prices would go up. What happened? The market kicked in and prices went down.

We had inflation running in the teens and the prime interest rate was in the twenties. The economy was going nowhere. The Soviet Union was running wild in Afghanistan and elsewhere. But we put into place a program compatible with prosperity without inflation. President Reagan knowingly took a beating because he held a political umbrella over Paul Volcker to do what he needed to do at the Federal Reserve (and Paul did it magnificently). People told Reagan it would cause unemployment. They said: You're going to take a beating in the mid-term elections. As it turned out, that is exactly what happened. But he also took the view: If not us, who? If not now, when? You can't have a decent economy with inflation like this. So he was able, in effect, not to have the economist's lag become a politician's nightmare. He stood up to it and took a long view.

Those are my three experiences and, out of them, the economic policies that I think should be adopted. It's so blindingly obvious what it will take to get our economy going well again that I won't bother you by mentioning it.

Thank you.

John Cochrane (JC): It's a pleasure and honor to be here, especially next to such distinguished panelists.

John Taylor suggested I do something simple and easy for the panel, like cover all the troubles in Europe and the United States and how to fix them. In ten minutes. So let's go on a quick tour of Europe first.

In case you're not reading the papers, we're in financial crisis 3.0, a run on European banks stemming from their sovereign debt losses.

This is not high finance. European banks have been failing on sovereign debt since Edward III stiffed the Peruzzi in 1353. This is not a "multiple equilibrium," a run of self-confirming expectations. People are simply getting out of the way of sovereign default, since it's pretty clear that governments are at the end of the bailout rope.

By dutiful application of bad ideas and wishful thinking, the Europeans have turned a simple sovereign restructuring into a currency crisis, a fiscal crisis, a banking crisis, and now a political crisis. They could have had a lovely currency union without fiscal union. The meter in Paris measures length. The euro in Frankfurt measures value. And sovereigns default, just like companies. They could do what George Shultz beautifully called the "simple, obvious" things, and return to the kind of strong growth that would let them pay off large debts. Alas, the European Central Bank (ECB) is full in, both buying debt and lending to banks who buy debt, so now a sharp euro inflation—which is just a more damaging and wider sovereign default—seems like the most likely outcome.

How did we get here? Financial crises are runs. No run, no "crisis." Without a run, people just lose money as in the tech bust. (Let me quickly plug here Darrell Duffie's "Failure Mechanics of Dealer Banks."[1] This wonderful article explains exactly how our financial crisis was a run in dealer banks.)

For nearly one hundred years we have tried to stop runs with government guarantees—deposit insurance, generous lender of last resort, and bailouts. That patch leads to huge moral hazard. Giving a banker a bailout guarantee is like giving a teenager keys to the car and a case of whiskey. So, we appoint regulators who are

1. Darrell Duffie, "The Failure Mechanics of Dealer Banks," *Journal of Economic Perspectives* (2010) 24:51–72.

supposed to stop the banks from taking risks, in a hopeless arms race against smart MBAs, lawyers, and lobbyists who try to get around the regulation, and though we allow—nay, we encourage and subsidize—expansion of run-prone assets.

In Dodd-Frank, the United States simply doubled down our bets on this regime. The colossal failure of Europe's regulators to deal with something so simple and transparent as looming sovereign risk gives you some hint of how well it will work. (European banks have all along been allowed to hold sovereign debt at face value, with zero capital requirement. It's perfectly safe, right?)

The guarantee—regulate—bailout regime ends eventually, when the needed bailouts exceed governments' fiscal resources. That's where Europe is now.

And the United States is not immune. Sooner or later markets will question the tens of trillions of our government's guarantees, on top of already unsustainable deficits.

What financial system will we reconstruct from the ashes? The only possible answer seems to me to go back to the beginning. We'll have to reconstruct a financial system purged of run-prone assets, and the pretense that nobody holds risk. Don't subsidize short-term debt with a tax shield and regulatory preference; tax it; or ban it for anything close to "too big to fail." Fix the contractual flaws that make shadow bank liabilities prone to runs.

