

The overselling of globalization

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Abstract Globalization was oversold. Politicians and some economists wrongly argued for trade agreements on the basis of job creation. The gains to GDP or growth were overestimated, and the costs, including adverse distributional effects, were underestimated. There have been important political consequences of this overselling, including the undermining of confidence in the elites that advocated globalization. The failures of globalization and the misguided backlash against it contain many lessons: about the importance of science and learning in society, the importance of the shared acceptance of facts, the dangerous consequences of deliberately misinforming the public, and the folly of ignoring the distributional consequences of economic forces just because they may lead to growth. The new protectionism advocated by the administration of Donald Trump will only worsen the plight of those already hurt by globalization. What is needed is a comprehensive system of social protection. After cataloguing the failures of globalization and explaining how they led to our current political mire, this paper outlines a set of policies that could put the economy and our politics back on a better path.

Keywords Globalization · Protectionism · Trade agreements

Thank you very much for the award that you have bestowed upon me. It is particularly meaningful given the enormous respect I have for Paul Volcker, after whom the award is named. He has brought to public service an intellect and a commitment that is unparalleled. I have been privileged to have interacted with him frequently over the past quarter century. In the late 90s, in the midst of the East Asia crisis, he was one of the few voices of the establishment that had a reasoned response. Recall that crisis: capital market liberalization had led to a flood of money rushing into the region. When sentiment changed, that money rushed out. Exchange rates plummeted, banking systems collapsed, and with that so did the afflicted economies. Unemployment soared. Establishment economists—those at the IMF and the US Treasury—responded to the crisis within the orthodox frameworks, using the very models that had brought on the crisis. When Malaysia responded by imposing temporary capital controls, it was condemned. It turned out, not surprisingly, that the controls worked—the downturn in Malaysia was shorter and shallower, and it left less of a legacy of debt to burden the economy going forward. Among the criticisms put forward was that the controls were imperfect. If I remember correctly, Volcker had an apt response: even a leaky umbrella provides some protection in the midst of a rainstorm. Of course, the IMF later totally reversed its position, in the aftermath of the Great Recession. Its new institutional view is that capital account management techniques (the polite word for capital controls) do have a place in governments' toolkits.

It is this experience—combined with ongoing debates over globalization—that provides the foundations for my

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talk this afternoon. But before I turn to my views about globalization, I want to raise a more fundamental epistemological issue, and a related moral and political one: How do we know what we claim to know? How sure are we about these beliefs? And how should we, as public servants, or even public intellectuals, convey what we know or believe to the public? Should we try to sell policies using false arguments? Can dishonest means be justified by the ends that they achieve? These are deep questions, to which I cannot give satisfactory answers, especially in the limited time I have this afternoon. But I want to suggest that we should give more thought to them. Some of the problems that we face today may arise because we gave them insufficient attention in the past.

The first question, how do we know what we know, has moved to the center of public discourse with the discussion of *alternative facts*. We used to say that we can agree about the facts. Our disagreements were over interpretation of the facts. This seems no longer the case. This perspective, I believe, is deeply, deeply disturbing. The consequences to our civilization, if this viewpoint were to become widespread, would be devastating.

One of my recent books with Bruce Greenwald is titled *Creating a Learning Society* (Stiglitz and Greenwald 2014). We argued that the transformation to a learning society that occurred around 1800 for Western economies, and more recently for those in Asia, appears to have had a far greater impact on human well-being than improvements in allocative efficiency or resource accumulation, which is what economists have traditionally focused on.

We need to recall: for centuries, standards of living stagnated. It was not until the middle to end of the eighteenth century, less than 250 years ago, that they began to rise. What happened? There is a broad consensus among historians and economists about the answer to that question: it was the Enlightenment, which brought with it not only the idea of progress and that change was possible, but also the scientific method, of how we go about learning the "truth." Science has developed enormously since then, and so too have the benefits, with standards of living today that would have been unimaginable then. Then, individuals had to work long hours just to meet the basic necessities of life. Today, necessities like food and clothing can be met by working but a few hours a week. Life expectancies have increased enormously as a result of advances in our knowledge of health.

