

GENIAL DAGEGEN

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cordially invite you to a lecture by

ROBERT SHILLER

Arthur M. Okun Professor of Economics, Yale University

ANIMAL SPIRITS:

How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism

Welcome addresses by:

Ewald Nowotny, Governor, Oesterreichische Nationalbank

Franz Vranitzky, former Austrian Federal Chancellor

H.E. **William C. Eacho III**, Ambassador of the United States of America

Introductory remarks by **Robert Misik**, journalist and curator of the lecture series *Genial dagegen*

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(Oesterreichische Nationalbank, Otto Wagner Platz 3, 1090 Vienna, Kassensaal, 1st floor

Robert J. Shiller is the Arthur M. Okun Professor of Economics, Department of Economics and Cowles Foundation for Research in Economics, Yale University, and Professor of Finance and Fellow at the International Center for Finance, Yale School of Management. He received his B.A. from the University of Michigan in 1967 and his Ph.D. in economics from the Massachusetts Institute of Technology in 1972. He has written on financial markets, financial innovation, behavioral economics, macroeconomics, real estate, statistical methods, and on public attitudes, opinions, and moral judgments regarding markets.

His 1989 book *Market Volatility* (MIT Press) is a mathematical and behavioral analysis of price fluctuations in speculative markets. His 1993 book *Macro Markets: Creating Institutions for Managing Society's Largest Economic Risks* (Oxford University Press) proposes a variety of new risk-management contracts, such as futures contracts in national incomes or securities based on real estate that would permit the management of risks to standards of living. His book *Irrational Exuberance* (Princeton 2000, Broadway Books 2001, 2nd edition Princeton 2005) is an analysis and explication of speculative bubbles, with special reference to the stock market and real estate. His book *The New Financial Order: Risk in the 21st Century* (Princeton University Press, 2003) is an analysis of an expanding role of finance, insurance, and public finance in our future. His book *Subprime Solution: How the Global Financial Crisis Happened and What to Do about It*, published in September 2008 by Princeton University Press, offers an analysis of the housing and economic crisis and a plan of action against it. He co-authored, with George A. Akerlof, *Animal Spirits: How Human Psychology Drives the Economy and Why It Matters for Global Capitalism* published in March 2009 by Princeton University Press.

His repeat-sales home price indices, developed originally with Karl E. Case, are now published as the Standard & Poor's/Case Shiller Home Price Indices. The Chicago Mercantile Exchange now maintains futures markets based on these indices.

He has been research associate, National Bureau of Economic Research since 1980, and has been co-organizer of NBER workshops: on behavioral finance with Richard Thaler since 1991, and on macroeconomics and individual decision making (behavioral macroeconomics) with George Akerlof since 1994. Robert Shiller served as Vice President of the American Economic Association, 2005 and President of the Eastern Economic Association, 2006-07. He writes a regular column "Finance in the 21st Century" for Project Syndicate, which publishes around the world, and *Economic View* for *The New York Times*. He is co-founder and chief economist of MacroMarkets LLC.

Animal Spirits: Wie die Wirtschaft wirklich funktioniert, Campus Verlag, 2009.

Ewald Nowotny

Ladies and Gentlemen, Prof. Shiller, Chancellor Vranitzky, Ambassador of the United States of America, dear friends. I am very glad to welcome you here at the Austrian Central Bank. We have a very prominent and illustrious speaker today. We also have a very distinguished group of visitors. I cannot welcome all our distinguished visitors, but I would like to welcome especially Gerti Tumpel-Gugerell who is a member of the executive board of the European Central Bank, our President Raidl, Vicepresident Kothbauer, Alexander van der Bellen who is the economic policy spokesman of the Green Party. Mr. Scholten who is President of the Bruno Kreisky Forum and former Ambassador of Austria to the US Eva Nowotny. The today's lecture of Prof. Shiller is of course a very special event which was made possible thanks to a cooperation of a number of institutions, namely the Austrian Central Bank, the Bruno Kreisky Forum, the US Embassy in

Vienna, Campus Verlag and WIIW, the Vienna Institute for Comparative Economics. I would like to thank these joint forces for this very special occasion.