Here we are in a golden moment, because technology can circumvent all the standard objections. It is said that people need liquid assets, and banks must borrow short and lend long to provide such assets. But now, you could pay for coffee with an electronic transfer of mutual fund shares. The fund could hold stocks, or mortgage-backed securities. Nobody ever ran on a mutual fund. With instant communication, liquidity need no longer coincide with fixed value and first-come first-serve guarantees.

We also now have interest-paying reserves. The government can supply as many liquid assets as anyone wants with no inflation. We can live the Friedman rule.

Short-term debt is also the key to government crises. Greece is not in trouble because it can't borrow one year's deficits. It's in trouble because it can't roll over existing debt. Governments can be financed by coupon-only bonds with no principal repayment, thereby eliminating rollover risk and crises. The new European treaty, along with wishing governments would mend their spending ways, should at least insist on long-maturity debt.

You may say this is radical. But the guarantee—regulate—bailout regime will soon be gone. There really is no choice. The only reason to keep the old regime is to keep the subsidies and bailouts coming. Which of course is what the banks want.

On to the United States:

Why are we stagnating? I don't know. I don't think anyone knows, really. That's why we're here at this fascinating conference.

Nothing on the conventional macro policy agenda reflects a clue why we're stagnating. Score policy by whether its implicit diagnosis of the problem makes any sense.

The "jobs" bill. Even if there were a ghost of a chance of building new roads and schools in less than two years, do we have 9 percent unemployment because we stopped spending on roads and schools? No. Do we have 9 percent unemployment because we fired lots of state workers? No.

Taxing the rich is the new hot idea. But do we have 9 percent unemployment—of anything but tax lawyers and lobbyists—because the capital gains rate is too low? Besides, in this room we know that total marginal rates matter, not just average federal income taxes of Warren Buffett. Greg Mankiw figured his marginal tax rate at 93 percent including federal, state, local, and estate taxes.[2] And even he forgot about sales, excise, and corporate taxes. Is 93 percent too low, and the cause of unemployment?

The Fed is debating QE3. Or is it 5? And promising zero interest rates all the way to the third year of the Malia Obama administration. All to lower long rates ten basis points through some segmented-market magic. But do we really have 9 percent unemployment because 3 percent mortgages with 3 percent inflation are strangling the economy from lack of credit? Or because the market is screaming for three-year bonds, but Treasury issued at ten years instead? Or because $1.5 trillion of excess reserves aren't enough to mediate transactions?

I posed this question to a somewhat dovish Federal Reserve Bank president recently. He answered succinctly, "Aggregate demand is inadequate. We fill it." Really? That's at least coherent. I read the same model as an undergraduate. But as a diagnosis, it seems an awfully simplistic, uni-causal, uni-dimensional view of prosperity. Medieval doctors had four humors, not just one.

Of course in some sense we are still suffering the impact of the 2008 financial crisis. Reinhart and Rogoff are endlessly quoted that recessions following financial crises are longer.[3] But why? That observation could just mean that policy responses to financial crises are particularly wrongheaded.

In sum, the patient is having a heart attack. The doctor is debating whether to give him a double espresso or a nip of brandy. And most likely, the espresso is decaf and the brandy watered.

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2. http://gregmankiw.blogspot.com/2008/10/blog-post.html.

3. Carmen M. Reinhart and Kenneth S. Rogoff, *This Time is Different: Eight Centuries of Financial Folly* (Princeton: Princeton University Press, 2011).

So what if this really is not a "macro" problem? What if this is Lee Ohanian's great depression—not about money, short-term interest rates, taxes, inadequately stimulating (!) deficits, but a disease of tax rates, social programs that pay people not to work, and a "war on business"? Perhaps this is the beginning of eurosclerosis. (See Bob Lucas's brilliant Milliman lecture for a chilling exposition of this view.)[4]

If so, the problem is heart disease. If so, macro tools cannot help. If so, the answer is, "Get out of the way."

