



The Failure of Macroeconomics in America

Joseph Stiglitz*

Editor's Words

On 18 March 2011, the China Association for World Economics hosted “The Presentation of the 2010 Pushan Award for Excellent Papers on International Economics” at the China Central University of Finance and Economics. Over 700 scholars and students from home and abroad attended the ceremony. Professor Joseph Stiglitz, the winner of the Nobel Prize in Economics, presented the awards and gave a speech on “The Failure of Economics in America.” The following speech transcript has been approved and edited kindly by Professor Stiglitz.

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First, thank you very much for inviting me to participate in this ceremony. I've spoken and written a lot about globalization, and how, in some ways, it has made the world a smaller place. There is one aspect of globalization where the world is especially small: the global community of scholars. Professor Pu Shan is part of that community. I studied at MIT and several of the economists who studied with Professor Pu Shan were my teachers and my good friends. Professor Samuelson was both my teacher and my thesis adviser; Professor Klein, who wrote the remarks about Professor Pu Shan contained in the program, is a very good friend. So this is a wonderful opportunity to be able to honor Professor Pu Shan and at the same time to celebrate the scholars who wrote the two papers that received his namesake award this year.¹ Both of these papers address issues of enormous global consequence. I was a member of the Intergovernmental Panel on Climate Change, and a lead author in writing their 1995

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¹ Two papers received the 2010 Pushan Award: “Economic transformation and Balassa-Samuelson effects,” by Wang Zetian and Yang Yao, and “Embodied energy in China's foreign trade and policy implications,” by Chen Ying, Jiahua Pan and Laihui Xie.

assessment of climate change. We warned then, more than a decade and a half ago, of the serious threat posed by greenhouse gases. It is very clear that we need more research of the kind that one of this year's award winners conducted (Chen *et al.*, "Embodied energy in China's foreign trade and policy implications") to understand the relationship between greenhouse gas and economics.

The subject of my talk this evening, though, is macroeconomics. Let me begin with Adam Smith – often thought of as the father of modern economics – who wrote more than two centuries ago about how markets lead to efficient outcomes. His most famous line had to do with the "invisible hand": how the pursuit of self-interest would lead as if by an "invisible hand" to the well-being of society. It took more than 175 years for economists to understand the precise sense in which that was true (what is today called Pareto optimality), and to understand the conditions under which it was true. Some economists expanded the meaning of the "invisible hand" into a faith that, in all cases, free markets create efficient outcomes. But Smith himself was actually much more circumspect. He understood that while markets were important, there were many limitations. Unfortunately, though, many of the latter-day descendents of Adam Smith didn't understand what he understood.

Two of the great economists of the mid-20th century, Gerard Debreu and Kenneth Arrow, proved an important theorem explaining that the conditions under which markets were efficient were very restrictive. They pointed out that there were a whole set of problems that today we call market failures, in which markets do not yield efficient outcomes. The lesson is that markets are important, but they have limitations. An illuminating example is the limitations associated with externalities. Of these, environmental externalities are some of the most important; and the most important global externality is greenhouse gases, which is the subject of one of the awarded papers today.

But there are many other limitations to markets, as well. If, for example, competition is limited, markets won't work the wonders that they are supposed to. Microsoft is a modern day example of a "monopoly." But there are many others, and it takes vigilance on the part of antitrust authorities all over the world to ensure that monopolies do not engage in abusive practices, abusive pricing, stifling development, and interfering with economic efficiency. (One can have some monopoly power even when there is some competition. Monopolies can both suppress output and discourage innovation.)

My own work focused on one other set of problems: those that arise when information is imperfect, or risk markets are incomplete. And that's always the case. Market information is always imperfect, and risk markets are always incomplete. In work with my colleague Bruce Greenwald at Columbia, we explained why the invisible

hand that Adam Smith had talked about often seems invisible: in fact, it often isn't there. In general, whenever information is imperfect, and risk markets are incomplete, markets are not efficient.

