

Nobel Prize Winning Economist

Joseph E. Stiglitz

"Freefall: America, Free Markets, and the Sinking of the World Economy"

GERRY SELTER: Good afternoon hello, I get to introduce myself. My name is Gerry Selter and I'm currently serving as the provost and vice president for academic affairs at San Jose State University and this is a fabulous crowd I don't know if I've ever been in here with the balcony occupied but its really impressive. My understanding is that we have a significant overflow into the Engineering auditorium so that this is being webcast also over in the engineering. That auditorium looks like it holds about a third of this auditorium but were really delighted at the turnout. On behalf of President John Whitmore, the Office of the Provosts, and the Global Leadership Advancement Center in the Lucas Graduate School of Business, I'm really pleased to welcome you all here tonight to this very timely and special event with Nobel Laureate Joseph Stiglitz. San Jose State University prides itself in powering the Silicon Valley, one of the most innovative and entrepreneurial regions in the world and also a key player in national and global economics. For over the last four decades we've graduated about two hundred thousand men and women, the majority of which has entered the Silicon Valley workforce, so within that context we are delighted that Professor Stiglitz has agreed to return to this campus and share with us some of his more recent work, namely his new book entitled Freefall: America, Free Markets, and the Sinking of the Global Economy. It's my understanding, I apologize I haven't read it yet; my understanding that in the work he explains of course the current global crisis, the response of the Bush and the Obama administrations and the implications for our economic future.

As you know when you came in you were handed a 3x5 card and Professor Stiglitz has agreed to take questions at the end of his talk, so you are encouraged if you want to ask questions to write them on the card, ushers will collect them periodically during the talk and if you're lucky you'll get one of yours answered. Making an event like this take place takes the concerted effort of a large number of people and I don't have the time tonight to identify them all by name but I did want to express our appreciation for the work that was done to get this event put together on relatively short order on university time, that is as the university clock turns. Now it's my pleasure at this time to introduce the speaker who will introduce our speaker and that is Dr. Joyce Osland, she is the Lucas Endowed Professor of global leadership and the director of the Global Leadership Advancement Center. Dr. Osland is a specialist in international management with a focus on global leadership in Latin America management. She has lived and worked overseas for at least fourteen years in seven different countries primarily doing international development work, so at this time it's my pleasure to ask Joyce to come up.

JOYCE OSLAND: Good afternoon were delighted that so many of you came even when it was raining I was gonna make a comment about that but since our speaker is from New York I think he'll just think that we were wimps, that it's a big deal for us to come out in the rain. Before introducing Dr. Stiglitz I have to do a commercial right? So I want to tell you briefly about a new initiative that we have at the university. A few years back the RAM Corporation did a study and predicted a shortage of global leaders in all three sectors; business, non-profit and government and they encouraged universities to step up and start adding global leadership to their curriculum. San Jose State is one of the first universities to do that and we also have a new center, the Global Leadership Advancement Center, which we finally called GLAC, which has some new programs for students that were rolling out and not just for business majors it's for other students too. If you're interested in what were doing and our purpose is to advance global leadership knowledge and best practices, I encourage you to grab a brochure as you leave the auditorium they'll be a GLAC table on your left as you leave. I would also like to thank our sponsors for today, one of them you already met, Gerry Selter our Provost who realized that its not everyday that we have an opportunity to have a Nobel Prize winner on campus but I would also like to thank the funder of our Global Leadership center, Donald and Sally Lucas, an alumni couple who has been very generous with us. Now Don is with us today, do you want to wave, stand up Don? This would not have been possible without Don and Sally and also with Dr.Selter.

We know that you'll be allowed to ask questions but what you don't know is that if you're lucky and your index cards make their way up here the person asking the questions will be our very own Eloise Stiglitz, who's the assistant vice president for student affairs and she happens to be Dr.Stiglitz younger sister and she's been pestering him with questions her whole life so he should be used to this right? You might have received this on your way in if not you can pick this up on your way out. This is a memento postcard and students if you have a professor who wants proof that you were actually here today, this would be it and those will be at the GLAC table on your left as you leave. Now if you don't get to ask your question of Dr. Stiglitz, you can buy his book and that would be outside on the right, he'll be actually signing copies outside. This would be a good opportunity because it is sold out in many places. Dr.Stiglitz is the second leader in our Global Leader Speaker Series and we define global leadership as the process of influencing the thinking, attitudes, and behaviors of a global community to work together synergistically toward a common vision and common goals. For years Dr. Stiglitz has been trying to influence our thinking on globalization and on economics. The title of his topic today really could be I told you so! But he's too polite to come out to say or maybe he will come out and say that, I don't know we'll have to find out. One of the reasons I admire him so much as a leader is that he doesn't just write about it and talk about it he also has a very practical bend. After he wrote about the dangers of globalization, he followed that up with another book telling us how we could make globalization work. He pursued this practical bent as the Chief Economists at the World Bank and also as Clinton's chairman of his president's council of economic advisor.