People hate this answer. They want to know, "What would you do?" "What's the bold new plan?" "What's the big new idea?" "Where is the new Keynes?" They want FDR, jutting his chin out, leading us away from the fear of fear itself.

Alas, the microeconomy is a garden, not an army. It grows with property rights, rule of law, simple and non-distorting taxes, transparent rules-based regulations, a functional education system—all of George's "simple, obvious steps"—not the Big Plan for the political campaign of a Great Leader. You need to weed a garden, not just pour on the latest fertilizer. Our garden is full of weeds. (And our politics are full of fertilizer!) Yes, it was full of weeds before, but at least we know that pulling the weeds helps.

Or maybe there is something macro can do. This conference, and our fellow economists, are chock-full of brilliant new ideas both macro and micro. But how do we apply new ideas? Here I think we economists are often a bit arrogant. The step from "Wow, my last paper is cool" to "The government should spend a trillion

4. Robert Lucas, "The U.S. Recession of 2007–2011?" http://www.econ.washington.edu/EconomicsMillimanLecture.htm.

dollars on my idea" seems to take about fifteen minutes. Ten in Cambridge.

Compare the scientific evidence on fiscal stimulus to that on global warming. Even if you're a skeptic on global warming, it's clear that compared to global warming, our evidence for stimulus—including coherent theory and decisive empirical work—is on the level of, "Hey, it's pretty hot outside." And compared to mortgage modification plans, strange "unconventional" monetary policy, the latest creative fix-the-banks plan, and huge labor market interventions, even stimulus is well-documented.

There are new ideas and great new ideas. But there are also bad new ideas, lots of warmed-over bad old ideas, and good ideas that happen to be wrong. We don't know which is which. If we apply anything like the standards we would demand of anyone else's trillion-dollar government policy to our new ideas, the result for policy, now, must again be, stick with what works and the stuff we know is broken and get out of the way.

But keep working on those new ideas!

Question and Answer Discussion

James Bochnowski: I'd like to direct this question to George. I'd like to hear the simple and blindingly obvious things we need to do to fix the economy. They're not so blindingly obvious to me.

GS: Number one: Reform the personal income and corporate tax system. The template is there from the 1986 Tax Act. People in the joint committee on taxation can score it overnight. Get the rate down and the junk out.

Do something of the same thing with the corporate tax rate. There's not enough junk to justify, on a revenue-neutral basis, getting the rate down as far as it should go, but get it down to something like 20 percent. Then say: this is the tax system, period. End of discussion.

Then you've got to do something about spending. What they're talking about now, which strikes me as ridiculous, is basically a trillion dollars here and a trillion dollars there ten years from now. The present Congress and president have no control whatever over what is spent ten years from now, so they backend load things. I say: ask not what a Congress ten years from now may spend; ask what you are going to spend this year and next year and get the line pointed downward.

Then there is the Congress. Congress has not done its work for at least three years. The Congress has the power of the purse, according to the Constitution, so it needs to exercise that power in a responsible way. And there's a clear way of doing it. Namely, the president proposes a budget. This year he didn't even propose a serious budget. Congress reviews it. They have a number. They pass it out. Committees hold hearings. They make informed judgments and appropriations and the result is a budget. For at least three years we've had continuing resolutions, a nonsensical way of doing the budget. Let's get back to normalcy and get the budget under control. It can be done.

Something has to be done about entitlements. Social Security is so simple. All you have to do is change from wage indexing to price indexing. I'd put John Shoven in charge of it. And if John and I had our way, we'd do another few wrinkles just to keep people in the labor force. For example, if you've paid into Social Security for forty years, you're totally paid in so there should be no more deductions. That means that you, an individual in your sixties, will have greater take-home pay and you won't cost the employer as much. We think that will keep people in the labor force longer, which will be a net plus.