We should recognize the extent to which the development of knowledge has been based on a principle of trust with verification. It is based on the gradual accretion of knowledge, but the data at each stage are put up for public examination, for testing by peers, for the replication of the experiment. Knowledge thus tested becomes part of what we know, added to the body of knowledge that we accept,

and which we then build upon. We have neither the time nor the capabilities of re-proving what has been proven.

In other domains, with less rigor, the same process occurs. One of the reasons we want a free and competitive press is that the claims in any story can be tested and verified—providing the basis of the common beliefs that we can use going forward.

And yet, there are those who today question the Enlightenment principles and the scientific method. They undermine the trust upon which our system of knowledge is based, claiming that there are alternative facts that are somehow to be verified and tested in some way other than using the long-established methods that have served us so well. Once we accept that there can be alternative facts, we have no basis even for the rule of law or due process: how are we to ascertain what has actually occurred if each is entitled to his own facts?

An essential part of the scientific method is uncertainty and skepticism. Measurements are never made with perfect precision. All theories are open to refutation, when a previously untested prediction of the theory is shown not to hold. This scientific uncertainty and skepticism fits poorly with those who seek certainty.

The social sciences, including economics, differ in at least two fundamental ways from the physical sciences. First, the laws governing atoms, say, are universal and never changing. They are there, for us to discover. On the other hand, while it may be true that incentives matter, always and everywhere, the form that those incentives take—what motivates people—may change over time and across countries. Individuals are not just motivated by material rewards. How societies function differs too with changes in technology and institutions, and these too are ever-changing. This is good news for us economists: our work is never done. Just as we explain why it is that the relative shares of capital and labor should be constant, those relative shares start to change.

Secondly, our beliefs about how the system functions affect how the system functions. (George Soros refers to this as the principle of Reflexivity.) By contrast, what we believe about atoms has no effect on how atoms behave.

These differences are important. The certainty with which we should hold beliefs about how our economic and social system functions is limited, partly because one of the ways we make such predictions is based on past data. But we have to ask, how relevant are those past experiences to the current situation?

The Great Recession illustrates the point. There had not been an economic downturn anywhere near as severe for more than three quarters of a century. The economy, including our financial system, had changed enormously. How relevant were the experiences then to the situation today? Then, we didn't have the financial products that



played such a big role in bringing on the recession. Clearly, the advocates of these financial products believe that they make a difference. But do they? And if so, when? Do they make a difference for our estimates, say, of the relevant multipliers (for instance, the extent to which GDP is increased when we increase government expenditures)?

We can also look at other countries, where there have been episodes of large unemployment and deep recessions. But how similar are they to modern day America? There are enormous differences, e.g., in institutions and in human capital. Do these make a difference, particularly to estimates of particular behavioral responses like multipliers?

Given these inherent uncertainties and our limited knowledge, it is perhaps not a surprise that economists differ in their views of the consequences of alternative policies. But the public often seems to want to know the answers with greater certainty and greater precision than the data allow—testimony to the deficiencies in our general scientific education. They don't understand the assumptions that go into commonly used numbers describing the economy. The public may not understand that using different price indices can lead to different growth estimates.

The fact that people want greater certainty has one very troublesome consequence: those who seem to have greater confidence in their predictions are believed to have better models. In fact, it may be just the opposite. Their excessive confidence reflects their greater ignorance. A kind of Gresham's law may be at work, with overconfident demagogues driving out more measured policy analysis.

By the same token, the economic system is enormously complicated. The public often is not interested in discussions of those complexities. They want direct answers: what will be the impact of a particular policy on the variables that are of direct concern to them, say jobs. It may be easier to sell a policy by making claims that it will produce what they want—jobs—than to sell it on the basis of what it may actually deliver, say higher standards of living. Again, those policies that are more directly related to these variables of interest may be the policies that attract attention, even if in the long run, they do not deliver more jobs and they lead to lower standards of living. Those politicians more willing to sell these policies and/or to misrepresent the virtues of the policies that they advocate may do well.

In short, in a society in which there is not a deep understanding of science, there is little confidence that the political process will do a good job in selecting wisely among alternative policies—and there is a grave concern that politicians who are best at claiming excessive confidence in their ability to identify and execute policies that will deliver on variables of interest to ordinary citizens will thrive. In this environment, the question arises, what should be the role of the economist and the committed public servant? (Thaler and Sunstein 2003)

I want to illustrate what can go wrong by our evolving public discourse on globalization. Because of time limitations, I will focus my attention on trade globalization. My introductory remarks hinted that much of what I say about trade globalization may apply, with even greater force, to financial market globalization.