Let me shortly introduce Prof. Shiller. He is the Arthur Okun Professor of Economics at Yale University. He is on the forefront of those economists who try to combine real economy aspects and monetary policy aspects especially with regard to bond markets, to real estate markets. He is the creator of the Case-Shiller Home Price Index, a very important index. When I was in commercial banking this was the index we looked at very nervously to know on how development was going. And this combination of real economy and monetary economy enables Prof. Shiller to analyze and also to predict bubbles and market failures. He did so in his book in 2000 *Irrational Exuberance*, a very famous wording that he created, where he predicted the collapse of the new economy euphoria. In 2005 he was one of the first to predict an end of the real estate bubble. And now in his new book *Animal Spirits* that he wrote with the Nobel laureate George Akerlof he sums up some of the lessons to be learned. This book has just been published in German language. I really do recommend it to all of you because it gives you a lot of insides and inspiration not only for professional economists, but for everybody interested in economic and political trends. Some of the lessons we should learn of. I'm not so sure whether we will learn these lessons. It will be part of the discussion that we are going to have. I pass on the floor to Chancellor Vranitzky. Welcome again, Mr. Shiller.

Franz Vranitzky

Thank you very much, Ewald. In a way I'm speaking on behalf of the Bruno Kreisky Forum for International Dialogue. As many of you may know the Bruno Kreisky Forum is an independent, non-partisan, socialdemocratic institution. During the 1960s decade I had the privilege to work here in this bank in substance as an economist. As a young employee of the Austrian National Bank I had to go frequently abroad. Among other places I stayed for a considerable number of months in Washington with the IMF and the Federal Reserve Board, at later times in New York with the New York Fed. In Washington I ran across an economist by the name of J. Herbert Fuerth. Herbert in the 1960s wrote an article in the monthly *Federal Reserve Politen* warning that under certain circumstances a worldwide economic and social crisis as in the 1930s might return some time in the second half of the 20th century. Mr. Fuerth stirred a big debate in the US and elsewhere. Generally speaking he did not receive a great applause. Having returned home my superiors here in Vienna urged me to analyze Mr. Fuerth's article. To make a longer story short I found out that I disagreed with my former compatriot's analysis. I wrote, "We can cope with any economic crisis because we have developed all the necessary instruments, economic and political instruments, such as exchange rate policy." What a mistake. Fiscal policy, income policy, and the like. All at that time from the point of view of a landlocked country with a large protected sector, hardly challenged by international competition etc.

Now this is over. Now we have well arrived in the 21st century, at least some of us. Or we have arrived in the 21st century as far as the calendar is concerned. I'm afraid many have not arrived as their political thinking and their economic and financial behavior is concerned.

I'm extremely glad that this morning we shall be witnessing an encounter of academic wisdom and practical political being. One of our today's political credos is internationalism. What can we hear day in, day out? What do we ourselves assert? Problems are international. Let us find international solutions. Or for us Europeans let us find European solutions. Well said. But does it burn down to reality? Hardly. International speaking concurs with nation-state thinking and with nation-state behavior. Leaders who speak out boldly on international fora return home quite subdued when they have to face their home nomenclatura and their law makers. As we are witnessing this is not restricted to European countries. Somewhere in the world somebody thinks that his country needs a kind of health care, social security, etc. He also faces his law makers, his institutions, insurance companies etc.

Can we escape from this dilemma at all? I think yes, when we never end to have the scientific representatives of our societies crossing the roads of the responsible politicians. Wisdom and education on a broad basis for as many citizens as possible is the most efficient tool against political shortsightedness and silly stubbornness.

Dear Prof. Shiller, in the media I could read that you recently participated in a meeting in Washington with Angela Merkel, Strauss-Kahn, Robert Zoellick, and others. Let us know, listening to you, how animal spirits

affect these powerhouses and the fate determinators of our present time. I bid you a very warm welcome here also after having listened to the Governor, and I am once again grateful that the Austrian National Bank hosts us for this kind of meetings, this kind of entertainment actually which as we know should also be infotainment. Thank you very much. Thank you all for coming, for joining us this morning.

William C. Eacho

Good morning. Thank you, Governor Nowotny, for your hospitality in this historic building. I also thank former Chancellor Dr. Vranitzky and the Bruno Kreisky Forum for co-hosting today's event and for the Forum's longstanding partnership with the US Embassy I represent today. I need not tell this audience that it has been a brutal two years for our economies and for some but not all economic theories. Let me take this chance to acknowledge Governor Nowotny's strong leadership during the financial turbulence that Austria experienced earlier this year. Indeed, his leadership has provided a basis for a recovery not only in Austria but in all the countries of Central and Eastern Europe that Austrian banks provide a leading role in.

