The Directors Roundtable and the
Chapman University Economic Science Institute

A DIALOGUE WITH NOBEL LAUREATE VERNON SMITH: THE IMPACT OF BOTH CURRENT GOVERNMENT ECONOMIC POLICIES & THE HOUSING BUBBLE ON CORPORATE BOARD STRATEGIES

September 23, 2014
Orange, California

The Directors Roundtable is conducting a worldwide series of events with Nobel Laureates in Economics. At this program, Laureate Vernon Smith will make the keynote address on how current government economic policies impact strategies for boards of directors, and on what businesses and investors can learn from the recent housing bubble. The distinguished panelists will provide valuable insights for directors, C-suite executives and investors, combining theory and practice for more successful results in challenging markets. Their topics include real estate, investment strategies, and litigation.

Appreciation is given to the Chapman University Economic Science Institute for its cooperation in this event. This full-color transcript of these proceedings is made available electronically to 500,000 leaders nationally and globally. The Directors Roundtable is a civic group which organizes the preeminent worldwide programming for directors and their advisors.

<u>KEYNOTE SPEAKER</u>

Vernon L. Smith, Ph.D.	Nobel Laureate in Economic Science, George L. Argyros School of Business and Economics; Chair in Finance and Economics, Professor of Economics and Law, Chapman University

<u>DISTINGUISHED PANELISTS</u>

Niladri "Neel" Mukherjee	Director, Office of the CIO, Merrill Lynch Wealth Management, Investment Management & Guidance
Dr. Steven Gjerstad	Presidential Fellow at Chapman University; Co-Author with Prof. Smith of *Rethinking Housing Bubbles*
Dana Kopper	Managing Director, Lockton Companies, LLC, Directors & Officers' Liability and Governance Risk Management Group
Jack Friedman	Chairman, Directors Roundtable; Author of articles in *The Wall Street Journal* and *Barron's* on Bonds, Limited Partnerships, and Legally Troubled Assets

(The biographies of the speakers are presented at the end of this transcript. Further information about the Directors Roundtable can be found at our web site, directorsroundtable.com.)




Vernon L. Smith, Ph.D. **Dr. Steven Gjerstad** **Niladri "Neel" Mukherjee** **Dana Kopper**

TRANSCRIPT

RAYMOND SFEIR: Good morning, everyone. It gives me great pleasure to welcome you all this morning at Chapman University, particularly the members of the Directors Roundtable. I am Raymond Sfeir. I am a Professor of Economics and Management Science in the School of Business and Economics.

You visit us today at an opportune time in the life of Chapman University. This fall semester, we have been able to enroll a record number of undergraduate students. More importantly, this group of students is the most qualified in the history of Chapman University in terms of their SAT and ACT scores and their GPA.

Chapman has also been able to assemble an exceptional cadre of faculty who graduated from the top universities in the nation, such as Harvard, Yale, Stanford, UC Berkeley, and others.

The better-qualified entering students and the faculty we have been able to attract has led to a larger and larger percentage of our students coming from states outside of California. This is a testament to the reputation that Chapman has gained all over the nation, particularly on the East Coast.

Besides the professional schools that we now have—the Argyros School of Business and Economics, the School of Law, and Dodge College of Film and Media Arts—Chapman has inaugurated two new schools this fall semester. The first one is the Crean College of Health and Behavioral Sciences, and the second is the School of Pharmacy. Both are located on the Rinker Campus in Irvine. Our faculty and our students in those two schools will get the benefit and will be able to cooperate with people—in the scientific research companies in that area, the pharmaceutical companies, and the medical and dental instruments industries that are located in the Irvine area.

We are also proud to have the Economic Science Institute, with a large number of full-time faculty headed by Professor Vernon Smith. Our students are very lucky to have him in our ranks, and they benefit from the presentations and the courses that he offers in Economics and in Law.

Finally, I would like to say that we are very lucky to have an active Board of Trustees, and that Chapman has now a very strong financial position that would lead us, in the future, to keep growing and going forward.

I would like to introduce Mr. Jack Friedman, who will be moderating today's event. Mr. Friedman is Chairman of the Directors Roundtable, a civic group headquartered in the United States which organizes topical high-level programming worldwide for directors and their advisors. He has been an operating executive and investor in diverse business ventures, and advisor to boards of directors, for three decades. His expertise includes identifying profitable investment opportunities in finance, accounting and law; in acquisitions and refinancings involving either healthy companies or problem companies needing remedial plans; and in improving profitability of operating businesses and real estate properties.

Mr. Friedman has an MBA in Finance and Economics from Harvard Business School, and a JD from UCLA School of Law. Please welcome Mr. Jack Friedman.

JACK FRIEDMAN: I would like to thank all the people at Chapman that we have worked with to put this program together. I have known about Chapman for a long time, and appreciate its leadership.

The Directors Roundtable is a global civic group. We have never charged the audience to attend any of our 800 events over 23 years. Our mission is to offer the finest-quality programming for corporate Boards of Directors and their advisors.

For this program series we are combining economics with practical business solutions and information. We are hosting Nobel Laureates in Economics throughout the world, and we are very privileged to have Professor Vernon Smith as our Keynote Speaker today.

I want to thank Prof. Sfeir for his introduction and I want to give some highlights from Vernon Smith's career. First, he is the George Argyros Chair in Finance and Economics, and is a leader of the Economic Science Institute here at Chapman. He went to Caltech, the University of Kansas, and has a Ph.D. in Economics from Harvard.

Along the way, he won a Nobel Prize in Economics. I am going to ask him to make his Keynote presentation. The full-color transcript of this event will be made available electronically to 500,000 leaders around the world. Beyond the importance of this live event, one of the great purposes of the program is to share the wisdom expressed here globally. Thank you.

VERNON L. SMITH, PH.D.: Thank you, Jack. Let me take this opportunity to welcome and thank the Directors Roundtable for making this event possible.

I want to make a slight correction to the record. I'm not the Director of the Economic Science Institute. All my life, I've gotten credit for things I didn't do. It is really great to be in that position, but Stephen Rassenti is back here who is the Director of the ESI. I was part of the group that came here from GMU, and of course there was a lot of hoopla surrounding that. Ever since, I have been misidentified!

My colleague, Steve Gjerstad, and I have just finished a seven-year project on reexamining the role of housing in recessions going back almost a hundred years. We started with the Great Recession and followed it in some detail. Our initial reaction is that surely, this is very unusual; this must be unique and an outlier.

Then we went to the Depression, and ladies and gentlemen, we saw the same thing in terms of the issues that I want to talk about, namely, what we call a "balance sheet recession."

Then we looked at all of the recessions in between. They had none of the characteristics of these two bookends, 1929 and 2007. I was already starting—and I think Steve was, too—to follow the Great Recession before the collapse, which is dated in the fourth quarter of 2007. This is officially dated by the National Bureau of Economic Research. My timestamp is here on an article in *The Wall Street Journal* in December of 2007. It is interesting that the title of that article, as I submitted it, was "We Have Met the Enemy, and He is Us." *The Wall Street Journal* changed the title to "The Clinton Housing Bubble."

Now, you have to understand that you don't get a chance to choose your title with articles that you write for the media. It may even be done at the last minute, when the editorial board is making up the headlines and the sheets. Where their title came from was that one of the points that I made in that piece was that the Clinton administration, with overwhelming support—both Republicans and Democrats—had passed a Tax Relief Act in 1997. What it brought us was a $500,000 tax-free capital gain that we could take on a home, right to the bottom line, if it had been a two-year holding period. That was enormously popular, and the run-up in prices and a lot of the problems, date as beginning in 1997. Everybody liked that bill!

I'm going to make the argument for this presentation pretty succinct. I'm going to present it as a series of propositions.

The first is that the Great Recession and Depression are viewed as what we call "household bank balance sheet crises." This first chart dramatizes it.

Here is the value of all real estate assets. Those are single or multi-family homes in the United States, starting in this critical year here in 1997. Here the value is rising because prices are going up and because new units are being pumped into the market.

This is the total mortgage debt being incurred against those homes as it rises. Notice that the value of all homes is rising somewhat faster than the debt is, and the difference, which is equity, is rising quite pronouncedly.

Then comes a flattening of the rise in value of prices and then there is the collapse.

Notice in the collapse—and anybody who's taken the first two days of Finance learns about leverage—the important thing here is that this collapse is against fixed long-term debt. In fact the debt continues to rise a little, and has a lot of inertia resistant to decline.