1 Overselling globalization: the jobs story

Economists' belief in the virtues of free trade are so great and so long-standing that an economist who expressed skepticism was at risk of losing his "union card"—or at least his credibility as a serious economist. Indeed, one of the earliest contributions of Paul Samuelson, my thesis supervisor, was to show that the country as a whole was better off with trade (Samuelson 1938). This expanded on the earlier argument of David Ricardo, about the gains from trade that arise when each country increases production in what it does *relatively* well and Adam Smith, about the gains from trade that arise when each country specializes so that it can get better and better at what it does.

But any theory is only as good as the assumptions that go into it—as the expression goes, garbage in, garbage out. If the assumptions are unrealistic, the conclusions are likely to be false or at least misleading. The standard models *assume* full employment. What workers worry about is *jobs*. The 2008 crisis showed that even a well-functioning economy like the US could have high unemployment for a long time. Indeed, even now, almost a decade after the onset of the crisis and more than a decade after the bursting of the housing bubble, long-term unemployment in the US remains elevated. In addition, the fraction of the population that is working is lower than it has been since women started entering the labor force. The standard theory recognized that the opening up of trade to cheap imports would result in the loss of jobs in the import-competing sectors. But it also *assumed* that new jobs would be created in the export sectors—and that those new jobs would pay far better than those that were lost. Contrary to what our politicians assert (including the US Trade Representative, or USTR, which is in charge of trade policy), trade agreements are not about creating jobs. Maintaining the economy at full employment is the responsibility of monetary policy (the Federal Reserve in the US, the Bank of England in the UK, and the European Central Bank in the eurozone) and fiscal policy (the setting of taxes and expenditure). It is not the purview of trade policy.

Even the narrow argument put forward by the USTR that trade agreements create jobs is unpersuasive—indeed, almost certainly fallacious. If, as the USTR claims, exports create jobs, then imports destroy jobs, and if trade is



roughly balanced, what advanced countries export uses less labor than what they import. Hence, net, for advanced countries like the US, any balanced trade agreement by itself destroys jobs. If monetary and fiscal policy work as they should, then new jobs will be created to offset the jobs lost. But too often monetary and fiscal policy aren't working as they should, and there is a scarcity of jobs. This may be because in a deep downturn, monetary policy is ineffective, or it may be that (as now) politics constrains the effective use of fiscal policy. But whatever the reason, unemployment may be high, and those who lose their jobs worry about getting another. Jobs were at the center of the 1992 election, where Bill Clinton ran on the simple platform, "jobs, jobs, jobs." And worries about jobs clearly played a role in the 2016 election.

This problem of job loss from mismanaged globalization becomes, as I have noted, particularly salient when there already is an unemployment problem. The massive job losses in the decade since the financial crisis provide a clear and troubling case in point.

The effects of globalization are real and palpable. Those parts of the country producing products that compete with Chinese imports, which surged after the country's WTO accession, have lower wages and more unemployment. The surge of imports not only directly destroyed jobs, but as it did so, others in the community were affected, as housing prices fell and demand for non-traded goods decreased.

What globalization is good for (when it works well) is thus not jobs, but standards of living. It increases overall productivity. The jobs created in the export sector are higher paying than the jobs lost in the import-competing sector. Trade liberalization is thus supposed to be about increasing GDP. With higher national income, in principle, everyone *could* be better off.

There were, however, two problems with even this story of the benefits of globalization, which I will discuss at greater length below. First, the fact that everyone *could* be made better off doesn't mean that they would be better off. But secondly, special interests saw trade agreements as an opportunity to distort the economy in their favor, to increase their rents and profits. The result was that the US never signed on to a free-trade agreement. Doing so would have entailed politically untenable compromises, for instance, giving up its massive agriculture subsidies. Agreements, like NAFTA, were called free-trade agreements, but they were really "managed" trade agreements serving the interests of large corporations.

