Transcript on "The Panic"

Chaired by John Cochrane
Opening Presentations by George Shultz and Niall Ferguson
General Discussion

November 9, 2018
12:00 noon to 1:30 pm

Session 2
"Workshop Series on the 2008 Financial Crisis: Causes, The Panic, The Recession, Lessons"
Hoover Institution, Stanford University

John Cochrane: Welcome to our second of our four reminiscence of the crisis. Today we're going to focus on the events of the panic itself. Last time we talked about lead up and all the various "causes of the crisis," from Federal Reserve policy to housing, to inadequate bank regulation, and so forth.

John Taylor: We talked about the Fed a lot.

John Cochrane: We rounded up the usual suspects as Renault once said. Today our subject is more about the actual panic and the government's role in either making it worse or making it better. And we have Niall and George, who are going to lead our discussion.

John, is there anything else I should add?

John Taylor: Actually, let me just say one thing. We have a transcript of the last meeting, and we will do one of this meeting. If you want to correct anything you say, you're welcome to do that. But I thought it would be good to have a record of this, because many of the interventions are very important. Also, if you have material you want to send in, we're happy to post. Shana Farley is creating a website for the whole series, so we're making sure we have everything, including the transcripts, including the presentations, and any other material. For example, I just was looking at Raghu Rajan's essay based on the Feldstein lecture he gave in the summer at the NBER which is on this topic. We will post that as it quite related. In fact, he goes through a lot of the monetary policy issues. Again, it's a four-part series, and we hope that we'll cover all the issues. The opening presentations are just to get us started. Your comments are very important.

John Cochrane: Yes we should invite comments. This isn't *Jeopardy*: Comments can be speeches, not questions. And if you want to reference some of your written work or other materials, send them in and we'll link to them.

With that, maybe George should lead. Tell us what happened, and what you think of it.

George Shultz: I think on most things, your view is influenced by your experience, and I had the following experience. I was made director of the Office of Management and Budget for the Secretary of Labor and I found that there was a large financial company called the Penn Central. It had mismanaged its affairs and was about to go bankrupt. And Arthur Burns, then chairman of the Federal Reserve, thought that if that happened, it would have a devastating effect on the financial markets. He had arranged somehow through the Pentagon a bailout, and I thought it was a lousy idea. I'm arguing, and half of me is saying, “What are you, a lousy labor economist, doing arguing with Arthur Burns, Chairman of the Fed, about financial markets?” Anyway, I had my argument. At a critical moment, in walks a guy named Bryce Harlow. He was the savviest political adviser a president ever had. And he said, “Mr. President, in its infinite wisdom, Penn Central has just hired your old law firm to represent them in this matter. Under these circumstances, you can’t touch this with a ten-foot pole.” So there was no bailout. What happened to the financial markets? They were strengthened. Everybody had to look at their whole card and say, “Wait a minute, let’s get our house in order.” So it turned out Arthur was wrong and I was right about that. But it made a deep impression. I gave Arthur credit because he did what I thought the Fed should do; namely, you don’t take sides. You see that there’s plenty of liquidity in the market, so the market has a good chance to operate, and he did that.

So at any rate, as I look at this problem that we’re talking about, I think that you have to build into the organizations and the people who are managing things two big points. One is that you have to have accountability. If you don’t have accountability, you lose. And the other thing is that you have to have trust in the integrity and the competence of the people who are managing things and companies and in government. If you have those two things, you’re going to turn out all right. And if you don’t, it’s going to go awry. So I measure what happened against these criteria.

So here’s the way I see the thing unfolding. First of all, we have to recognize that there is a bias in every society in favor of home ownership. People feel that people who own their own homes take better care of them, and there’s a sense of stability in the community and so on. I remember way back in 1973, I was Secretary of Treasury, my first visit to Singapore. And the legendary Lee Kuan Yew, who later became a great friend, took me to one of the few skyscrapers in Singapore. He pointed over to a bunch of buildings and said, “See those buildings? They were a big mistake.”

I said, “What do you mean?”

He said, “I built those as public housing. It was a terrible mistake because people live there and they didn’t pay much attention.” Singapore had some sort of system where everybody had a little money. So he said, “I sold all the houses to the people who occupied them.”

I said, “You mean they now own them?”

“Yes.”

“They can sell them?”

“Yes. Now that they own them, they’re going to keep them in better shape.”

So, that was a vivid recollection. But I think it’s a general presumption and probably true. So we have Freddie and Fannie, and they decided to push home ownership at a time when interest rates were low, and as a result housing prices rose. They pushed the home ownership onto people who didn’t have the basis for repaying the loans if things went at all sour. Then there was a company, later acquired by Bank of America, I think, that got into the act along with Fanny and Freddie. So these loans proliferated and they were basically bad loans in the sense that housing prices came down a little bit and things went a little sour. The people who had loans to repay just wouldn’t be able to do it. But then in come the big banks, and they securitized the loans. And these big securitized loans were traded, and they made lots of money doing it. In all this period, the Fed had kept interest rates very low, so that was all part of the same system. Then it began to dawn on people that these securitized loans were not that good, and nervousness began. And in come the federal government's administrative people. The first company to go down was Bear Stearns. It was a large outfit. The guy in charge when all the problems were going on was playing cards in Chicago. Nice deal.

So Hank Paulson comes along. He's Secretary of Treasury, and he does what Goldman Sachs bankers do: make deals. So he made a deal with Bear Stearns where the Fed took over all the bad loans. Imagine that. The Fed takes them over. And Paulson does some other things. He gets JP Morgan to take the rest of Bear Stearns. By the time they got rid of the loans, Bear Stearns assets were worth something, so JP Morgan got a good deal. So that was the first thing that happened, but it made a big impact; namely, that people are going to get bailed out.

So then comes Lehman Brothers, and the expectation was that Lehman Brothers would be bailed out. At least as I read about it, they had a deal about cooked, but some British regulator objected, and the whole thing went down. So the Lehman Brothers bankruptcy was a sudden, unexpected bankruptcy. I say it that way because there's a big difference between an orderly bankruptcy and something that happened as Lehman did. In an orderly bankruptcy, the company keeps operating, and there's time to sort things out, and so on. It's very different from what happened to Lehman.

So then, the powers that be, Hank Paulson and Ben Bernanke, go before Congress and say the sky is falling. We need a gigantic amount of money to bail out firms that are in trouble.

It was in a sense ridiculous because nobody knew how to put a price on these bad loans, and that was apparent to everybody. So there was no way they could use this large amount of money to do what they said. There was a kind of glorious incompetence on display. But they had a large amount of money. They wound up somehow deciding a lot of big banks were close to bankruptcy so they should bail them out. They had a meeting in Washington of the key people and each bank was to get something like $25 billion. Some of the banks didn't want it. As Dick Kovacevich has told us, he was called to Washington and told he had to take $25 billion, and he didn't want it. He was told by the chairman of the Fed, "If you don't take this money, we're going to regulate the hell out of you." It was a completely terrible misuse of authority. You have to watch out when you're a high federal official. You have a lot of authority and can misuse it. Without a lot of integrity, you lose confidence in people. People say, "Wait a minute, we'd better not give that person authority." At any rate, that happened so we proceeded on.

And that's basically the way the story unfolded. As I see it, there was a complete lack of accountability of companies that were bailed out, I might say subsequent bailouts, including General Motors and the big insurance company, AIG. The AIG bailout was nuts. They had a perfectly good insurance business but they'd taken on another business that had these loans. So the AIG bailout was really a bailout of Goldman Sachs and some of the people that hold those loans, as far as I could see.