The Underlying Failure of Modern Macroeconomics: Ignoring Market Failures

Modern macroeconomics forgot or ignored these very important lessons. It constructed models that assumed that information is perfect, and that risk markets were essentially perfect, or were unimportant. Modern macroeconomics made a set of assumptions under which markets always worked well. So it wasn't a surprise, at least to me, that most of these macroeconomists and their models didn't do a good job in the context of the current crisis – they didn't predict the crisis.

Failing to Predict the Crisis

The standard macroeconomic models (and the macroeconomists who relied on those models) totally missed calling the most important economic event of the last 75 years.

The test of science – economic science or any other science – is the ability to predict. A major crisis is the most important economic event that anybody could ask the science to predict, and their models didn't. So by this crucial measure, the modern macroeconomics failed, and failed very badly.

A Theory That Says That Bubbles Don't Occur

But the theory's failure was worse than not predicting the crisis: it actually said that these kinds of crises could not occur.² They would not occur, because markets were efficient; if markets were efficient, there can't be bubbles; if bubbles don't exist, they can't break; and if they don't break, there can't be the consequences that we are now confronting. So the series of events that actually led to the crisis were written off as impossible: according to the theory, what happened simply couldn't occur.

Even after the Bubble Broke, They Failed to Understand the Consequences

Not only did they say the crisis couldn't occur and thus didn't predict it, even when the bubble broke, those who were indoctrinated in these models, including the Chairman of the Federal Reserve, still effectively said, Don't worry, the problems are

² Obviously, there are a large variety of economic models, with different assumptions and conclusions. I focus on the Standard Model, sometimes referred to as the Dynamic Stochastic General Equilibrium Model, and the policy prescriptions derived from that model. There are, of course, many variants even of this model.

contained. There's a little problem of subprime mortgages, but they won't affect the economy.

Well, the Chairman was wrong. The models that have been used, on which the Fed has based its economic policies for a long time, said the risks would be diversified. So when Ben Bernanke made the statement that it was contained, he was making it on the basis of economic models, economic models that were fundamentally wrong both in their economic assumptions and their mathematical structure.

How the Models Contributed to Making the Crisis

Now there is growing consensus about some of the mistakes that occurred both before and after the crisis. Before the crisis, for instance, there was the view by central banks (monetary authorities) that keeping inflation low and stable was necessary and almost sufficient for economic stability and prosperity. But that's obviously wrong. The US kept inflation very low and very stable. In fact, Greenspan prided himself on the "Great Moderation": we had seemingly succeeded in solving the problem of inflation, and that had led the way to rapid economic expansion (so it was believed). Actually it was not the US that "solved" the inflation problem; it was really China, which kept prices low and exchange rates stable so that many American consumers could get goods at low prices. Greenspan may have claimed the victory, but it was not really his.

But the fact is that despite the low inflation, we had a major economic crisis, from which we are still suffering. Evidently, low inflation does not guarantee real economic stability or high long-term growth. The models used by central banks (the standard macroeconomic models) talked about the distortions that result from low inflation, changes in the relative prices; we call them "deadweight losses." These losses were a tenth-order effect relative to the losses that the economy has experienced because of the financial collapse. The US has already lost trillions of dollars in the gap between our actual output and potential output. The crisis has been enormously costly.

Incentives Matter, But Are Left out of the Models

The crisis should be very disturbing to anyone who believed in Adam Smith's invisible hand. Greenspan, in testimony before the Congress after the collapse, said that he was surprised about what had happened. He and many other central bankers from around the world talked about self-regulation, and how the markets could regulate themselves. In his speech, he acknowledged that he made a mistake in thinking that markets would manage their risks better, and that he was surprised about this. For my part, I was surprised that he was surprised, because the economics I study say that

incentives matter. And when you look at the incentives, it's clear that those in the financial sector had incentives to engage in excessive risk-taking and in shortsighted behavior. It was the logical reaction to these perverse incentives and the loose regulatory environment that gave them free rein. If they had not behaved badly, we would have had to revise our textbooks. But they did behave badly, just as the incentives led them to behave.