The problem is that most politicians did not understand the story I've just told—that trade is not about jobs but about standards of living, that it was not automatic that the standards of living of most citizens would increase with a trade agreement. Those that did understand it thought it was too complicated. So, they told what they thought was a

white lie to the public—trade creates jobs. And when the evidence showed the contrary, especially when standards of living of large numbers of citizens declined, they lost their credibility.

2 Overselling globalization: why globalization may not increase aggregate well-being

Advocates of globalization overestimated its benefits and underestimated its costs—especially the costs to the standards of living of those in advanced countries with limited skills.

There were three effects to which the advocates of trade liberalization gave short shrift, in part because the effects did not appear in their models. But just because the effects did not appear in their models did not mean that they weren't there, and that they wouldn't have important effects, undermining the conclusion that globalization increased GDP.

2.1 Increased risk

For instance, globalization can increase the risks faced by firms and individuals. Indeed, most of the macroeconomic risks facing developing countries come from *outside* those countries. Making matters worse, individuals and firms cannot insure themselves against these risks, nor can the risks be shared across all of society through other market mechanisms. This shortcoming has profound consequences. Consumers are worse off when they have to bear the consequent risks. Workers too may face greater insecurity. And firms, without insurance protection, may shift production toward safer activities with lower average returns. The result is that *with imperfect risk markets, all individuals may be worse off*.¹

One particular risk that I warned about in *Making Globalization Work* (Stiglitz 2006) relates to a country's energy security. Gung-ho globalizers pretend that in the post-World War II era, borders don't matter—but they do. Germany, for example, has become heavily dependent on Russian natural gas—a dependence with economic and political consequences. If Russia should suddenly shut off the gas, it could have disastrous effects for Germany's economy. This scenario is not just a remote possibility or an economist's nightmare; Russia has cut off or reduced

¹ This is a result I showed with Professor David Newbery of Cambridge University more than a third of a century ago (Newbery and Stiglitz 1984; Keynes 1942). Professor Partha Dasgupta (also of Cambridge University) and I were able to show that quotas—restrictions on the absolute amount that could be imported—might be better than tariffs, upending a key pillar of trade policy of the last half century, which has been to convert quotas into tariffs. See Dasgupta and Stiglitz (1977).



the supply of gas to Ukraine several times in the last few years. Germany might reason that it wouldn't be in Russia's *economic* interests to cut off the gas. But Russia (and its leader, Vladimir Putin) might have other concerns—such as inducing the West to remove sanctions imposed over its blatant violation of international law with the invasion of Ukraine and the annexation of Crimea. And of course economists' presumption that humans are always and everywhere fully rational is obviously wrong.

Markets don't "price" the cost to society of an interruption in the gas supply, and thus German firms, looking for the cheapest source of energy, turned to Russia. The failure to price this risk is an example of a market failure—one with consequences in the short run as serious as those that may result in the long run from the failure to "price" global warming. Now, leaders in Mexico, which has become heavily dependent on US gas, worry that Donald Trump, with his virulent and irrational anti-Mexican stance, could take actions which would interrupt the supply of gas; at the very least, it could be an important bargaining chip as he tries to force Mexico to pay for his ill-conceived border wall.

2.2 Imperfect competition

So too, the standard models assumed perfect competition—all firms were small—in spite of the fact that much trade is conducted by corporate behemoths who are larger than many countries and which often have very significant market power. Walmart may use its market power in China to drive down producer prices, and then, when it enters other countries, like India or South Africa, use this market power to effectively drive small producers out of business. Standard results on the welfare benefits of trade liberalization do not hold when there is imperfect competition. And yet, policy analysts have tended to ignore these effects, worried that it would open up a Pandora's box of special interest claimants for protection.

2.3 Dynamics of comparative advantage

Perhaps the biggest mistake that globalizers made was that they paid too little attention to the long run (as is also the case for most firms in our economy). They asked, what is the comparative advantage, the relative strength, of the economy *today*? Cheap labor in China meant that it had a comparative advantage in labor-intensive manufacturing. So, firms shifted their production from the US to China.

In the past, this shift would have happened slowly. China simply wouldn't have had the initial technological capacities: labor might have been cheap, but not cheap enough to compensate for the technology gap. But China invited American firms in, and was able to marry

America's advanced technology with China's cheap labor. (And of course, access to the potentially huge Chinese market made this marriage even more attractive.)