Then comes the regulatory apparatus, and the only good thing about it as far as I could see is that it tended to say to the banks, "You've got to have capital, so if you go bad, it's your capital that you use." That's distinct from the regulatory approach where the banks are full of people looking over their shoulder saying, "Do this. Don't do that." I think that kind of regulation is far inferior to putting them in a position where they lose their own money if they go bad because that's the kind of accountability you want.

So I see that the crisis period came about as a result of not very thoughtful lending practices, stimulated by the US government. Then it was aggravated by malpractice, almost, on the part of many top financial institutions. But as the crisis emerged, the handling of it was poor, both in the sense of letting off people from accountability and from undermining the sense of trust in the competence and integrity in the people doing the job. So it was a bad episode.

John Taylor: One thing we could go back and look at more generally is how people's views have changed over ten years. They tend to forget what you said, I think, unfortunately, and instead say, oh, the bailouts were necessary to prevent spreading.

George Shultz: The notion is that these guys - Ben Bernanke and Hank Paulson - saved the world. Thank God we had an experienced banker like a Goldman Sachs executive and somebody bold to take charge of this. So they're pounding their chests saying, "Llook what I did," and they're wrong.

John Cochrane: Well, Goldman didn't fail. [Laughter]

George Shultz: I don't mean to be harsh. I look over at Tom Stephenson every once in a while. He's the guy who really knows how to do things. I don't know what you make of it, Tom.

John Taylor: To continue what I was saying, harsh is one way to put it, but the other view is that you need to be specific about what your actions will be. For example, you also told a story that when you came in as Secretary of Labor, actions had been taken to prevent the longshoremen's strike. That action was expiring, and everybody was asking to apply it again.

[Crosstalk]

George Shultz: Yes. That's the same thing being illustrated. When I was a professor at the University of Chicago, I was very critical of the Johnson and Kennedy administrations' interventions in large labor disputes. They did it fairly routinely. They argued that the dispute would disrupt the economy so they intervened, and then the parties were always winding up in the White House and they made a settlement there. I said, "When you do that, you're totally undermining the process of private bargaining because if I know I'm going to be called to the White House, I'm never going to make my best offer until I get there, right?" Obviously! It means that private bargaining goes by the boards. So I argued strenuously against this. At one time, I was invited to talk to the business council and to everybody's surprise, Lyndon Johnson showed up. Part of my speech was inveighing against intervention in the steel dispute, and people were surprised I said that to him, but I did. He intervened anyway, but I was very critical. Around June or so in 1968, the longshoremen on the Gulf and East Coasts went on strike and President Johnson enjoined the strike under Taft-Hartley. In the Act, there's the provision for a fast-track appeal to the Supreme Court. There was an appeal and the Supreme Court agreed with the President, so the injunction held. It expired in the middle of January 1969.

I was sworn in as Secretary of Labor on January 21 and the press said, "Okay, Professor Shultz, now you're Secretary of Labor. What are you going to do?" So I went to the President, who was already preoccupied with Vietnam, and I said, "Your predecessor was wrong and the Supreme Court was wrong. This will cause a lot of kerfuffle in New York City. They think that's a national emergency, but it isn't. There's a lot of resilience in the economy. And if you will hang tough for four or five weeks, until I can convince the parties that they're not coming to the White House, once they realize that, I can mediate this out and get it settled. And we'll send a big strategic message that the party's over." So I'll give him credit. He hung out. He got called on by the Governor of New York, the mayor, Senator Javits put hell to pay on him, but he hung on with me. We got it settled and we did send a big message, and there haven't been these interventions for a long while. So that worked.

John Taylor: I raise this because someone has have the courage to say, this is not going to be a disaster, when everybody else says it is. So that's part of leadership. You don't always get that. The reality of the world is not the way. But I think the message is clear for the future, but how do you deliver that? That's a real question.

John Cochrane: Although we are used to politicians in disasters saying, "Oh, everything's fine." And everyone knows they're lying. So, honesty is perhaps better, but you don't want to go the other direction.

I'd like to ask a couple of questions, a little bit to George, but also to tee up some of the things we ought to talk about. Should they have applied Penn Central lesson to Citi? Should they have let Citi go under? People were talking about if the ATMs and the credit card machines go dark. Penn Central was an isolated case; October 2018 was the middle of a wave of bankruptcies. Should they have let that happen?

George Shultz: Let me interrupt you. Orderly bankruptcy does not result in that. An orderly bankruptcy keeps the organization going while that gets sorted out.

John Cochrane: Well, in Citi's case, being a bank, the FDIC would have probably had to step in and take over, pay a lot out in deposit insurance payments. Would it have been an orderly bankruptcy? What would have happened if Citi had gone under in October 2008?

It's hard to say.

Tom Stephenson: Well, what I would say is I think George is absolutely right with the benefit of hindsight. That was a much more difficult position to take. I was in Portugal at that time, so I was out of the mainstream of those discussions, but I was seeing a lot and hearing a lot about the discussions with Paulson and so forth. And there was enormous political pressure not to let things go under. The risk of Bank of America coming down next, but I would say certainly looking back now, George is absolutely right. I wish he'd been in a position of power and influence at the time to have done things differently.

John Cochrane: There are two issues. One is bankruptcies, the failure of specific large companies, which I think we don't worry about too much, and the other is the panic. There was a run. And rumors of bankruptcies are leading to actual bankruptcies even among things that are actually solvent. So the job of stopping a run is a hard one.

George Shultz: As this was just getting started, Hank Paulson was out here for a SIEPR event. He was a speaker. I had a fairly lengthy talk with him on the side and I said to him, "Hank, why don't you give a speech explaining to the American people what happened, and why this has happened, and what you are doing that will cause this to straighten out? There's going to have to be a certain amount of accountability that's going to take place, but it can be a perfectly orderly thing, and we just have to work our way through a problem that's been created by the Fed." He never made that speech.

John Cochrane: Let me ask another question. Given that they were going to do something, was it necessary to do what they did? They also guaranteed bank debts. That's the standard thing that the

Federal Reserve does is provide lots of liquidity, guarantee debts. That's supposed to stop a run. Wouldn't that have been enough? Yet they went ahead and recapitalized and started bailing out individual institutions, and buying up risky assets. Given they were going to do something, what are your opinions on what they actually did?

George Shultz: Providing liquidity is the basic thing the Fed should do; that is their job. And in the case that I mentioned of the Penn Central, that's what Arthur Burns did. He made sure there was plenty of liquidity in the market so the market could adjust. And that worked. That's their role.

John Cochrane: Well, that's my view too, which is why I asked the question. [Laughter]

And now back to the other big question. There was a panic. The popular view is that the Lehman bankruptcy caused the panic. People learned Lehman was investing in bad things, asked "I wonder what my bank is investing in? I'd better run now to make sure." But In my view there really wasn't much news about Lehman's assets. Instead, when people saw Lehman go under they learned, "oh,wow, the government is not going to bail absolutely everybody out! I'd better start worrying about my bank too."

George Schultz: They did bail everybody out. Automobile companies, insurance companies, the banks, everybody.

John Cochrane: Everybody except for Lehman Brothers, and only after things got really bad after Lehman.

George Shultz: Well, Lehman Brothers tried to, and they got tripped up at the last minute by a regulator. It happened by accident.