If you wonder why we're stuck, this is the reason. Total equity in all homes in early 1997 was $6 trillion and into 2011; it's $5.5 trillion. Fifteen years, and the equity that people have in their homes is worth less. That basically tells you why we're stuck.

Here's the same chart for the 1920's and the Great Depression. Notice that there are some differences: here's debt and value going up at very close to the same rates. Equity is really fairly flat from 1923 through 1929. But the collapse is nearly as bad as in the Great Recession. The equity collapses by a factor of about a third; in the Great Recession, the collapse was about half—even a little more than a half.

Also notice, in terms of getting stuck, here's the 1929 level of U.S. equity in all single and multi-family homes. It doesn't recover that level until 1940.

Proposition two: Why market prices do not cause enduring household equity. Please notice you have this drag coming from negative equity balance sheets.

Here is a similar chart for value and debt for the Standard & Poor's index. Notice that margin debt moves up, but also down, in step—completely in step with declines in value. So there is no carryover of damage to balance sheets. Those balance sheets are getting cleaned up as you go. Why is that?

Well, since about 1928, we've had 50% margin requirements. It started in the private sector in 1928, '29, before the crash. In 1933, the New York Stock Exchange put margin requirements on all of the brokers who were members of the New York Stock Exchange. In 1934, those rules were codified in the SEC Act. The other thing is that these loans are callable. If your portfolio falls and you don't have enough cash in them, you get a margin call. If you don't put up the cash, they sell you out.

Now, it's important to realize that the Federal Reserve didn't know this. The Federal Open Market Committee, under Greenspan, had a conference in 2005. The FOMC met; after the meeting, they had a conference, and a bunch of papers were given, and the question is, is there a house bubble? They answered, yes! House prices had moved up way out of proportion to income, out of proportion to rents; recognition of a bubble. Well, how bad will it be? Well, the general conclusion was that they expected it to be smaller than and perhaps only half as large as that of the stock market bubble. They missed this really critical thing. It's not part of the thinking.

Proposition three: What we call the ordinary business cycle is the consumer housing cycle, and does not damage balance sheets. We call it a "consumer cycle" because, ladies and gentlemen, housing is a consumer good! People think of it as investment because you can resell it and get a higher price, okay, but it's not like an investment in plant and equipment, which produces new products and employment. That is a big difference.

Here is housing construction as a percent of the GDP going back to the 1920's. Here's the decline leading to the—that we argue underlies the beginning of the Depression. Here is the Great Recession collapse—the collapse of housing expenditures in advance of the Great Recession.

All the ones in between have the characteristic that balance sheets were relatively unscathed even though housing is involved. Housing is a leading indicator of eleven of these fourteen recessions; but only the ones on each end were balance sheet crises.

Here you have a leading indicator. Now, you have, a couple of times—this one and this one—it looks like a false positive indicator. That is, a collapse in housing expenditures looks like a false positive indicator of a recession, and a recession didn't come until here, and the same thing here—we didn't have the recession until here. What's the difference? From one here, we had the buildup of government expenditures were rising; the buildup for the Korean War; and then again in the Vietnam War. If you don't have lots of broken balance sheets around, government spending will trade off against private spending; it will make the difference. The old Keynesian argument—yes, that works! Government spending can trade off, and you can maintain with a government budget. But you can't do it when you have broken balance sheets, okay?

Look here. Here's a double dip—almost like a controlled experiment—where the decline gives you deflation, and then there was recovery—I won't go into the details of that story; that all had to do with monetary policy—and then another collapse.

Here is the typical post-World War recession. No damage to balance sheets. Here's a little bit of equity falling. Here's the double dip, '80, '82—virtually none—and a little bit there. But nothing like the Depression or the Great Recession.

Proposition four: How do you achieve escape from recessions with large numbers of damaged household and bank balance sheets? You don't do it with monetary policy. We've known that going clear back to when Sir Dennis Robertson, in the late '30's, used the metaphor, monetary policy was like pushing on a string. You also cannot do it by government deficit spending. Why? It's for the same reason that monetary policy doesn't work: you've got too many low, zero or negative equity balance sheets.

We do not see World War II spending as an exception. When I took Macroeconomics from Alvin Hansen at Harvard in 1952, '53, little Alvin came in and would tell us about how monetary policy doesn't work in a major depression; you have to use government fiscal policy and deficit financing. What was the evidence in World War II? We didn't get out of the Depression until World War II—until government budgets started to go up and spending increased.

I now look back on that—Steve and I see that as not in any way implying that it would have worked in 1930, ten years earlier. You had ten years of balance sheet repair; people were paying down debt and getting back whole. Equity in homes had risen in 1940 until they were finally to the '29 levels. So we're back to more normal balance sheets.

Proposition five: Recovery through bankruptcy and default as a balance sheet repair and reboot process. That is a process. Sweden did this; and Finland. Steve's going to give you some details on Finland, how it worked there. Also it's the model over at the Federal Deposit Insurance Corporation. Basically, bank mortgages are marked to the market; banks are recapitalized through private markets. You downsize them, as required; you zero out equity; bond haircuts as needed—that's the process. That's basically the FDIC model. In Sweden, they protected the bondholders, but they zeroed out the equity.

Why are we saying that if you allow failed banks to fail, it tends to foster recovery? It's fairly simple. You have a bunch of investments that fail. You rescue those failures, and give those people a claim on the earnings from new activity coming from the economy. That dilutes the return on new activity.

I like to use an example. Imagine in 1900, Henry Ford was producing the Model T—the most successful automobile that's even been produced. By 1920, he had produced over half the automobiles that had been produced in the world. He was growing like crazy, plowing back earnings and everything into that business.

Suppose that had been diluted and used to support the carriage makers, the livery stables, the horse breeding farms—these are all activities that were going bankrupt. In fact, it turns out, in most cases, they were going bankrupt because of him. But the point is, if there is anyone being rescued and given claims on future output, and not facing up to bankruptcy, that dilutes the return and is a drag on the economy.

It removes balance sheet barriers to lending barring the resumption of normal household demand.

Proposition six: The political process protects incumbent investors from bankruptcy and default. We saw how that worked in the United States. Why is there protection of incumbent investors? Because we know who they are; they're very obvious. They're all the way around. We don't know who the investors are that are going to come in to finance new activity and be part of the recovery. Naturally, they are well known; they make contributions to political parties; they get to help choose the U.S. Secretary of Treasury. They are very much involved in the political process.

We build out Bank of America and Citibank, but lots of sour investments remain, and the evidence for that is that the shares of BAC and C, even today, are 75% of book value. That suggests that investors are skeptical of what those books are showing in terms of profits. You compare that with Wells Fargo, which sells for 175% of book. If you read Sheila Bair—who was Chairman of the FDIC—her report of the meeting in which Secretary of Treasury Paulson was announcing to various bankers how much federal funds they were going to get—as she reports it, Wells Fargo got $25 billion; Bank of America, $25; Citigroup, $25. The Chairman of Wells Fargo says, "Do we have to take it?" He says, "Yes, you have to take it." According to *her* report, the evidence indicated that Wells Fargo didn't need it.

Our recovery is stalled. 2012 is comparable to 1934, if you go back to Depression clock time. The GNP grew 7% in 1934—of course, from a much lower level, because of a lot of other problems that created all the pain in the Depression that we tried not to have in the Great Recession.

In this environment it is very difficult to make predictions, because we have no experience. With a balance sheet recession, bailout cures and balance sheet damage—it is very difficult. None of the post-World War II recession data is really relevant to understanding what the recovery process might be.

Here is the Japanese form of "too big to fail." House prices peaked in 1990, fell 25% by '92. In 2004, they had fallen 65%. Government response: Allow banks to carry mortgages at book, and the banks made support loans to borrowers so the borrowers could make their payments. How's that for kicking the can down the road?

Banks did not book these as *de facto* loan losses, and the write-downs were stretched over about 20% of GDP for twelve years. What's the thinking? The idea is that losses will be offset by the good loans. Also as new loans are made, that's going to bring in more income, and we can gradually rescue all of the existing investors and bring them out.

Earnings were expected to rise. Japan's economy didn't grow, so there was too much dilution of return that might otherwise go to new activity, to rescue incumbent investors. The Japanese banks suffered a lending decline of 1.7% per year for fifteen years.

What's to be done? It's too late to do anything about the stuff I've talked about; it's water under the bridge. This may be a lesson for the future. If there are political pressures to rescue, maybe people will at least realize there's a hidden cost to that. That's what our book is trying to show.