In a speech on Wallstreet just two months ago President Obama spoke of the blind faith which led home buyers and derivative traders to make irresponsible choices with the consequences for our global economy. As Professors Akerlof and Shiller explore in their new book such behavior is not the exception. It is a permanent feature of financial markets and a central rationale for prudent regulation. I find it a little bit ironic frankly that I'm mentioning the importance of bank regulation to you this morning. Some 34 years ago, when I was a senior at Duke University, I wrote my thesis on the role of bank regulation as the third lever governments have to influence economies in addition to fiscal policy and monetary policy. President Obama put this whole issue best when he said, "Common sense, rules of the road do not hinder the markets but rather make them stronger". For decades Prof. Shiller has been in the academic vanguard identifying risks and tolerances, imbalances, measuring these imbalances, questioning the notion of perfectly efficient, self-regulating financial markets.

The United States government welcomes the science that our economies are growing again but it is important not to lose political momentum for true regulatory reform. Europe and the United States can move together to establish safeguards and strengthen financial stability while avoiding the "financial mercantilism" in the words of the Transatlantic Economic Council that could be a threat to our recovery.

I am honored to welcome you Prof. Shiller on behalf of the people of the United States. We're very proud that we have a distinguished economist like Prof. Shiller to address us this morning. And we look forward to an enlightening afternoon. Thank you all for coming.

Robert Misik

Let me join for a warm welcome. I only want to say, Robert Shiller, we thank you for being here, we are glad and proud that you are here. The floor is yours.

Robert Shiller

Thank you. I am pleased to be back in Vienna. I actually lived here for a month in 1980 when I was Visiting Professor at the Institut für Höhere Studien in Vienna. I was impressed by Chancellor Vranitzky's story about Mr. Fuerth who predicted a crisis long ago. I feel some kindred spirit. I can imagine how he was not listened to. On the other side of it I feel a sort of inspiration that the world seems to have come to a remarkable consensus about dealing with crises like these notably if you read the statement that the G20 countries issued after their Pittsburgh meeting in September. It sounds to me remarkably enlightened to have twenty nations of the world agree on a stimulus package, preventing protectionism, a variety of things that are to be done so we're getting to a better and better world. On the other hand I think that we may not be entirely secure in this wisdom. That's why I come to my book with George Akerlof. We felt that unless we have a clear understanding of the economic theory that underlies these ideas we may not be secure in our consensus. George Akerlof and I have written a book, *Animal Spirits* that we think is a beginning of a theory that would justify some of the very interventions we made and might help us carry further the interventions that are needed in the future.

The problem is that the economics profession has had trouble understanding the roots of the current crisis. I think this has happened before. We had a remarkable event in the 1930s, the Great Depression, which the economics profession utterly failed to predict. In fact my colleague at Yale University, Irving Fisher, is

famous for having said about a week before the 1929 stock market crash, the stock market is now on a permanently high plateau. They were also very slow to react with a change in their theories after the depression was going on for years. There was a notable thing though that happened, was John Maynard Keynes from the United Kingdom in 1936 published a book called *The General Theory of Employment, Interest, and Money* which I think is the most important economics book of the 20th century. And it launched a revolution in economic thinking called the Keynesian revolution. That revolution is really what underlies the policy that we are seeing. They are really Keynesian policies that have been undertaken. But not with unified support from the economics profession. Because the economics profession while they embraced Keynes immediately after 1936 it then turned around and pretty much rejected Keynes and Keynesian economics and developed a theory that removed him from the textbooks. The economics profession - I don't mean to criticize it totally, I think they've come up with a lot of important ideas since the Keynesian revolution. But in the field of macroeconomics they kind of lost sight of what we really need to understand to help prevent crises like the one we are in now.

What we are doing in this book is in some sense trying to revive Keynes or at least the essential message that Keynes had. There are so many different ways to view any complex theory. But we think that what ought to be considered central to the Keynesian economic theory is that human behavior is substantially driven by what Keynes called animal spirits. That's a term that Keynes used. It actually goes back to Latin *spiritus animalus*. In Latin that meant the animating spirit that gets people going. But for Keynes it developed a new meaning. It's the animating spirit that drives economies to succeed. What Keynes pointed out in 1936 is that the economics profession likes to represent people as calculating optimizers. Even then they had developed something called decision theory which we teach now to our MBA students. The theory says that whenever you make a decision you should build a decision tree and you should write down all the probabilities and all the choices you have to make, and what I will do if it goes this way and what I'll do if it goes that way. That's a very nice sounding model for systematic decision making. But economists began to assume that everybody is doing that. The economics profession began to develop a model of humans that represents their nice calculating, absorbing all the information. It's just a little bit off. It comes up also in something called the efficient markets' revolution that came in the 1970s roughly that financial markets are smarter than any person. The view developed that you have all these people participating in markets. They get smarter and smarter when they get together and all of their information is pooled in prices. So you should trust market prices, don't trust anyone who tells you how to beat the market. What it led to was a complete lack of skepticism about what was happening in the markets. And even our Central Bank heads who formerly had been providers of moral authority and warnings, they would never say anything like that anymore because it was out of time.