Niall Ferguson: Hang on. May I just intervene? This came up, this issue of the last minute falling through, the Barclay's deal, came up last week in a parallel discussion at the Harvard Business School. And Paul Tucker was present. And as you know, Paul Tucker was deputy governor of the Bank of England. And Paul rightly observed that it would not have been a solution at all if the problems of Lehman had been passed on to one of the biggest banks in Europe, Barclay's, because it would have almost certainly triggered a further leg down in the banking crisis in the UK. Remember, there had already been bank runs in the UK, in Northern Rock. The banking system relative to GDP is much larger in the UK and the US. And the British regulators were quite right to kill the deal. Barclays was in a precarious enough position as it stood without taking on the unknowable liability associated with Lehman. So I don't think we should—if we're going to talk explicitly about counterfactuals, I don't think the counterfactual that Barclays saves the day is remotely a plausible one. It would have been crazy for the Brits to go ahead with that deal.

John Cochrane: Also, if we're going to talk about policy and how you handle things. Why is it that when a bank gets in trouble, the standard resonse is a weekend deal where the Fed and Treasury bribe some white knight to take over the bank? That is the general procedure of what we do.

Niall Ferguson: It worked with Bear Stearns and Merrill Lynch, but I think it wouldn't have worked if you'd passed the buck to Barclays. You would have just created what everybody feared, which was Great Depression 2.0. And I think the counterfactual that was motivating the discussion on the FOMC, this is one of the things that I try and show in my new chapters, was, "Oh, no. We're about to repeat the mistakes of 1929 to '32." And I think fear of that was a major motivation at the Fed on the FOMC. I'm not sure that Hank Paulson had such clear historical concerns in mind. But we have to assume that a significant number of players at least had heard of Friedman and Schwartz. And Friedman and Schwartz was the implicit playbook I think in Bernanke's mind. You may correct me on this, John, because you know him better. But it seems to me if you look at the discussions after Lehman goes under and they realize, "Oh God, this is much bigger than we realize." The implicit fear, and this creeps into discussions in the course of October, is: "Oh God, it's going to be a rerun of the Great Depression. We mustn't make the mistakes." And the mistakes of the Great Depression, Friedman and Schwartz say it very clearly, was to let lots of banks fail.

John Taylor: Let me interrupt you. A lot of people have gone back and looked at the reason why they just didn't bail them out right away. Like they did with Bear Stearns. Why didn't they do that? Bernanke said they couldn't. But now, people have looked at the details, and it seems like they could have.

[Crosstalk]

Niall Ferguson: The discussion of the Great Depression scenario only happens after they've let Lehman fail, and it turns out to be a much, much bigger hit to the system than they'd thought. And I think that's the key.

John Taylor: During the summer after Bear Stearns, the number of hits about the Great Depression went way up. Everybody was talking about the Great Depression that summer. It's really amazing. We actually had as meeting here at Hoover that summer to talk about what we should do. One of the things everybody was talking about the Great Depression.

Tom Stephenson: Nobody wanted that to happen on their watch. Not the President and certainly not Secretary Paulson.

Niall Ferguson: So if the counterfactual is they should have bailed out Lehman. That's a different counterfactual than the Barclays—[Crosstalk]

George Shultz: No, they should not have bailed out Bear Stearns. That was the first mistake.

John Cochrane: And ontinental Illinois and LTCM and everybody else along the way. But had they bailed out Lehman, which Larry Ball says they had the authority to do, what happens next? What's the counterfactual? Us peasants with the pitchforks were getting pretty mad about this whole bailout thing. My counterfactualt is that the chaos following Lehman gave them the political ability to bail out Citi. Had they bailed out Lehman, the peasants with the pitchforks would be out there, screaming "enough with the bailouts," and then the one to go would have been much bigger. Each failure was bigger than the last Bear Stearns, Fannie and Freddie, WaMu, you know. Sooner or later it had to stop. The one to go under would have been really big, and possibly more directly consequential than Lehman.

Niall Ferguson: A hundred percent. I'm sure that's right. I think that's from a historian's vantage point the only way of making sense of the inconsistency of policy. That you have to have somebody go down to get something like TARP to happen. I mean, everybody knew it would be fiscal. I remember Mervin King saying this in 2006. Therefore, you have to have the leverage to get some fiscal action as well as monetary action. And I think without somebody going under, you never would have got something like TARP through. So, I think ultimately it was a political decision.

John Taylor: But TARP came after.

Niall Ferguson: But you had to have a Lehman failure for something like TARP.

John Cochrane: You had to have the world seem like it was ending to get such a massive bailout going.

George Shultz: With the New York Fed and its reach into the New York financial community, they didn't say something to the Citis of this world about what they were doing. And here's the answer to that question. The job of president of the New York Fed came open, and I talked to Alan Greenspan, who I knew well. He was chairman of the Fed. We had a candidate but we never even stood a chance. The New York financial community had their guy and they put him in: Geithner. He didn't touch them with a ten-foot pole so they got what they wanted: no hands on. That's incompetence, and you don't have confidence in that kind of a leadership.

John Taylor: So, in a way, a real counterfactual would be to suppose other people were in charge. It's hard to do that, but I think that's a serious question. Another counterfactual about Bear Stearns is whether the Fed had done something to address problems of the financial sector before Bear Stearns. John Williams and I did a whole paper showing there was a real problem in those financial institutions. And the Fed response was effectively, "Are you guys crazy? They're fine." It was completely bizarre how much people were ignoring what was going on. I find that the interesting counterfactual is whether the Fed, perhaps the New York Fed, could have been paying more attention. It didn't happen.

John Cochrane: I'm surprised that Niall, our historian, isn't exploding at the invocation of the Great Depression, because one big New York bank was in danger.In the Great Depression, lots of the little banks across the country went under. We did not have interstate banking. We didn't have branch banking, and banks weren't trded. So markets could not recapitalize banks. Not enough capital, you could just say. Indeed, more capital is always the answer – done, let's go and have some dessert and a cup of coffee. [Laughter] But the Great Depression was exactly the opposite – lots of little banks that could not be recapitalized failing rather than big ones that could. Second, Friedman and Schwartz said it was the money supply that went down that mattered – not whether banks closed or not. Ben Bernanke thought banks were important, but that certainly wasn't an idea of Friedman and Schwartz.

Niall Ferguson: I used to get my students to read Friedman and Schwartz, and there's a very important part of the argument which revolves around the failure of the Bank of United States, which was a big New York bank that went under. And they argue that that's a major reason why events took a leg down in '30, '31. I think if one reads closely Friedman and Schwartz that the chapter – it's a very long chapter on the Depression – makes it clear that one of the many sins of omission and commission that the Fed made was just to stand by as the cascade of bank failure occurred. I don't think that was just Ben Bernanke's position. But I do think it's – from a historian's point of view – extremely voluble to make the counterfactuals explicit in all of these postmortem type discussions. I was glad to see from the transcript from last time that we thoroughly explored the alternative monetary policies that might have been pursued, and talked about ways in which the housing market was distorted by policy, not only here but in other countries. But I still feel as if you're trying to come up with a complete explanation of the crisis, there are other factors that have to be included. And in this little deck that I've circulated, I've tried to show what the other four things are, that I think were kind of crucial. It's quite hard to imagine enough counterfactuals, because you'd need six – not only a different monetary policy and different real estate regulation, but you need to have different regulation of the collateralized debt obligation market and the rating agencies, which were a big part of the problem. You'd need to have different policy in China, and the US relative to China…

John Cochrane: Why don't we let you present in an orderly fashion.

Niall Ferguson: I'm just teeing myself up, mindful of the fact that we don't have a ton of time this afternoon.

John Cochrane: Yes. Let's tee up Niall Ferguson. Go!

John Taylor: You're up.