The important thing I want to talk about here at the end, in two slides, is the importance of young firms. They historically have been a great engine of growth. Anything we can do to encourage entry—not subsidizing, but reducing bureaucratic barriers—will be helpful.

The Kauffman Foundation, in collaboration with the Census Bureau, has a dynamics program that has been tracking entry and exits of firms since the 1970's. It's a great data set. It illustrates how young firms are an engine of growth. Here are firms that are just one year old. This is the loss in employment because firms are leaving after only one year—they can't make it, and they're leaving. The new firms coming in make up for all of that and then some. You have to think of the labor market out there as a turning one, constantly changing over and over, and with the entry and exit of firms.

Here are firms that have lasted two years. This is the loss, and this is the gain, and this is made up, *plus* there's this much more. This pattern has been going on since the beginning.

Unfortunately, here is the declining pace of firm start-ups. Here is the rate of startup firms being tracked over time—and you'll see here that there was a pulse here from 2001 to 2005, and then another decline. The average size of these firms has remained constant.

It's possible that this recovery was helped by the tremendous runoff in the value of homes, because the value—if you were a young entrepreneur looking for capital, one source of it is to sell your house and move into a smaller one. I was on the board of a company in Tucson, Apex Microtechnology, and the guy that started it had a big home, he sold it and moved into a smaller home and started his company. If that model is very common, then it would mean that this is not entirely independent. That startups are not independent of what is going on in the housing market.

A proposal would make it easier to start new businesses, and I would also recommend eliminating the corporate income tax.

Thank you!

JACK FRIEDMAN: I wanted to try to restate one or two of the points from the lay business person's point of view,

In terms of governmental or traditional economic thinking, monetary policy manipulates interest rates so it can help companies have lower cash payments in the short run when the economy is weaker. This is in contrast to the balance sheet viewpoint which holds that since the debt principal you owe isn't affected by monetary policy, your payment of principal plus interest does not change very much. When you have a national balance sheet problem, policymakers do not address total debt carefully.

VERNON L. SMITH, PH.D.: Low interest rates can bring back the housing industry because it is the most sensitive to interest rates. These are long-term consumer investments. You finance a house with mostly other people's money, not your own. That was true even in the days when people were required to make reasonable down payments. It is still 20 or 25 percent for a down payment, and the rest is other people's money. What low interest rates do is fuel that demand. If you have broken balance sheets and people are paying down debt, and there is a huge inventory of homes like we built up in the Great Recession, it doesn't work. It just doesn't happen and we're stuck.

JACK FRIEDMAN: A colleague of mine in the real estate business in Berkeley says in recent years that a large percentage of high-value homes are being bought with all cash, without a bank loan. Apparently, there is a large wealth transfer from the parental generation. They are not helping the kids with just the down payment, which is a longstanding tradition in America. Now many are passing on even greater sums.

The question I want to ask is with the aging of the population, how much can the intergenerational help continue?

VERNON L. SMITH, PH.D.: I'm not sure I can answer that question, but it is true that about a third of existing home sales are for cash. That's unusually high. One reason may be, there is a lot of cash around and it's earning basically zero percent. People are seeing recovery in the housing market and want to get in there. Some of them may be converted into rentals, because rents have held up pretty well. That accounts for a lot of the recovery now in housing prices. Is it sustainable? Can you expect, without incomes going up, to be able to justify mortgages? It's not clear to me how that can be sustained. We'll wait and see!

JACK FRIEDMAN: I'll give you a quick statistic, and then we'll move on to our next speaker. I read in *The Wall Street Journal*, or the *New York Times* that 1% of the American population owns 40% of the assets in the country. That same inequality issue existed a long time ago. At the time of the American Revolution, one percent of the British owned 40% of all the assets in England. These themes may go back even farther than a hundred years ago.

We now turn to Steve Gjerstad, who is a professor here at Chapman in Economics, and has written a book with Professor Smith on the housing bubble.

DR. STEVE GJERSTAD: I want to thank Chapman and Vernon for the opportunity to work on this research project. It's been very interesting for both of us, because we came out of backgrounds in experimental economics, and we've been working a lot more on issues with the aggregated economy. It's been a really enriching process.

VERNON L. SMITH, PH.D.: Yes, our house prices look pretty good, if you're living in China! They've had an incredible bubble. Moreover, these expensive condominiums apparently aren't moving. Not really, it hasn't really dented the price very much. A lot of young Chinese nationals are buying, and not only in the United States, but in Canada. Vancouver has just gone crazy with that influx. These do tend to be cash buyers. Maybe that will keep it going longer than normal.

That's why prediction is so difficult, because we have all of these changes that have been going on that are, in many ways, special to the Great Recession.

DR. STEVE GJERSTAD: Jack mentioned that a lot of the work that that both Vernon and I are discussing, is based on a book called *Rethinking Housing Bubbles*. We started working on that in the fall of 2008. In fact, I came in to say hello to Vernon when the ESI was formed, and about five minutes into our first conversation we started talking about housing prices. We're still talking about it six years later.

I'm going to expand on some of the ideas, or at least emphasize some of the ideas that Vernon discussed, by looking at experience in some other countries. Vernon mentioned that we've had these balance sheet recessions in the United States in the Great Depression and the Great Recession. After we had gone through, in this order, the Great Recession, the Great Depression, and found parallels there, we then went to look for differences or what made those special, by looking at all the economic cycles in the U.S. between them. Following that, we started to look at international experience. We found that there have been financial crises around the world. We know about the Japanese lost decade. There was a Nordic crisis in the early '90's. Probably the East Asian crisis in '97 and '98 grabbed more attention than the Nordic crisis, but they have a lot of parallels.

There have also been, in these episodes, different policy responses by the government. Those have led to different paths for the recovery which I'm going to discuss.

In Finland, much like in the U.S., they had a fairly substantial housing bubble; prices more than doubled, with a lot of that taking place in the last two years, in 1987 and 1988. They had strong growth of mortgage finance. The house prices in Finland are shown with the blue dots, and the black line shows the growth of mortgage funding. Both of those are on indices; I don't have numbers or dollar amounts for either one, but the same pattern is there.

Then we see the collapse of the house prices there. Of course, the mortgage credit outstanding comes down very slowly. It comes down from people making their payments or, a small fraction of the mortgages going into default and getting wiped off the books as being outstanding mortgages.

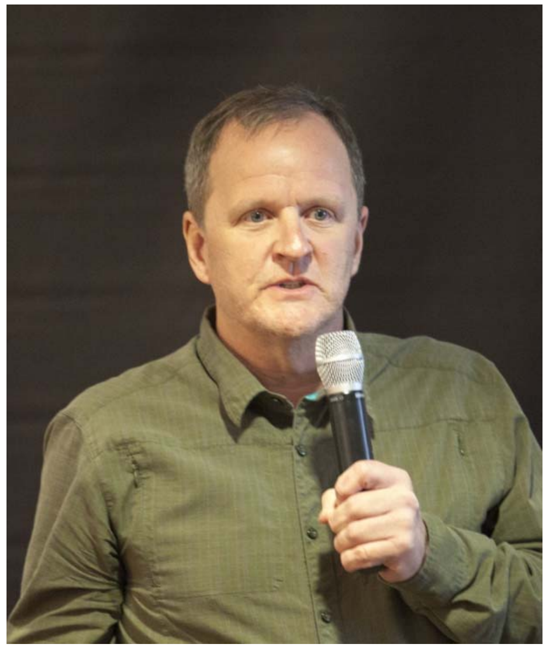
The process of write-down in the U.S. in the Great Recession and in the Great Depression, and in other instances around the world, has been very slow. The equity value gets wiped out fast. That's the source of the problem for the households on net wealth.

Finland took a very different approach from the U.S., and also from Japan: they wiped out the positions of the banks' equity holders, and they forced the banks to write down their bad debts quickly. These numbers are in billions of Finnish markka. Finnish GDP at the time was about 500 billion markka, so they were taking about 4% of GDP down in write-downs on bad loans at the peak. Their figure was very close to Japan; Japan's figure was 20% of GDP for the eventual write-downs of bad loans; Finland's was about 18%.

Had that happened in the U.S., it would have been about \$2.8 trillion of write-downs, which is quite a bit in excess of the U.S. write-downs. This was a very large housing bubble, and it had a very severe impact on the financial system. They took the losses very quickly.

