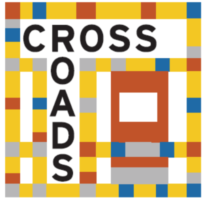

Crossroads Cultural Center
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Finance and Economy at a New Crossroads: Different Models or a Different Vision?

A discussion about the lessons learned from the financial crisis and what is necessary to face and overcome it

Sunday, January 18, 2009, 3:00 PM
Jack H. Skirball Center for the Performing Arts at New York University
566 LaGuardia Place at Washington Square South, New York

Speakers: Dr. Lewis ALEXANDER—Global Chief Economist, Citigroup
Prof. Seth FREEMAN—Assistant Clinical Professor, NYU Stern Business School
Prof. Dominick SALVATORE—Director, Ph.D. Program in Economics, Fordham

Crossroads: Good afternoon, and welcome to you all on behalf of Crossroads Cultural Center and Communion and Liberation. I would like to begin by thanking our distinguished guests for being with us tonight and I would like to thank the Catholic Graduate and Law Student Association of New York University for their support.

Today's discussion is the final event of the first annual New York Encounter, a two-day cultural festival organized by Communion and Liberation and Crossroads. Where did this initiative originate? The education to the Catholic faith taking place in Communion and Liberation gives rise to a passion for culture, inspiring the exciting idea of a "cultural festival." We perceive that there is a new vibe in the air, that in many people of all walks there is a sincere interest in cultural initiatives, focusing above all on topics that are widely discussed in the public arena.

From this point of view, nothing in the past few months has received more attention than the financial crisis, and rightly so. The global economy faces the most significant financial and economic crisis since the Great Depression. What caused this financial crisis? What went wrong with all the safeguards that, we thought, had been put in place? And what do we do now? These and others are the questions that will be addressed by today's panel.

I now leave to our moderator, Mr. Anujeet Sareen, who is portfolio manager at Wellington Management Company, an investment firm based in Boston, the task of introducing our distinguished guests and of starting the discussion.

Sareen: Welcome everyone to this discussion about the financial and economic crisis. The United States is facing its worst economic recession in thirty years, and perhaps eighty years. The financial markets are also experiencing their worst decline since the Great Depression. The US stock market has declined over 50% over the last year - in the 1930s, the US stock market declined over 80% over the course of three years. But over the

eighteen months, since this crisis began, we have fallen at a faster rate than we did back then. Other parts of the financial markets, namely credit markets, are already suffering as severe a decline as we saw in the 1930s. To be sure, the economy, as a whole, has not contracted as severely as it did back then - the unemployment rate is around 7%, whereas it peaked at 25% in those times -so, we are not in the Great Depression, as of yet. But the very fact that we can even consider the possibility that the economy might suffer that significantly is shocking. With all the lessons learned from that crisis, with all the advances in macro-economic policy since then, will all the financial regulation that was instituted, and with all the financial innovation to hedge many of those risks, we thought a crisis like that could never happen again. And, yet, here we are, confronted with a real possibility that it might happen again. And, like then, this is not just a US problem. It's a worldwide problem.

In the 1930s, each country was forced to find an adequate response to the economic collapse. On the positive, like now, there was an increased awareness of our solidarity and how the government could help those that suffered the most. But there were many negative consequences as well. That solidarity intensified under a nationalism that led to currency depreciation and beggar-thy-neighbor polices that led to a collapse in global trade and higher geo-political tensions, ultimately, contributing to the start of World War II. History is unlikely to repeat itself in the same way, but the underlying questions for the human drama are very much the same.

The Berlin Wall fell two decades ago and marked an important inflection for the fall of communism and the seeming ascension of capitalism, hi the same way, the current financial crisis marks the end of a certain free market capitalistic ideology and we are now faced with the task of discovering another way to approach human work and economic policy. In front of the problem of greed, in front of the problem of uncertainty, and in front of the human desire for satisfaction, this crisis forces us to re-discover an answer to the human condition.

As Rita asked, what caused this financial crisis? What went wrong with all the safeguards that, we thought, had been put in place? And, what do we do now?

To help us understand better these events and how to respond to them, we have today, three distinguished speakers on this panel.

Dr. Lewis Alexander was appointed Chief Economist of Citigroup and the head of the Economic and Market Analysis department of Citigroup Global Markets in April 2005. Since 1999, he had served as the Global Head for Emerging Markets within that same group. In that role, Lewis directed the work of economics teams covering Latin America, Central and Eastern Europe, the Middle East, Africa, and Asia. He joined Citigroup in September 1999 as a Managing Director. Prior to joining Citigroup, he had a long career at the Board of Governors of the Federal Reserve System, where he served most recently as Deputy Director of the Division of International Finance. As Deputy Director, he directed the Federal Reserve Board's analysis of foreign financial markets and international banking, represented the Federal Reserve in key international forums, and worked closely with the U.S. Treasury on a variety of policy issues. He received his Ph.D. in Economics from Yale University in 1987, after obtaining a Masters in Philosophy from Yale in 1985.

Prof. Seth Freeman is a clinical professor at NYU's Stern School of Business, and an adjunct professor at Columbia University. He specializes in courses on negotiation and conflict management. He practiced corporate and securities law with large law firms in New York before beginning his academic career in the early '90s. He is also a visiting professor at several programs around the world, including the World Economic Forum and Sun Yat Sen University in Guangzhou, and his columns have appeared in the Christian Science Monitor and USA today. He holds a degree in economics from Cornell and a law degree from the University of Pennsylvania. He is working on a book, *Promises: Making Commitments More Reliable in Business and Beyond*.

Dr. Dominick Salvatore is Distinguished Professor of Economics and Director of the Ph.D. Program in Economics at Fordham University in New York. He is a Fellow of the New York Academy of Sciences and past Chairman of

its Economics Section. He is also the President of the North American Economic and Finance Association (NAEFA) and past President of the International trade and Finance Association (ITFA). He serves as a consultant to United Nations, World Bank, International Monetary Fund, Economic Policy Institute, and major International Corporations and Global Banks. He has authored a number of books, covering international economics, income distribution, protectionism, and microeconomics. He is the co-editor of Journal of Policy Modeling and Open Economies Review; Associate Editor of The American Economist; Board of Editors of Frontiers in Finance and Economics.

Dr. Alexander, can you please start us off?

Alexander: Thank you. I don't usually talk to audiences this large, and I'm not used to being applauded before I speak, so it's a very nice welcome.

First of all, I'd like to thank Crossroads Cultural Center for inviting me to speak today. Obviously the general topic is something I think a lot about, but this is a somewhat different audience than I'm used to speaking to, and I'm very much looking forward to the interaction. The second thing I need to say is that I'm speaking for myself and not Citigroup. I am on the public side of the "Chinese wall" which basically means I have no inside information about Citigroup.

Obviously the financial developments of the last few months have been extraordinary. They've prompted major changes in financial institutions and markets, and in the government's role on the financial sector. I want to stress that we're in the middle of this process and not at the end. We're going to be dealing with this for a long time.

I want to focus my brief remarks today on the role of the government in the financial sector, and how that is likely to evolve. I want to start by talking about why that role is so important.

The financial sector plays a number of important roles in the economy. The most obvious and basic is that it provides payment services, which facilitates almost every aspect of the economic activity. The other main function of the financial sector is to direct the transformation of savings into investment. These tasks are critical for a market economy. When the financial sector is not functioning well, the economy can't function well. It's fair to say that disruptions to the financial sector are a primary cause of cyclical fluctuations, and they are probably the single most important source of cyclical fluctuations in market economies.

Now with that backdrop, it's clear that governments have a strong incentive to pursue policies that are intended to promote financial stability. Governments also have an incentive to promote macroeconomic stability more broadly. Unfortunately, there is a financial version of the Heisenberg Uncertainty Principle. What do I mean by that? When you have greater financial stability and greater macroeconomic stability investors tend to take on more risk. This means that when the government is actually successful at providing stability, they can create problems down the road. A period of stability can lead to a buildup of financial imbalances that can provide the fuel for the next financial crisis. So government interventions that are designed to promote financial and macroeconomic stability need to be complimented with other policies that are designed to contain the very risk taking that those policies tend to promote.