He truly is a thought leader when it comes to economics, in addition to the Nobel Prize he also won the John Bates prize, which is for young influential,

impressive economists and according to Wikipedia he's the most cited economist in the world. Now I really hate to mention this to those of you who are working so hard to finish your undergraduate and masters degree at this university but he's been given forty honorary doctorates from universities. It is my great, great pleasure and honor to turn the stage over to Dr. Stiglitz.

JOSEPH STIGLITZ: Thank you very much and it's a pleasure to be back at San Jose again. As many as you may know economic profession is often called the dismal science and the last couple of years has been a field day for economists so what I'm going to do is basically is to share my current dismal view of the way the economy is going, how we got here and what needs to be done. I feel a lot better that this is a before dinner talk rather than after dinner talk cause you'll get indigestion if this were an after dinner talk. For doctor in medicine, doctors love very sick patients and study of pathology where people die from very sick, from all kinds of illnesses that give them an opportunity to understand how normal bodies' function and in the same sense economists love a very sick economy. This has us trying to understand what went wrong, gives us an opportunity to really understand how things normally work actually much better. What I wanted to talk about as I said this evening is a very brief description of how we got here, why it is what we did didn't quite work and what needs to be done. A very brief description of how we got there is pretty simple, we had a bubble and the bubble enabled us to live beyond our means. The one thing Americans were very good at doing is consuming, they took out actually almost 900 billion dollars in mortgage equity withdrawals that the bubble allowed, the result of this was that our savings rate fell to zero and it should've been cleared that that was unsustainable.

As one of my predecessors as the Chairman of the Council of Economic advisor once said is that which is unsustainable won't be sustained and that in fact is in a nutshell what happened but of course that isn't the full answer because that's not the way market economies are supposed operate. Market economy is supposed to be efficient, stable, and clearly something went wrong. That is the way in which my book is very different from the large number of other books not surprisingly that had been written about the crisis, most of the books that have been written about the crisis are books about who done it? What happened in the four days that Lehman Brothers collapsed or what happened in the four days that Bear Sterns collapsed, who said what to whom, what were the key telephone calls, you know what would've happened if the guy hadn't had to go to the bathroom at the critical moment and how history would've been different. All these are what a lot of the journalistic books have focused on and my book is really more a book about a battle of ideas and what were the ideas that lead to the bubble, what were the ideas that helped shaped our response after it broke, and what should be the ideas that help shape the way forward. The discussion of what went wrong obviously what has happened in the months, couple years since the great recession began is there's been a lot of finger pointing. Everybody agrees it was somebody else's fault that's the only thing they can agree on and there's enough of a disaster that there's plenty of blame to go around.

What I wanted to do is to spend just a few minutes pursuing out the blame. In my interpretation in my assessment, at the center is the failure of the financial markets and our banks. Financial markets have a very simple responsibility in our society. They're supposed to allocate capital, make sure it goes to where it has the highest return, they're supposed to manage risks, they're supposed to run a payments mechanism that enables our whole economic function and to do this all at well transaction costs. What our financial system did is to misallocate capital, they took the ample availability of funds and rather than allocating it to high investment returns that might've been the basis of a boom in our economy, allocated it to poor people and middle-income people to buy houses beyond their ability to afford. No government has ever miss wasted, misallocated as much money as our financial private sector has in the last few years and we should be clear about the massive waste of resources that have resulted from these failures. Total amounts if you look at the direct and in-direct consequences in the trillions of dollars, they also didn't manage risk very well they actually created risks, instruments like credit default swap these were instruments that were supposed to help manage risks. They were called innovations but in fact they were misused and as Paul Volcker has pointed out it's hard to find anybody not in the industry that can cite any relationship between an increase in productivity in our real economy and these so called innovations. They were actually in many ways undermining the efficiency of the economy they were directed at circumventing regulations, taxes and accounting standards in many ways making our economy work less efficiently. The third thing that the financial sectors are supposed to do is run the payment mechanism, which is necessary for as I say for the functioning of any modern economy, but modern technology has allowed for the creation of an efficient electronic payments mechanism but we don't have it in the United States.