Vernon's example of the parallel or the analogy for Ford is an interesting one and a useful one, so I'll just repeat it with a slightly different example. Imagine that KB Homes had run up about a billion dollars of debt in excess of their equity in 2009. Instead of asking one of these bankrupt firms to enter bankruptcy to wipe out the equity of the owners, the shareholders—we told them, "We'll give you a $1.5 billion loan. Just stick around, keep doing what you're doing, and keep building; eventually, you'll make enough profits, and you'll be able to pay back that loan."

The alternative—what they would do is probably take a very conservative position in that case. Instead, if they enter bankruptcy, then they wipe out the value of the equity holders; some of the bondholders take a hit; the firm has liabilities that are equal to its assets; and now you ask new capital investors if they want to come in. They'll come in fairly quickly and make that investment, and things will get rolling again.



When it's the financial system, it's even worse, because so much new activity can be withheld if there is a banking sector that's acting very conservatively. What happened in Finland and in Sweden was that their banking sector returned to much more aggressive lending very quickly. In fact, you can see that house prices came up pretty quickly afterwards. It took the U.S. about six years. Actually beyond that point, they continued up after the 2000 slowdown, which was also international. They're now above what they were at the peak of the bubble.

Incomes are also much higher and Finnish GDP is much higher, as I'll show you. At the eve of the 2008 global financial crisis, Finnish GDP was 75% above its level at the bottom of that recession. It was about 50% above its level at its 1990 peak, before their depression.

So the takeaway that we have from this—and we have many other examples that are similar—is that it's much better to take a very aggressive response to cleaning up the balance sheets in the banking sector. There's another point that I want to make, too, which is that there is very little empirical support in some of these countries for Keynesian "fiscal stimulus." I'm going to show you two strongly contrasting examples.

What happened in Finland is a very typical process. If you look at this purple line, that's the growth in fixed investment. Fixed investment includes office structures, residential structures, firm plants and equipment. This is private fixed investment. That was growing really rapidly during this bubble phase of the late '80's. It was a time of opening up to international capital markets, large capital inflows into Finland. Then that bubble burst, and fixed investment fell in half. It did so in about three years.

That's a very typical pattern for these very severe downturns. What happened during that phase, in terms of the external markets, was that Finland's exports were becoming increasingly uncompetitive. The red series here shows their exports, and the black one, their imports. They were actually declining as a percentage of GDP for about eight years, even though they were having this large boom.

At the peak of the crisis, the Finnish market depreciated really sharply, and their exports just shot up. That's the restructuring that took place in the course of this bubble, the bursting of the bubble, its collapse, and the recovery. This is a really typical pattern.

In fact, if you look at what happened in Finland, their economy declined by 12.4%, which is past the threshold that's usually considered a depression. The fraction of their economy that was in fixed investment fell from 30.5% down to 16.5%. It completely accounts for the decline in the total output.

Then when you look at what happened to their net export position completely accounts for the recovery and for the subsequent growth. These really large financial collapses and economic downturns have a very common pattern, capital inflows. Those inflows support a lot of fixed investment; the economy collapses. In response to that, because there's no more capital coming in, the currency depreciates. When it depreciates, there's just a surge of exports, and now the economy starts to generate jobs that are export-oriented.

We've seen that pattern over and over again. What happens with the Keynesian stimulus is it interrupts that pattern. The black series up here is Finnish government expenditures. These are all in percentage terms relative to their level at the peak of the economic cycle. They continued to grow for a while; then they were forced by the IMF, as part of the bailout program, to control their government expenditures. When they did that, maybe coincidentally, maybe for some other reasons, the economy just took off. It doesn't really matter so much why it happened, but it certainly doesn't help the argument that people like Larry Summers and Paul Krugman make, that the government has to step in and fill the hole that's left from the missing investment. It's just not happening there. Their economy grew 75% during that time, from 1993 to 2007, Finnish government expenditures grew 7.5%, and the economy grew 75%. .

I want to contrast that with Japan. In Japan, they had the same kind of problem. This is an index of residential house prices. It actually shows three, but the paper that this is drawn from was really about comparison of different indexing methodologies. You can see that it's not *that* relevant, because what's really remarkable about this is that house prices grew by about 250%, then within about three years, they had collapsed 30%—like they did in the U.S.—but they continued to collapse for 14 years, and fell by a total of 65%.

How did the government respond? They responded by telling the banks, "Just hold tight—eventually the good loans that you have will have some profits that are generated by them; you can use those to fill in the holes from your bad loans. Eventually everything will be okay."

If you're a capital investor, you'd be saying, "I'll just wait this one out; I'll wait until those balance sheets are healthy, because I don't want to put money into an enterprise that has negative value; I'll just wait for 15 years until it has positive value." That's really what has happened there.

They really stretched this out. Vernon said 12 years, and you can see that it was many, many years before they had written down a lot of those bad loans. On the flip side, we have a number of different factors. We have the monetary policy response; we have the way that they've treated the banks; and then the other critical factor is how do they respond with their fiscal policy? I mentioned that Finland reduced its government expenditures. Every one of these countries that goes through this kind of experience shoots up and almost to the same level—they almost all go up to about 10% of GDP in government deficits. Some of them come very slowly down, like the U.S. has. We're down, now, to about 6% of GDP. It's been a slow process. Six years later, we're coming down about two-thirds, or—we went up to about 12%, so we're coming down about 1% of GDP per year, on average.

The Japanese have taken a different path. They have been increasing, just doubling down on this process for 20 years now. You can see the gap between their expenditures, which are shown here in black. These are in trillions of yen, on the right-hand scale. Their government revenues, which are in red—the deficits have been getting very large. They average between 1997 and 2012 at 6.7% of GDP, and their total debt has gone from about 46% of GDP to about 150% of GDP, just for the central government. Then you throw in regional governments and municipal governments, and it gets up to about 2.25 times GDP. It's a very high figure, and during that period, from 1997, when their financial crisis hit really hard, until 2007, at the eve of the global economic crisis, they had grown about 8.5%. That's the same period when Finland grew 75%.

From my perspective, people like Larry Summers and Paul Krugman are just not confronting the facts. Krugman is persistently, repeatedly telling everybody that the people who believe in austerity aren't facing the facts. I find that kind of a peculiar position, given the contrast between these two outcomes. In our book, we have more examples of them. In the future, we're going to continue to add to the detail and extent of those.

I will wrap up at this point and we'll move on to the next speaker.

JACK FRIEDMAN: Thank you very much. We're going to have two speakers who are talking from a Wall Street and a boardroom point of view. Afterwards, we will have a Roundtable discussion with the Speakers and the audience.

One thing I'm struck by is at the beginning of the Great Recession you are sitting in the boardroom, or on Wall Street, or even in the White House, and some smart people are saying, "Let's follow the traditional approach and manipulate interest rates." While others say in contrast, "It's a balance sheet problem and we should handle this differently." Most people would think, "Can anybody assure me that, (a) this new thinking will work, and that (b) all the ramifications of this will be taken into account?" It seems that in the real world, there is so much at stake it is hard to consider innovative ideas.

Neel Mukherjee has come here from New York. He gets special honor for coming the farthest. He is with Merrill Lynch Wealth Management. He will make initial comments from the Wall Street point of view which we will follow up later.

Let me also introduce Dana Kopper, who is a well-known authority in the insurance field, and beyond that in governance, on a global basis. He is with Lockton, which is an important company in the field. Dana lives locally in Orange County. We'll get back to Dana about the boardroom viewpoint later.

NILADRI "NEEL" MUKHERJEE: Thank you, Jack. I'm always happy to come to Orange County, especially as we get into November and December. Thank you for having me here, and thank you, everyone, for coming.

As Jack mentioned, my name is Neel Mukherjee. I work for Merrill Lynch's chief investment office. I've been with Merrill for about eight years now, so I've seen the cycle play out over that time frame.

At Merrill, my role is that of an investment strategist. One of my favorite things is to speak with our clients—retail, ultra-high net worth, or institutional clients about their investment portfolios. I try to understand what their financial needs and goals are. Then I go back to the vast intellectual capital resource we have at the firm, and use that to construct portfolios in a way which make the most sense for our clients. I find it very fulfilling knowing that we've contributed to helping our clients meet those financial goals.

The big picture Jack asked me to touch upon includes a few ideas which our research is revealing in terms of big transformative themes in the investment world. The first one is a transformation in the way we think about wealth management.

Our advice and guidance is much more holistic. It's more than about a stock or a mutual fund that is going to beat the market averages. It is about meeting our client's goals. I'm happy to get into a little bit more with respect to that big theme.