Let me give you an example. Federal insurance for deposits in banks is one of the major innovations that came out of the Great Depression. The banking crises that started in 1930 and extended through 1933 was a major factor propagating the Great Depression. In fact, when FDR took office in the Spring of 1933, banks in over half the country had been closed by state regulators. One of the first things that FDR did was impose a nationwide bank holiday.

Federal deposit insurance was put in place in part to prevent the sort of banking panics that contributed to the onset of the Great Depression. But deposit insurance has an undesirable side-effect. It tends to reduce the incentives that bank managers feel to be prudent in the risks that they take. Virtually our entire structure of banking regulation and supervision is designed to contain the excessive risk taking generated by deposit insurance. The structure of bank regulation and supervision that we have today is largely a legacy of the 1930s, and that response to the implementation of deposit insurance.

Now if the world were static and unchanging, the problem of determining the right role for government in the financial sector would be relatively easy. Of course the world isn't static, and that's an essential problem. In recent decades, our capacity to create, store and manipulate data has increased at an extraordinary rate. The computer revolution that began in the 1940s meant that by 1998 a single computer could do in 100th of a second what it would've taken 100 experienced clerks a whole year to do in the 19th Century. And that was just 1998. I picked that year because that was the year of the LTCM Crisis which was the last major financial crisis before the current one. Since 1998, the basic capacity of computers has increased by a factor of 50.

These technological advances have prompted a broad range of innovations in the financial sector. There are few parts of our economy that are more dependent on information technology than the financial sector. These innovations have improved our lives in small and large ways over the years. But financial innovation poses special challenges to financial market participants and to regulators and supervisors. As financial institutions take advantage of the ever expanding power of information technology new products are developed and the way the financial system works evolves. In many ways, the severity of the current crisis reflects the fact that market participants and our regulatory system have not fully understood, or adapted to, the changes in the financial system driven by advances in information technology. For example, one of the biggest mistakes made by major financial institutions in recent years has been how they valued new complex mortgage backed securities. It is unlikely that these securities would have been created without advances in information technology.

Now I want to shift gears and talk in a little more detail about the current crisis. I think with hindsight it's clear that our financial system had to become far more fragile and vulnerable in recent years than was generally appreciated.

I think there are three broad sets of causes for this. First, in the years preceding the crisis the macroeconomic environment generally encouraged risk taking. Second, a variety of factors that combined to generate the housing boom in the United States. Third, long run changes in the patterns of financial intermediation made the system more vulnerable to disruptions in financial market liquidity.

On the first point, the macroeconomic environment, there are a variety of aspects to this. First the macro economy had simply become more stable. Since we brought inflation down following the oil shocks of the 60s and 70s the macro economy has become more stable, particularly in industrial countries. You can see this in the variance of GDP and other economic indicators. In the economics profession this is known as *the great moderation*.

A second element of this macroeconomic environment was the fact that economic policy in general, and monetary policy in the United States in particular, had generally been quite accommodative. Interest rates were held relatively low in the period before the crisis for a variety of good and bad reasons.
Finally, very high rates of savings around the world that generated new demand for financial assets. All of these factors -- a more stable macro economy, accommodative policy, and high global savings -- encouraged additional risk taking.

The second contributor to the current crisis is a set of factors that generated the U.S. housing boom. Fundamental factors driving supply and demand along with key financial innovations generated the U.S. housing boom. On the fundamental side, demographics, that is, an acceleration in household formation, generated a pickup in new housing demand, while new constraints on supply emerged. Interacting with those fundamental factors were two sets of financial innovations that provide an accelerant to the fundamental factors at work in the housing sector. The first of those innovations was an expansion of mortgage lending into places where it hadn't been before. This is the so-called "sub-prime" mortgage market. An expansion of mortgage lending allowed for home ownership to expand from about 64% of U.S. households in the mid 1990s, to about 69% at the peak of the boom. This expansion of mortgage lending interacted with the rapid expansion of a set of relatively complex financial products that redistributed the underlying mortgage risk in opaque ways. The combination of those two innovations, in conjunction with the changes in demand and supply, that generated the housing boom. Unfortunately this constellation left a lot of exposure to the housing sector on the books of major financial institutions.

The final set of elements that generated the crisis were long run changes in the pattern of financial intermediation that left the system more vulnerable to disruptions in market liquidity. In recent decades financial markets grew more rapidly than financial institutions. In particular, the use of financial derivatives grew very rapidly and they became an increasingly important part of the system. But frankly they were untested for bad times.

The rapid expansion of these patterns of financial intermediation left the financial system more vulnerable to disruptions in those markets than those people appreciated. Disruptions of financial markets have played a much bigger role than they did in previous crises.

The housing market in the United States peaked in early 2006 and starting in 2007 losses began to build up in the part of the mortgage market that had expanded rapidly. Those losses were, to a surprising degree, concentrated on the books of major financial institutions. The capital of those institutions was impaired and they felt the need to pull back. They sold assets; they reduced the amount of credit they provided to the system. That in turn created further downward pressure on assets. This was a significant negative feedback loop. That's essentially the cycle that we have been in since the summer of 2007.

This process has been sufficiently intense that it has called into question the viability of a number of major financial institutions. Since September, the negative impact of that process on the global economy has become much more substantial. Declines in the global economy have become an additional component of negative feedback. The contraction of the global economy creates more losses for the financial institutions; that puts more pressure on asset prices, and so on.

Where are we now? And where are we going to go from here?

I would argue there are two broad sets of policy objectives that we need to pursue at this point. First, we have to get the financial system off of life support and back into a position where it can contribute to economic recovery. Second, we have to revamp our regulations and other aspects of the financial infrastructure to correct the weaknesses that have been revealed in this crisis.

The immediate problem is that financial institutions face a variety of pressures that are forcing them to shrink their balance sheets rather than grow them. The ongoing losses that banks are incurring have depleted their capital. Moreover, banks are now operating in a changed financial environment. Markets are demanding higher not lower capital asset ratios. And given the range of uncertainties that we face, it's very hard to attract private capital into these institutions. Without government intervention financial institutions will continue to shrink and that process is going to put significant negative pressure on the economy. We need a

policy response to break this cycle. The appropriate policy response is likely to be some combination of initiatives on a variety of fronts, including: temporary capital injections from public sources; programs to take bad assets off the books of major financial institutions and provide portfolio insurance for some of the assets to remain on financial institutions' books. All of those interventions will likely be intended to restore the financial sector back to a point where lending can expand and the financial sector can support economic recovery.

The longer term challenge is to reform our regulatory structure as well as other aspects of the infrastructure to make our modern financial system more robust. I think these changes have to focus on a variety of areas. First, we have to expand regulation and supervision to all systemically significant institutions. Second, we need to raise capital and liquidity requirements. Third we have to change the way markets, in particular for new financial instruments, function to make those markets more robust. Finally, because individuals now have access to a more sophisticated set of financial options, we have to do a better job of promoting consumer protection in the financial sector.

Decisions taken in the coming weeks and months are likely to have a lasting impact on the role of government and the financial and economic system. Moreover I don't think there's any doubt that we're going to be expanding the government's role. I think as we take these decisions, we need to keep a number of things in mind. First, financial innovation and deepening of the financial sector have contributed to economic development. A lot of economic research supports this judgment, and I think it would be a mistake to draw the conclusion from the current crisis that we should live with a substantially smaller and less sophisticated financial system.

Second, I think it is important to keep in mind that financial markets learn, and they are actually pretty good at avoiding the exact mistakes that they made in the past. For example, today there are essentially no sub-prime mortgages or structured credit products being issued. I think it's very important for the policy debate to be forward-looking and avoid focusing excessively on the exact mistakes that were made in the past.

Third, regulating effectively is not easy. We need to be realistic about what regulation can achieve and about the resources that are needed to do it well.