We have a very inefficient and very costly payments mechanism, an efficient electronic payments mechanism would mean that when you went to a store and you want to buy something it would transfer money electronically from your account to the retailers account for a fraction of a penny but the way our non competitive, non innovative electronic system works, with debit cards, credit cards, is that they charge the merchant one, two, three percent or more of the transaction you don't see that because they're not allowed to tell you this but you pay for it, it shows up in directly in the prices that you pay. It's like a tax but a tax that doesn't go for public purpose but a tax that goes to the coffer of the banks. A few countries have begun to attack this to insist on more competitive payment mechanism but in the United States as I'll explain in a few minutes, that hasn't happened and so we have a payments mechanism that is far more less efficient than modern technology would allow but finally they were supposed to do all these things at well transaction costs that would be the mark of efficiency but in fact the transaction costs, the charges, the fees have been enormous. In the years before the crisis they garnered forty percent of all corporate profits and one way of thinking about this is the financial sector is supposed to be a means to an end, not an end in itself but we almost took it as an end in itself. It began almost dominating the rest of the economy and so it was the dysfunction in a sense of our financial market that really is at the root of our nations economic problems but as I tried to explain in the book when you think

about these problems it's a little bit like peeling back an onion. Every time you get an answer you have to ask why? Why is that? That's not the way market economies are supposed to operate and you have to ask why did the financial sector behave so badly and there is an obvious answer and that has to do with incentives. It's an answer that economists turn to because Economists don't agree about many things but the one thing they agree on is that incentives matter.

If you look at the incentive structure of the financial sector what you see is that bankers had incentives for short-sided behavior and excessive risk taking. In the years before the crisis culminated I was a little bit worried because I had been predicting disaster, somebody said I told you so, I'm not going to say that but this is from an academic point of view I was predicting that looking at their incentives, their behavior should lead to excessive risk taking, short sided behavior and that should have some very adverse consequences and it wasn't apparent at least to most people well now we can feel relieved the theory, the predictions of economic theory are born out, they behaved like they should behave with bad incentives so we don't have to rewrite our textbooks we can keep the old textbook that say incentives matter but of course the countries paid a very big price for this. There's also problems of what you might called organizational level, organizational incentives, the banks became too big to fail and when you're too big to fail you have perverse incentives because if you gamble and you win you walk off with the profits if you gamble and lose the taxpayers pick up the losses and which is exactly what happened, what we've seen had happened and they knew that and so they had the institutions had an incentive to engage in excessive risk taking and they really, really did. As I said as you think about this peeling back the onion you have to ask, well this doesn't make any sense don't we pride market economies in figuring out what are good incentives, in fact the banks always talk about how ingenious they are in thinking out incentives, why is it that the incentives that evolved seemed to be so perverse?

Well to get the full answer of that you'll have to buy the book. But to give you just a little bit of a hint part of the answer to that lies in a problem that economists refer to as agency, its an old problem, the fact that in 21st century economies are different from 19th century economies, the models the way we talk about 19th century economies is that you have an owner, somebody that owned his own firm, made decisions and when he made the wrong decisions he bore the consequences he made the right decisions he reaped the benefits but in 21st century and even late 20th century capitalism there's a very big separation of ownership and control not everywhere but in many of these large enterprises so those who are making the decisions are making decisions on behalf of shareholders but they don't bear all the consequences. So if you look at what's happened in some of the big banks for instances, the bankers, the managers have walked off with hundreds of millions of dollars but the shareholders and the bond holders have done very badly and so there is this more broadly problems of corporate governance, its a subject that got a lot of attention and this is really a case study in what happens if you have these problems of corporate governance where the managers do not act in the interest of the shareholders, bondholders, let alone society as a whole. Well actually we've known about problems in the financial sector or we should have known about that

because financial crisis have marked capitalism from the beginning but we learned something about it in the Great Depression.

After the Great Depression there was a study called the Pecora Commission, it looked into the causes of the Great Depression and it came out with a whole set of recommendations that led to a set of regulations including things like the Glass-Steagall act but a whole set of regulations, the securities and exchange commission. The effect of which was that we actually went through more than four decades in which we had no financial crisis the only period of this duration in the history of capitalism. But then memories are short by the 80s, the beginning of the 80s we said well we're in a new economy we're so much smarter than they were back in the 20s so we started stripping away these regulations and we did a very good job of stripping away the regulations and we resisted imposing regulations to deal with the new problems that were rising like those posed by derivatives and credit default swaps. In fact in 2000 we passed a law saying that regulators couldn't do anything about credit default swaps and other derivatives so we actually said to the regulators, one of whom was very concerned about these said you can't do anything about it. We should've known that there was a real problem, one firm Long Term Capital Management, its collapse threatened the whole global financial system and its failure was based on derivatives and even before that there were concerns after the failure it seemed obvious that you had to do something about it. The regulator of derivatives Brooksley Born said you had to do something but Greenspan, Summers, Reuben said no that would be interfering with the wonders of the free market and the result of it was they passed a law saying she couldn't or no one else could regulate these products which Warren Buffet has called weapons of financial mass destruction and that's what they turned out to be. Well again peeling back the onion the question is why did we strip away these regulations? Why did we not adopt regulations that were required? Before answering that, there's one more thing that I want to raise and that is that not only did we do that we appointed regulators who didn't believe in regulation so even if you have regulations if you have regulators who don't believe it, they're not going to enforce it and that became a very serious problem.