The second theme is that we are bullish on the U.S. economy—especially relative to other developed nations like Europe and Japan. The U.S. economy was one of the first to suffer because of the Great Recession, the financial crisis of 2008–2009, as the professor mentioned. The recovery is showing promise, more so than Europe and Japan. That has implications regarding how we allocate capital.

The third transformative theme that we see—it's going to play out over the next 20 or 30 years—is demographic changes. There are two specific ones that are worth keeping your eye on.

The first one is the longevity revolution, people living longer, healthier lives and becoming economic assets to an economy later on in their life. The second is the rise and the explosion of the emerging market middle class. The numbers are in the billions, and if there's time, I'll touch on that.

That's my introduction and I'm happy to go into any detail as appropriate.

JACK FRIEDMAN: One of the topics that will be coming is about being bullish in America is the energy area. The potential with fracking and how potential reserves are changing will be discussed.

Dana, why don't you tell us about the boardroom view point?

DANA KOPPER: Good morning. I realize that I'm the last in the chain that is standing between you and your break, so I'll just say that in conclusion, I enjoyed being here. If you have any questions, happy to answer them!

The slides I'm presenting are available electronically from the Directors Roundtable.

Basically, the issue that I'd like to touch on is twofold—there's a positive and a negative here—how to encourage good faith risk-taking in organizations. Let me give you a bit of background. I'm a tender, young 63-year-old who has done nothing for the last 35 years but deal with problems in the boardroom and the C-suite. That is my daily existence; I live about three-fourths of the year in my office in L.A.—I live here in Orange Country—and a quarter of the year in New York. I deal with boards in Beijing, Shanghai, Singapore, London, Paris, and all over the place. My particular role for all these years has been basically—and I mean this with genuine love and affection, and dark humor—but I've never seen a year when folks like yourselves sitting in this room have managed to avoid trouble. The fact is is that we can talk about all of the strategies and economic advances, and there are goods and bads here.

One of the themes that Vernon spoke to, or posed as a question, is are there barriers to entry in small businesses? Are there barriers to organizations as we move forward? I submit to you that there are.

How do we go about keeping pace? How do we go about encouraging you, as board members and senior executives and up-and-coming executives within your organizations, to deal with the issues that we face? Fundamentally, have the regulators, has Congress, has our judiciary—have they all done a variety of things that have created problems? On the left-hand side of this particular slide, you can see the major categories. On the right-hand side, you can see things that I'm not going to touch on unless we need to get into questions and answers on some of these points. The point here is that litigation trends against directors and officers in today's environment are up significantly. We're up 9% year over year, but we're still 13% below our 10-year historical norm. However, the focus on individual culpability—hence the corny little graphic there with the magnifying glass on "individuals," that's done intentionally. When you look at the nature of derivative actions, actions that are brought against *you* as individuals, in the name and the right of an organization, those are up 100% in the last five years as a component of securities-related matters. The focus, when you look at Dodd-Frank, when you look at the SEC's pronouncements on heightened board oversight, when you look at investigations, enforcement actions and whistleblowers—and I'll comment on some of these in a moment—and you look at securities class action, there *is* a profound focus on the individual. I don't mean to sound like Chicken Little, "the sky is falling," but there *is* a profound focus. If you recall, in '08 or '09, when there were lots of CEOs before Congress with their hands raised, testifying and answering questions about what was going on, who was *not* there? The board of directors was not sitting there. That's something that has been dramatically corrected.

I have some quick comments to make here. This is just to give you a flavor—I'm not going to bore you to death with numbers—but when you look at some of these numbers, you can see that investigations and enforcement actions are up dramatically. You can see that disgorgements, the return of ill-gotten gain as interpreted by regulators, are up significantly. Three-point-four billion was recovered in 2013. That number will be exceeded in 2014.

I do a lot of these panel discussions with various enforcement heads of the SEC and others and when you look at what is referred to affectionately within the SEC as "RoboCop," the algorithms that have been crafted now to track individuals, they are profound. We were just dealing with a major law firm—perhaps you saw it; I'll leave the name out just out of respect. A major Silicon Valley law firm, just had the FBI come in and arrest their head of IT, who was doing insider trading. One of their attorneys a few years back was caught doing insider trading and is now serving 12 years. Again, this happened with a very prominent law firm.

With another client not long ago, a secretary overheard information that was material non-public information, and conveyed it to her brother. She did no trading, but under tippertippee liability theories, she ended up with a significant fine and probation (because she didn't actually trade). She paid six figures of money to settle out, when she's on about a $45,000-a-year salary.

Whistleblower activity: To date, we're approaching 7,000 whistleblower issues to regulators, whether it be Foreign Corrupt Practices, Anti-Corruption/Anti-Bribery issues, or financial wrongdoing. The fact of the matter is, and I say this again with dark humor, if you look to your left and look to your right, those are the people that are likely reporting on you at some point in time.

An important point here is that on June 23 of this year, Mary Jo White, who is the current Chairman of the SEC, gave a speech at Stanford University's Directors College, and she was very focused on the fact that the regulatory environment is not just focusing in on large-cap organizations. She said, "We're just as interested in violations of emerging smaller companies, because they are the growth engine going forward; we want them on the right track." She also made a very clear pronouncement which supports the notion of individual culpability, and that is the issue that individual directors, independent outside directors are every bit the gatekeeper as a law firm or an accounting firm or the advisors to an organization. The days of when you had board member who were friends of the chairman, knew something about the industry segment but they had never been on a board before, and didn't really have an understanding of the fluid nature of fiduciary duties of care, loyalty, obedience, candor, and a whole host of other things—those days are giving way very quickly to skill set and competency-based board membership. Regulators look at you, if you're a director or a potential director, they look at you as a gatekeeper of the organization, you're dealing with issues.

Talk about focus—and this isn't the last bullet that is not being used a great deal—but Mary Jo White has been the one that has now *required* that in egregious cases—and there aren't many of them that have gone down this path—that there be a specific admission of wrongdoing. It used to be that these individuals and corporations would settle with a statement, "We will neither admit nor deny wrongdoing." It was really, "We're tied." Now what they're doing is saying, "If you *don't* admit to wrongdoing, we won't settle, and we'll just continue to fight you."

When you look at some of what is happening—I mentioned that filings are up, settlement numbers are up, and median settlements are up. Talk about Congress and the law of unintended consequences, and this may be too esoteric. Back in 1995, Congress came up with something called the "Private Securities Litigation Reform Act," hoping to shelter and push down the number of securities class action cases that were coming about. They also created a "lead plaintiff" provision so that Bill Lerach, Milberg Weiss and a lot of other securities ambulance chasers could not just go running after boards willy-nilly, because we were getting complaints where Bill would actually go in and white-out the name of different companies in his rush to the courthouse steps so that he could file the complaint. Congress did that.

Congress specified "lead plaintiff." Who is becoming the lead plaintiff? Institutional investors. Look at the delta between a median settlement at $6.5 million *without* a lead plaintiff and an institutional as a lead plaintiff at $23 million. You add to that what we refer to on the top there, an SEC multiplier—if you have a parallel action, and these are always very common—you're dealing with a 2X. That takes it up to $46 [million]. Then what we're seeing is strategists within law firms, because the ever-inventive plaintiff's bar is always striving to focus in on wrongdoing somehow—that's their revenue stream—they are in the process of using more of what we refer to as "opt-outs." Let me show you the fourth one down, second line, in yellow,"Opt-Outs." Instead of pursuing a class, if I'm coming after you as a board of directors, and I've got a whole class that's after you as a board of directors, I'm going to come after you if I'm an institutional especially, and if I'm an activist investor, I'm going to come after you individually.

An example is State of Alaska's Pension Plan v. AOL/Time-Warner [*Alaska State Department of Revenue, et al. v. America Online, Inc., et al.*]. The State of Alaska recovered 83% of its investment by pursuing AOL/Time-Warner independently, whereas the class participants recovered 3.5%. By opting out of the class, I recovered 50 times what the class participants recovered. When you look at the bottom line there, 3.3%—adjusted for the total number of public companies in today's environment—3.3% of all public companies got sued in 2013. As a general rule, you have a 20% chance of being sued, if you're part of a company for a five-year period.