Finally, I think is important to remember that the most important benefit of a market-oriented economic system really has nothing to do with economics. From 1989 to 1992 I was responsible for covering the German economy working as an economist for the Federal Reserve Board in Washington. During that time I had to learn a lot about what happened in Germany at the end of World War II. One of the critical decisions that the founders of the Federal Republic, that is, West Germany, had to make was what sort of economic system to build in the wake of World War II. Of course economic recovery was a high priority. But the Germans' decision to build a liberal, market-driven economic system reflected their judgment that such an economic system was likely to be more supportive of a successful democracy and a political system that protected individual freedom and human rights than all the other alternatives. From the perspective of the late 1940s, it's an open question as to whether the political or economic transformation of West Germany was more miraculous. That's something I think we should not lose sight of as we contemplate how to respond to the current financial crisis.

Thank you very much.

Salvatore: Thank you very much, Mr. Chairman. It's a pleasure to be here to participate in this important panel on this crucial topic. What I will do is I will begin, in order to put the present crisis in the proper perspective, to look back very briefly at the previous two crises to see if we have learned anything or how

different the present crisis is, and then I will examine the causes of the present crisis, the effects on the financial sector and the economy, and also where are we going? Are we coming out of a crisis and how?

Advanced countries are today in the midst of a serious financial crisis and deep economic recession, and emerging markets are experiencing a sharp slowdown in economic growth. In this paper I will examine the causes, effects, policies, and prospects for the financial crisis and how the financial crisis led to recession in advanced countries and a sharp slowdown in emerging markets.

What caused the financial crisis? The present financial crisis started in the U.S. subprime mortgage market in 2007 and then spread to the entire financial and real sectors of the U. S. economy in 2008, and from there to the rest of the world. The initial causes of the financial crisis are clear. Huge and increasing amounts of home mortgages -- often without any down payment or checking credit histories – were given to individual and families that clearly could not afford them. These mortgages were made at variable rates when rates were the lowest in 50 years. It was only to be expected that a rise in interest rates would make many individuals and families unable to make their mortgage payments and default. Only if housing prices had continued to rise at the unrealistic high rates of 2000-2005 could the crisis have been avoided.

These subprime home mortgages were then repackaged into mortgage-backed securities (MBS) and sold to credit market investors. Rating agencies, such as Moody's and Standard & Poor, blinded by the huge profits earned by banks and other financial institutions in this market and themselves profiting handsomely from the high fees that they received for their services, gave these institutions and these financial instruments triple A ratings. Finally, the Securities and Exchange Commission (SEC), which was to regulate this market, was in fact asleep at the wheel.

Although the problem of subprime mortgages greatly expanded during the Presidency of George W. Bush, the practice started in 1999 during the Clinton Administration when Fannie May and Freddie Mac were pushed to grant home mortgages to individual and families that clearly could not afford these mortgages in order "promote the American dream" of owning a home.

Be that as it may, the outcome of the current financial crisis is now clearly evident to all. Stock markets crashed all over the world, with declines ranging from 35-40 in advanced countries and even more in most emerging markets. The crisis also brought to an end to investment banking, as we have known it in the United States during the past decade, and to recession in most advanced countries and much slower growth in emerging markets.

What policies were introduced to overcome the crisis? The United Stated and Europe did almost everything possible to avoid the recession, but their efforts only succeeded in preventing a deeper recession or depression. The United States introduced a $168 billion dollar stimulus package at the beginning of 2008, which contributed to a 2.8 percent growth of real GDP in the second quarter of last year, but its effect soon faded away afterwards; it lowered interest rates from 5.25 percent in September 2007, to 1 percent in October 2008, and to practically zero in December 2008; it rescued Bear Sterns in March 2008 with a $29 billion debt guarantee which allowed it to be acquired by J. P. Morgan Chase at a deeply discounted price (to avoid the accusation of moral hazard -- a situation where profits are private and costs or losses are public); in May the Treasury acquired a $100 billion of (nonvoting) stock of Fannie May, $100 billion of Freddie Mac, and from May to October a total of $145 billion from American Investment Group (AIG); in September it encouraged and facilitated the acquisition of Merrill Lynch by Bank of America and it approved the conversion of Morgan Stanley and Goldman Sachs into commercial banks; in October it increased insurance on bank deposit to $250,000 (up from $100,000); and it adopted a $700 billion rescue plan, with half of the money spent by the end of the year to recapitalize the banking sector and purchase money and commercial paper from firms to make up for the drying up of this lending activity by commercial banks.

In November 2008, in the most ambitious rescue operation to date, the Treasury injected another $20 billion of new capital (on top of the $25 billion provided in September) to Citigroup and together with the Fed provided guarantees against excessive losses on $306 billion of toxic assets (mostly subprime personal and commercial loans owned by Citi) to prevent its collapse. In January 2009, the Treasury injected another $20 billion of new capital (on top of the 25 injected in September) to Bank of America and Merrill Lynch, and together with the Fed provided guarantees against excessive losses on $100 billion of toxic assets to prevent Bank of America from withdrawing from the purchase of Merrill Lynch after it discovered that the latter had even more toxic assets than it realized at the time BofA agreed to purchase it.

In mid-February, Congress passed a $787 billion stimulus package of increased expenditures on infrastructure, education, health, and the environment, as well as tax reduction (demanded by Republicans), to stimulate the U.S. economy and prevent the current deep recession (the deepest since the 1982 one) from becoming a depression. At the same time, it was planning to use the remaining $350 billion from the $700 billion rescue plan adopted in September 2008 as a down payment on the purchase toxic assets from banks so that they could resume lending to businesses essential for start-jumping the economy.

At the same time, many European countries adopted similar but less ambitious policies to stimulate their economies. In January 2009, the European Central bank cut the interest rate to 2.0 percent (down from 4.25 in July 2007) and more or less indicated that it was ready to cut it again to 1.5 percent at its next meeting in March 2009, but that it would not follow the U.S. and Japanese counterparts down the path of practically zero interest rate. The Bank of England cut the interest more drastically to 1.0 percent in February 2009 (the lowest since its creation in 1694). All of these measures, however, did not prevent recession in Europe either.

When Will the Financial Crisis Come to an End? When housing prices stop falling, American banks need no further recapitalization, and firms start investing again and their profits rise -- events that will be preceded or anticipated by stock markets becoming less volatile and rising. This may occur in the second half of 2009, with health care and the consumer-staples industry leading the way. But even when growth comes back, it is likely to remain slow for another year or two and until the financial excesses that built up during the past decade wound down entirely. In the meantime, investment banking as we have known it in the United States during the past decade no longer exists – none of the five large investment banks that existed in the United States at the beginning of 2008 had survived as such by the end of the year. Investment banking will henceforth be done mostly by commercial banks under more regulated and less speculative conditions permitted by the Fed.

The crucial event that led to the demise of investment banks was the failure of Lehman Brothers. Lehman was allowed to fail presumably because its assets were less solid than those of Bear Sterns and because there were no buyers after Treasury Secretary Paulson refused to provide $60 billion of loss guarantees to Barclays and Bank of America, which had shown interest in acquiring Lehman. It is more likely that Secretary Paulson wanted to use the failure of Lehman Brothers to avoid the accusation of falling into the moral hazard trap and also to teach a lesson to financial markets. But he also subsequently admitted to having underestimated the size of Lehman and the problem that its failure was going to create in the United States and around the world. At the time of its failure, Lehman had sold nearly $700 billion in bonds and derivatives, of which about $160 billion were unsecured. But rescuing Lehman would only have postponed the crisis, not prevented it.

What reforms are necessary to prevent future crises? Important reforms are clearly needed to avoid future financial crises. Reforms, however, need to be comprehensive and general. Comprehensive because it was the inadequate regulations on investing banking and the inadequate application of regulations that were on the books by the SEC that led to the current financial crisis. Regulations, however, need to broad and general rather than specific and pointed because money is fungible and when a specific regulation closes one avenue

of creative financial excess, soon operators find other ways to bypass the regulation. Regulations should also restrict or prohibit the use of exotic derivatives. These are derivatives for which the correct price is difficult or impossible to determine and which sellers cannot clearly explain and/or buyer understand how they are supposed to work. Reforms are likely to include the requirement that CDS be traded on organized exchanges and issuers put up reserves to cover the risk of their defaulting.