The chairman of the federal reserve board in the early 80's was Paul Volker whose name came to attention more recently, in terms of what the head of the federal reserve board is supposed to do, he did a fantastic job because we had had double digit inflation before he took office and he brought it down to a relatively low level and how was he rewarded by President Reagan? He was fired and you have to ask why? You know a stellar record normally you'd give him an A triple plus you know reward him and appoint him for life. Well the answer was he believed there was a need for regulation and Reagan wanted somebody who did not believe in regulation and he found somebody Greenspan. But the point I try to make in the book is we shouldn't focus on particular people because if those people hadn't been there, there would've been other people, there were plenty of people who didn't believe in regulations and he could've found a dozen others that would've done very similar kinds of things. Well what was the reason that there was such a strong drive to get rid of the regulations and have regulators who didn't believe in regulation? Well two parts to the answer, one was special interests, quite obvious the banks thought they

were going to make a lot of money or at least the bankers were gonna make a lot of money out of de regulation and they did for awhile but partly at the expense of the rest of us. They invested very heavily, they may have done a very bad job in investing financial capital but they did a very good job investing political capital and they got a very high return for their investments in political capital. There are five lobbyists for every congressman so he cant escape at any moment of time from some lobbyists from the financial industry and they make very large campaign contributions so that was an obvious you might say part of what was going on and a very important part but that part as I say is very fairly obvious.

The other part I want to stress is the role of economists, Kings pointed out that not only are interests important but also ideas. Ideas of economists have helped shaped the debate and in this particular case they provided sucker to, they provided a rationale to politicians, to regulators who didn't want regulations. It's a whole set of ideas that said that markets worked on their own, you didn't need any government interventions, government interventions just muck things up. We should've known that markets by themselves are not necessarily efficient that they are not necessarily self correcting after all we did have something called the Great Depression when one out of four people were unemployed and the Great Depression lasted for almost a decade. So that experience and many others should have told us that and in fact if you look around the rest of the world and you see what happened when we stripped away the regulations you have ample further validation of this of the risk of unfettered market. This is the first you might say experiment, instance where Americans have really realized the consequences but around the rest of the world these have become a regular occurrence since the period in which the regulations started being stripped away not only in the United States but in the rest of the world there've been more than a 125 financial crisis. It's more unusual for countries not to have a crisis than to have a crisis. The last major episode was 97,98 in East Asia, a global financial crisis and part of the reason as I write my book, part of the reason I felt so impassioned on these topics was I was very involved in the last set of crisis in East Asia and also the crisis in Latin America and there is a common pattern in all these crisis that have become all too common around the world. But actually research in economics, ideas have explained why it is that markets often don't work as well as those who believe in unfettered markets claimed.

The most important idea in economics probably, most influential idea is Adam Smith's Invisible Hand. Adam Smith said that the pursuit of self-interest leads as if by an invisible hand to societal well-being. It's a wonderful idea if it were true because it means that you never have to worry about ethics, the only unethical thing would be to be insufficiently selfish and so all you have to do is everyday wake up and say how can I be more selfish and by more selfish you can say well by pursuing my self interest I will be advancing the wellbeing of everybody in society. Just a wonderful idea, unfortunately it's not true and work done by Ken Arrow at Stanford at Gerard at Berkeley pointed out the limitations of the theorem and my own work with Bruce Greenwell at Columbia pointed out that whenever there is imperfect information or asymmetric information which means simply when somebody knows something that somebody else doesn't know, in other words always because

there's always imperfect information. Whenever there is this imperfect information the reason that the invisible hand seems invisible is that it's not there. Namely to put in another way the market is not in general efficient and we know the ways in which it's not efficient.