This is public company data. Why is this important to an emerging company or a private company? It's important because the case law evolution is the same case law that is cited. The best practices, the issues of liability are the same. Private placement memorandums, private equity placements, debt placements—all of those issues are still very much the same. When we look at these issues and what we do about them, and by the way—again, to emphasize something—this is *not* about insurance, *per se*. This is about managing risk. I'm not selling a single thing here. My intent in this purpose is to communicate a thought process, because the SEC has said that boards now have the risk oversight responsibility. It's not the CEO/CFO—they are the executives of that—but the board is where the buck stops. The board has to have some thought process about *how* it views risk. If you look at all the risk categories on the right-hand side—those are all pretty self-explanatory—and you look down the front of that cube—and that cube, by the way, has been around for 30 years; if I translate all that risk management-ese, and change it to human talk, that's really "what can go wrong," "why is it important to us," "what are we going to do about it," "let's put it together," and then because of organizational change, "let's go ahead and keep an eye on things." Mergers, acquisitions, whatever it is, it *is* organizational growth.

What we're talking about here is not only protecting organizational balance sheet assets to advance the growth of organizations, like we've been talking all along today, but it is also the issue of how we go about protecting individual personal assets. When you look at these issues and when you think about "how do we go about encouraging good faith risk-taking," don't ever rely on any *one* of those three. I come from the insurance industry, and I'm telling you, *don't rely on insurance to be your protection*. It's an excellent form of protection, but don't rely on it completely.

Let me pose a rhetorical question to you. If you're serving as an officer of a corporation—public or private, doesn't matter—or even a not-for-profit healthcare organization, as a case in point—you're serving in one of those capacities; do you want the assets of the insurance company to stand behind you, or do you want the assets of the insurance company *and* your organization's assets to stand behind you, for good faith risk-taking? The answer is probably pretty obvious: You want both to protect you as an individual. You'd be surprised at how that doesn't happen.

I submit to you that whether you're Delaware, California, Nevada—it doesn't matter—but I submit to you that if you are relying on level 1 protection—and that's statute—if you're a Delaware organization, that's Delaware §145. Delaware §145 says the organization shall indemnify you to the fullest extent permitted by law. You'd be surprised at how—and pardon my cynicism—individuals rely on this terminology, "protected to the fullest extent permitted by law." What does that mean? It also means that there are a lot of claims—we're at the point where we're handling a bit north of 700 of these claims every year *just* out of the Los Angeles office.

We're obviously not a law firm for our clients, but the fact of the matter is is that of all those claims, 25% of the claims against you, as individuals, are either not indemnified, partially indemnified, or indemnification is in dispute. If you think, "Wait a minute ... my bylaws say that they're going to indemnify and they're going to advance defense costs for me, based on my good faith, best interest actions in advancing corporate growth." That 25% holds true.

American business is based on the essence of risk-taking. To encourage that good faith risk-taking, a lot of these statutes and bylaws were created many, many years ago, and it basically says that if you act in good faith, in the best interests of the organization, the organization is going to take care of you.

Guess what? The lawyers, and everybody else that have dealt with these issues, have advanced case law at a rate that is far more advanced than organizations have kept pace with this. What I submit to you is the only way that you can completely pull in the organization's balance sheet is when you go back to your office, if you're not already aware, ask yourself whether or not you have number three. Number three is an Individual Contractual Indemnity Agreement. There's not a dime of insurance premium involved here; maybe a couple hours of legal review with the right kind of documents. We're not talking about expense here. We are talking about how we go about protecting the individuals.

Let me touch on a couple of points here. These slides, again, will be available to you. The issue of governance risk management as one of the three elements is the fact that you've got to have the right people doing the right thing with the right information. You would be surprised that in the context of structure vs. execution, if you were to look at Enron, Tyco, Household, or any of the headline newsmakers in the areas of directors' and officers' issues, boards that don't work have superb documentation! Their code of conduct, their ethics, their compliance issues, their governance guidelines, all of their charters are great. The issue here is why do they keep getting in trouble?

It's the quality of execution. The quality of execution is enhanced by boards that take an active and engaged involvement in how they go about looking at these areas.

Not wanting to belabor this point, when you read it, harmonize indemnification—for those of you who have been involved in mergers and acquisitions, I'm involved in those pretty much on a daily basis—it's possible that we might have five levels of indemnification involved.

We might have indemnification associated with a purchase and sale agreement; we might have it with a portfolio company; and if I'm a member of a private equity firm, we might have it there, as well. There are all sorts of issues of conflict or potential conflict.

One last point here, so that you understand the parts of a D&O insurance contract,

without getting into a lot of the detail. What you see as (a), (b) and (c), is basically D&O 101. I had to use that in a college environment. That is the basic, fundamental element of directors' and officers' liability.

My point here is that that gold stuff and that green stuff—and I'm using those specific, highly-technical terms—the gold stuff and the green stuff are the least expensive pieces; they're also the piece that are most beneficial to you, as individuals. When you go back, and you're looking at your structure, if you are a private or public organization or a not-for-profit, and you *are* maintaining D&O insurance, I suspect that you have (a), (b) and (c). But you want to make sure that if you don't see that gold and green—and by the way, it's not going to be called "gold and green"—but if you don't see the side (a) difference in conditions, or *something* that is focused *solely* on you as independent directors, *solely* on you as individual officers, and it has no tie to the corporate entity, that gold stuff is the only stuff that survives in bankruptcy. It can't be seized as an asset of the corporate estate, because there is no benefit to the corporation.

Qualitatively, if I had to—as my last comment on this point—if I had to contrast the (a) that is in the blue on the bottom and the (a) that's in the gold, the blue one has ten or twelve exclusions that would give the insurer a reason to be able to cut coverage or deny coverage. The top one eliminates all of those except for fraud, and then it has to be adjudicated, and then they can never stop paying your defense.

The point is that if you're truly looking to enhance your ability to take risk in an organizational structure, you're going to pay attention to the governance issues, you're going to pay attention to the indemnity issues because you want access to the balance sheet to protect you with regard to your good faith risk-taking, and you're going to pay attention to the insurance structure, because all three of them are needed.

Now, I'm going to give a positive note; just a couple of quick comments on positive notes, bright spots.

We live and breathe, my particular firm, in the private equity/investment management/ asset management arena; hence the reason I spend so much time in so many different countries. We're involved with most of the household names of the private equity world. We see profound levels of investment and fundraising on the private equity side. The money and deal flow is incredible. In the last two years, our organic growth rate—which is not a reflection of rate increases; it's not a reflection of anything other than transactions and the value of transactions—our firm's organic growth rate has exceeded 15% on an international basis in each of the last two years. We see an incredible flow of deals. We're seeing more IPOs now than we've seen ever before. The Jobs Act, which lowers the threshold of regulatory accountability, if you will, for smaller companies has been significant. A comment was made relative to demographics; we agree wholeheartedly. The issue of demographics is an interesting one. There are many who would complain, as an example, about the number of immigrants and the taxing of immigrants and their effect on our economy. Actually, it's our immigrants that have been driving increased birth rates. I spent a lot of time in China, and I can tell you that the Chinese are struggling with the effects of one child per family. When you look at the disposition and the deployment of capital, we have a birth rate now that is over 2.5 within the United States, largely attributed to immigrants; we see a very significant flow of Chinese dollars into the U.S., and we can talk about how that's a good thing, and we can talk about how that's a bad thing. Over the last several years, that Chinese inflow into the commercial space has actually generated over 75,000 jobs, 90% of which went to Americans. It's estimated that that will increase exponentially with continued Chinese investment in the country.

Again, we can argue all of those points, but the fact is that we are—and I tend to be a little bit right of Attila the Hun, so when I'm talking about immigration and maybe sounding a little bit like I come from the left, that's not my point; my point here is that when we look at our future, combined with our economic growth and combined with the demographics that are coming up behind us—because there are a lot of Baby Boomers sitting in this room; there are some Millennials, some Gen X's, etc.—but we've got a *huge* base that is coming up behind us. We need that productive base as not only taxpayers but contributors to organizational growth.

I'll stop and turn it back over. Thank you.

JACK FRIEDMAN: Thank you! What I'd like to do is to give Neel more time on the Wall Street point of view, and then I'd like to have the interaction between the audience and the panelists.

NILADI "NEEL" MUKHERJEE: Thank you, Jack. As I mentioned in my opening remarks, the industry that I'm in—wealth management—is changing.

A decade ago, our industry used to be all about stocks and bonds and the latest mutual fund, and our clients thought that way, as well. What's the latest stock or mutual fund that would beat an arbitrary index—let's say the S&P 500? The problem with that approach is that it has nothing to do with why you invest in the first place. You invest to achieve a certain goal. When you chase an arbitrary benchmark—an S&P 500, MSCI emerging market index—the goal, the original progress towards the goal gets veered off track.