In the medium term, the United States needs to save more and learn to live within its means. American individuals and families save practically nothing and the U.S. government is a large net borrower. The only saving taking place is now done by U.S. firms. But this was insufficient to satisfy the demand for profitable investment opportunities in the United States. The result was a huge inflow of funds from abroad, which led to an overvalued dollar, and unsustainable U.S. trade deficits. Raising substantially the personal savings rate in the United States is difficult, however, with Americans addicted, as they are, to overspend, and it is something that the United States can only hope to achieve gradually over the years.

Some economists blame the operation of the international monetary system for the present financial crisis. But the present crisis has a domestic origin. A better working international monetary system would not have led to contagion across the world if some of the same financial excesses that occurred in the United States had not also taken place in Europe, Japan and elsewhere. According to some measure, the leverage of Deutsche Bank is higher than that of any of the largest U.S. banks. Other economists accuse deregulation as the primary cause of the crisis. Indeed, the repeal of the depression-era Glass-Steagall Act in 1999 (pushed by Alan Greenspan and Robert Rubin when Larry Summers was Treasury Secretary during the Clinton Administration), which had separated commercial banking from other financial activities, such as insurance, underwriting, and investment banking, made possible some of the financial excesses that led to the present crisis. But it was Greenspan, Rubin and Summers that objected to the imposition of any regulation on CDS in 1998.

We can then say that the present financial crisis was caused by deregulation or inadequate regulations of investment banking, by the inadequate application of regulations that were already on the books (i.e., rating agencies and the SEC not doing their job), by unfortunate economic policies (granting home mortgages to people who could not afford them), by outright fraud (such as the $50 billion Madoff's Ponzi scheme), and by economic greed (CEOs and financial firms caught in a gigantic profit-seeking scheme regardless of risk).

The danger is that in the present crisis atmosphere, many nations may over-regulate and impose excessive restrictions on financial activities that would be detrimental to future growth. There is also the danger that the incredible large injection of liquidity in the United States and in other advanced countries to jump-start their economies will lead to hyperinflation two-three years down the line, which would then require a sharp tightening of monetary policy (as in the early 1980s when Paul Walker used it to tame the double-digit inflation) and could in turn lead to another deep recession.

Thank you very much.

Freeman: Good afternoon. I'm humbled to be here in the presence of my distinguished colleagues. As you can probably tell, I'm not wearing a tie. It's because I'm not an economist and I'm speaking to you from a slightly different perspective to add so depth, although I will be amplifying some of the points my colleagues mentioned including Dr. Salvatore. I'm honored and grateful to be here and I thank Crossroads for its kind invitation.

I want to start by asking a question: What do you do when your society is collapsing around your ears, or seems to be? We've actually been in that situation before. In fact, as I'm going to show you, we have reason for hope from our very history that we can actually cope with and to some degree transcend the experience of

having the rafters seem to fall down around our ears because we had before. And the hope in large measure depends on a rather simple and powerful idea that I want to share with you.

To begin with, let me just share with you a couple of mysteries. This is something that Michael Lewis, the bestselling author reports on. Perhaps you've seen this; it's rather shocking. He tells that a couple years ago a gentleman who had emigrated from Mexico and did not speak any English, who was a strawberry picker in Southern California and made $14,000.00 a year was given 100% financing to buy a $720,000.00 home in Southern California which I'm not sure I could afford, frankly. Now the first mystery is: How then does a system allow that to happen? What's going on that permits that kind of decision making that even a 10-year-old child might be able to say, "This is not a good idea." And related to that is the other end of the story, and that is a hedge fund. How is it that a hedge fund was willing to bet, not just on that mortgage, but 30 times the amount of that mortgage, to actually put down or borrow 30 times or more the amount of money of that mortgage to say, "We think that that is a good decision. That is a good investment. That's gonna pay off." How does a system come to that outcome? And I'd like to suggest that normally we have things in place that prevent that from happening. Normally we have a healthy awareness, and that's part of what the investment and lending process is all about. We have to ask, does this loan work? How do I know this is a good loan? How do I know that this investment is reasonably prudent? How do we know? And yet in recent years we have acted as if there is little need for wariness. We've acted as if caution could be thrown safely to the wind. And we've done it up and down the line. And yet I know someone who I'd like to introduce you to who does not have the tendency, who actually is reasonably wary. And that's my six-year-old nephew, Jason.

I'd like to tell you a brief story about my nephew, Jason. I was with Jason last summer. We were playing at the beach and at one point we were frolicking around, and I said, "Jason, here, let me flip you into the water."

And he said, "NO!"

And I said, "Okay, okay, I won't." But now he doesn't want me to play with him anymore.
And I said, "Jason, I promise I won't flip you into the water." But even though we've known each other since the day he was born, and we love each other dearly, he wasn't buying it, and at that moment I was face to face with the trust problem. Now the trust problem is as simple as it is critical and it goes like this: How do I know that what you say is true? How do I know that you'll do what you promise? And it turns out that the trust problem is a universal problem; it's part of the human condition. And we have, almost out of necessity, as a species, developed hundreds and thousands of ways, around the world, throughout history, to cope with this problem. And one of the ways that we have of coping with it is something I'll call a trust support. A trust support is simple any mechanism that assures you that the other person is going to keep his word, or that he's telling you the truth. It's any arrangement that gives you confidence that you can rely on what this person is saying, and when you find a good trust support, it can make a profound difference.

To the point. I said to Jason, "I promise I won't flip you, and if I do, I'll give you ten dollars."

And instantly he said, "Okay." And we were back and we were playing together and it was great. We had a wonderful time. And I never flipped him, so I never had to pay him a penny.

Now, you might say, "Freeman, you just bribed your nephew, right?" No, I really didn't. What I did was I gave him a trust support. Now I could've given him one of several different kinds.

I could've said, "Jason, I promise I won't flip you, and let's go and talk to your mom; she'll vouch for me; she's my sister." And that might have convinced him.

Or I might have said, “Look Jason, I promise I won’t flip you, and here, let’s go to the lifeguard and we’ll ask him to watch me closely.” And that might have convinced him.

In this case I gave Jason an incentive and I gave myself a penalty, and that was enough. That convinced him and we were back and we were doing great.

It turns out that trust supports don’t just work with six-year-old boys. By the way, I don’t recommend that you parent this way most of the time. But it works with a six-year-old boy it turns out, and it also works around the world because it turns out that trust supports are crucial to our institutions; they lie at the very heart of them. In our housing market, in our financial systems we continually need to find ways to prevent bad promises, to strengthen promises and assurances, and to manage risk. And when we have good trust supports in place, we have a pretty good sense, not a guarantee, but a pretty good sense that our system is working reasonably well.

So what went wrong with our system, the way it seems to be collapsing around us? Well, I have learned even in this last hour from my distinguished colleagues, and I echo and amplify everything that they have said, and I would add simply that through error, through neglect, through euphoria, through liquidity increases, and through corruption, our normal trust supports have simply failed in the housing and the financial system. And that has led us to bad promises and to toxic assets, and much gets cascaded through the rest of the system as a result.

And let me show you how these trust supports have systemically failed us, and they have done so at every stage. First, consider our mortgage lender who is lending to the gentleman who is a strawberry picker making $14,000.00 per year. Normally we have a variety of trust supports in place that would have prevented that loan from happening. First we would have asked him to document that he has an income, a job, assets that show that he can actually pay this loan. Well, actually, as you may have heard, during these last several years we’ve developed, or the financial industry developed something called *ninja loans* which stands for no income, no job, no assets. And they became known also as *liar loans* because they all but begged borrowers to lie and say, “Yea, I’m making $50,000.00 a year.” And okay, they put that down, and often, years later, the borrower would say, “I said what?” And incredibly that was allowed to pass through. That’s one basic trust support that simply fell away.

Also we would normally have the trust support of requirement a down payment, some scale, make sure that the borrower has something at stake, has, as they say, some skin in the game. And once again here, perhaps with good intentions, perhaps not, we allowed that trust support to fall away.

Also we typically have lending limits where banks would say you typically should not borrow more than two and a half times your income. Well what does that work out to for the gentleman who is a strawberry picker? Well a far smaller house. Well that trust support fell away. And so did the traditional requirement that banks maintain some interest in at least some of the mortgages that they write. Well, we no longer required that. We allowed banks and other lending institutions to pass these mortgages just up the stream without really caring or having any stake, they were getting a quick pay day. So once more we have a trust support that has fallen away.