What happened next changed the course of globalization: China and other countries in East Asia *learned*, and they learned quickly. They developed their own technological capacities, which meant they still had a comparative advantage in manufacturing even as their wages started to rise.

In manufacturing and perhaps most other sectors of the economy, firms only learn how to increase productivity by *doing*, by actually producing. But there is an unappreciated converse of this proposition: if firms don't produce, they quickly fall behind. As America shifted production of, say, thermos bottles to China, China learned how to produce even better thermos bottles at a lower cost. And thus, America, as it stopped producing, fell behind.

And in this case, history matters: twenty or thirty years later, after production has shifted to China, we can't just say, let's bring manufacturing back to the US or Europe. We have neither the technology nor the skilled workers required. Of course, America and Europe too could learn. They could train a new coterie of workers. But that would require a concerted effort—beyond that of any single firm. More likely, if production were to return, it would be on the basis of new and different technology—in particular, the use of robots. These are areas where the advanced countries do have a comparative advantage. But—and this is key—bringing production back with these new technologies will not resuscitate the old manufacturing jobs; indeed, it is unlikely to create many jobs at all, and the jobs created will be mostly highly skilled jobs.

In essence, the advocates of globalization forgot about "spillovers": the ways that learning in one firm spills over to another. These spillovers also help to explain "clusters," such as those dense groupings of high-tech firms in Silicon Valley today, or the manufacturing firms in Ohio and Michigan at the beginning of the twentieth century.

3 Overselling globalization: distribution

My previous remarks suggest that the increase in the overall size of the economic pie due to trade liberalization may have been less than its advocates suggested. Indeed, even using standard models, this was confirmed by analyses of the Trans-Pacific Partnership (TPP) agreement, sold as the most important trade agreement ever, embracing more than 40% of global trade. And yet, when the government came down to calculating its effects on GDP, the effects turned out to be miniscule, and other studies suggested that the government's estimates were themselves a gross exaggeration. With broader measures of well-being, the benefits are likely to be smaller, and, perhaps, negative.



When globalization worked well, the winners gained enough that they could compensate the losers so that everyone could be better off. But the theory said that they *could* compensate the losers, not that they would. And typically they didn't.

While the aggregative benefits of globalization may have been small, the distributional consequences were large. Large swaths of those in the developed countries have not done well: even if the size of the pie increases, if they get a smaller share, they can be worse off. These distributive effects are not just those predicted by the standard theory of comparative advantage (the famous Samuelson–Stolper theorem), with trade in goods substituting movement of factors, so that the demand for unskilled labor in advanced countries declines with the opening of trade and with that, its wage. There are also distributive effects arising from workers' weakened bargaining power, as firms threaten to relocate if workers do not accept lower wages or worse conditions. These effects are especially significant in those places where there has been an increase in unemployment, and can be especially great in the aggregate if monetary and fiscal policy are constrained in their response—as now.

Ironically, those who have been among the most ardent advocates of globalization have been among the strongest opponents of those measures, like trade assistance, that are necessary to ensure that no one loses out from globalization. They often claim that such assistance is either ineffective or too costly. But we should be clear what this implies: it is an admission that globalization may not be a Pareto improvement. If there are large numbers of individuals who are made worse off—or perceive that they were made worse off—by globalization, why should we be surprised that there is great opposition to it?

For the workers in America and Europe who've seen their incomes stagnate for a quarter of a century, it may be little comfort to know that on the other side of the world, many people have never seen it so good. Indeed, the contrast is likely to fuel the view that the gains of those elsewhere have been at their expense. It will reinforce a zero-sum view of the world, where one country's gain is another's loss.

It also gives little comfort to those in the middle class who have seen their incomes stagnate to say that only part of their suffering is due to globalization, that most of the decline of the middle class is due to technological change. That answer itself is paradoxical: technical change and progress were sold as something good *for everybody*, but now the middle class is told that it may be good for those at the top, but not for the rest.

Things have not been going well for large parts of this country—for the bottom 90%—even if GDP has been increasing overall. Indeed, growth that benefits only the top

simply increases the anger. Americans were told (to quote the expression made famous by John F. Kennedy) that a rising tide lifts all boats. They were told about trickle-down economics, which would ensure that all would benefit if GDP increased. Globalization was, of course, just one among a panoply of policies, including financial market liberalization, which were supposed to increase the efficiency of the economy, from which all were supposed to benefit. These policies, individuals and in the aggregate, seem not to have served a large fraction of the country well, which has had enormous political and social consequences.