Markets Are Supposed to Provide Good Incentives: Failures in Corporate Governance, Another Lacuna in the Standard Model

That, however, raises deeper questions. Markets are supposed to provide good incentives.

Why did the markets provide bad incentives, incentives that didn't serve our economy well, and didn't serve even the shareholders and bondholders well? That's another issue of incentive: corporate governance. But corporate governance (like the perverse incentives in the financial markets) is a subject that is totally excluded from the standard macro-models. The macro-models left out banks, they left out bankers, they left out corporate governance, they left out everything that's important. They left out risk markets, they left out information.

Mis-modeling Financial Markets and Failures in Guidance after the Crisis

The whole function of financial markets centers around risk and information, allocating capital and managing risk. The financial sector mismanaged risk, created risk, and misallocated capital. This is a massive market failure, which is totally excluded from the framework of the macroeconomic models that were used in most countries around the world. In those models, markets are always efficient.

Not only did the models actually lead to policies that led to the crisis, they didn't really give very much assistance when the crisis happened. They didn't give government the advice or the frameworks with which to respond to the crisis. It's not surprising, because among the macro-models, there were almost none in which credit played an important role. The crisis was a credit crisis, a crisis in our banking system. And since the macro-models did not incorporate good models of credit and banking, they have nothing to say.

The critical issue, then, that the US, the UK and other countries faced was what to do with the banks, how to restructure them, how to provide them capital, how to get them to go back to doing what they're supposed to be doing (which is lending), and how to restart the collapsed "shadow banking" (securities market), or if doing so was even desirable.

The upshot is that years after the crisis – remember the bubble broke in early 2007 and we are now in 2011 – the banks are still not lending in the US to the small- and medium-sized enterprises. Unemployment in the US is still high, although the rate has come down to just around 9 percent, from a high above 10 percent. But one out of six Americans who'd like a full-time job still cannot get one. The mortgage market is still in shambles, with real estate prices continuing to decline.

In short, the US (and Europe) continues to face serious economic problems, but the standard macro-models have provided inadequate guidance on how to get back to full employment quickly.

Who Is to Blame?

There is a lot of discussion in the US about who is to blame for the crisis. In my interpretation, at the core of the crisis was a failure of the banking system and the financial system, but the regulators were also to blame. The regulators should have known that banks behave badly if they are unregulated. Banks have done that over and over again. We've had crises in market economies regularly for the last 200 years. Just since the deregulation movement that began about 1980 with Reagan and Thatcher, the world has had more than 100 crises. The mistake of the regulators was to not regulate, and instead promote self-regulation. Thus, the banks are at the center of the crisis, but the regulators are also to blame because they didn't stop the banks from behaving in the bad way that banks always do when you don't regulate them.

The third source of blame is the economists that gave the policy-makers the models – including the models that said that markets are self-regulating. Policymakers, unfortunately, took such advice too seriously – perhaps because these free market economists were telling them what they wanted to hear. That's why we have to fix not only our economy, but also economics. And that's the future task for those of you students here. It's also a great opportunity.

Restoring the Economy to Health

Let me try to highlight the nature of the economic problem and the ways in which our policies haven't responded adequately. In the wake of the crisis, the resources of the US are the same as they were beforehand. We have the same physical capital, the same human capital, and the same assets that we had before the crisis. What we've done is eliminate one of the distortions associated with mispricing of housing. One might guess that since we now have the same resources as before the crisis, and since we corrected a major market failure in pricing, we would have a higher output and our economy should be working better, not worse. Output should be greater after the crisis

than before. But the output is lower than it was. So what went wrong? That's a really important question.

What is very clear is that markets by themselves have not used our society's resources well. The banks realized they couldn't fix even their own problems, and they turned to the government. But the economists didn't give the government the policies and frameworks for them to think about what should be done. They still aren't, for the most part.