Well where are the bank regulators in all of this? They were cheerleading, partly for ideological reasons, partly not. It’s not just the Bush administration, as my distinguished colleague, Dr. Salvatore noted, although it certainly intensified greatly in the Bush administration’s years and these lack of regulations permitted teaser rates and pay option loans, which you may have heard of. A pay option loan means, and this may very well have been the case with our strawberry picker, he was told, “We’re going to give you a very low starting interest rate, a very low percentage, and it will reset later, terms to be determined, and if you don’t

like the rate that you're paying, you can pay anything you want." And that's catnip, right? I mean, my gosh, I can pick my own number! It's great, except there's one problem—if you pay too little your obligation to the bank actually rises. You can actually become a debt slave and never get out. Never. And normally we would not have permitted that, but here the trust support fell away, and we permitted it. And the bank regulators were only too happy to say, "That's the way to go! That's what the ownership society is all about."

Well, where were the ratings agencies. Well, Dr. Salvatore noted that they were missing in action at best. If the truth be told, they, like others, were corrupted. As he noted, they were basically bought out. They were bought and sold because those mortgages that are mentioned were packaged, as both my colleagues mentioned, bundled into mortgage backed securities, and those securities were sold on the open market, and investors who were expecting some assurance that this was a safe bet, looked to the rating agencies for help. "How do I know that this is a reasonable investment?" And the answer was, the issuers of these securities said, "Don't take our word for it; listen to the rating agency." And as we just said, the rating agencies were all too happy to give triple A rating, money good, to say that these investments were as good as gold, as good as treasury bills, no risk, when you and I know what was behind them.

Why were they doing that? Well, because they had a perverse incentive. They actually were paid by the issuers. They hadn't always been. Initially they had been paid by investors. But there too we allowed the trust support to become corrupted. The government allowed it, the investment community allowed it, and Wall Street was only too happy to let it go.

And so we come lastly to our hedge fund. What's going on with our hedge funds? You know, the hedge funds were actually in the business of insuring these securities through something you may have heard people mention called credit defaults swaps, and frankly I would never want to show you what these things look like. They are unbelievably complicated. But in essence they are like insurance policies. And if you'd ask me on the face of it, I would say, "That's a great idea. Looks like a neat trust support." It is, except for one thing: Many of the hedge funds who were issuing these insurance policies were grossly undercapitalizing. What I mean by that is, one firm, now defunct, was insuring 30 billion dollars worth of mortgages with 30 million dollars in the bank. Let me put that another way. For every hundred dollars in mortgages they were insuring, they had one dollar. Now that's a collapsed and corrupted trust support.

And so up, down and sideways you have a corrupted system that has a series of props and protections that were not props and protections at all, that didn't do what my six-year-old nephew demanded, reassured that this truly was a prudent and wise and safe practice.

And it goes even further. Where was the SEC which was initially designed to protect us against these things? They too, perhaps partly for ideological reasons, were essentially asleep at the switch, and, I might add, there's also some evidence that there's a bit of a revolving door at the SEC because if you spend a certain amount of time at the SEC there is evidence that you can go on to Wall Street and get a pretty nice job, so you might have a subconscious or maybe not-so-subconscious reason to go a little easy on the people who eventually you're going to be serving.

So all of this suggests that there is a systemic and widespread failure of trust supports, and you might say, well, that's a pretty depressing story. And it is. And we have reason to be frustrated, and we have reason to be, frankly, somewhat angry about this. But we also have reason to try to find solutions to it, of course. And rather than look at the macro perspective—should we be devoting money to this bailout or that?—I want to look at how we shore up good trust supports.

What I'd like to observe is the hopeful side of the story, and that is, we have good experience doing this. We've been here before in different ways. In 1933, as we said, the banking industry was collapsing, and

people around the country, like my nephew Jason, were looking at banks and saying, “No! How do I know you have the money you promised to give me back?” And they were running on the banks and the banks were collapsing. And so we had to find an array of trust supports to prop that system up. And you heard already that one of the ways we did that was to call a bank holiday, send bank auditors in, close the banks that we couldn’t save, re-capitalize the ones we could, add a host of additional trust supports like FDIC insurance, which for all its faults has saved the confidence of the banking system and also a series of bank regulations. Those are trust supports and the banking system was saved. A similar thing with the Enron crisis. As we’ve seen, the Sarbanes-Oxley bill did turn around investor confidence. That’s a good example of how trust support, well timed and well designed, can save investor confidence and transform an economic crisis. And in the 1920s, 1929, during the crash, right after the crash, certainly there were economic reasons, but there was also a congressional commission that looked into what the heck was going on. It was called the Pecora Commission, and that discovered widespread fraud and corruption, somewhat similar to the kinds of failures of trust supports that I’ve just described. And that commission gave rise to the Securities and Exchange Commission and a variety of securities regulations that I’ve actually worked with as a securities lawyer and that has, up until fairly recently, been a nice job of making the United States a well respected economy until recently, and it may need considerable revamping.

But what I want to emphasize, as we conclude, is that this is, in a sense, part of our DNA as a nation. The reason why I am particularly hopeful is because the very existence of our country today is born out of a crisis that may in some ways rival the one that we’re faced with. Not an economic one, but let me show you why I have a sense that we have the capacity, as a nation, to transcend the collapse of trust supports. Let me take you all the way back to 1786. There we had the crisis that was literally threatening to destroy our government. There was a revolution, a rebellion going on in western Massachusetts. Angry war veterans who were being squeezed in a recession were fighting against the foreclosure of their farms by taking arms. And when the foreclosure guys came to take their farms away, they shot and they rioted. They rioted through the streets of local towns and it was taking over like wild fire, and there was terror throughout the country. It came to be known as Shays’s Rebellion. And word of this quickly reached Philadelphia where the national government was meeting. The congress met and they said, “Something has got to be done. We’ve got to stop this.” Every one of them unanimously said, “We must stop Shays’s Rebellion.” And they committed, every one of the representatives committed to putting down the rebellion with money from the states. It’s done. Agreed. Fine. And then they went home, and no state gave any money at all. They completely failed. None of them was able to keep his promise. It was a blatant collapse of the national government. A classic example of the trust problem overwhelming us, and only because Boston merchants were able to raise enough money to build an army and send it off to put down Shays’s Rebellion, only because of that were we able to put down that rebellion. But afterwards, James Madison himself wrote a letter to a number of his friends and said, “We’re dead. This country, this revolution is dead. Our society is falling down around our ears unless we can find a way to shore up trust, to help us overcome the problem of trust when our own states can’t be trusted to keep their word.” And like-minded people gathered together in Philadelphia that summer to talk about it and to develop a host of trust supports to solve that cataclysmic problem, and the name of the solution that they came to in the US Constitution.

The US Constitution is a set of trust supports that’s designed to prevent massive breakdowns of trust that arose and nearly destroyed us. And you know, that but for the Civil War, the US Constitution has been one of the great successes of the world’s history and so we actually do have the skill to negotiate with prudence, with the advice of good council and economic advisors to come up with an array of solutions, trust supports, that can solve problems even more daunting than the one we face now. And that’s my hope and prayer, that trust supports well designed, well negotiated, well debated will help us build confidence where confidence is desperately needed right now.

Thank you.

Sareen: So at this point we are going to start off with some question and answers. The first question is to be directed to Professor Salvatore. You mentioned in your talk all the policies that the government is pursuing to address this crisis. There are many who argue that this is actually all or mostly a problem of money. What I mean about money is not enough money. That if only we print enough US dollar bills, enough Euros, enough British pounds, or any currency, we can solve the problem of debt, restore the banks, and the economy comes back to normal. The head of the US Federal Reserve, Ben Bernanke, argued that this was the lesson learned from the Great Depression, and Japan's deflation in the 1990s, which means all the debt that we took on was based on a view that even more money would exist in the future. Do we just need to print a lot of money in order to fix this crisis?