Niall Ferguson: I'm in the odd position being in a room filled with economists, talking about something economic, but being an historian. On the other hand, I think a historian has something to contribute here. I was writing *The Ascent of Money* in the two years prior to the financial crisis blowing up. The book was published just a few weeks, I think, before Lehman went under. And the curious thing was that I was one of the few people in 2007 and '07 who was pointing out that something really unpleasant could happen. So I've just kind of… This is really a digest of the new chapters of the book, which some of you very kindly read in draft, John and John, for example.

I thought I'd kick off with the queen's question: why did no one see it coming, and Lloyd Blankfein's clearly standard answer, that this was kind of one in a hundred-year event that nobody could possibly predict. Vainly, but I couldn't resist it, on the next page – I'm afraid the pages aren't numbered, so you'll just have to follow me. I've given quotes from some articles that I was writing beginning on June 11, 2006, on what I thought was going to happen. And I give myself fairly high marks for getting right the nature of the crisis.

There are lots of people who claimed credit later for predicting it, like my former NYU colleague, Nouriel Roubini. Roubini predicted a crisis from at least 2002, and the wrong crisis, he thought it would be a dollar crisis because of the current-account deficit. The one thing that happened was the dollar got stronger in the crisis. So, you had to see that it was going to be the resetting of the ARMs that was going to trigger the problem for highly leveraged financial institutions. And actually, I find that remarkably few people in academia saw this. The people who saw it were people in the banks, but not at the top. They were further down. And they knew that if they said this too loudly, their bonuses would be impacted. So, there was kind of an understanding – certainly at Morgan Stanley, where I was a senior adviser—for what was wrong. But nobody could really do anything for fear of jumping the gun ad stopping dancing while the music was still playing.

Anyway, the argument of *The Ascent of Money* is that there are six things going on that really you have to include in any explanation of the crisis. And some of them you've already talked about – monetary policy and housing. But I mean, I think the undercapitalization of the banks reflected peculiar regulatory incentives that had come out of Basel as much as what the New York Fed was doing. The way that rating agencies were giving AAA ratings to CDOs was a crazy abuse. I think you also need to talk somewhere about the derivatives markets, because I think one thing that made the panic – to use your term, John – was that the opacity of the derivatives, and particularly the credit-default swaps, nobody quite knew what they would all net out to when the shit hit the fan.

And then I've always emphasized in arguing about what went wrong, that the curious role that Chinese policy played. The massive reserve accumulation that was going on, the use of the currency tool to keep Chinese exports relatively cheap, I think that played a part in what Alan Greenspan called "the conundrum" – of why when the Fed started to hike, belatedly, why it didn't have any effect.

John Taylor: Especially why… that's why he said he didn't need to raise rates. If he raised rates, it wouldn't have made much difference.

Niall Ferguson: Yeah.

John Taylor: Because inflow of capital.

Niall Ferguson: Right. Whether you accept that argument – I'm not sure I do—

John Taylor: I don't either.

Niall Ferguson: I don't know that that's a good explanation. I think the inflow was real and big. And, you know, in pieces about Chimerica, Stephen Aie and Mark Schillerick argued Chinese policy was wrong, and their currency should be appreciating, and the reserve accumulation was kind of nuts. You have to kind of say it wasn't all about America. Because I think one of the classic problems in discussions that go on in this country is they are totally centered around the US. It was global. It's called a global financial crisis for a reason.

John Cochrane: I want to challenge you on just a couple of these. The best thing that can happen to a country is a massive inflow of capital. They send us cheap stuff on the boats, and then they invest in our new factories and lend us money to buy houses. And we're complaining?

Niall Ferguson: Yeah, but what happened is they were essentially buying agency bonds and other securities, and we were taking the lower interest rates to go on a real estate speculation binge.

John Cochrane: Yes. They were buying short-term run-prone debt, and that was the problem, not the capital flow. I mean, if they had been taking equity positions, then what the heck? Sorry, you lost your money. Keep sending more stuff.

Niall Ferguson: Of course, it turned out to be a fantastic investment for them when the dollar did exactly the opposite of what nearly everyone expected. The Chinese inadvertently did a great trade in being long dollar.

Anyway, I'm going to make just a few points so we have a real – I hope – wide ranging discussion – which I'll do quickly and then sort of step back.

I think one of the things that leaps out – this is the sheet with the heading, *The Catalyst*, is that the bankruptcy of Lehman Brothers has to be seen in the context of a very rapidly moving sequence of events, the characteristic feature of which was the inconsistency of policy. And I think it would be impossible – nobody I've seen even the memoir writers – can justify the inconsistency of the policy in that very short period of barely two weeks.

John Taylor: Are you going to come back to that, inconsistency?

Niall Ferguson: Yeah. It's also… it's echoing something that George said. Let me kind of get the points out.

John Cochrane: Let's let Niall get his points, and then we'll discuss.

Niall Ferguson: And then, I think we should decide what the important ones are. Because I think there are some key issues.

I think the Fed's aggressiveness after – this is the slide that follows – after Lehman had gone down. But (next page) the striking thing to me is that they couldn't stop the chain reaction.

John Cochrane: What was this graph here?

Niall Ferguson: That's the Fed's balance sheet.—

Niall Ferguson: That's… if you just look at what it did, this is the wild purchasing of anything and everything in the wake of the Lehman bankruptcy. But remember, our topic today is the panic. And what I thought my role would be was to try to, as an historian, anatomize the panic.

So, after Lehman went down, the consequences of which clearly scared them – you can see that in the FOMC transcripts – they do a whole lot of stuff. I mean, they're really aggressive. But it doesn't stop the chain reaction, because the market for commercial paper collapses, and the asset-backed commercial paper market collapses. Money market fund reserve prime rate breaks the bank at September 16th. There's a run on all kinds of institutions, shadow banks for short, and there's nothing the Fed is able to do to stop that.

Then, turning over the page, the whole CDS market blows up around Lehman, because there's like $400 billion of CDS written against Lehman. This is something that if you were reading the *Bridgewater's* daily note as I was then, you could see was a huge deal, because the margin calls suddenly went up through the roof. And the whole credit default swap market just seizes up at that moment. Again, the Fed's not able to stop that.

Next page, rates after Lehman… TED-spread is the one that everyone was watching at the time – but you can see it's all in the red box, the changes in rates are really large, especially when you get to high-yield corporates. Again, the Fed's move to zero-interest rate policy is not really able to stop that huge spike in rates, which is in October.

Then, over the page, there's another blow to confidence – this is all contextualizing Lehman – and that is the failure of the first TARP vote. September 29th is as big a deal as September 15th, because this was when Bush memorably said – he said it just before – "This sucker is going down." And the failure to get TARP through sends markets into a total freefall. I just show the freefall over the page. This is the S&P 500 – a fairly high frequency – and it's really in October and November that the market's cratering. I'd say Lehman is relatively a small proportion of the shock. There's a lot of shock going on. And I'd say the way to think about the panic is as a whole series of panic-inducing events, which if you were in the markets, were giving you a daily heart attack.

John Taylor: This was when Paulson and Bernanke go and say, "If you don't pass this – Armageddon. But we don't know how this is going to work."

Niall Ferguson: Yes. Their performances were not at all convincing. Which was why the first TARP bill fails.

John Cochrane: They also said, "And by the way, you can't trade bank stock anymore." So in case you didn't know what to go sell fast, they gave us a nice hint.

Niall Ferguson: So, I think the authorities kind of fanned the flames in many ways, because whatever the Fed was doing in terms of buying assets, what was being said by Paulson, by Bernanke, by Bush, really contributed to the erosion of confidence.

So, I'll try and be brief.