The reason I emphasize this is a market is the financial market and so why should we be surprised that we have problems in the financial market so from a theoretical point of view as we went into it this, these were results that were discovered in the late 70s early 80s, right before or at the time we were doing de-regulation the research was saying why we shouldn't be doing it, it was really an enormous contradiction. Another important idea that has helped shape work in the financial market is an idea called informational efficient market and that says that markets are efficient in transmitting information from the informed to the uninformed and that's wonderful because if it were true again, because it says that the market doesn't have to have everybody initially informed because the way it transmit information is that everybody eventually becomes informed and that happens very, very, quickly, almost instantaneously. Well if that theorem were true, if that result were true it would mean of course that there be no incentives for anybody to gather information because anybody who gather information would be at no advantage over anybody else and so while information would be efficiently transmitted there would be no information being transmitted and so the market would in fact be very inefficient. Well that's the kind of logical inconsistency that was actually verified by a lot of the empirical work but again those who were wedded to the theory that markets were efficient have essentially ignored these basic results. Anybody looking at this recent crisis finds it very difficult to reconcile what should be obvious with these hypotheses of rationality, which is so strongly engrained, and so much of the thinking in the free market tradition. It's almost impossible to reconcile what we observed with this hypothesis.

Let me just spend a few minutes giving you some examples of manifestation of behavior that, to put it globally were really just stupid and which laid behind a lot of the problems that we've been confronting. Let me just take a simple one which is that the loans were made, a lot of the loans required were beyond peoples abilities to pay but they said don't worry because prices are gonna go up and you are gonna be rich. The more you borrow the richer you're going to be and that was part of the bubble psychology, well there were two things that should've been obviously wrong with this. The first is that it defies the basic law in economics is the no free lunch, it says that there are two free lunches, you borrow as much as you can you and you live in a very nice house and you're gonna be rich by doing it, now in the face of it that should be disturbing but when a whole country buys that idea it is even more disturbing.

The second reason why somebody should've been suspect is that while the housing prices were soaring the income of most Americans was going down, GDP was going up that's true, GDP was going up year after year but by 2008 real income in the middle, median half people above half people below, median real income adjusted for inflation was 4 percent below what it was in 2000 so most Americans by 2008 were poorer, substantially poorer than they were in 2000 and of course people in the bottom were suffering even more but what we set in effect was very

simple, don't let these details bother you, consume as if your income was going up, you know it's part of the American dream, it's part of the American way of life. Just keep consuming even if your income was going down. Well there was one way of doing that which is borrow and we were very good at doing that and our banks facilitated that so they borrowed and the gap increased and that's how we got to the situation I described earlier of a zero savings rate, when we say the average savings rate is zero remember what that means an awful lot of people are dis-saving, saving negative amounts living beyond there means you know that's an average. Well it should've been obvious that with so many people borrowing as much as they could on this hypothesis that the house prices were going up forever were gonna be wealthy when interest rates were at 1 percent we should be clear that when the interest rates started rising as they inevitable would to 2, 3, 4, 5 percent, translated to mortgage prices, interests rates even higher that there would be a problem, the whole house of cards would fall apart and that's exactly what happened.

So in a way to me none of this was a surprise the only surprise was that it was a surprise to so many other people and that it took a little longer than I thought. Let me give you another example of a kind of irrationality that wasn't just that the people, ordinary American people but even a kind of rationality of people at the top like Alan Greenspan. When he was asked whether there was a bubble his response was, oh no, no! Just a little froth in the economy. Obvious reason why he said that was because if you believed in rational markets you can't have bubbles and he wanted to believe in rational market that was part of his basic almost underlying belief system so in his belief system there couldn't be bubbles and that's why when people asked him was there a bubble? He said no and obviously if you have no bubbles you're not going to do anything about a bubble and Bernanke had the same philosophy and economists, other economists said you know even if you had a bubble there's nothing you could do and that was obviously wrong, there were lots of things you could do and then they made is obviously the most absurd statement, they said well in any case it's a lot cheaper to clean up the mess afterwards than to interfere with the wonders of the market. Well I don't think anybody would say that today when the cost are in the trillions of dollar but I was talking about the analytic framework, one part of this analytic framework was that there could not be any bubbles and therefore there was nothing he should do or could do without interfering with the magic in the market but there was just another thing just in the narrow issue of risk analysis.

He gave a speech in which he encouraged in effect people to take out variable rate mortgages. What he said was if people had taken out a variable rate mortgage ten years earlier they would've done a lot better than with a fixed rate mortgage now what was so interesting, this is a little bit of an analytic proposition, I'll go through it very quickly. If you have efficient markets then on average the cost of capital if you take out a variable rate mortgage and a fixed rate mortgage should be exactly the same that's what you mean for by efficient market, they price out everything out correctly. The only difference between the two has to do with risks. Now Greenspan was right that if you had bought mortgages, a variable rate mortgage ten years earlier you would've done better and that was a very simple reason, markets are always looking in the past to make forecasts of the future. What

in the past interest rates have never been brought down to 1 percent but Greenspan had broken the ordinary laws, the way central banks had behaved, brought them down to 1 percent and because of his behavior those who got these variable rate mortgages were rewarded for doing it but then think about it with this point I made before, if interest rates are at 1 percent what way are they likely to go? The probability that they're going to go down by more than 1 percent is pretty low I don't know how many banks that you know will pay you to have a mortgage whereas the probability that it was going to go up from 1 percent is very high so it was a recipe for disaster that he was advising.