In the medical area, there are many things that need to be done. Some things can be done administratively to get the consumer more involved in the game. For example, it is easily possible to use Medicare records to make publicly available prices and outcomes across the wide range of health providers. Then consumers can make intelligent choices. This can be done without revealing anybody's personal records. Then there are simple things like letting people buy insurance across state lines so there is competition among insurance providers. I think Paul Ryan has it fundamentally right: you want to convert the so-called entitlements under Medicare and Medicaid to the ability to buy health benefits. Let people have consumer power and, all of a sudden, you'll find that costs are brought under control.

That leaves the Federal Reserve. I hesitate to even say the words in the presence of Alan Greenspan, but I think the Fed should be careful, because if they don't get hold of themselves, they're going to get their wings clipped badly. They have the view, apparently, that they can do anything, that there are no limits. They can throw money at this and at that by the trillions of dollars. I think they should get back to the kind of monetary policy that Volcker and Greenspan conducted. It's more predictable. Now when anybody from the Fed makes a speech, people run around and say, "What are they going to do next?" Talk about uncertainty. This is a major addition to uncertainty. Show people that what the Fed is going to do is run a monetary policy consistent with prosperity without inflation; that's the Fed's job. A rules-based policy of some kind would probably be best. Try the Taylor Rule, for example, just to be parochial about it.

Put these things into place, announce that these are the economic policies, and then go on to something else. I think the economy would take off.

David Henderson: Question for Alan Greenspan. Alan, I like your proposal on H1-B but I just want a little more detail. When you say "get rid of it," what do you mean? Do you say—and I'm not objecting, I like it—that we'll allow three million people a year with certain qualifications? Ten million a year? That's great. Or are you saying something else? I'd just like to know what you're saying.

AG: I'd start off by being practical. Increase the quotas very significantly and keep increasing them. That avoids the question of the issue, which is a relevant question, about how you maintain the culture of a society if you're wide open to immigration. It's extremely difficult politically to keep that going, because of a tendency in any population group to try to freeze the nature of the group. But we cannot solve our skill problem without a very significant increase in the size of the quotas.

Nicholas Hope: At a conference across the road last year, Andrew Crockett offered the opinion that the combination of limited liability leverage and too-big-to-fail almost guaranteed that banks and other big financial institutions would make excessively risky bets. Now if we can agree that Dodd-Frank's not the answer, what would you recommend, Dr. Greenspan, as the changes we need in the financial regulation?

AG: Well, there's one particular change that was actually made in 1970, which in retrospect, was a mistake: that was the New York Stock Exchange ruling that enabled broker-dealers, who were required to be partnerships in 1970 and earlier, to incorporate. My recollection of broker-dealers, Goldman Sachs and Morgan Stanley at that time, is that they wouldn't lend you a dime overnight because partners were very, very tight with respect to doing anything. Had we had that type of culture and law throughout the last forty years, it would have been very difficult to create the types of problems that emerged with the financial bubbles that eventually got to the point where some of these investment banks had only 3 percent tangible capital. Back in the days when they were partnerships, they had more than adequate capital to the point, in many cases, where they behaved like many of the Swiss and German bankers who have said it is utterly unethical to ask a banker the size of his capital. One must presume it's more than adequate to cover anything you could conceive of. So I think that there's a major issue that we could solve if we worked our way back towards more personal legal responsibility to the individuals who were involved in these markets. I don't think you can regulate them in a manner that would prevent people from going around the regulation. These people are much too smart to get hung up with the specific regulation in the tax and regulatory codes. But if you create the changes at the base of the system, I grant you, you won't be able to raise as much capital as before, which is the reason they changed the 1970 ruling. But that's what you should have in mind.

Robert Wilson: I was impressed with your comments, Mr. Greenspan, with respect to improving our competitiveness through immigration laws. It seems to me that competitiveness is one of our basic issues, on a very broad front. I'd like to have the comments of the panel with respect to whether or not we need to regain competitiveness in order to build future growth in our economy.

AG: I'll start off by saying competitiveness is fundamental to a market system. Schumpeter's creative destruction is at the core of rising standards of living, and competition fosters that process. There is, as yet, little evidence, however, of any pronounced slowdown in productivity growth. But our demographics are sending ominous signals as we lose the most productive part of our workforce to retirement: the baby boomers.