At Merrill Lynch, we are changing the dialogue with our clients. We lead with, "What's the goal our clients are trying to achieve?" This could be investing for retirement. It could be sending kids to college; philanthropy; or starting a business.

Number two, our clients demand a holistic approach to the way we provide our advice and guidance. What do I mean by that? Investments are important. What is also important is all other considerations leading to financial well-being. Important issues like, "How do I plan for my health care spending? How do I think about long-term disability insurance? How do I think about trusts, transferring wealth to the next generation? Etc.

This holistic approach to advice is “goal-based wealth management.”

We are developing a framework called “WAF” or the “Wealth Allocation Framework” to capture how we look at our client’s assets, and where the risks are. There are three risk categories. The first is “personal risk.” This is where the client says, “Do not jeopardize my standard of living; do not put these assets at risk.” These are cash, and cash-like instruments.

The second category is “market risk.” This is where the client is saying, “We want to maintain our standard of living.” This is a mix of assets in a diversified portfolio.

The third category is “aspirational risk,” where the client says, “I want to take risk and make excess returns. I want to significantly enhance my standard of living.”

JACK FRIEDMAN: You had mentioned the idea that in recent years a lot of money has been going into emerging markets and similar investments. What are two or three factors which make America appealing as a destination for investment?

NILADI “NEEL” MUKHERJEE: Our economists see some real positives for the U.S. economy, especially when you compare it to other developed nations like Europe and Japan. The first is higher growth rates. The U.S. economy has had a choppy recovery. Some of the reasons that Vernon mentioned contribute to that, as well, but going forward, we think that the U.S. economy could grow at a 3% rate. If you compare this to Europe, they’re stuck at sub 1% growth; Japan below 2%. Our economy is creating jobs; our unemployment rate has come down.

The second is improved fiscal health. America’s fiscal position has also improved quite a bit as the economy has recovered. The Congressional Budget Office (CBO) estimates that the U.S. fiscal deficit will be $506 billion for the 2014 fiscal year, much less than the trillion-dollar levels of 2009-2012 . The CBO projects the deficit will fall to 2.6% of gross domestic product (GDP) by 2015.

Number three is the transformational trend such as energy. The U.S. has been a leader in exploiting its onshore energy resources. This is having a positive effect on the economy. We have a large supply of natural gas and crude oil, and that’s beneficial to the consumer and the manufacturers. It is beneficial for our trade balance. All of those are factors which make us pretty bullish on the U.S. economy compared to other economies.

JACK FRIEDMAN: You had also mentioned demographics as a factor. There is a stereotype image that as people live longer they are a drain on the economy because they are not working and their health is deteriorating. They are also consuming their accumulated earnings and wealth. What is the positive side of the demographic changes that are going on, in terms of new markets, new products, and people working longer?

NILADI “NEEL” MUKHERJEE: This demographic is emerging as a huge economic asset. First of all, the scale of the number is huge, and that’s why we call it a longevity revolution. In 1950, there were 205 million people over the age of 60, globally, according to the United Nations Population Fund.

Last year, that number had grown to over 800 million. The agency projects it to reach 2 billion by 2050. About 10,000 Americans reach the age of 65 on a daily basis. These Americans are living longer; they’re working longer; they’ve emerged as an economic asset; and they're spending more. Companies have taken notice—whether it's established companies or small biotech companies, they're all rushing to design products that can sell into these markets.

The healthcare industry is a prime beneficiary of this. The market for artificial knees and hips is a multi-billion dollar business. That's an established market.

There's a huge demand for home healthcare workers, as well as assisted living facilities, all with the intention of helping folks live longer, more independent, and healthier lives. That's a growing business as well.

Finally some companies are discovering that once they modify existing products to suit the needs of this population, the broader market likes it, too. The example would be automobiles which can warn of an impending collision, or those that can park themselves.

Another example is travel agencies which customize educational tools and adventure tours.

JACK FRIEDMAN: Thank you, Neel. Does anyone in the audience have a question? Thank you.

[QUESTION FROM AUDIENCE:] Professor, I understand there's a Danish model where mortgage bonds were traded, and one could buy a bond and pay off his mortgage at whatever the floating interest rate is at the time. The EU was trying to eradicate that system because it conflicts with their plans. Have you factored that into your Japan and Finland study?

DR. STEVEN GJERSTAD: I'm not familiar with the structure of the Danish mortgage market. Are you, Vernon?

[QUESTION FROM AUDIENCE:] In your research, on the graph where you showed the decline of equity versus the growth of mortgage volume, I noticed there was a difference between that one and the one of the Great Depression. Now, all of that results in negative equity. How are we going to account for that loss in hard dollars? Haven't we materialistically taken those guys out of the market?

VERNON L. SMITH, PH.D.: People feel pretty bad if they are in a home that is worth—it doesn't even have to be worth less than the mortgage; it can be worth just quite a bit less. That loss, people tend to hunker down, reduce the debt, and the same thing in the banks. That is very significant that equity in all U.S. homes didn't reach the 1929 level until 1940. We're still well below that now. Steve, are we half-way to what it was at the peak?

DR. STEVEN GJERSTAD: It's coming up pretty rapidly.

VERNON L. SMITH, PH.D.: It's coming up, because prices, and the cash purchases and everything are helping to move it up. Equity is still substantially below what it was at the peak, which was in 1995 and '96.

DR. STEVEN GJERSTAD: I was looking at it last night, and I was coming up with about $400 billion. I don't know how long that will continue, but at this rate, it's coming up faster than it was coming up during the bubble.

JACK FRIEDMAN: What is the smallest number of hundreds of billions that you, as scholars, are willing to deal with? Does something have to be $400 billion in order to be worth your study?

DR. STEVEN GJERSTAD: It really depends on whether I have an interest in it!

JACK FRIEDMAN: After this last question you can come up and get the book, and get it autographed.

VERNON L. SMITH, PH.D.: Sure!

[QUESTION FROM AUDIENCE:] The question is for Professors Smith and Gjerstad. In comparing the 1929 Depression and the Great Recession of 2006 and forward, did you factor in the family balance sheets, the impact of credit card debt? This didn't largely exist during the Depression. What about automobile purchase debt and all of that non-real estate-backed debt that exists in the Great Recession but not in the Great Depression? If you didn't factor that in, what would the effect be, if it were factored in, in your analysis?

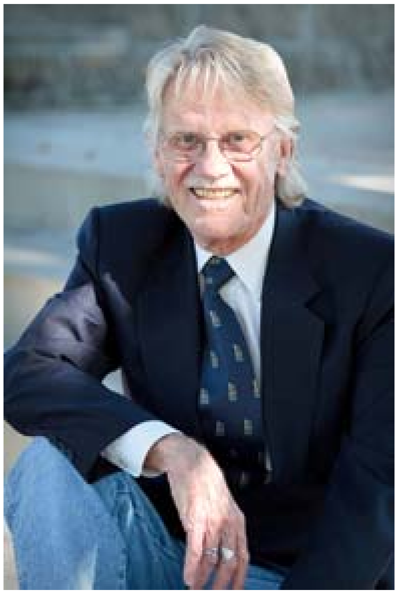
VERNON L. SMITH, PH.D.: For those kinds of purchases the debt levels are shorter-termed. They tend to get cleaned out and roll over. The really big difference between the Great Recession and Great Depression was the response of the monetary system. We had a huge number of bank failures, more because of inadequate response by the Federal Reserve, which was probably the most important difference.

In 1934, I was seven years old. My parents lost their farm. We were living on a Kansas farm and the bank foreclosed on it. They didn't get as much out of it as the mortgage. I look back upon that as a very healthy thing. We just started over. Lots of people are stuck in houses. They reduced their payments by lowering the interest rate and stretching the loan, but they still owe the same amount. If we'd done that in 1934, we would have been under water for 10 years, 12 years, anyway. People I knew didn't buy cars in those days, on time. Edsel Ford wanted Henry to go into the business of lending to people to buy cars. General Motors was starting to do that. Henry thought that was immoral! He said, "I won't do it!" The dealers did a lot of financing of people to buy homes, and that was when GM really moved ahead in the '20's, partly for that reason. That attitude has changed a great deal now.