As I said if he believed in efficient markets, what he should've said is on average you're not going to be smarter than the guys in wall street who are trying to figure out how markets are working, your focus should be focused on what is the best risk product and the best risk product, the most safest thing for you is a fixed rate mortgage, you're not able to take the risks of interests going from 1 percent to 5 percent, you'll lose your home. That's the advice that they should've been giving but our financial sector all the way from the bottom to the top were giving people the wrong advice about how to manage risks and this illustrates the irrationality and you might say incompetence but also the fact that what was driving this were perverse incentives, not incentives to make the market better but perverse incentives to try to garner as many fees as possible and the bigger the mortgage, the bigger the fee, the more money they made. This brings me to the second part of my talk, what I've tried to do is very briefly describe some of the factors that contributed to the crisis, the role of the banks, the role of the incentives and the role of the ideas that laid behind it. There are a lot of other parties in what went on, the rating agencies, investors, but in a little amount of time I think I've tried to give you what I think is the central pieces. So where are we now? As I said before in the beginning I think we were not in great shape some people have said, well the recession is over after all growth has begun and in a technical sense the recession is over, economists define recessions as two quarters of negative growth and with growth becoming positive in the third and fourth quarter of last year technically the recession is over but for most Americans what they mean by recession is whether they could get a job and whether they are at risk of losing one, for most businesses what they mean by recession is whether they could make a profit, whether they could sell the goods that they are able to produce and in those terms we were far from being out of the woods.

The official unemployment rate is a little short of 10 percent but more than 1 out of 6 Americans who would like a fulltime job cannot get one now and the unemployment rate among particular social economic groups, demographic groups, is much, much higher. Among African American youth right now for instance, the unemployment rate is close to one out of two. We have social problems that are being created as well as economic problems, when we began the bank bailout I said this was trickle down economics you're throwing money at the banks and not getting money to where the underlying problems were. It was like a mass blood transfusion to a patient suffering from internal hemorrhaging and doing nothing about the source of the problem. Source of the problem where it began was the mortgages and if you look at that, that problem is still here too, the number of

mortgage foreclosures expected in 2010 is larger than in 2009 and 8. The numbers that are being forecasted are 2 and a half to 3 and a half millions this year and many of these people are losing with it, not only their homes but their life savings, their dreams, so that area is also a source of concern. Well why is it that given all that we did things haven't turned out better? I think the reason in large measure was that those shaping the policy were irrationally exuberant to put it more accurately. They didn't want to face how bad things were, after all many of these people were people who had help create the bubble, they had been responsible for the de regulations, they had been responsible for feeding the bubble so they didn't want to admit that they had made a colossal mistake and that there would be enormous consequences from these colossal mistakes and so the way they thought about it, you see this over and over again was there wasn't a bubble, the bubble was reality.

We were going through a temporary nightmare and if only people like me stopped giving speeches that were so dismal everybody would feel better and so they started talking about green shoots. What you're supposed to do is give people good feelings, tell them to go down to the shopping malls, spend more money, go back to your pofalent ways that you've always had and you'll feel better. And there probably is some psychology to that but the underlying reality was that the bubble, there had been a bubble, the bubble broke and they were poorer than they had been or they thought poorer than they had thought and so because so many of the policy makers had this vision of a short run economic downturn that we'll just say a few things we'll quickly get better and the economy will get back to this wonderful growth path all the measures were too small, too short in their range and now as we see how serious the problems are how long lasting they are likely to be, there are real concerns that it's gonna be increasibly difficult for us to get out of the mire in which we are now trapped. An increasing a sense that we are moving into what I call the Japanese style of ways. For those of you who didn't know what happened in Japan, they had a bubble too. Interesting following a few civilizations, we gave lectures to Japan to liberalize and they listened to us fortunately and the result of this was they had a bubble, the bubble broke and they have now after having grown very rapidly after World War 2 they've had two decades of stagnation. Unless something is done we are on the road to following something along that lines hopefully it wont be that long hopefully because our population growth is one percent, they have zero and it grows a little but our sense of well being may not be much better.