What Keynes said is that people don't know the probabilities. And so they operate out of intuition and gut feeling, much more than economic theory represented. And this gut feeling is ultimately driven by animal spirits. If we were perfectly rational, Keynes said, maybe we would be paralyzed into inaction. If you take any business plan and look at the probabilities, what you know about the likely success of this plan it almost always comes out as we just don't know. There are too many uncertainties. But somehow our animal spirit takes us forward.

I think that we have to try to understand animal spirits. And that's what our book is about. We have five chapters at the beginning of the book that I will just go through briefly. It's a theory of animal spirits, but it's emphasizing some points that seem to be neglected.

Our first chapter is about confidence and something we called the confidence multiplier. What happens in a bad economic time essentially - I think this is obvious to people living in bad economic times, but they may forget it afterwards - is that what happens that brings the economy down is a lack of confidence in the economy. To quote our President Franklin Deleanor Roosevelt, "The only thing to fear is fear itself." He said that, he wasn't really original, that was already a common idea. But I'll quote him as an example from the Great Depression. If everybody thinks business is bad then nobody wants to hire and nobody wants to start a new business. They think we'll wait until better times. And that exactly is what causes the problem. It's a self-fulfilling prophecy. We carry this idea further. And we have to try to understand the kind of dynamics that underlie speculative bubbles. We think it's a feedback mechanism or it's a social epidemic that drives things. Some precipitating factor gets a bad market movement or, let's say, an upward movement started and then it feeds on itself as price increases generate more attention and enthusiasm drives prices up more. And

that reinforces theories about the economy that support a positive view. So we get very optimistic for a while. There is a mood of optimism that pervades the economy. This eventually crashes because it can't go on forever. Bubbles burst eventually. And then we can have a downward path as people get more pessimistic.

The second chapter we have is about fairness. This is something that we believe is totally overlooked by most economists. But people want to be treated fairly. This inhibits a lot of actions that might alter the effect of an economic crisis. But in a down market for example, such as in the Great Depression, it was difficult to cut wages, even nominal wages, when prices were falling because it would generate a sense of unfairness. We think this is a powerful force in the economy and helps explain why we have high unemployment even now.

The third chapter that we have in this part of the book is about corruption and bad faith. We believe that, not emphasized by conventional economists but central to economic theory, is that in an economic boom period there is a rise in corruption, there is a decline in business efforts, and there is bad faith dealings that take place that will be discovered only later. This is an old term. Good faith and bad faith. In Latin it's *bona fides*, it means good faith. That means doing business in a way that is like doing business with my brother. I wouldn't sell you something that you don't really benefit from. That's good faith business dealing. But that tended to get lost in the recent boom. For example the whole subprime mortgage debacle in the United States was an example of bad faith dealings. They were selling securities that they wouldn't recommend to their brother. Later when the bust comes, afterwards, the revelation of bad faith then becomes an obstacle toward recovery because people don't trust anymore. They want to read the fine print and want to get their lawyers before they sign anything. And that inhibits business.

The fourth chapter was about money illusion. And this is about our failure to understand inflation and price changes. In the Great Depression a significant cause of the depression was that people had made nominal contracts, not understanding the possibility of deflation. And deflation thereby magnified all nominal debts and put people in deep difficulty. Fortunately so far this time we have not had deflation. We have better policies that prevented that. But it's still a potential because the impact of money illusion is still here.

And the fifth chapter in our theory of animal spirits was perhaps the most unusual. The chapter is entitled stories. What we're reacting to here is another example of behavioral economics. Literature in social psychology that's developed over the last twenty years emphasizes what's called a narrative basis for human thinking. The human mind is wired to listen to stories, especially human interest stories. So our motivations and our understandings are related to stories. Psychologists Roger Schank and Robert Abelson wrote a theory of narrative based thinking. They argue that the human brain tends to tie its memories to stories. We don't really remember very much. We just kind of remember the story. If you try to think back, if you're among the older among us, to your childhood you probably can hardly remember anything except a story of who I am and who I was. The psychologist Robert Sternberg wrote a book entitled *Love is a Story* and arguing that marriage is built around a story. Every marriage has a story. He said that if you ask people to tell stories about their spouse you get a good feeling for the success of the marriage. If the story is something about how we met and how we've grown to be so similar and support each other, that's a good sign for a healthy marriage. But we have the same thing about economies that a story develops. There is a story for a healthy economy and a story for an unhealthy economy. We think that you have to understand these things. That's why the economists with their mathematical models missed the crisis. They want to always attribute it to something happening at the Central Bank or the tax office. But in fact the economy is telling a story that's in everyone's mind. It's a force that they don't even recognize. And that's why they didn't see this coming.