Austerity: Moving the Economy in the Wrong Direction

Right now, the debate in the US is going exactly the wrong way again because of the influence of the economists: too many of the wrong macroeconomists are giving advice. These economists looked at our budget deficit, said we had a problem, and recommended austerity. But here again, they have misdiagnosed the problem. The deficit was caused by the fact that the economy was weak; because the economy collapsed, revenues went down and that created the deficit. The best way to deal with the deficit is very simple: put Americans back to work. If all Americans were working, if the economy was up to its potential, then we would not have the serious deficit problem that we have today. Unfortunately, the recipe that many people are talking about for deficit reduction would make the problem worse by weakening the economy, therefore lowering tax revenue and exacerbating the deficit. So what should be done? It is actually fairly simple.

Fixing the Banks

First we have to fix the banks and the financial system. We have to get them back to doing what they're supposed to do, which is provide credit to small-and medium-sized enterprises and a whole variety of other things that are necessary for the economy. It would take longer to describe all the necessary steps than the time I have available this evening, but what is clear is that what has been done is inadequate. And there are clear alternatives that could have been undertaken.

Fiscal Policy

The second thing is that we need fiscal policy; we need to stimulate the economy. We can stimulate the economy by investing in the economy, make investment in infrastructure, education, and technology. Investment in infrastructure, education and technology stimulates the economy in the short run and promotes growth in the long run, and both increase tax revenue. It's what China did back in 1997 and 1998. When I was the chief economist of the World Bank, I used to go around and say that what the

IMF was doing was exactly the opposite of what we teach in macroeconomics. By advocating budget cuts and high interest rates, it was encouraging the countries to go into recession and depression, and it succeeded! China followed Keynesian economics, which unfortunately fell out of favor in much of modern macroeconomics, and it stimulated its economy with investments that provided a basis for its rapid growth after the crisis was over. That's what the US should do today. The evidence is overwhelming that fiscal policy works and over the long run, if you make good investments, fiscal policy can actually reduce the national debt and provide a strong basis for fiscal stability.

Prior to the crisis, many economists argued that fiscal policy was relatively ineffective. In fact, some economists claimed that it was totally ineffective. Monetary policy was promoted as the instrument of choice, the instrument one should rely on. Well, it's very clear that monetary policy is totally ineffective in getting us out of the current recession, though flawed monetary and regulatory policy may have contributed to our getting into the recession.

This should not come as a surprise. In the Great Depression, Keynes has pointed out that in deep downturns like the current one, monetary policy is not going to work. There are strands in macroeconomics, such as my work with Bruce Greenwald, *Towards a New Paradigm in Monetary Economics* (2003), that explain why, based on theories of banking and credit. But, as I suggested, the "mainstream" models gave short shrift to these.

There is an important warning from the econometric work that suggested the effectiveness of monetary policy and the ineffectiveness of fiscal policy. Of course, in periods of full employment, fiscal expansions are not likely to increase GDP, because the effects will be offset, for example by increases in interest rates by central banks. But today, unemployment is high, and there is no reason that monetary policy would take offsetting actions. One needs to take extreme caution when looking at studies showing what has happened in the past on average and considering applying them to a situation such as the current one, which is very different.

Restructuring Debt

The third thing that has to be done is to restructure debt. Almost one out of four Americans who have mortgages on their homes owe more on their home than the value of the mortgage. This is an important lesson for anybody who says bubbles don't exist. If you create mortgages in the bubble, you are going to wind up with a large number of people who owe more money than the value of their house, because when the bubble breaks, the value goes down and the amount they owe does not.

That has resulted in an enormous social and economic trauma. You can imagine what it's like for American families who are losing their homes. Already 7 million have lost their homes, and we expect another 2 million to lose their homes this year and millions more to lose their homes in future years. (These numbers seem small: every time I mention a number in China, it's small, but for us it's a big number.) So we are having an economic and social crisis. People are not going to start spending when they are so deeply in debt. The economy cannot really start going unless you restructure the debt.