GS: This is also an opportunity to underscore the importance of vastly improving the job we're doing with K–12 education. If we wind up with a large group of people in this country who don't have the educational attainments they need to do the kind of work that's there, we're in deep trouble.

AG: We already are in deep trouble.

GS: Yes, we are.

JC: I would like to add a caution against using that word, "competitiveness." Most people who use it think that we're in a race with China, to "compete" and export to them more than they export to us. That's a classic economic fallacy. Competition is great. But the objective of our society is to grow and become prosperous, not to compete with China for who can send more cars the other way in exchange for more useless pieces of paper. Economics is not a zero sum game.

GS: There were some fascinating charts shown on savings this morning. Households in this country are starting to save again. Everybody's beating on them to stop but they have started to save again and they're only spending something like 96 percent of their income. But the big problem in government is the giant rate of dis-saving. Somehow, as part of this balance, we've got to get savings in tune with our investment. Then we won't have to import savings from China and the trade account will balance itself out. I recommend that you read a very interesting article written by Ron McKinnon for the Summer 2010 publication of the *SIEPR Policy Brief.*[5] It lays this out in the clearest way you can imagine.

William Hume: Is there a point at which government becomes sufficiently large that it crowds out the private sector and stifles any ability of the private sector to develop competition and to compete?

GS: Well, obviously you can get so big, taking such a large share of GDP, that you have to support it with taxation. That automatically is pulling the rug out from under the private sector. There are essential functions that government has to do, and we should want the government to do them well. We need to be a lawful society or it won't work. We need to be able to defend ourselves and conduct a reasonable foreign policy. We probably need to have some transfer programs, but we need to structure them to work well so that users have the ability to utilize the competitive structure of the economy to keep costs under control. So I would say yes to your

5. Ronald McKinnon, "Why Exchange Rates Will Not Correct Global Trade Imbalances," *SIEPR Policy Brief,* June 2010, Stanford University.

question, but I would also say that government has vital functions to perform and we want them performed well. It is possible.

JC: May I add, “yes,” and one of the signs is when government stops going beyond those vital functions and wants to run the economy, tell us what kind of cars to drive, and all of the rest of it. This morning we got rid of the fallacy that you just have to watch the taxes. You have to watch the spending because those are the future taxes. But even spending isn’t everything. If the government says, “You shall buy a different kind of car,” that’s the same thing as taxing and spending just by another means. Governments can really screw things up when they’re telling everybody what to do, deciding which companies fail and which will survive. But none of that shows up as on-budget taxes or spending.

GS: I have to say that I have solar panels on my house here on campus and I’m driving an all-electric car. So I say, “Take that, Ahmadinejad!”

John Bourgoin: Is there a set of policies the government could put in place that would bring back the relatively low-wage manufacturing jobs for the large mass of people who aren’t well-educated and aren’t likely to be well-educated?

AG: I’ll respond to that. You know, I often wonder about the premise of the question. One of the things that this country has done, and indeed, that all of the cutting-edge-oriented countries have done, is move away from the physical substance of manufacturing and move towards increasingly conceptual, more valuable ideas. And it’s not an accident that we’ve had a dramatic decline in manufacturing in the United States, because, leaving aside the import/export issues, consumers within the United States, acting voluntarily, to the extent that they can, are choosing these ephemeral things. I'm not only talking about choosing services over physical goods, but within the scope of technically manufactured goods, they're downsizing to the point where they're doing more and more computer-based hardware, for example, or anything based on silicon chips, and going forward from there. I wonder whether we want to revert back to the technology of the nineteenth century. Steel, for example, is a fairly labor-intensive industry, especially in the rolling mill operations—there's a technology that can employ an awful lot of people. But it's nineteenth-century technology. You cannot increase standards of living by going in that direction. So we have to be careful in trying to replicate every labor-intensive output, because by definition, labor-intensive output necessarily means low productivity.