So, when you put the panic in this kind of a framework, you can see why it was bigger than any panic/financial crisis in anybody's lifetime. Only people who had read a lot about the Great Depression had a sense of just how big this could be. My impression was that people who had no knowledge of the 1930s, the people who were living on the basis of their own personal lived experience, were in over their heads, because this was not like the '97-98 Asian Crisis; it was not like any crisis anyone had ever experienced before. You had to go back to '29 to get a sense of what was happening.

So, one of the big puzzles that we need to grapple with and this is serious I think, is why wasn't it the Great Depression and just turned out to be the longest but not even the deepest recession since the war? And I find this a very interesting question, because as you rightly said, John, discussion of the Great Depression started to rise certainly in the media, not least because certain columnist kept trying to hawk their own books on depression economics – mentioning no names. When… if you go to the page that has the title: *The Crisis had the Potential to Be Another Great Depression*. Barry Eichengreen at Berkeley and Kevin O'Rourke at Oxford did this real-time comparison in a series of papers that they kept updating, tracking our data against Great Depression data. And if you were looking at those papers, as I was, it was actually terrifying, because from September '08 onwards, essentially, we replicated the Great Depression. In fact, it was worse if you looked at world stock markets. They fell more steeply – this is the next page – in the first half of 2009, than in 1929-30. World trade fell more steeply than at the beginning of the depression. So, it wasn't wrong to ask the question, is this Great Depression 2.0. Up until June, 2009, there was nothing to tell you that it wasn't if you were seriously studying the data.

I'll make a couple more points, and then we can open up.

It very quickly became apparent that although the depression/recession/crisis/call it what you will had an American origin, it was going to have very, very disproportionate effects elsewhere. And it was kind of an unfair world. This American crisis was going to have the worst impact on other economies. So, if you look at the scale of the shock varied between countries, the impact between exports and industrial production were much greater for some countries than for others. And the United States was by no means the worst affected. So, that's why it was a global financial crisis immediately. Immediately. In the course of 2008, all economies all around the world suffered big hits, especially those that had heavy reliance on exports at the beginning. But if you take the longer view, and this is the unemployment story over the page, the worst effects in employment were in Europe's periphery. The only country that really had a Great Depression was Greece. And it took a while for that to manifest itself. I remember in 2009, I had a talk that said, "Hey, you think the American financial crisis is bad? You wait for the European one." And it was very surprising to people at that point, because the European crisis didn't really happen until quite a bit later, really 2012.

So here he is over the page, my favorite economist.

[Laughter]

The kind of "It's a Great Depression" that kept being made, was still being made by Krugman in 2010, twelve months after we'd actually pulled out of the Great Depression tailspin, I think the question that probably can wait 'til another week, is, why it wasn't another depression. So over the page, I have "And yet it wasn't a Depression." This is my favorite chart, because it just compares the US stock market in three depressions, or three great crises. Post 1872-1873 crisis, post August '29, post October 2007. So each of those are the peaks of the market. And you can see if you compare the green line and the red line, that really for the first year or so, we reran the '29-30 crisis. And then we pulled right out of it, and we overtook the 1870s crisis. And then soared above our pre-crisis peak in the course of the last ten years. The odd thing about this great crisis is that if you had the most boring plain-vanilla investment strategy in the world, and just had 60:40 stocks:bonds, you had one bad year. That was 2008. In every year thereafter, you did great.

John Cochrane: As long as you didn't sell at the bottom like some endowments did.

Niall Ferguson: Right. If you just hung on and were really, really plain vanilla, this sure as heck wasn't the Great Depression. In fact, it was one down year. And so the big question – and here I'll wrap it up – was why? And I think – and this is the point I try to make in the new sections of the book – the default setting has been, "We saved the world." And they were saying it last week, Tim Geithner and Hank Paulson. We saved the world. And I'm sure Ben Bernanke would have said it had he been there. So we've given a lot of respectability, a lot of credibility, to the monetary policy. And then the Keynesians say over the page, "No, no, no. We saved the world, and we would have saved it even more if you'd let us make the debt even larger. So, fiscal policy is the answer."

But I argue that this American-centered narrative overlooks the fact that the world was partly saved by China's stimulus. Because China's stimulus was far more effective than the US stimulus, and it had lots of spillover effects because of what it did to commodity prices. And if you want to ask the question why it wasn't a global depression, one answer is that the Chinese came along and bought every commodity that you can name, driving up the price of commodities and bailing out every commodity exporter, the exact opposite of what happened in the Great Depression. If you know your global Great Depression, it was the tailspin of commodity crises that drove one economy after another under water. And most of the literature I've seen basically underestimates the Chinese contribution to averting the Great Depression.

When I look over the six causes of the crisis and ask which of them have we fixed, I get the answer: hardly any. We've basically made banks better capitalized.

John Cochrane: Not much.

Niall Ferguson: But not much. In historical terms, they're still really undercapitalized—just a bit less undercapitalized than they were. But all the other stuff is barely changed. CDOs continue to be rated, produced and rated by rating agencies. Monetary policy is even looser despite the supposed tightening. Real estate market is kind of back to where it was. Derivatives markets haven't really changed that much. The only thing that is in flux is the US-China relationship, but not in a way that most of us would regard as economically benign. And I conclude the chapters by saying that when you look at the global financial system structurally, it's amazing how little it's changed. I mean, apart from the fact there's more public debt than there was ten years ago—

John Cochrane: The fiscal space to do all this bailing out is a lot more in question.

Niall Ferguson: So that's roughly where the updated version of the book comes out. And I think you're left with multiple counterfactuals. Could different policies prior to 2008 have averted this? Did the right policies get adopted in the crisis in the panic to avoid a Great Depression? Or, would it have been better if Lehman had just been bailed out? If nobody had been bailed out? Here's another counterfactual: what if Paulson had listened to Marty Feldstein when he said, "Don't bail out the banks. Bail out the mortgaged households." That was a proposal that Marty floated early in the crisis, and Paulson said, "Not interested. We're bailing out the banks." Marty had told me that subsequently Paulson had said to him, "I realized with hindsight that you had a point, and I shouldn't have dismissed that argument so swiftly." I'll ask one final counterfactual question. What if Dodd-Frank had already existed in September 2008? Would it have been better? I would hazard a guess that it would have been worse. The Fed would have been more restrained, and all the SIFIs would have to have been resolved.

John Cochrane: At the same time.

Niall Ferguson: At the same time. So I'm going to leave it there.

John Taylor Thank you.

Bob Rosenkranz: Can I jump in? I'm Bob Rosenkranz, and I ran a financial institution during this period. And maybe we were too smart to fail, but we did not, and actually did fairly well. There are a couple of points that you made which I would like to maybe add some footnotes to or maybe sharpen up a little bit. The securities markets were contaminated by wrongly rated CDOs. We were absolutely right that the rating agencies made really poor judgements. But people always make poor judgments about credit. If you're a Goldman analyst or you work for a bank or whatever, and you make a credit judgment, you're going to be right sometimes, you're going to be wrong sometimes. Making wrong credit judgments is not unusual. What is unusual is that the judgments of the rating agencies are incorporated by force of law. That's the basis of bank capital requirements. It's the basis of including assets in a money market fund or not. It's the basis of the amount of capital insurance companies have to hold, etc. So, we've anointed the rating agencies by force of law into the de facto allocators of capital in our system. The spreads, which is the market's way about bad credit risk, doesn't really matter very much. It's only what these rating agencies say. So, I agree with the point, but I would focus very much on the misguided idea of empowering these completely unaccountable forces, the rating agencies, with the authority to allocate capital with force of law behind them.

John Cochrane: I'd like to follow up on that one, because Niall said that there was something wrong and stupid about the ratings. But it strikes me it's just one more unintended consequence story, I want to buy a risky debt. You want to sell me a risky debt. The regulation says I have to hold AAA securities. So we get together and figure a way to stamp AAA on this thing. But everybody knows what's going on. We both understand what we're doing.