I just want to talk a little bit more about the crisis that we are in now and how it relates to our theory. The current economic crisis, we believe, is driven substantially by two massive bubbles that took place over many places around the world. There was a stock market bubble and there is a real estate bubble.

The stock market bubble infected most countries of the world. Stock markets boomed in the 1990s. They peaked around 2000. And they dropped sharply. Then they picked up again after 2003. The bubble seemed to recur. And then it crashed again. It's been a volatile market. But part of what was happening was that the market became very highly priced. Why did that happen? And as the downdraft from that high pricing that is the fundamental cause of where we are. But it was driven by high levels of confidence. The people who

measure consumer or business confidence reported record high levels around 1999, the beginning of 2000. And it was a time when bad faith business dealings were developing. It seems to go along with this high level of confidence because with confidence comes complacency and a sense that everyone's doing this, a sense that everyone's getting rich, it doesn't matter exactly what the document says, let's get moving and get with it. I mentioned stories are part of our idea. What happened in the 1990s was that the story of the triumph of capitalism around the world became part of our life story and the stories of internet and entrepreneurs who were making millions while I was working quietly in a job and not doing anything particularly exciting became a source of excitement for the future.

What happened during this period, the boom period at the stock market is it led to a change in our self image? It's something very fundamental that's difficult for any central banker to correct by adjusting interest rates, and we can't expect them to do that. But how can they do that what's beyond tight control? So we started to change, when I say our identity, as the general population we started to learn more about investing. We started subscribing the business magazines. We began to view who is a good person differently. And we thought that a good person is someone who is smart and is not just an employee somewhere, but who outsmarts the business world. When the collapse in the stock market came after 2000 it led to a real sense of personal reevaluation. I remember talking to people who said, I thought I was a genius and now I found that I was just riding a bubble.

But I don't think that the crash in the market fundamentally changed these perceptions. What happened is that people had rethought who they were to such an extent that they needed another bubble, they needed something else? And so in many countries they turned to real estate. We know this because my colleague Case and I have been surveys of investors and home buyers and they tell us this. They said around 2003/2004 when the housing bubble was really booming in the United States, I know thought stocks were the best investment and I learned all about that, but now I learned that there are crooks involved and this accounting firm were giving me dishonest stuff, but I want to invest in something that will do well, I'm paraphrasing what people said. But a house is a safer investment than anything else. Home prices always go up. We're running out of land. The economy is booming and capitalism is producing all these wealthy people who will surely bid up the prices of homes. That kind of thinking produced a home price boom for a while. And it's really a remarkable delusionary system that got going. We found in our surveys of American home buyers in 2003, we asked in some boom cities, what do you think home prices will do in your city on average per year for the next ten years? And in Los Angeles the median expected increase was 10% a year, and the meaning was 22% a year. These expectations have come way down. Clearly people didn't know. They were driven by stories. The stories changed. In the real estate boom it became stories of smart young people who buy a second house or a third house and fix it up and then flip it. And that finally collapsed.

I just want to say a few final words about what to do. First of all Akerlof and I applaud the stimulus packages that have been given to support economies. I don't mean exactly applaud, but we feel, we see the necessity for the bailouts because we have to keep credit flowing to keep the economy going. These are things that we advocate. But they seem to be common knowledge or generally accepted. There are further things though that should also be done. Ambassador Eacho quoted our President Obama for saying that regulations do not hinder markets. I think that is exactly right. The view that I have I currently share with our President is that proper regulation of financial markets actually encourages innovation. We learned that from for example the founding of the Securities and Exchange Commission in 1934 in the United States which put things on a fairer playing field and made people feel more secure about the markets. And that allowed them to move ahead better. I know I thought that various countries of the world are beginning to overhaul their regulations, and the US included. But I think we're only at the beginning. And this is a process that should take some years. But it's not a process of reigning in or tightening. It's a process that makes it work better. I think it's analogous to the kind of regulations in our medical field that were developed years ago. It used to be a hundred years ago, there was a lot of quack medicine or snake oil that was being sold to the public. But we've gotten rid of that. You can't sell a drug that is unproven. And as a result that shifted the innovation toward real innovations instead of fake innovations. So I think that that's what we have to do as our next step.

