brought to "court," to a WTO tribunal, and if it is found guilty, either it stops the practices or the trade partner is allowed to impose commensurate tariffs and other trade restrictions. Sometimes, there are mutual accusations: the US believes that Europe unfairly subsidizes Airbus, and Europe believes that US unfairly subsidizes Boeing. The problem is that the two countries have taken quite different approaches to subsidies. Many regulations that are imposed because they reflect domestic concerns are viewed by others as an unfair trade barrier, as we noted in our discussion of GMOs.
40. There are many other provisions of these investment agreements that need to change, including the system of dispute resolution. There should be a requirement that domestic courts be used before turning to the special provisions of the investment agreement. This is especially important in investment agreements with other advanced countries, where there is a presumption that they have good judicial systems. If there is a problem, it should be addressed symmetrically, for both domestic and foreign investors. There also needs to be a change in the magnitude of compensation in the event of a violation—now it is based on the amorphous idea of what profits would otherwise have been, rather than simply compensation for lost investment. See Stiglitz, "Towards a Twenty-First-Century Investment Agreement."
41. I experienced an extreme example of the closed-mindedness of the USTR during the negotiations of the Trans-Pacific Partnership. I was concerned about the adverse effects of the provisions on the availability of generic medicines. I succeeded in arranging a meeting with all of the negotiators in this area—except with those from the United States.
42. There are hardened individuals who suggest that we shouldn't help these individuals. Some hundred years ago, there was a notion called "Social Darwinism," which held that society was better off

if we just let those who couldn't fend for themselves suffer. The motto was "survival of the fittest." Not only were these doctrines inhumane, but also the analyses that suggested that such policies would be beneficial were based on a totally incorrect interpretation of Darwin's evolutionary theories.

43. Sometimes, industrial policies are viewed as protectionist—when their intent is to protect old, dying industries, as Trump is trying to do. The kinds of industrial policies I am advocating are just the opposite—trying to help the economy move into new sectors, to adapt to changing markets and technology. There needs to be strong oversight to ensure that industrial policies are not abused to protect incumbent firms against competition, another form of rent-seeking.

CHAPTER 5: FINANCE AND THE AMERICAN CRISIS

1. Later in the chapter, I describe one of the early attempts to undo key parts of Dodd-Frank. In 2018, banks with less than $250 billion in assets were removed from the tighter oversight provided by Dodd-Frank.

   Every step along the way, the banks put up resistance. As one regulator put it to me: if there is any space between the wall and the wallpaper, the banks will take advantage of it. And they work hard to make sure that there is plenty of space between the two.
2. Since the crisis, two of the major participants in the rescue—Geithner and Federal Reserve Chair Ben Bernanke (both Republicans, appointed by Obama)—have written their memoirs. (Ben Bernanke, *The Courage to Act* [New York: W. W. Norton, 2015]; Timothy F. Geithner, *Stress Test: Reflections on Financial Crises* [New York: Broadway Books, 2014].) Their weak defenses of what they did—widely noted in the reviews of the two books (see, e.g., "Does He Pass the Test?" by Paul Krugman, *New York Review of Books*, July 10, 2014; "More Talk, More Action," *The Economist*, Oct. 17, 2015)—reinforces the view that it was a rescue in which the financial sector's interests were placed at the top, and the rest of the country's interests below.
3. Many of the ideas in this section are elaborated in my book *Freefall.*
4. I should note, our bankers were not alone: Trump demonstrated even worse behavior in his business dealings and in Trump University. Nor were the problems limited to the US. Some of the worst banking practices were found abroad.

   The extensive cheating by car companies as they pretended that their products were more environmentally sound than they were shows that moral turpitude was not limited to finance. Still, in the sheer dollar value of the fraudulent and dishonest activities, the financial sector wins out. The Bernie Madoff pyramid scheme alone represented some $65 billion missing from individuals' accounts. And because the financial sector touches virtually every other sector of the economy, the financial sector spread the virus through much of the economy.
5. Thus, as the complex securities such as residential backed mortgage securities (RMBS) developed, for these securities containing thousands of mortgages to work, the originators and investments had to issue what could be viewed as equivalent to a money-back guarantee: banks had agreed to buy back any mortgages that were not as represented to those who had invested in or insured the securities. It was virtually the only way that the insurers and investors had any confidence in what they were insuring or buying. When it turned out that many mortgages were not as represented (for instance, a mortgage for a property that was described as owner-occupied was in fact for one that was a rental), the banks often refused to do as they had promised. It made a difference because the default rates on owner-occupied properties are much lower. Eventually, at least in several instances, after years and years, the banks paid what was due. (For full disclosure: I was an expert witness in some of the resulting lawsuits. More than a decade after the events, the litigation goes on.)
6. At a congressional hearing, Senator Carl Levin told Goldman's CEO and Chairman Lloyd Blankfein that he "wouldn't trust" Goldman, as he repeatedly asked whether the bank would disclose its position "when they're buying something you solicit them to buy, and then you're taking a position against them?" "I don't believe there is any obligation" to tell investors, Mr. Blankfein responded. See James Quinn, "Goldman Boss Lloyd Blankfein Denies Moral Obligation towards Clients," *Telegraph*, Apr. 28, 2010. The full exchange can be viewed on C-Span. Blankfein's prepared comments and a video of the hearing can also be found on the website of the Homeland Security and Governmental Affairs Permanent Subcommittee on Investigations, accessed July 23, 2018, https://www.hsgac.senate.gov/subcommittees/investigations/hearings/-wall-street-and-the-financial-crisis-the-role-of-investment-banks.
7. Taking that position may indeed be part of Goldman Sachs's short-