Salvatore: Well, we have two problems, as we all know. We have the immediate short-run problem, to get out of the recession, and then the 3-5 years down the line, as President Elect Obama recognized this immediately. The first thing, as I've said, no matter who was going or is going to be President, we are almost all in agreement that in the beginning it is a question of money; that is, the American economy is about 14 trillion dollars, of course the sum is mind boggling, but that is in relation. We have lost about 1 trillion of that 14 trillion dollars, and that's why unemployment is increasing. The immediate solution to the immediate problem, to put people back to work, means that we must make up that 1 trillion dollars. So we have a similar package of 825 billion dollars, of which 550 is to increase expenditures and 275, (supposedly, this is the proposal) to reduce taxes. But that package is for two years, so one would have to talk about half of that, okay? So we have to make up 1 trillion, and we have a package of 400 billion dollars. There is what we call a multiplier; that is, for whatever money we spend, other people earn it and re-spend it, so for each dollar we spend, we figure out that there is a dollar and a half re-spent, so we don't have to have a package that is one trillion. So the package of 825 billion dollars for two years means that we have 400 and some for one year, with the multiplier, which gives us 600 billion dollars. So we are short, and many economists are saying we have to spend more to make up for the loss.

Then we go into the medium-run. We have to put people back to work, and we are afraid to spend so much money. The budget that is increasing, we are postponing this to our children and to those who come after us. So it is important in the medium term to spend wisely and spend on investments rather than financing consumption. And of course that is in the program, to spend for infrastructures, bridge, roads, but also human capital—education, health care, high technology, green energy, and so on.

So I think that Obama has surrounded himself with good advisors. Some people in Europe have said that he's the most leftist of any of the presidential candidates and presidents to be. Well, he has surrounded himself with middle of the road experts and what he is doing is what almost anyone would do. Yes, it is a question of money. At the beginning we have to put people back to work, but then we have to look at the medium-run, not to primarily finance consumption, but also to finance investments because that's the future growth of the economy.

Sareen: Thank you. The next question is for Dr. Alexander. Again more on what the government's role is in all of this. Just as a background for the audience, in 1938, President Roosevelt established a government agency to help support the US housing market. This agency uses the full faith and credit of the US government to guarantee mortgage loans to lower-income families for home purchases. And for all intents and purposes, this policy works. The housing market improves, we go through a strong housing period for the next six decades. The name of this agency is called the Federal National Mortgage Association, better known as Fanny Mae. But by 2007, this agency and another, Freddie Mac, end up guaranteeing half of the entire stock of housing in the United States, about 5 trillion dollars worth of homes. The same agency that turns out to play a significant role in the housing accessing bust we're experiencing. So the same government

agency that helped us out of the Great Depression maybe taking us back in. Is the current crisis a problem of too little government or too much government? What is the role of government here in front of this crisis?

Alexander: It's probably more a crisis of too little than too much, but it is in different dimensions both. I think the story of the GSEs is an interesting one in part because I think it stresses the role of innovation. In 1938 there was no securitization market and one of the interesting parallels between the Great Depression and the current situation is there was a tremendous amount of financial innovation in the 1920s. There was an explosion in mortgage lending that generated a housing boom in the 1920s that was part of the backdrop for the Great Depression. The creation of Fanny Mae was a way to use the government balance sheet to funnel money into the mortgage market at a time when there really was no alternative. Since the 1930s, however, the capacity of the private sector to provide that function has expanded tremendously. We might have been better off had Fanny Mae and the other government sponsored mortgage agencies been unwound at some point over the course of the last six decades. In the long run it isn't obvious that we need federal involvement to channel money into the mortgage market. The problem of course is we need them desperately in the next couple years, and so we face this challenge now. I think the logical thing we need to do over the next couple of years is to use them as agents of government policy to support recovery in the housing market, but then ultimately to wind them down. That's the real challenge.

Sareen: Thank you. Professor Freeman, I thought your comments on trust were very interesting. You raised a question about trust where you said, "How do I know that what you say is true?" You talked about trust supports. One of the striking things about what happened over this past year is how quickly trust evaporated. We're talking about companies that have been around for decades if not centuries, long standing relationships between these companies, and trust just disappeared. What do you think is the source of trust between these companies, people in business? Why do you think it's been so fragile?

Freeman: It's a good question. I don't think there's one answer. Conventional wisdom, what much of academic study talks about is something called social capital, and there is something to it. And the idea is that there is some almost inevitable quality among people that is almost like money in the bank. It is sometimes called good will in different ways, and that's sort of the lubricant that allows our society to function. De Tocville talks about this over 160 years ago, and some societies seem to have less of it than others, and the United States, at least in theory, has a goodly amount of it, and that some would argue is one of the great sources of its economic strength, and some despair about whether it's declining or rising, there have been books about it, *Go it Alone*, that maybe we've been more isolated in recent years, and some argue that that may also be true of business. I think there's a certain truth to that, but I also think that there are, always have been, always will be a need for certain arrangements, certain institutions, certain mechanisms that shore up trust between strangers because a market is a fairly impersonal process where you really don't have a chance to meet people whom you know to build friendships where "everybody knows your name" as the song goes. And so we really need a fairly reliable array of sorts, but I don't' think in recent years we've been particularly skilled at cultivating and maintaining them, and I think, frankly, part of that has been an ideological caste. I do think that there has been an overemphasis on the market.

I was curious what Adam Smith might say about this idea, and so I checked and came across a rather remarkable quote of his, and I'm going to translate it slightly because it's written in 18th Century English. It's right out of *Wealth of Nations* and it says: "Those exercises of natural liberty of a few individuals which might endanger the security of the whole society are and ought to be restrained by the laws of all government." And that's Adam Smith. He's saying, I'm not a free market capitalist, and yet we've had something of an ideological tinge that I think has said, any regulation is a bad regulation. And I think that has actually served business badly. I think much of good business actually does depend on a well regulated, not over regulated array of protections to make sure that the system works well, and much of what my colleagues

have nicely described is how it has become more brittle for that emphasis on letting the markets fare in a way that I don't think even Adam Smith ever envisioned.

Salvatore: Let me add that I think what's missing, and you cannot legislate it, is really lack of ethics. It is ethics. It is greed that makes people today in high places put profits before anything else, much more than in the past. And this is why business schools are introducing courses on ethics. Greed, corruption—it's unbelievable! It's almost as if we can put laws, we can give penalties, but one should not commit a crime or behave unethically, we want laws so that they are prevented, but if you can get around the law, you commit crimes, financial crimes. To give you an example, some of the investment banks that were themselves in trouble, when they saw Merrill Lynch almost going under, they went out and speculated against one of their own for greed. And to the point, Merrill Lynch had to ask to be acquired, otherwise it would collapse. So it is truly, truly lack of ethics in business which has changed. We've always had criminal activities, we've always had greed, but in this generation, I think this is what's needed. You do not do things only for money, and you do not do it only because you would be punished. It's impossible to regulate everything, every activity. You see what happened. The commercial banks were regulated, and they were not the ones who created the problem. It was the unregulated. So we had a crisis and we passed so regulation dealing with that crisis. Then we had another crisis which was different, looking for a loophole in the law in order to continue this greed and really corrupt behavior and putting profit on top of anything and everything. So this had to change in our society. You cannot regulate ethics. You can put all the rules you want, but financial…these are brilliant people. They find ways out of it. You put a law to prevent something and inevitably they will invent something else. So you cannot regulate everything. It is trying to put back ethics into business. And I think this is very, very difficult. We've gone too far to immediately turn back, but eventually we hope that with this crisis we'll learn something.

Freeman: Professor, I wonder if I might pick up on that. I honor and share your desire for ethics reformed. I'm concerned, though, that my mother who is investing in a bank. I'm hoping that the bank president or the CEO of a major investment bank who is securitizing mortgages for that bank, if I'm relying on their ethics to protect my mother, should I sleep well tonight?

Salvatore: No, but that's why we have checks and balances. That's why we have rating agencies. That's why we have the Security and Exchange Commission. So it goes all the way up. Yes, you have to have regulation. You have to put in place checks and balances. It goes all the way up. When the Security and Exchange Commission, to say the least, is incapable of doing its job, and as I've said, they've more or less admitted it, when the rating agencies put profits, because they're co-sharing the profits, they were giving triple A rating to firms. Yes, we have to have regulations; we have to have laws all the way up, but at one point, at the very end of the line, someone has to behave ethically and do his or her job properly. Otherwise you can rely on incompetence or corruption. Incompetence is bad enough, but we want to avoid that.