3.1 The failure of protectionism

One of the consequences of the backlash against globalization has been the growth of support for protectionism—central to Trump's campaign for the presidency. But this protectionism won't solve the problems to which globalization has contributed. The plight of those hurt by globalization may even get worse (Stiglitz 2016). Even if globalization did not lead to a spur to growth, deglobalization may lead to a weaker economy. New supply chains have been created. Jobs may have been lost in the process of globalization, but more jobs will be lost if we deglobalize. History matters.

The central message of *Globalization and Its Discontents* (Stiglitz 2002) is that if globalization is well managed, it can be “positive sum”—citizens in all countries can gain. The retreat from globalization that Trump proposes is likely to be “negative sum”—a lose–lose situation.

4 Another world is possible

We can make globalization into a positive sum situation where everyone or at least most benefit. But it won't be easy.

Some have suggested that the lesson of the past third of a century is that *now* we must be sure that those who lose from globalization are compensated. That is true—but that may not be a credible policy. The elites and the politicians have been discredited. Why should they now be trusted with a vague promise that, somehow, those hurt will be helped? To make globalization acceptable, more must be done: social protection against the ravages of globalization has to be built more deeply into the fiber of our economic system.

Of course, any such program must begin by analyzing fundamental causes of increase in inequality and why globalization may have not worked for most citizens. We need to address broader issues of inequality, but we also need to pay attention to the particular issues associated with globalization.



Most importantly, we need to recognize that the conflict is not so much between workers in developing and developed countries, but between abuses of corporate power and interests of ordinary citizens everywhere. Elsewhere, I and others have noted that the major change in inequality is associated with a rising gap between growth in productivity and growth in wages that began in the mid- to late-seventies. There was no change in technology that can account for what happened. It is a change in the rules of the market economy—of which the rules governing globalization were one important part.²

The following paragraphs describe briefly what a program ensuring shared prosperity might entail—a program that might convince globalization's skeptics that most Americans would benefit from globalization.

(a) Improving equality of market incomes.

Most important here is rewriting the rules of the market economy, again. They were rewritten in the era that began in the late 1970s in ways that led to lower growth and more inequality. Now they have to be rewritten to ensure that there is shared prosperity. There are many elements of such an agenda including (i) Curbing market power and abuses of corporate governance; (ii) making the financial sector perform the functions it is supposed to perform; (iii) reforming corporate governance and the financial sector to encourage long-term decision making; (iv) increasing the minimum wage and extending other labor market protections; and (v) strengthening the bargaining rights of workers and unions.

It is also important to run the economy more tightly. The gains from lower unemployment far outweigh risks of moderate inflation. This is the only way we can make sure that the people marginalized by the forces above can be brought back into meaningful economic activity.

The policies of the Federal Reserve need to be oriented toward increasing the flow of credit, especially to small and medium-sized enterprises, preventing abuses of the financial sector, and preventing instability (the costs of which are borne disproportionately by ordinary citizens). Most of the new regulations are aimed at preventing the financial sector from doing what it shouldn't, and imposing harm on the rest of society. This is important. Still, more attention needs to be placed on getting the financial sector to do what it should (Stiglitz 2017; Greenwald and Stiglitz 2010; Stiglitz and Greenwald 2010).

(b) Reducing the intergenerational transmission of advantage and disadvantage.

Even though Americans like to think of the US as a land of opportunity, statistically it is largely a myth. That is, the

life prospects of a young American are more dependent on the income and education of his parents than in almost any other advanced country. And there are reasons to believe that matters are getting worse, and could get still worse. There is a need to strengthen public education—including preschool—and to do a better job of ensuring universal access to high-quality tertiary education. Repeated Republican proposals to reduce or eliminate the estate tax would make America into even more of an inherited plutocracy.

(c) Improving equality of after tax distribution of income.

One of the most important aspects of this agenda is substituting progressive taxation for the current system of regressive taxation. Tax enforcement and the closing of loopholes is crucial. Elsewhere, I have argued for a global minimum corporate income tax and for replacing the widespread abuses of the transfer price system, which is currently the basis for taxing multinationals, with the formulaic approach, analogous to what is done among the US states. Another critical measure is a stronger earned income tax credit. Tax reform is vital to the agenda because other parts of successful government program will require more revenue.