Let me discuss very briefly each of the major components of what we did and what we should be doing and show how we fell short and then what we ought to be doing given where we are. The first point was the stimulus and that was really, it's been just a year since the stimulus, this is the spending to stimulate the economy. There was a moment in which we could all say we are all Kingsly now, Kings was an economists who said that it was important that when the economy was weak to stimulate it by spending more. It worked, stimulus spending worked but it was too small. The administration thought we were going to have unemployment without the stimulus peak at around 10 percent and with the stimulus it would be brought down to 8 percent. In fact without the stimulus it would've been 12 percent, the stimulus has worked but only to bring it down to about 10 percent. At the time even

the chairman of the Counsel of Economic Advisors to President Obama said that we needed a stimulus of over one trillion dollars, that's what I thought, that's what a number of other economists thought but Obama was not given that choice. His team when they presented him gave him a choice between 800 and 600 billion dollars. Whether he could've gotten it through congress if he fought for it is obviously an issue of politics not economics but part of the problem was even with the stimulus it was not as well designed. About a third of it was tax cuts, we knew from the Bush tax cuts of February 2008 that they weren't going to work very effectively. The nature of the stimulus is that you have to spend the money. Tax cuts when people have an overhanging of debt, uncertainty in the labor market, people saved it. It's good for their sense of security but it doesn't succeed in stimulating the economy so that part didn't work.

Now what I advocated something that I think California audiences are very empathetic with was the notion that we ought to fill in the gap in tax revenue of the states because the states have balance budget frameworks which means when the revenues go down they have to either cut back expenditures or raise taxes. Both very difficult, both a negative stimulus and in fact if you look across the country as a whole the negative stimulus from the shortfall in tax revenues at the state level are about 200 billion dollars a years so over a two year period it really cuts out about half of the federal stimulus. The advantage of this is it gets money into the economy right away and it avoids cutback in basic essential services. I was talking to Gordon Brown about what they were doing in the UK and it was so interesting the contrast between what's happening here and what they're doing. What he pointed out is that they think it's a tragedy that young people particular can't get jobs and what he is committed, what the British government is committed is to making sure that everybody, every young person who doesn't have a job is in a training program or in the university because if you're not learning skills on the job at least you should be learning skills increasing your productivity in school and if you don't do that life prospects are going to be diminished and we know that. 20 years ago Europe went through a period of protracted high unemployment and it took it years to recover from that, technical term for those who know physics is a hysteresis effect, it's very hard once you been through an extended period of employment to get back into a good job so that was what was wrong with the stimulus. It worked but it just wasn't big enough, not well enough designed.

Second part of the problem as I mentioned before was the mortgage, again not big enough and not well enough designed because quite obviously the pace of foreclosure is actually getting bigger. Fundamental problem was they didn't recognize what had happened, the bubble that I had mention before that had broken, the result of it is that more than one out of four Americans with a mortgage are underwater, that is to say they owe more on the mortgage than the value of the property, they're negative equity. Well that's a very serious problem and we know when people are negative equity, particular with American style of non-recourse mortgage, the probability of a foreclosure goes way up, the probability of non-payment goes way up. We even know what ought to be done about it, about how to restructure it, I argue in the book for what I called a homeowners chapter 11, a way of restructuring these loans that would allow people to stay in their homes. Chapter

11 is a provision of our bankruptcy code that gives corporations a fresh start when they owe more money than they can pay and the idea is very important that you give a quick fresh start because you want to keep companies going to keep the jobs, to keep the value of the firm as an ongoing enterprise but keeping people and families in their homes is just as important as keeping companies going and giving them a fresh start and we could do it but the banks didn't want it, why didn't the banks not want it? Very simple, they had made a lot of bad mortgages but they didn't want to admit it so rather than deal with the problem the best way to do it, is hide it. And so they succeeded in changing the accounting rules so that even mortgages that are not current, that are called impaired could be treated as if they were just perfect and kept on the books as if nothing was wrong.

If you restructure the mortgage you'd have to realize that you made a lost and they didn't want to realize these losses because that would require them to get more capital and they didn't they didn't want to talk about that so that's the stalemate that we've gotten ourselves in, the mortgages likely to continue, foreclosures likely to continue a pace. The third part of what we did was in some sense the worse and that was dealing with the banks and there are two parts to this. One was the bank bailout; there are two things wrong with the way we did the bank bailouts. The first is we gave money to the banks without any conditions. When we reformed welfare for the poor in 1996 we said if you're poor and on welfare we impose some conditions, you have to look for a job or go into school. But when we gave money to the banks, they were on welfare, we didn't call it that but that's what it was, we put no conditions, they said trust us but we knew from what had happened that there was good reason not to trust them. And any analysis would say look at the incentives they have, they don't have incentives that coincide with what our interests are so they were supposed to get the money to start lending, that's what we were all told. We would give them money not because we love the banks but because its necessary to get lending started but they didn't do that, in fact lending has continued to contract. They used the money to pay out bonuses and dividends, how do you recapitalize the banks with money that as you poured it into the banks they poured it out? You can't obviously recapitalize the banks that way but they had an incentive to do exactly that and was actually predictable.