I think also that we should be emphasizing making finance work for the people. I call it the democratization of finance. Angela Merkel says, "Die Wirtschaft soll den Menschen dienen." I think that's what we have to do. For me democratizing finance should be the thrust of regulation. Democratizing finance means consumer protection. That means making products work for the people. It also means expanding markets. I don't think

it means reigning things in. We understand now that it's important for a lot more to be put on exchanges rather than over the counter. But even over the counter products should be expanded.

This crisis was a failure of risk management. And certain risks like real estate risks were not properly hedged. That's why we have so many balance sheet irregularities. I've been working with the Chicago Mercantile Exchange to create futures markets for single family homes. And with the New York Stock Exchange we have a securities based on home prices. This is what I've been doing. But I think the financial community will develop a lot more hedging and risk management vehicles. And we shouldn't be afraid of them, but we should regulate to make sure that they're done in good faith and ultimately they'll make the economy more secure. And finally I think we have to rethink our retail products, for example our mortgages. The mortgage institutions have not served as well, especially in the United States but also in other countries. There is an estimate that between a third and a half of American households are under water on their mortgages. Their home prices has fallen so far that they owe more on their mortgages than they have a value in their homes. This is a sign of financial failure. And I think we can redo and change our regulations to encourage better retail products.

But ultimately we also have to deal with systemic risks. I know the G20 countries talked about every country having a responsibility to manage their systemic economic risks. But I think that also means they have to be cognizant of animal spirits. And the real source of the systemic problem, the problem is, I think, we still don't have a solid enough understanding of some of the things that Akerlof and I talk about. So the governments are saying we're going to manage the systemic risks, but they don't yet have a clear theory about what those are and how we're going to manage them. And I think that in that sense we need a revolution in economic theory that I hope we'll see coming in the next five or ten years along with a revolution in regulation. Thank you.

Robert Misik

I would like to ask one or two questions and give the audience a chance for their questions.

Many people and also conventional wisdom would say the crisis is also a result of too sophisticated financial instruments. Many people say we should make the financial industry simpler. You don't say that. On the other hand we need more sophisticated financial instruments.

Robert Shiller

I think that products that are offered directly to the public have to be simple to understand otherwise the public will make mistakes. But that doesn't mean that the internal structure of it has to be simple. I think it's analogous to automobiles. They've gotten so complex that few of us would attempt to fix an automobile. You take it in to the mechanic and the mechanics has a computerized diagnostic system. Obviously they are extremely complex devices. But they are very simple and they are simpler to use than they ever were before. So that's the model. The other thing is that I think that more complex financial products require that people get better financial advice. This is a problem. We live in a world where people are responding directly to advertisements with no professional help. They encounter sales people. What we really need is financial advisors for the public. That's another thing in my book, these subprime solutions that you have. I think that governments should start subsidizing disinterested financial advice, not salesmen. Analogous to me is the health insurance. It seems to be generally recognized that everyone should have a physician that is not a salesman for some drug company, but is a person who has a commitment to help you and give you honest advice. We need to develop more of that. Right now people who have that kind of financial advisor tend to be just wealthy people. If we move beyond that there'll be more trust in the financial system, we'll be able to allow more complicated products that will work well for people.

Robert Misik

Is this realistic? Many people say we in the Western world also have a crony capitalism that means that the big guys from the financial industry write their loss by themselves. Aren't they too influential that we can reorganize into a financial industry for the people?

Robert Shiller

I hear this a lot in the US that lobbyists from big banks and financial institutions are pestering our Congress and interfering with legislation. I think that's an impediment. But my view of history is that they haven't been able to stop the will of the people. We've done a lot of things. We have all these regulations and they do

serve the people. So it's not as bad as you just made it out to be. I think the new bill that's going to the US Congress I think it has a lot of good things in it. It's not all a cynical manipulation from the banking powers. I don't think that bankers are evil people either. Some of them really want to do good for the world.

Robert Misik

Last night I watched CNN where President, Mr. Obama said we are now on the brink of recovery. Are we really at the brink of recovery? Maybe we are not, but if we tell the story maybe then we are really at the brink of recovery.