(d) Helping the economy adjust to the new reality.

Today, we are moving from a manufacturing to a service sector economy. Markets don't do such transformations well on their own. The Great Depression is a striking example. Trying to recapture manufacturing is largely a will-of-the-wisp. In short, the government will have to take an important role in this transformation—a larger role than it has been. There are, for instance, enormous benefits from creating a learning economy and society, and government through education and research programs is pivotal (Stiglitz and Greenwald 2014).

Education and retraining program (active labor market policies) can work *if there are jobs* (another reason for government ensuring that the economy is run tightly.)

(e) Social insurance.

It has long been recognized that the market provides inadequate insurance for many risks—that's why we have social insurance. Here, we are concerned with the risks associated with losing one's job—or seeing wages cut drastically—as a result of globalization. One can't buy insurance against these risks.

In Stiglitz and Kaldor (2013), we explain why protectionism is not an effective way of providing social protection. We need “social protection without protectionism.” This entails providing greater protection both for workers and communities that are adversely affected.

² See Stiglitz (2015).



Here, I have had time only to sketch what is necessary if there is to be any credibility to a promise that globalization would be of general benefit to most citizens. In the absence of such a comprehensive program, there is every reason that ordinary citizens would be suspicious of globalization.

In short, if the government makes use of the full range of instruments at its disposal, it can help ensure that globalization works for most citizens, *smoothing* the transition from the manufacturing economy to the service sector economy, maintaining full employment along the way, and doing so in ways that maintain economic stability while avoiding excessive trade or fiscal deficits.

To repeat, the market on its own won't provide the social protection, won't ensure that globalization works for even most citizens, and won't ensure a smooth transition from a manufacturing to a service sector economy. The government will need to take an active role. This makes it especially important not to succumb to ideologies, such as "deficit fetishism" (the belief that the government should never have a fiscal deficit) or that markets, on their own, are efficient and stable, and shouldn't be interfered with.

5 Concluding remarks

The disparity between what has been promised by our politicians and what has been delivered may account for the anger of so many and the growing distrust of the elites—in politics, in the media, and in academia. I've even seen this distrust from some of the 1%, as they charge that the country has been misled by its intellectual elites. It's deeply disturbing that the president has decided not to have any economists in his cabinet. Businessmen know how to do business—how to make deals, and in some cases, take advantage of other people; in others, as Akerlof and Shiller point out, by "phishing for phools" (Akerlof and Shiller 2015). Knowing how to make money or how to take advantage of others doesn't necessarily mean that one has even a clue about how a complex system like the economy works.

The fact that accepted "truths" about globalization's benefits turned out to be so untrue undermined the credibility both of those who enunciated these truths—the academics, the politicians, the banker elites—and of those who delivered the message, the media. Of course, the media shouldn't be blamed: they were just the messenger, they were just conveying the messages, perhaps a bit too uncritically.

It's hard to explain this, or to explain that all scientific findings are tentative, held only with a certain degree of confidence, open for refutation—that this is all part of the open quest for truth. But that's a far cry from a world where everyone gets to pick their own "alternative facts."

We may not know everything for certain, but we know *something*. We may not precisely know the number of people who turned up for Trump's inauguration, but we can be *almost certain* that the number that he said was wrong.

There is a simple lesson in all of this: economists as public servants have, of course, a responsibility to tell those that they advise of the consequences of alternative policies. But their responsibility goes further: they have to understand and explain the limits of their models and the limits of our knowledge, to articulate what we know and what we don't. Economists might, in the end, decide that globalization's distributive effects are outweighed by or outweigh the aggregative effects. But it was wrong not to explain its potentially large distributive effects, the large adverse effects on employment in certain locales, the consequences of imperfect risk markets and imperfections in competition, and the implications for dynamic comparative advantage. It was wrong not to accompany any globalization proposals—any new trade agreements—with a set of measures that would have ensured that large segments of the population were not worse off as a result. When we oversell, as many of us did with globalization, we put at risk both our reputation and the well-being of those who we, as public servants, are supposed to serve.

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