This is a principle we understand. We have bankruptcy laws for corporations that get into trouble. We give them a fresh start. We restructure their debt and we let them start again, because it's important to keep assets used and not to weigh corporations down with debt in a way that prevents them from being used productively. That's why corporate restructuring is a basic part of a successful market economy. In my view, families are important, but we are not allowing our families to restructure their debt, so the American families are being burdened down by the overweight of debt. Our economy won't be fixed until we do that.

Legal Frameworks

The point I raised just now has important ramifications that I want to note. When people talk about market economies, they often forget that a market economy always operates with a set of rules: a set of laws. We have laws on banking regulation and antitrust. Now, you can have good laws and you can have bad laws. Market economies can still work with bad laws, but the economic and social outcomes may be far from desirable. For instance, the bankruptcy law the US passed in 2005 makes it much harder for debtors to discharge their debts, encouraged the banks to engage in reckless lending, and has contributed to our economy's problems, and to immense suffering by many of America's poor. In other words, for an economic system to work, you need a whole set of rules of the game. And you have to be very careful about writing those rules. If you get the wrong rules, the system doesn't work as well as it does with "good" rules. If you don't have good competition laws, you don't have competition. You wind up with monopolies. You will get an inefficient economy. These laws are important parts of the economic system. Right now, China is very well-positioned with regard to writing the laws. If you get them wrong, it's going to be very hard to change. When you have a particular legal framework, there are going to be vested interests that develop within that framework and want to keep it, because those interests make money from it. The banks like the way the banking system worked before the crisis, because they made a lot of money from it. They don't want

reform. They said: What's the problem? Oh, yes, some people lost their jobs; some people lost their homes. But we did very well. We don't think you should change things.

So we have had a very hard time changing our regulatory system.

Concluding Remarks

I hope in the last few minutes I have been able to explain the way in which the conventional macroeconomics that became popular in the past 20 years is very flawed. The good news is that many of the ingredients for a better macroeconomics are already here. There's a lot of research on microeconomics, banking and finance, but that research has to be put together to form a model of the entire economy, a model of macroeconomics. This is in fact a very exciting time for economics. This is an ambitious task on which I think there's going to be progress in the coming years. The construction of a better macroeconomics is something that is well within our grasp

There is, in fact, a global community of scholars that is now working on precisely this issue. It's called the Institute for New Economic Thinking (INET), and it has been getting a lot of support from a variety of circles, including Paul Volcker, the former Fed chairman, and UK regulator Adair Turner. At recent meetings held at Cambridge and at Bretton Woods, there was a broad consensus that the macro-models that have dominated the economics profession for the past 20 years were badly flawed and had contributed to getting the global financial market and economy into their current troubles, and that there is a need for new thinking in economics.

Fixing the Regulatory Framework

Among the ideas around which a consensus is building is that financial regulations are needed and regulations matter; the regulations that existed before the crisis were deficient, but the regulations haven't yet been adequately fixed. The US passed the law last summer called the Dodd–Frank bill. It's a step in the right direction, but it's so full of holes that I describe it as a “Swiss cheese” law. It has some good things, but it's also smelly. It's filled with exceptions and exemptions. For example, they created something like a consumer product safety commission. Some of the financial products are like the nuclear power plants, too dangerous to touch. And you shouldn't have them. Like a drug, you need to test these products, make sure that they do what they claim to do, that they are safe for use by ordinary people. But while they said banks shouldn't engage in predatory practices, loans for automobiles were exempted. Why should it be a good idea to allow predatory lending? It makes absolutely no sense. The only reason is that the automobile lobby paid enough money to get an

exemption.

The more fundamental problem for global financial stability is that of the too-big-to-fail banks. Why is that a problem? If it's too big to fail, it means that it can undertake big risks. If it succeeds, the risk pays off and the bank walks off with the profits. But if it fails, it's the taxpayers who bear the costs, because government is obliged to bail out the too-big-to-fail banks. We call it "ersatz capitalism," where we privatize gains and socialize losses.