DR. STEVEN GJERSTAD: In 2009, automobiles sales in the U.S. fell by more than half. Credit was readily available. I bought a vehicle in February of 2009 at a zero percent interest rate. They pushed it on me. There were two problems. One was that households were really unwilling to take on new debt relative to their willingness two years earlier or three years earlier in an environment that involved so much uncertainty and so much loss of assets. The problems with consumer credit affected the flows a lot. They affected consumers' expenditures on durable goods and other credit-mediated purchases. That's true of recessions in general, but it was even more of a factor in 2009. That really reduced incomes a lot. In terms of the balance sheet, the household debt from mortgages was what had grown so high and stayed at that high level as the asset values were collapsing. That was really putting a pinch on the balance sheets of households. This was also true in the '20's. The '20's were a period of rapid growth of consumer credit for automobiles, for radios and other new electronics.

One of the experts on that is Martha Olney, who is at UC Berkeley. She's written a couple of books about consumer finance in the '20's. It was becoming increasingly a factor. Broadly, the total amount of credit for households is about 10% of mortgage credit, so it's not quite as much of a factor in balance sheets.

JACK FRIEDMAN: I want to conclude by thanking our Keynoter, Professor Smith, the Distinguished Panelists, and again, Chapman University. It's wonderful that Chapman is such a thought leadership institution and has made this event possible.



Dr. Vernon L. Smith

Professor
Economic Science Institute
The George L. Argyros School of Business and Economics
Dale E. Fowler School of Law
Phone:
(714) 628-2682
Email:
vsmith@chapman.edu
Affiliations:
University Honors Program
Education
California Institute of Technology, Bachelor of Science
University of Kansas, Master of Arts
Harvard University, Ph.D.

Biography

Dr. Vernon L. Smith was awarded the Nobel Prize in Economic Sciences in 2002 for his groundbreaking work in experimental economics. Dr. Smith has joint appointments with the Argyros School of Business & Economics and the Fowler School of Law, and he is part of a team that will create and run the new Economic Science Institute at Chapman.

Dr. Smith has authored or co-authored more than 250 articles and books on capital theory, finance, natural resource economics and experimental economics. He serves or has served on the board of editors of the *American Economic Review, The Cato Journal, Journal of Economic Behavior and Organization,* the *Journal of Risk and Uncertainty, Science, Economic Theory, Economic Design, Games and Economic Behavior,* and the*Journal of Economic Methodology*. He is past president of the Public Choice Society, the Economic Science Association, the Western Economic Association and the Association for Private Enterprise Education. Previous faculty appointments include the University of Arizona, Purdue University, Brown University, the University of Massachusetts, and George Mason University, where he was a Professor of Economics and Law prior to joining the faculty at Chapman University. Dr. Smith has been a Ford Foundation Fellow, Fellow of the Center for Advanced Study in the Behavioral Sciences and a Sherman Fairchild Distinguished Scholar at the California Institute of Technology.

In 1991, the Cambridge University Press published Dr. Smith's *Papers in Experimental Economics*, and in 2000, a second collection of more recent papers, *Bargaining and Market Behavior*. Cambridge published his *Rationality in Economics: Constructivist and Ecological Forms* in January 2008. Dr. Smith has received an honorary Doctor of Management degree from Purdue University, and is a Fellow of the Econometric Society, the American Association for the Advancement of Science, and the American Academy of Arts and Sciences.

Dr. Smith is a distinguished fellow of the American Economic Association, an Andersen Consulting Professor of the Year, and the 1995 Adam Smith Award recipient conferred by the Association for Private Enterprise Education. He was elected a member of the National Academy of Sciences in 1995, and received CalTech's distinguished alumni award in 1996. He has served as a consultant on the privatization of electric power in Australia and New Zealand and participated in numerous private and public discussions of energy deregulation in the United States. In 1997 he served as a Blue Ribbon Panel Member, National Electric Reliability Council.

Dr. Smith completed his undergraduate degree in electrical engineering at the California Institute of Technology, his master's degree in economics at the University of Kansas, and his Ph.D. in economics at Harvard University.

Steven Gjerstad

Email: gjerstad@chapman.edu

Ph.D. (Economics), M.A. (Economics), B.S. (Mathematics) University of Minnesota

Research Interests:

Experimental economics, design of economic mechanisms, general equilibrium theory, time series, economic history, market adjustment processes, financial crises, structural economic change

Recent Publications:

Gjerstad, G. "Price Dynamics in an Exchange Economy." *Economic Theory*, 52(2), p. 461-500, March, 2013.

Buchanan, J., Gjerstad, S. and Smith, V. "Underwater Recession." *The American Interest: Policy, politics & culture,* (VII)5, p. 20-28, May/June 2012.

Gjerstad, S. and Smith, V. Monetary Policy, Credit Extension and Housing Bubbles: 2008 and 1929. *Critical Review*, 21: p. 269-300, 2009.

Niladri “Neel” Mukherjee
Director, Office of CIO

Niladri “Neel” Mukherjee is a senior investment strategist and Director in Merrill Lynch’s Office of CIO. Neel’s responsibilities include providing portfolio positioning and implementation advice to Merrill Lynch financial advisors and clients, focusing on Ultra High Net Worth, Institutional and Affluent clients. He works closely with Bank of America Merrill Lynch Global Research, third-party managers and independent firms to identify macro economic trends and investment opportunities and delivers his insights through regular publications, presentations, and televised events.

Neel has held several leadership positions at Merrill Lynch including: Head Strategist for the Western Division, ETF Strategist for Global Wealth Management and Co-Chair of the Operating Committee for IMG. He is a voting member on several product and platform approval committees.

Before Neel joined Merrill Lynch, he worked at Dover Management, an asset management firm in Greenwich, Conn., where he was a co-portfolio manager for a long/short hedge fund and a mutual fund. Prior to joining Dover Management, he was a consultant within KPMG LLP’s Financial Services group in New York. Previously, Neel was a consultant at New Delhi-based Infrastructure Professionals Enterprise, where he advised government agencies on issues related to physical infrastructure development, financial / organizational restructuring and policy formulation.

Neel holds an M.B.A. from New York University’s Stern School of Business and a B.S. from St. Stephen’s College, Delhi, India.

Dana Kopper

Senior Vice President
Director
The Lockton Companies, LLC
dkopper@lockton.com

Professional Profile

Dana is a Senior Vice President with Lockton Companies, LLC, and the Director of the Governance Risk Management Group.

He has provided a broad range of governance and risk management consulting and transactional services to public, private, for-profit, and not-for-profit organizations for the past 31 years.

He is one of the country's leading D&O and professional liability brokers – a noted expert in the areas of directors' and officers' legal liability, investment management professional liability, governance infrastructure design, board effectiveness, director accountability, organizational compliance efficacy, and associated risk mitigation strategies.

Dana is also the co-chair of Lockton's Investment Management Advisory Group, advising international investment management, private equity, hedge funds, and mutual funds.

Prior to his career in risk and insurance management, Dana was a federal agent with the Office of Special Investigations (OSI) – criminal and counterintelligence.

Previous Positions

- Marsh and McLennan Companies
  Senior Vice President
  National Practice Leader – Advisory
  Chief Operating Officer – BoardWorks
  Principal – Mercer Delta

- Corroon & Black Corporation
  Region Head
  Public Entities National Company

Professional Designations and Affiliations

- Forum for Corporate Directors (FCD)
  Member, Board of Directors
  Chair, Governance Committee
- University of California, Irvine
  FCD Faculty Member
  Paul Mirage School of Business
  Governance Risk Management
- Corporate Directors Forum (CDF)
- Stanford University Directors College
- National Association of Corporate Directors
- Directors Roundtable
- Lecturer
  University of California, Los Angeles
  University of Texas
  Rice University
  Stanford University
  University of Delaware
  Directors Roundtable
  American Bar Association
  American Corporate Counsel
  Society of Corporate Secretaries
  Financial Executives International
  American Electronic Association
  California Biotechnology Summit
- Professional Liability Underwriters Society
- Certified Insurance Counselor (CIC)
- Associate in Risk Management (ARM)

Jack Friedman
Chairman
Directors Roundtable

Jack Friedman is an executive and attorney active in diverse business and financial matters. He has appeared on ABC, CBS, NBC, CNN and PBS; and authored business articles in the Wall Street Journal, Barron's and the New York Times. He has served as an adjunct faculty member of Finance at Columbia University, NYU, UC (Berkeley) and UCLA. Mr. Friedman received his MBA in Finance and Economics from the Harvard Business School and a J.D. from the UCLA School of Law.