Robert Shiller

The idea that the President should boost the economy by saying optimistic things goes back to the Great Depression. It was practiced by President Herbert Hoover with singular lack of success. And that it was somewhat pursued by President Roosevelt. Nobody could make that work. You can't just say and make people optimistic. People are very skeptical of what the politicians say to them. But now the question is are we on recovery? That is a most difficult question right now because there are signs of recovery all over the world. And it is so pervasive that you might think that has to be it, the recession is over. How else can it be in so many places at once? And so sharp. The stock markets of the world, bottom down around March of this year, and they've shot up dramatically. That's almost a universal phenomenon. In the US the turnaround in the stock market we had, the market was dropping, March 2009 it reached the bottom, and not it soared, this is the biggest turnaround we've had since the Great Depression. So I think that there is some return of confidence right now. But I don't feel secure at all about it now because the problems that we have going forward are still there. We have a damaged banking and financial system. We have household balance sheets that are often damaged while the confidence indexes have risen. I don't know that it's genuine and true. I feel that this will probably be a slow recovery at best.

Question

Helmut Schönthaler. I'm very proud and grateful for your words and being born in 1936 and being educated by the University of Economics in Vienna, Keynes is very near to my heart. My question is and my concern as a citizen of a very small country in this world, do the United States really act what many professors and many politicians say? The EU finance people told me that the CDS phenomenon, sixty billion, we don't have any information on the details of the question. And Wallstreet and the city of London have told the EU that's our own business and you don't deserve any information. Are the rulers of this world in financial terms really meaning it and acting it, what many professors and many scientists tell us?

Robert Shiller

That's difficult. It's a question of politics. The credit default swap market is a market that developed over the last ten or twenty years to allow financial institutions to manage the risk that some company might fail as a credit event. It's like an insurance policy against the credit event. And it has grown dramatically over these years. The Bank for International Settlements in Basel has been tabulating the total amount of these swaps. Now I realize there is a language problem. We say trillion, in German that's billion. Anyway it's sixty trillion in American English. That is the total value of all the credit default swaps in the world according to the BIS just before this crisis. That is about four times the gross domestic product of the United States. So you start to wonder what is going on here? How can they have gotten that big? Who can buy all these? People have been puzzling over it and people were puzzling over this huge number even before the financial crisis. They never figured it out. The crisis figured it out for us that something was wrong with this market and we've had this huge collapse. And that was part of the AIG, the insurance company, collapse because they had taken big positions in the credit default swap market. If you look at the April 2009 G20 statement they agreed that the way to handle this problem is not to eliminate credit default swaps but to put them on exchanges more. So we won't have AIG type problems. It's called counter party risk. I think that the idea of having credit default swaps is okay. I kind of agree with the G20 statement. The other thing is, this is your openness question, that these credit default swaps were tabulated by the BIS, but nobody else knew. And the BIS didn't give any breakdowns. They just gave this scary total. And nobody knew who was involved with whom in credit default swaps. And the central banks didn't know. So they had no way to understand the potential systemic risk. So another proposal is that there'll be more reporting and tabulating of these things so that governments regulate. This is also in the G20 that every country has to have a systemic risk regulator who watches what kind of contracts are being made and do they present any stability problems. I think that we're

on to this. This is more of a mechanical, this isn't so psychological, this is a mechanical problem and the financial engineers are out there fixing it.

Question

There will probably be a lot of practical questions being asked, so I'll ask an impractical one because I thought that's more in the spirit of your talk. What you try to do is to say we really don't know very much what to do unless we put economics on a new footing. In a sense that was the ambition which Keynes also had? It's interesting retrospectively that those elements which guide the title of your book were the ones which were not picked up from Keynes. The first reaction by the economic community was to formulate things without much behavioral foundations. One analyzed things in terms of first macro-models and then one went the other extreme and produced a very simplified, simplistic view of human agents as you described. When you ended your talk I thought you were yourself falling into the trap of irrational exuberance in terms of being very optimistic that we will start to capture the complexity of human behavior in all these dimensions which you mentioned, fairness, confidence, bad faith and so on, which are very complex socio-psychological behavioral notions, and still build a macro-theory and know what to do in micro-policy terms. I wondered what guides you to this optimism. Even Keynes who was a very quick thinker took about six, seven years to respond to his main book. Now we want to advise politicians immediately what to do without having these behavioral foundations. Could you tell me a bit more about the path towards this new micro-theory?