Unfortunately, that's what we have in America. And, also unfortunately, we did not fix this problem. The same incentives still exist. The system is dynamically unstable because the banks that are too big to fail (and everyone knows which banks these are) get capital at a lower interest rate. Giving them money is less risky because it's understood that the government will bail them out if they get in trouble. So the too-big-to-fail banks are more successful not because they are more efficient, but because they get hidden subsidies from the government. Economically, the case against these too-big-to-fail banks is simple and compelling, but the politics works against reform: they have the money to influence policies, to forestall reforms that work against their interests, so we've failed to fix the system.

The problems in macroeconomics are global. An obvious example is that the global financial crisis was made in the US and then exported around the world. Regulations have to be global because if they are not global, there is going to be arbitrage across borders. We need a reform of the global reserve system. It's an anachronism in the 21st century that a single currency, the dollar, has a central role. Moreover, it is not a good store of value: it's volatile and has all kinds of risks, including that of inflation. The 21st century needs a global reserve system to match the global economy.

In short, there is a rich policy agenda ahead: policies to resuscitate the economy today and to ensure that a recurrence of such a crisis is less likely and less costly; reforms in how monetary and fiscal policy are conducted; reforms in financial regulation and in the global monetary system. Economics – theory and evidence – is needed to inform these reforms. Hopefully, those of your generation will do a better job than those of the last.

There is a final remark I want to make. When I was an undergraduate student beginning my study of economics, I sometimes felt a moment of sadness, because it seemed I was born just a little bit too late: all the great ideas had already been discovered. Keynesian economics, I thought, was a brilliant idea. I wished I had been around before Keynes so I could have discovered those ideas. But I came to find out that there were some other holes in economic theory that I could spend my time

fruitfully working on. For you students here, this is a very exciting time because now everybody knows that there are many things that we don't know. There are unanswered questions, and there are questions we haven't even thought to ask yet. It is a historical moment in which we have realized that much of what we knew, or we thought we knew, isn't true. It's a moment of questioning and it's a moment in which the kind of encouragement of research that your prize engenders is really important. We really do need to rethink principles of not only macroeconomics, but also other aspects of economics, including how to achieve growth that is stable and sustainable, and growth with benefit that is widely shared. We clearly need a better understanding of how economic systems work.

I wish all of you luck in your future research endeavors.

Question: You were senior advisor to President Clinton. Were you aware of the financial problems before the crisis took place in 2007?

Stiglitz: The answer is yes. When I was President Clinton's economic adviser, we had a lot of discussion of deregulation, for instance, over the repeal of the Glass–Steagall Act (which separated commercial and investment banking activities). I very strongly opposed the repeal of Glass–Steagall Act. I thought it would raise three issues. One, it could contribute to the problem of too-big-to-fail banks, which I mentioned just some minutes ago. Secondly, we have two kinds of banks, commercial banks and the investment banks. Commercial banks are supposed to take savings of ordinary individuals, protect them, and invest them conservatively; investment banks take rich people's money and gamble. I thought putting the two together was a major mistake, because you would wind up gambling with ordinary people's money. That's exactly what happened. That was the second objection. The third was that there are many conflicts of interest that can arise when people who are issuing securities (the investment banks) are also people who are lending to the firms whose securities they are issuing (in their role as a commercial bank). The reality of these conflicts came out very strongly in the Enron and WorldCom scandals around 2001. So I was very strongly against this repeal. I can say that as long as I was in the Clinton administration, the administration didn't ask Congress to repeal the Glass–Steagall Act, but after I left, they did.

But I don't know if it was because I had been able to stop it. There were undoubtedly many other factors in the politics.

I talked about conflict of interest. The Secretary of Treasury came from one of the big investment banks, and upon his departure, he went to one of the commercial banks, the

bank that gained the most from the repeal of the Glass–Steagall. That’s almost surely the real source of the repeal.