George Shultz: The things you want to do you're both accountable for. That's the key.

John Cochrane: Exactly. Because we're relying on regulation, not accountability.

Bob Rosenkranz: But it's not so much that I want to buy them. If I'm running a financial institutions, and I have shareholders that want me to maximize reportable earnings, I have to buy the things that are capital efficient to own. And if I have the wit to say "no," and everybody else in the room is saying "yes," my returns on capital are going to be lower, my growth rates are going to be lower, and my shareholders are going to fire me.

John Cochrane: The capital requirement that says "You buy this thing stamped AAA" and you're ok.

Bob Rosenkranz: Exactly. But it's a crazy set of rules. I also want to make a footnote on the derivatives markets. It's not so much the derivatives creating contingent liabilities. It's over-the-counter derivatives. Derivatives serve a perfectly reasonable function when they're marked to market every day, and margin calls every day, and it's no problem. The over-the-counter nature of it though made the biggest banks dependent on each others' credit. So, it set up a domino effect so that the failure of let's say an AIG or the failure of any counterparty with derivatives exposure put the whole system at risk, and that's completely unnecessary. Derivatives serve a perfectly good function, but they should be traded just like everything else as opposed to this over-the-counter thing.

John Cochrane: Which they are now, right?.

Bob Hodrick: Counterparty risk is now handled much more with clearinghouses. It's not just John and I trading. John and I are both trading with a central clearinghouse. That's part of Dodd-Frank.

John Cochrane: But even OTC derivatives have collateral. That's why AIG went down, because they couldn't post the collateral. I thought the problem was not counterparty risk, but that each side still has to post collateral. Then if I go under, my creditors have to reestablish both sides of a position in a chaotic market, and who pays the bid-ask spread on a huge book?

Bob Rosenkranz: But the reason… No. In the AIG case, they were writing over-the-counter derivatives. They didn't have to post collateral until such time as the rating agencies came along and said, "You're no longer an investment-grade credit." And that was the time that AIG owed billions of dollars to Goldman Sachs. It was the rating agency that created – the combination of the rating agency and the over-the-counter derivative structure in that particular case.

And I'm going to make one final point and shut up, which is I might suggest 1/7th argument. It's minor, and it's kind of technical, but it's the idea that we've implemented pro-cyclical accounting rules and particularly, rules that relate to the way banks carry loans on their books. The normal way up until this period for many, many years, is banks would just set up reserves for bad debts. That loans would be carried at cost with appropriate reserves for bad debts. The pro-cyclical nature of these changes in accounting rules is you had to mark these things to market. And in incredibly illiquid markets, the marks were just so low that it kind of created a pro-cyclical effect on bank capital and therefore, confidence and so on. And so I suggest this as a minor footnote to these six items.

Niall Ferguson: These are great observations, Bob, and you'll be relieved to hear that these points are covered in the chapters. The PowerPoint decks are simplifications. Three quick points in response. This illustrates a really important point, your points about the rating agencies. At one point, it was orthodoxy in the *New York Times* that the financial crisis happened because of deregulation. And a great many people still believe this. This is completely wrong. The banks were highly regulated. It was just that the regulations were defective. Basel, the Basel rules, which were morphing at that point from one into two, were among the things that created these perverse incentives – to pile up the AAA rating, to stuff the tiny spread of the Treasuries to get as undercapitalized as you could possibly be or as levered as you could possibly be. The real story is how that regulation created the incentives, indeed forced institutions into these very vulnerable states.

The OTC point is really well taken. One of the things that is supposedly under construction is a new system where derivatives will be mainly exchange traded. That was one of the things we've learned. But that has hardly happened when you look at the numbers. It's still vastly the greater share of derivatives, are OTC, rather than exchange traded.

And I couldn't agree more with you about the accounting rules. Funny anecdote: there are six chapters in *A Sense of Money*. It was originally six episodes in a television series for PBS and BBC. And I remembered really having to fight the commissioning editors to get episodes on things as boring as mortgages and insurance. But I fought my way through them. This was all before the crisis. I remember the man in London saying, "Nobody is going to watch a film about subprime mortgages, Niall." I said, "They will. Trust me, Henry. They will." But it was accounting, accountancy, that was the bridge too far for the TV people. When I proposed there should really be a one-hour film about the role of accountancy in the crisis, they drew the line at that. But you're completely right. Because mark to market is massively pro-cyclical as a rule. And again, if that had been ruthlessly applied at the time of the crisis, it would have made matters worse.

A lot of the things that we think we've learned from the crisis that have shaped the way regulation is being constructed are based on historically incorrect readings of what caused the crisis. And it illustrates the dangers of the way in which policy gets made on both sides of the Atlantic. Very quickly narratives get constructive: deregulation caused the crisis, therefore, we need regulation.

John Taylor: Let me ask you a question. You're saying it's not so much regulations as the regulators, the regulators' interactions with the banks.

Niall Ferguson: I think regulation included some perverse incentives, even if they'd been enforced by saints. But regulations are never enforced by saints. And regulations were not. They certainly weren't being enforced in an aggressive way by the New York Fed.

John Taylor: George?

George Shultz: You could have a seventh asking if the structure of regulation has been modified to be more effective. I would argue that the kind of regulation you want requires somebody to have capital that is at risk and they take care as distinct from the kind of regulation that is so typical, where you have swarms of regulators in everybody's organization looking over everybody's shoulder.

And then I would add another: was accountability taken out of the system by the way it was handled? Is accountability being restored?

And I think there's also the question of the impact on people's trust in the integrity and the competence of the people running things. I think one of our problems in this country more generally right now is lack of trust in the powers that be.

Paul Gregory: No one has mentioned the presidential election that we, what's going on, where Dick Durbin came out and said, "We're in for a Great Depression."

John Taylor: Actually, McCain cancelled the campaign.

Paul Gregory: Yeah, and McCain's rating failed by about twenty points in a few days.

George Shultz: But more importantly, Marty Feldstein says the same thing, if you've been reading his stuff.

John Taylor: About what? Sorry.

George Shultz: About the idea that we're getting into a bad time now.

John Taylor: Oh. Okay.

Niall Ferguson: I mean, regulations… One of the regulation changes has been to increase skin in the game, so that you're supposed to hold at least some of your CDOs and your own balance sheet. There has been some adjustment to increase skin in the game. On the point on trust, I looked recently at the kind of public trust numbers, and Wall Street is still at the bottom of the list, with the lowest trust, even below Congress, even below Facebook. So I think public trust in financial institutions remains at a very, very low level, and I think that's partly because of the residual bitterness that the banks got bailed out. I mean, one thinks of the politics of this. The crisis had a very slow burn political backlash that took longer than I expected. I mean, it was pretty clear that it would be so cataclysmic for so many people that there would be some kind of populist reaction, especially if it appeared that the main beneficiaries of the bailout were the banks, and nobody went to jail. But it took ages for that to crystalize into what became Trumpism. And one of the puzzles that really isn't relevant for this conversation is why that time lag was so great, and why it really was until 2016 that it crystalized? And why when it did crystalize, that populist mood, that it wasn't Bernie Sanders that benefited. That it was Donald Trump.

John Cochrane: The Tea Party people came around in the midterms, right away, so there was some organizing around that, right? That was also partially in response to the ACA health care bill.

Niall Ferguson: Yeah, the Tea Party was much more about healthcare than it was about the financial crisis, oddly enough. And it was also about fiscal conservatism.

John Cochrane: It was about distrust in the elites. They don't trust people in power. And they have a point. It's not obvious the elites are worthy of trust!