Sareen: Actually Professor, I'd like to go deeper into this because you mentioned this focus on markets, this impersonal thing that's entered into this question of trust. Specifically I want to talk about the rapid expansion of financial products and securitization. First of all, there's been a lot of good that's come of this. Securitization offers us things that we did not have previously, so there's certainly a good there. But one of the consequences of the securitization is that the distance between the borrower and lender is now much greater. So my mortgage today comes to a mortgage broker who gets the mortgage through HSBC who repackages it, securitizes it, and then some investor in South Carolina or Singapore, somewhere around the world, owns it. So that distance creates much less of a relationship between the borrower and the lender. This is a broader trend. The whole idea of relationship banking came to be looked down upon over the last 30 years. Can a healthy and human financial system really avoid this dynamic of human relationships?

Freeman: Well, I'm curious to hear what my colleagues think. I think a city, a globe, by its very nature becomes more complex and more an involvement of people with weak ties, where people don't really know who they're dealing with as well. One of the reasons why you see an incretion of trust supports, although it's certainly not unique to our age, why you see an accretion of trust supports, although it's certainly not unique to our age, but the reason why you see more of them is because you have a more complex world where people simply don't know each other very well. Now there are things that offset that. One of them is the Internet which actually allows strangers to interact almost as if they are friends. And we've seen all kinds of examples of that.

But I am a little uneasy in the hope that we're going to have Jimmy Stewart next door to us, taking care of us and I wouldn't want my mother to depend on that in this economy.

Salvatore: Dr. Alexander had the answer.

Alexander: I'm going to respond in part to this and in part to some of the broader discussion that's been going on, and to come back a bit to a theme.

I think what we're dealing with partly is the consequences of changed circumstances. Regarding trust or reputation or rules of behavior, when the world changes, we have to reestablish this. To a certain extent I think that's part of the process we're going through. I do think it's important to think carefully about what the problems are, and I'm going to come back to the point about securitization.

There's been a lot of analysis which argues that the fundamental problem in the mortgage market was the distance between the person who creates the mortgage and the one who ultimately owns it. Many argue that the widening of this gap undermined the origination standards. My personal view is that that is a much too simple story. If you look at other markets where we do the same thing — auto loans, credit cards, for example, — there is no evidence the same sort of deterioration in underwriting standards.

I think what happened in the sub-prime mortgage market is a little different. There was a policy initiative under the Clinton administration to promote home ownership. This gave banks an incentive to extend lending into places where they hadn't lent before. But banks had to figure out how to manage the associated credit risk.

The innovation was the subprime mortgage. Typically sub-prime mortgages had two fundamental characteristics. First, they had an initial interest rate that was very low, but after a short period of time, typically anywhere from three months to two years, the interest rate reset to a much higher rate. Second, sub-prime mortgages typically had a large pre-payment penalty. This structure encouraged a very rapid turnover of these mortgages. In an environment where housing prices were rising it was quite profitable for the lenders, almost regardless of the individual characteristics of the borrowers. That system worked as long as house prices were rising.

And you go back to the issue of how did the rating agencies get it so wrong? Well, yes there was an incentive problem for the rating agencies, but partly what there was there was a bubble in the housing market, and the logic of the bubble filtered throughout the system.

And so the question of right policy response is subtle. I think we have to be careful and think these things through carefully. I share Professor Freeman's optimism, that these are solvable problems. I think we are operating in a world where it's just very different that it was before, and there's a whole host of things we've got to adjust to. But I do think that to get this right we do need to think pretty carefully about exactly what the problems are.

Salvatore: Certainly to avoid cutting the link between the borrower and the bank, you said it yourself, Dr. Alexander, you have to retain some of those mortgages yourself, so you cannot wash your hands. But also it's true that everyone was caught in this, and that supposedly no one could know what was happening. How could know one know what was happening? The housing crisis was increasing 10, 12, 15% per year. This was entirely unsustainable. In other words, one could say, yes, we could not see it. Someone could say, "Where were you?" I am nothing in the system. But the point is, when housing prices were rising, it was completely unsustainable. We knew it could not continue. So it you lend, not to the individual, but for the house, and the housing crisis could not continue to rise that way, inevitably you would reach a point, and frankly to give a mortgage to someone without any down payment at variable rates when the variable rates were the lowest in 50 years. So even if you intend to renegotiate, those rates could only go up. Those people could not even survive paying the low rate, the lowest in history that they were charged, but certainly those rates would go up. So we are all guilty not to have seen.

But it's a stock market. You see, you invest in the stock market when you see it going up. And you say, well, it's too far up, but I've missed the boat, and so I go in. And then eventually some person wakes up in the morning and says, the value of the stock is other than the expectation of the present discounted value of future profits. At one point it's not a question of opinion. Those rates are completely at no contact with reality, and so I think we could have realized a bit earlier, but as I've said, we cannot be Monday morning out to win the game, but we were all caught in this new…when things change, sometimes we don't realize how things have changed and how to address those changes. We hope we have learned. We hope.

Freeman: I might add that there is a moral component here that I am a little concerned about. If we say, I'm lending to the house, not the borrower, that is strictly true in a sense. There is an economic case to be made for that. But what happens to my friend, the gentleman who is the strawberry picker who is making $14,000.00 a year, and in economic terms we're really lending to the house, but he is actually a debt slave unless he chooses to walk away. If he chooses the pay option, the ability to pay whatever he thinks is affordable, his debt is actually increasing, and it's conceivable that he will never emerge from that.

Alexander: I agree with that. One of the things I said when I spoke about policy challenges was the need for better consumer protection in finance. We have long standing regulations that prohibit most individuals from investing in hedge funds. The argument behind these regulations is that you need a certain level of sophistication to be able to reasonably assess the risk of those sorts of investments. In a way, sub-prime mortgages were exactly the same problem on the other side of the balance sheet.

But let me say again, it is important to be clear about what exactly the problems are. With respect to what everyone should have done in the run up to this, I can make a couple comments. One is the case for the equity market being a bubble in the late 90s. I would argue it was much more compelling than the case for the housing market being a bubble this time around, and I say this as somebody who did not anticipate the bust in the housing market. There certainly were people who got it right, but I think as an analytic matter, it was easier in 1999 to argue that the equity market was overvalued than it was to argue that for housing in 2005. No one is clairvoyant, and you can't build policy on the assumption that policy makers can be.

When I look back there were a variety of policy failures. With 20/20 hindsight, some of them were incredibly basic. There was evidence that there were substantial problems in mortgage origination. When you see smoke it's only prudent to look for the fire. This isn't rocket science. That was a pretty fundamental failure.

Before the crisis we went through a period of incredible stability. From the early 1980s until 2007, we had two recessions in this country, both of which were relatively mild. Over this period inflation was coming

down and generally asset prices were rising. I think the inclination on the part of market participants and regulators was to relax. They generally interpreted the stability of the economy as a sign that the system was functioning well. In many respects I think that was the wrong reaction. Market participants and regulators should have recognized that stability was encouraging people to take on more risk. Instead of being more relaxed, they should have been more vigilant. There were analysts who were saying that at the time, and I think we should give them credit, but it's certainly the lesson we should take with us going forward.

Salvatore: You see, when you get a mortgage for $300,000.00 and you put no down payment, when the housing price goes down, your mortgage is worth more than the house, so you walk away. The person who is hurt is the one who has been paying, but the person who just got a mortgage who should not or could not, he or she walks away, and that's the end. But it is true. We had Alan Greenspan; we don't want to knock a person who is already down, but Alan Greenspan was regarded, not by us mortals, but by all other central bankers as the best of the best, the maestro. I wrote an article where the maestro in 2001 was talking, actually he was not talking, he was ruminating that the problem of the U.S. economy was that we were facing another high inflation because traditionally when our rate of unemployment went down to 6 or 6.5%, then labor unions received wage increases which were above productivity increases, and this caused inflation. Well, the maestro, as he was called, did not realize that globalization is the most anti-inflationary policy the world has ever seen, and so he shouldn't worry about inflation because globalization, open markets took care of that. Why? You increase prices, you lose your markets, and even now when the price of petroleum was well above $100.00 per barrel, the rate of inflation was only 3 or 4%. But one thing I have to say, we have specialists, people who eat, sleep and dream petroleum or energy, and these people were saying up to April that now the price of petroleum would be $200-$250 per barrel. They were saved by the crisis. In other words, they can say, "Well, it would've been that with the crisis." No, without a crisis they would've lost their reputations; they lost many times because they completely forecasted wrong. And so when they say that economics is an abysmal science, I think we have a lot of fun when we hear these things.