When we had these arguments, those in Treasury would say: Don’t worry about the conflict of interest; we’ll create Chinese walls. My response was: Yes, I know you may create Chinese walls, but you will walk right over them or you will knock them down when you find it convenient to do so. And that’s exactly what they did. And then I said: Look, if you really create the Chinese walls so that they are separate, then why put them together? The only reason that you want to put them together is that there must be something going across the Chinese walls. They didn’t have a good answer for that. We now know what the answer was. Some banks made a lot of money after the repeal of Glass–Steagall, but they also destroyed our economy, and contributed to the immiseration of millions of Americans.

Now, on the more specific question: Did I see the crisis coming in the years before? I gave a large number of speeches as the bubble began, expressing my concern. And as it got bigger and bigger, I said that this is a serious problem and that we had an unbalanced economy. At one point, something like 60–70 percent of the growth of the US was related to the real estate sector, either directly (through real estate investment) or indirectly, as people borrowed on the basis of real estate. I said this was not a solid economy; this was an economy that was likely to have a problem. In early 2007, at Davos, I gave a talk about where I thought the economy was going. I said: This is a very embarrassing situation. I have predicted crisis for the last 2 years and it hasn’t happened so far. There are two conclusions you can make. One is that my theory about what is going on is wrong. The second one is that we will have a crisis but, when it occurs, it will be all the worse because we have let the bubble get bigger and bigger. Well, unfortunately for the economy, I was right. The crisis was all the stronger for having been delayed.

I mentioned earlier that the standard macro-models said that bubbles couldn’t exist. Policy-makers, unfortunately, took these models seriously. But Bernanke and Greenspan went further. One of the stances that these policy-makers took – I hear similar views from policy-makers from other countries – is that you can’t tell whether there is a bubble until after it breaks. That was ostensibly a reason for doing nothing. Well, you can’t tell inflation until after you have it, but central banks are supposed to take action before inflation gets very high. One might not be 100-percent certain, but one could have been very, very sure that we had a real estate bubble. You can’t be certain, but you can be almost certain. With real estate prices so high that people can’t afford them, and still going up even as the incomes of average Americans were stagnating – actually most Americans’ incomes adjusted for inflation were going down – you don’t even have to

have a PhD, let alone a Nobel Prize, to figure out that this can't continue. So the notion that you shouldn't do anything about the bubble – because you couldn't be certain that there was in fact a bubble – was just wrong. As I said, you can't tell it for certain, but it was very likely.

The Fed didn't want to believe there was a bubble, because they wanted to believe this ideology, this religion that the market economy is efficient, and in this religion a bubble is impossible.

The other argument they gave was also flawed: they said that the interest rate is a blunt instrument, but the only instrument they had. We can't solve the problem of the asset price bubble with the same instrument used to stabilize the rest of the economy. Trying to stabilize asset prices with this blunt instrument risked destabilizing the rest of the economy. Again, that's wrong. The central bank has many instruments. It can raise the margin requirements, it can raise the down payment requirements, it can take administrative measures and impose lending restrictions and take other regulatory measures: there are, in fact, a whole host of instruments at its disposal. But for ideological reasons, they said we can only use interest rates as a mechanism for controlling the economy. Regrettably, some central banks of other parts of the world are coming under the influence of the same idea: that you should only use interest rates. Controlling a complex economy can't be done with a single instrument. But, fortunately, there are a range of price and non-price instruments available.

Because the Fed was so committed to the ideology that free markets always work, they refused to do anything, to make use of any of the instruments at their disposal. In the end, the cost to our society and our economy of that commitment to that ideology was enormous.

The blinders that economic theory and ideology put on policy-makers made it impossible for them to see the bubble as it was forming, to recognize the consequences of its breaking, and to do things that they could have done and should have done to deal with the aftermath. But for these blinders, the bubble, its bursting, and the aftermath were completely foreseeable. We in the West have all paid a high price for these failures.

(Edited by Xiaoming Feng)