Robert Shiller

I'm not often accused of being overly optimistic. It seems to be that the basis of all science is observation. If you look at major innovations in the history of science it's because someone did some experiment and discovered something. I think that we're observing more of human behavior. We know so much more about human psychology than in Keynes' day and we're developing new techniques for understanding. For example there is neuro-science that is starting to develop. Ernst Fehr at Zurich is putting people in the MRI imaging and having them play economic games and observing what goes on in their mind. So it's changing our whole view of the world. I think they will bring us to new insights and it's starting to do that. I do feel optimistic about the general course of science, especially since the development of the world is producing, we've seen a big surge in higher education, and scientific research is spread over so much more of the world. Why shouldn't I be optimistic? It's true that part of this thing that we're talking about, the psychologists talk about theory of mind. I think this is central to economics. The human mind is different from that of lower animals because we are all formulating theories about what other people are thinking. This is a new insight. And it should change the way we view economics. So we have to start thinking less mechanically, that we are observing each other. That's what confidence is about. We have a sense of what's in other people's minds and then it effects what we do. I think that there will be changes, deep changes. That'll take years of course in economic thinking. And I can't predict all of these changes. I wrote this kind of a plea for moral research. Maybe that sounds weak but I think that's where the hope actually lies.

Question

My question is about the current health program proposed by Obama. I was wondering if there are myths or stories that are contributing to the resistance that we're seeing from some of the public. And if so which myths and stories those are.

Robert Shiller

I'm very aware of anti-Obama sentiment developing in the United States. I think it's remarkable that we elected him. I'm very pleased that we did that. But there is this right wing element in the United States. It's kind of shocking to me how much anger there is. There are some ugly stories that these people, they say his not an American, that he is really the Kenyan or the Muslim. It's crazy, but some people say. We have this huge conservative backlash in the United States. You see them on television. They're very arrogant conservatives. It seems to feed into a national story to some people, not to me and not to the majority of Americans. But there is this minority who thinks that our national identity has something to do with some kind of extreme capitalism. So health care sounds socialistic and it's not our national identity. Fortunately I think that this bill will make it through Congress. The United States which has 47 million people without health insurance, we are going to pretty much fix that. Obama is going through a difficult time, his approval ratings are declining. But he has also a big core support. I know a lot of people like what he is doing. Those are the stories that come to mind.

Question

I am wondering when you talk about fairness that seems very central to me because, with this crisis, and actually returning crises, you mentioned the dot com bubble, now this next bubble, if people come to the conclusion well, this system is not serving me. We had the debate in the United States, Mainstreet against Wallstreet. And what can politics do to basically give capitalism a foundation that people believe in it? What about the tax system? Can the tax system do something about it? We're taxing labor, we're taxing consumption. Are we taxing wealth? Are we taxing property? Are we taxing capital?

Robert Shiller

This is a big difficult thing to answer. Let me just mention a couple of things. In the new Senate bill that was worked on in accord with Obama's proposal there is a consumer financial protection agency. I think this was happening in other countries in well. We're going to improve consumer protection. And that will help build trust. The other thing you mention is that taxes and taxing the wealthy, this is a very contentious issue as you know. I have a proposal that I worked on, it's not in this book, that we should try to think systematically about the rising income inequality that's developing in many places around the world. We should be worried that this is a long-term trend. It's been a trend for decades now. And it may have something to do with the modern economy, with globalization, with information technology advancing. I think that countries should have a plan to deal with the risk that inequality will get actually much worse than it is now. So I had a proposal to index the tax system to inequality. We index it to inflation now in many ways. But we should be more systematic. This is a proposal. I maybe in the wrong country to make that proposal, but maybe not! We have a lot of good feeling people in the United States. Sometime in the future we could think systematically about preventing some big increase in inequality from ever happening.

Question

Charles Ritterband, the correspondent of the Neue Zürcher Zeitung. Animal spirits or instincts as opposed to rational behavior; do instincts drive us into the right or wrong direction?

Robert Shiller

First of all there is a role for studying rational behavior. I'm not against that. I'm just trying to get the balance right. Now the question is whether the instincts drive us in the right or wrong direction. I think that instincts developed over millions of years of human evolution. So we were exploring for food on the savannah and competing against lions and tigers or whatever else. And that's where our instincts come from. They have trouble managing in the modern world which is so different. So we have to think about designing economic institutions that work for the real people. The engineers call it human factors engineering. When you're designing an automobile you are designing it so that it's relatively error proof. You know the kind of mistakes people make and you try to design a car so that it won't be disastrous. We have to do the same thing in economic institutions. They have to be designed to work around the human instincts that don't always serve us well unless we put ourselves in an environment where they do.

Robert Misik

Thank you, Robert Shiller. Thank you all for coming.