Sareen: I would just add that I think that someone who tries to anticipate where markets are going is hard. Figuring out when markets are too high is not an easy task. Alan Greenspan said that the stock market was experiencing irrational exuberance in 1996. That's 3 or 4 years prior to the eventual peak, so it's not easy. And I think this actually brings us back to a question that I wanted to ask you, Professor Salvatore, which is a question of certainty. I think Dr. Alexander raised this point very eloquently in his talk in that the focus of government policy over the last several decades has been on what we call counter-cyclical policy; that is to say, the role of the government is not just to help the unemployed and the poor, and those that are struggling in the economy, but in fact the role of government is actually to smooth the business cycle. So when the economy is weak the government should spend more money; when the economy is strong the government should actually cut spending. The focus is on stability—to try and remove as much uncertainty as possible from the economy. Now as you said, Dr. Alexander, this carries a risk, right? As you reduce uncertainty through these policies, you actually encourage the taking of risk and the increase of debt. So I guess I have a question here about whether this is a good thing. Can the government, should the government, in looking at what is happening now, it appears the government was never going to be able to do this anyway. The volatility, the uncertainly has come back with a vengeance. So should the government really try and remove the uncertainty that we as all human beings face?

Salvatore: Well I will answer your question myself later, but I'll let a Nobel Prize winner answer the question. We have Milton Friedman who wrote a big volume, *A Monetary History of the United States* with Anna Schwartz who indicated that, yes, the role of the government is certainly to smooth the cycle; however, looking back at history, good intentions were not good enough because it takes time to realize that you are going toward the recession, the question of uncertainty. It takes time to adopt a policy, and it takes time for the policy to take effect, so he concluded that it was pro-cyclical. In other words, by the time the problem has been recognized, the policy adopted, and the effect of the policy comes, it would be exactly at the wrong

time. That's the fiscal policy because it takes much longer. Monetary policy is much more flexible; you can change interest rates. However, as we know now, it's not good enough because you can bring the horse to the water, but you cannot force the horse to drink because interest rates are what we call a liquidity trap; people don't borrow. You can make interest rates zero and people don't borrow as it happened in Japan. So yes, the government certainly cannot stay idle; we have learned many things. It's very difficult to do and certainly, as I said, we cannot stay idle, but we are afraid. We are concerned that it's not so much this cyclical problem that we have to worry about as what comes after. And what happened in Japan in 1990, Japan was in a crisis and since then they've had three recessions and the rate of growth not even almost one third of our own—stagnation.

So, I'll answer the question. Yes, the government has to do it; it's difficult to do. Maybe now we are learning that we are doing. Now it's so clear what needs to be done, but I think what we also need to worry about is also to look a little further because that makes it more valuable the way we spend our money. This crisis will be over. We are not going into depression or anything of the sort; we hope by next year at this time we are well out of the crisis, but we should be concerned how fast we will grow because this is the American dream, how fast are we growing because that's what the international competition is today. Are the conditions, can we create the conditions and make out of a problem an opportunity? We have a lot of money to spend. Let's spend it to restart the economy, but also how to go further. So really there is something we learned; there is something we can do. And now the problem is so big that it's very clear that we have to spend more money, but let's spend it in a way that creates or brings us back to growth.
We look at Europe and they have a great social welfare function, but they don't grow. It's almost like, yes, we have to have a social welfare net, but if I earn as an unemployed person 80% of my salary for two years, I have no interest in going back to work which involves traveling, eating, spending. It's unbelievable. In our own economy, one month before the unemployment insurance expires, a miracle occurs; we find a job. And so we have to give incentives.

Freeman: I wonder if I might pick up on one other aspect of your question, and it also picks up on what each of my distinguished colleagues was getting at and that is when we talk about market unpredictability and economic complexity, I think what all of this gets at is the central question that we don't know a lot and maybe at the heart of what we're here talking about is the need for humility and to acknowledge that there is often the case to be made that we really don't understand. So I'd like to just use that to invite my fellow members of the audience to consider the power of asking dumb questions, and to invite you to join me in the fight against the fear of looking dumb because these are profoundly complicated things and I will freely admit to you that my colleagues have forgotten more than I will ever understand about much of the economics that we have been discussing. I most want my students to be skilled at asking very simple questions and I will just leave them with you as we wrap up and they are questions like: What do you mean when you say that? I don't understand. Can you say that another way, please? or Is this what you're saying? or How do we know? or What if? And I will argue that it wasn't our sophistication or our mastery of economics or other issues that got us into this crisis as our difficulty in asking those questions. I find that even my top MBA students have to learn to do that and I'd like to invite you to join me in that struggle. Thank you.

Sareen: So that ends the Q & A session of today's presentation. If it were up to me we'd do this all day, but I've been told we have to stop here. Let me just say a few world in conclusion on behalf of Crossroads.

We are in the midst of a severe economic crisis that most people in this room have not experienced in their lifetimes. At the end of 2007, most thought that we were experiencing a correction in financial markets and perhaps a mild recession in the United States. By the end of 2008, we had lost 2.5 million jobs and a mild US recession became a worldwide crisis. In 2009, nearly five million more jobs will be lost in the US alone and the full repercussions of what is unfolding are still not known. This will affect some of us here, directly,

if it hasn't already, and many of those close to us will also be affected.

So, what brought us to this point? There are many causes of this crisis, as you heard today. Some of this is due to greed and fraud, as we see very clearly in the Bernie Madoff scandal. Some of this is due to the human desire for the infinite, the answer to which we too often look for in the wrong places. As Fr. Caron said yesterday, expectation is in the structure of man, but the question of what it is that we are waiting for needs a better answer than what we, as a society, have accepted so far. Some of this crisis is due to a loss of understanding of the purpose of finance, as the world of finance has come to operate as if it lives in a parallel universe, where the linkages to the real economy have become less clear. Some of this is due to an attachment to a certain capitalistic ideology as *the* answer to human prosperity, as if that was the only criteria for our fulfillment. Some of this due to a superficial idea of freedom and independence, which ignored a solidarity among us and the truth found within the messiness of human relationships. Some of this is due to a sense that the problem of uncertainty had diminished, reducing the need to find a complete answer in front of the vagaries of the world. And some of this was driven by government policies gone amok, in the mortgage agencies, reminding us that the true source of our hope does not lie in Washington DC.

So, what is a response to all of this? One, in front of the problem of uncertainty, no government and no person can substitute our individual need to find an adequate response. Two, if expectation is in the structure of man, and the only thing that satisfies us is the infinite, we need to look at our experience from what offers that fulfillment, rather than forcing reality to fit our idea of satisfaction. Three, there is an important role here for the government to play in helping the millions of people who lose their jobs and those that suffer from poverty, but we must be mindful, as we consider all kinds of government spending projects, that the government cannot simply substitute for the energy and creativity of human work. Four, the financial sector plays an essential role in the development of economic growth, so the current crisis is not a problem of too much finance or too little finance. The financial sector needs to better understand its purpose – service to the real economy. And those of us who work in the financial sector need to look for a meaning that goes beyond our limited measure of success to include the entire reality of work and what it reveals to us about our "I" and our destiny. And lastly, Fr. Caron said yesterday that hope is none other than the expanding of the certainty of faith regarding the future. As a Democratic president takes office this week with an all Democratic Congress, there is this view of the world that the pendulum is swinging from capitalism to socialism. But the certainty of faith points to a truth that does not depend on the particular swing in cultural sentiment either way. It is this hope that guides our conception of work and needs to guide our engagement of economic policy in a new way.

Thank you Dr. Alexander, Professor Freeman, and Professor Salvatore in helping us go deeper into these difficult questions that face us today.