John Taylor: I have a couple of points. First, to your China point about how their stimulus worked. We compared it to the US, and to some extent they had a better ability to deliver to the state and local levels.

Niall Ferguson: It was mostly done locally. Eighty percent of China's stimulus was done by local government.

John Taylor: Yeah, that's what I mean. In the US case, the federal government sent the money to the states, and they just pocketed it. Amazing difference. But I don't think that translates into they made a big difference globally. I think you need to explain that a little bit more. But I think you're exactly right that their stimulus worked.

But I think the big counterfactual I would raise is whether there was a Chapter 14, if the bankruptcy code had done something about the financial institutions. So, you could have done what George is saying: Sorry, you're not getting the bailout. You've got this bankruptcy code.

And then your point about the markets falling dramatically 10 days or later after is important. People tend to forget that. You're pointing to the roll-out of the TARP and the inconsistency about that. And that brings me to the point, it's more a question of history. George is right. Now, people are saying, "We saved the day." And there's not a lot of questions. But that is not how people looked at it at the time. They were disgusted with the bailouts, they caused the mess… So the question is whether this is natural historical revisionism? What causes the switch to, "Oh, we did a great job?" compared with ten years ago; it's quite a contrast.

Niall Ferguson: The China point is one that you're right, needs a formal demonstration. I don't think that anybody's done this, but I think if you ask the question, what were the spillover effects of China's stimulus, the intuition is that in a depression, commodity prices go into freefall. That's what happened in the thirties. What happened in our crisis was that they spiked in 2010. And that was on the back of China's stimulus, almost certainly, because China was almost the only buyer. If you were selling iron ore or soybeans, whatever it was, it was China that was buying, because everybody else was in or close to recession. And I think it would be very interesting to ask the question, what were the global effects, and quantify it? No, I don't think that paper's been written, but there's a great PhD-type paper for somebody to write. And I think that it would turn out to be quite significant. Certainly, I was just in Australia, it saved Australia. Any commodity exporter was bailed out by what the Chinese did to commodity prices.

On the bankruptcy counterfactual, that's a really interesting question. My sense is there would have been such a kind of concatenation of major bankruptcies to do simultaneously, that it's almost unimaginable that it would have been conducted smoothly. But I'm not qualified to definitively answer that.

I think the timing issue is related to… Timing of the panic is related to your really interesting question at the end. Historians can't do the smart things that you guys do. We can't model. Our math skills have atrophied. But we're quite good at just getting the order of events right and documenting what people actually said at the time. This is very salutary, because many economists who tend to delve into the popular presses have a tendency to be very fast and loose with what actually happened and who said what at the time. So part of the story, one of the reasons I write these chapters, is just to get the record straight. Because narratives normally get formed in a very unreliable way. The first draft of history is written by journalists, but even worse is the second draft, because it's written by the memoir writers. And the memoir writers have massive self interest to paint their own portraits in a flattering way. And so, then come the third draft of history is written by people in a hurry, writing trade books. Adam Tooze just did this. In his history, which got very well reviewed, *Crashed* – I don't know if anybody's read it – it's got great reviews in the media. That large narrative replicates many of the erroneous views that I've touched on, because it's written partly on the basis of memoirs, journalism, and interviews. So it's a combination of the first draft and the second draft. Revisionism is what historians do when kind of everybody else has lost interest. We come along and say, "You know what you thought happened in 2008? Well, actually, it's completely wrong. Here's what happened." It takes a while for that to happen, but I think it has to happen.

John Taylor: We're working on that. Yeah. George has a comment. Is that okay?

George Shultz: As we look at this, it's tempting to have one answer. How well was the crisis handled? It's possible to think of it ins two ways. The emergence into the crisis was the result of mishandling.

Once it was well under way, you certainly did want to have a big expansive monetary policy with liquidity and so on. So that part was right. We got a mixed answer.

John Taylor: You burn the house down, and then you get credit for putting the fire out.

Niall Ferguson: I think that's the epitath of the Bernanke era.

John Taylor: Ramin?

Ramin Toloui: So just one comment in passing. I did do some calculations on this issue of China's contribution many years ago.

John Taylor: Oh, good.

Ramin Toloui: And I can't remember the exact number, but it was something in the neighborhood of a one to 1.5 percentage point total contribution to global GDP growth, roughly one-third of which was from external spillovers. And you see it in the swing of China's net export contribution, which became a huge drag on Chinese growth during the first half 2009, because they're pulling in all of these imports. And so that's one way statistically you can wrap your arm around what the impulse was externally.

Niall Ferguson: If you could send that to me, I'd be really grateful.

John Taylor: Hongbin?

Hongbin Li: Actually, it's very interesting about the China comment. I was in China at the time, teaching at Tsinghua University, so when we saw the US was bailing out private companies, we were all shocked. That's not in the textbook; not what we learned here from the US? There's something called the soft budget constraint, that's something associated with a planned economy. This is what the US was doing during that time. So, all the Chinese say, "Oh, this is what we did 20 years ago in the '90s. We bailed out all the banks. It's the same method. Now the US is copying us."

[Laughter]

But by the way, even that time, the Chinese government was consulted by Goldman Sachs, and Morgan Stanley. So, they gave the idea to put all the bad debt of banks into some new asset management companies, and then have a clean asset to go public in Hong Kong or somewhere else. So, that's the first comment.

The second comment is that so many Chinese private business owners right now are very pessimistic about China's economy. They're trying to move their money away from China, buying things outside. Well, the reason is they blame the bailout during the crisis. All the bailout money went to the state-owned enterprises. So, they become bigger now. Really big. And the private companies cannot get a penny from the bank. That's how it's called "state advances, the private sector declines". It all started about ten years ago in China. That's my two comments.

Niall Ferguson: Can I just briefly respond, because I think those are really important points. In the early stages of the crisis, before Lehman, it may have been in late '07, I did a piece for the *Financial Times* saying what China should do is buy Wall Street, and if the Chinese are smart, they should invest now in the US banks that need capitalization. And that would avoid what would be a much more difficult political bailout by the US treasury. And it began to happen, didn't it, because the Chinese took stakes in Morgan Stanley and was it Black Rock? Black Rock.

Hongbin Li: That's my wife's company actually. She worked for China Investment Corporation.

Niall Ferguson: But in that decline, everybody got cold feet in Beijing, and the whole thing didn't happen. But it would have actually been an elegant solution.

Finally, it's really crucial that the unintended consequences of the Chinese stimulus are with us today, not only what you describe, which is the growth of the SOEs relative to the private sector, but also the accumulation of debt to create this highly leveraged Chinese balance sheet that we see today.

John Taylor: There's a question over here?

Ken Judd: Yeah. I want to make some comment on the China accumulating reserves. This is years ago, I read where China says that they were accumulating reserves as was done in Asia typically, because Asia had suffered in the late '90s a crisis, and many of those countries just didn't have enough reserves. So, there was a general Asian accumulation of reserves. And that was just… I don't know how we would have fought against it. It was just something they were doing to be financially prudent.

Also, the other comment… two random comments… We talk about bailouts, but there's some specificity in this discussion. But where does AIG fit in this, because we made money on that one, right? I think we… And I think that… Wasn't that a matter of liquidity? They had short-run obligations, but they had lots of real estate. That they just didn't want to… anyway—

John Gunn: It took a long time to make a little money.

Ken Judd: I don't know. We made money in the end.

John Cochrane: They were illiquid, not insolvent.

Ken Judd: Yeah, yeah. So, I don't know if AIG belongs in one of these… It sounded like a good business deal.