And so I seriously question whether we should be seeking jobs in that particular area. In fact, the Chinese are doing precisely that. They are keeping their exchange rate abnormally low and in the process, creating a demand abroad for low-quality goods embodying very substantial amounts of labor input. One of the reasons why they are very strongly opposed to allowing their exchange rate to rise is that it would increase the quality of what is required to be exported from China at a profit. That means, essentially, you'd have to use a lot more equipment to produce the goods they ship out than they are currently using today. A higher exchange rate will force them, in order to maintain higher profit charges, to shift to more equipment and less labor. The result of this is that we can get a higher level of employment in the United States by working backwards, going to lower technologies and lower standards of living. I don't think that is an alternative we should wish to pursue.

GS: Let me just add that if you keep raising the minimum wage, at a certain point you'll price these people you're worried about out of the market. Why do we want to do that? I think it's much better to have them working than on welfare of some kind. I think the minimum wage is part of it, but let me just make a comment on a favorite hobby horse of mine that I never seem to get anywhere with.

Our national accounts were created by some very smart guys at the National Bureau of Economic Research back in the 1920s and '30s. The accounts are the same now as they were then but our economy bears no resemblance to what it was then. Time goes on and new jobs appear. Where do we slot them into this set of categories? Sometimes there's an easy way; sometimes it's hard. If you're really frustrated in finding the right category, you call the job a service, so after a while we become a service economy. Everyone thinks of that as flipping hamburgers and doing laundry, but a lot of other new, productive things get classified as services. I think it's long past time that Jim Poterba, the new head of the National Bureau, undertake a review of how to describe our economy more accurately today. That would be better, I believe, than slotting new things into old categories that are getting more and more obsolete.

Clarke Swanson: I wonder, if in retrospect, that you can consider the repeal of Glass-Steagall to have been a wise move?

AG: It was an exceptionally wise move and, in fact, when the actual repeal occurred, it was redundant. In the early part of

1987 there was a court ruling which enabled an interpretation of Glass-Steagall to include a loophole for what they called Section 20 affiliates of bank holding companies—which essentially were investment banks. The Section 20 affiliates became ubiquitous. Everyone had them. So the actual repeal of Glass-Steagall in 2000 had no impact whatsoever. The 2000 legislation, Gramm-Leach-Bliley, set up financial services holding companies. But nobody applied for a charter because everybody who wanted to be in both the commercial and investment banking business had already done so through the Section 20 affiliates. The only thing the Gramm-Leach-Bliley Act did was to lower the cost of some of the redundant requirements for Section 20 affiliates. Glass-Steagall was originally enacted in 1933, and was different from what we really thought it was, according to the 1987 court ruling.

GS: But at the same time—and these guys know a lot more about the subject than I do—it seems to me that when you have organizations that have deposits insured, access to the Fed's discount window, and all sorts of special privileges like that, it's not unreasonable to say: you can't indulge in super-risky trading activities.

AG: I actually agree with that, George.

GS: Why, thank you!

AG: The basic problem is not in the structure, it's in the subsidies that are coming from government. What you're basically saying is that government subsidies should not be used in a manner other than what their purpose is. There's no way to get deposit insurance without creating a moral hazard. The only question is: what is the trade-off? And I know that all the evidence suggests that runs on banks stopped cold with the introduction of deposit insurance. But it has had other adverse consequences. You cannot have a system which grants unlimited entitlement, which is basically what deposit insurance is, without consequences.

GS: Well, let's leave it at this: all is not well in the financial industry.

Discussion Commentators

James J. Bochnowski	General partner, Delphi Ventures and Hoover overseer
David Henderson	Hoover research fellow, Hoover Institution, Stanford University
Nicholas Hope	Director, Stanford Center for International Development, Stanford University
William J. Hume	Chairman, Basic American, Inc. and Hoover overseer
W. Clarke Swanson Jr.	Owner, Swanson Vineyards & Winery and Hoover overseer
Robert C. Wilson	Former vice president General Electric, executive vice president Rockwell International, CEO Collins Radio and CEO Memorex