John Taylor: I don't think if we made money or not defines a bailout.

Ken Judd: Okay, even if we made money and even if it looked like a good business deal—

John Taylor: It did a lot of damage.

Ken Judd: It's still bad.

Niall Ferguson: A couple of quick points. Chinese reserve accumulation differed from the reserve accumulation by other Asian economies, because China wasn't exposed in the same way as the others were to what had happened in the Asian crisis. I mean, essentially, it's not an open economy, and it has the capital controls. And I think one should interpret the reserve accumulation in China's case much more as a consequence of currency management than of prudential accumulation.

On AIG, the big question, and maybe Bob has something on this, and remains, is was the bailout of AIG an indirect bailout of the other investment banks?

Bob Hodrick: Absolutely.

John Cochrane: Yes

Niall Ferguson: Which is…

Bob Hodrick: And Europe, because the European banks had invested heavily in mortgage-backed securities, and then insured them with AIG to get AAA credit ratings.

John Cochrane: All bailouts are bailouts of the creditors, not bailouts of the institutions. And that is the point: to keep the creditors from running you have to bail out creditors.

John Gunn: An interesting one is Dick Kovacevich's view of the major mistake was taking the TARP money and giving it all to the ten banks. Which he believes first of all, there's only a couple of them that needed it, and the other thing was that then that undermined confidence in the entire banking system. And he basically predicted that you were going to… And after you did that, you had a 75% drop in the stock prices of the banks into February/early March. So, I think that's the kind of thing that is… that there are too many people in small rooms with no sleep say, "Let's do something."

The other part of this is from the corporate side—now I'm looking at it as an investment manager, and I'm looking through some knotholes in the fence. And that was… A friend of mine running a semiconductor capital equipment firm in the northeast, this thing hit, and what you have to realize is for the 25 years previously, there wasn't really anything bad happening from the bottom of the recession at the end of '82 to the end of '07. And so all of the sudden, all the orders are disappearing. So there's a full panic. And so he cut about 20% of the headcount, and then ended up… In the first part of '09, and ended up at the end of '09 being back to… the revenues were about back to where he was in mid '08. But he had 20% fewer employees, and he wrote in his annual report, this is like going through a huge corporate bungee jump. And that's the kind of strange part of this. And I don't know exactly what it… We had an economy that seemed to be extremely resilient once we got people who were making seat-of-the-pants kind of calls and intervening in it. And we just… It reminded me of the… Who's the economic historian from MIT talked about the day after a panic, everyone gets up in the morning and goes to work.

Niall Ferguson: The 1982 points are well taken. One of the things that I remembered working on at the time of writing the book was the average age of CEOs of financial institutions in 2007-08. And of course, nearly all of them had started their careers after 1982. So, their careers had been entirely defined by the longest bond bull rally in history. And the nasty moments had been very brief as in 1987, and had given rise to this sort of Fed psychology, or they happened elsewhere – the Asian crisis, or—

John Gunn: What happened in 1987 was a neutron bomb in the securities market, but didn't affect the real economy.

Niall Ferguson: Yeah. So, people had no personal experience of anything on this scale. And I think the psychology therefore was as you described. When you're trying to describe why the panic in financial circles spread so quickly into the real economy, it's the process that you've just described, where very quickly employers were cutting payroll, and households were also changing their behavior. The savings rate went up. Everybody's behavior changed really rapidly. And I think that psychological cascade, or whatever you want to call it, which led straight to people like your friend, is crucial to explaining why a financial panic has such immediate real economy results, it caused the recession the recession that it did.

On the bungee jump—

John Gunn: People were buying houses, because of that myth that it always goes up.

Niall Ferguson: Right. Which was not true. That was a classic piece of urban legend. That the house prices always went up. But many people believed it. They just never bothered to look at the data that it went up and it went down.

But the bungee jump is great. When you look at those stock market charts… You know, in a bungee jump, you're not supposed to go back up higher than where you started, but policy ended up achieving that outcome.

John Taylor: So we're close to finish. John, you had a last comment?

John Cochrane: Yes. My comment leads us to what we're going to do next week, as does your last comment. How did a financial crisis have real effects? There's a conceptual question underlying many of Niall's recent comments that I think we'll come back to next week: to what extent is the economy driven by, let's call it briefly "supply" versus "demand" issues? If it's inadequate aggregate demand, is it a lack of money? Panicked money demand that the system cannot accommodate? Or is it sort of a generic aggregate demand? And that underlies many of the things you said.

Ben Bernanke's view is a supply view. It's credit supply: You blow up the banks, and they can't make loans. People still want to save, and still want to borrow, but the bank in between is gone. That has some great merit to it. In the slow recovery, I think there is wide room for the view that policies screwed up supply.

Also, I don't think we need to look for Fed *action* to understand why the recession bottomed out. What the Fed did was not screw up. It did not repeat the mistakes of 1929. There's a desire to claim the stimulus and Fed's courageous actions saved the world. No, they just didn't screw up again the way they did in '29. That is, by the way, praiseworthy, because usually the Fed screws up the same way over and over again. But I guess the marketing and history making department is not happy with "look we didn't screw up again!"

You mentioned the idea that households should have gotten bailed out instead of banks. Well, now that view takes a view that the economy is driven entirely aggregate demand of the non-monetary type. If you bail out the banks, the Ben Bernanke idea is that well, then, that credit-supply channel is now operative. If you bail out the household without bailing out the banks, Ben would say, "What's the point? You gave people a lot of money, but you blew up the roads, so they're still not going to get where they want to go." And there's a good question just why household debt should matter. Other households pay the taxes that get paid to the same households that are bailed out. The government cannot create net wealth by transferring income. So, how in the world is that going to help matters?

Ken Judd: That's not right. It's not the same households.

John Cochrane: Yes. It's a transfer of wealth from one group to another. But you need some artful frictions to make that help the whole economy.

Anyway, the underlying question there really to all of these things is, is it, broadly speaking, supply? Is it just generic aggregate demand? Similarly, Niall mentioned China's stimulus. Does China's stimulus help us? Well, the story there's some broad notion of aggregate demand is what drives the economy, but maybe not. And we'll talk next week about why was the recovery so slow, which has both its supply and demand questions.

John Taylor: George?

George Shultz: I was just going to say we use bailouts all the time. Bailouts are the enemy of accountability. The more bailouts you have, the less accountability.

John Cochrane: And the moral hazard is there next time.

As we look forward, the ideal world is one in which nobody expects a bailout, and the Fed comes in unexpectedly afterwards and cleans up the mess. The worst of all worlds is one in which everyone expects a bailout, and then the government for legal, political, or lack of fiscal space, can't do it. Eveyrone got rid of their fire extinguishers, counting on the firehouse. But the firehouse has burned down. Now we're in real trouble. I worry that's where we are.

John Gunn: Where are all the guys that were leading these financial institutions that were going down the wrong path? My guess is that they're all disappeared. They've all retired and they're sitting on some beach somewhere, but nobody gives a crap where they are.

John Cochrane: Some of them are still running the same institutions.]

John Gunn: No, no. They're not beach bums. But so what?

Niall Ferguson: Jamie Dimon is still standing.

John Gunn: But he wasn't in the middle of that. That's not even true.

Niall Ferguson: The Countrywide guy, I don't know where he is.

John Gunn: Countrywide. Oh my God. He would come in, and you knew not to believe him.

[Laughter]

John Taylor: Just so… Niall left us with these two charts, the one monetary and the other fiscal, and that's what our topic will be next week. Plus, after that, the recovery. Why the recovery was so slow. So it all wraps together. So, see you then! Thank you.

John Cochrane: Thank you all.

[Applause]