Other countries like the UK said no, we believe in accountability, the heads of the bank had behaved that badly they forced them go go but they also said you're not allowed to pay out dividends, you're not allowed to pay out these huge bonuses until you get recapitalize and you're really back on your feet. The second thing we did wrong is that when we gave them money they gave us pieces of paper back in return. Pieces of paper called preferred shares and warnings. I don't know if you remember the original bill that Paulson came to congress with, it was about a three-page bill that said give me a 700 billion dollar blank check and trust us that we'll spend it well. No congressional oversight, no judicial review. Well when I've been chief economists at the World Bank I've seen a number of crisis as I've said before, not an everyday occurrence but an every year occurrence and I knew exactly what as this began, this whole turmoil began, I was very anxious because what had happened in so many of these other countries in the midst of the turmoil, the bankers who are the cause of the problem used the turmoil to get more money back

from the taxpayers. Huge amounts of hidden transfer money from the public purse to the bankers who caused the problem in the first place. I didn't think it was going to happen in the United States, I hoped it wouldn't happen in the United States but when I saw this three page bill it was sort of like a public announcement, were about to rob you!

If I as chief economists of the World Bank and this had happened, that kind of bill had submitted to a parliament in one of the countries that we were giving assistance to, we would've cut them off from all aide, we would've said this is not good governance, this is unacceptable. Well fortunately Congress rejected it, said there has to be some accountability, we had a little bit of an auction, I don't know if you followed that. We were fifteen votes short, we put it up to auction and said how much will each of the Congressman required to change their votes. No one said our congressman come cheap; it costs us a 150 billion dollars in tax boondoggles for the Congressman to switch their votes. Average 10 billion dollars per congressman, not a bad price but the bill got through. But the good thing in the bill was they appointed a congressional oversight panel and they appointed a fantastic women to head it and she started looking at what was going on and what she discovered was, even with her overlooking their shoulders as Treasury, the feds were pouring money into the banks, we were getting back these preferred shares, we were getting back on average sixty seven cents for every dollar we gave, to put it very bluntly we got cheated and in some of the more recent ones we got less than fifty cents on the dollar. Why is that important? You know, everyone loves a banker, why not give them a gift but the reason of course is that if we had done a better deal, if we had been bargaining for the taxpayer, our national debt would be lower and the national size of the debt has now become the focus of a lot of discussion and hampering the ability to deal with all the future problems. And that brings me to the third major difficulty of the bailout. As we did the bailout we didn't have any vision of what kind of a financial sector we wanted, we didn't have any vision of where we were going in any of the programs.

As I mentioned in the stimulus we should've said what we want is a more dynamic economy, more educated population that's why we ought to be investing in education. Well in the financial sector it was clear that we had an over bloated financial sector but parts of the financial sector actually do a fantastic job. I've been critical of it, I call it the financial sector but parts of it are actually doing a fantastic job. The venture capital firms in America are the envy of the rest of the world and they supply funds for new firms that are as I say give us an important competitive advantage. There are lots of small banks, medium size banks that actually engage in lending to small and medium size enterprises that keep the basis of job creation in any economy but because we didn't have any vision what we did is we poured the money into the banks that were making all their money from speculations and we got a hundred and forty of the smaller banks go bankrupt in 2009 alone. So what we have now is a financial sector that is less competitive and less focused on those things that ought to be at the center of what a financial system does. Well that's one part of the financial sector; the other part goes back to what I said in the beginning. The financial sector has repeatedly gotten into problems, repeatedly been bailed out and to stop it we had to have pass regulations but then we de-regulated so the

obvious answer is now we ought to be re-regulating. Not the same regulations for the 1930s, that's 80 years ago but regulations that's appropriate for the 21st century. Unfortunately in the two years since the crisis began to really come to the floor we have done almost nothing and the momentum for regulations has really diminished. The banks are making profits, they're making lobbying, campaign contributions, they've made it very clear, they expect a return on their investments. And they've made it very clear to the politicians that if you don't, if you vote for regulation were going to switch our money to somebody who votes for de-regulations or to continue the status quo.

The regulations agenda is a very simple one and very clear what we need. I've gone through several of the elements already, we have to correct the incentives at the individual level, if we don't do that we'll have excessive risk taking, short sided behavior. We have to correct the organizational incentives; do something about the too big to fail banks, if they're too big to fail, they're too big to be and were just beginning to come to terms with this. But its not only the too big to fail banks, its too intertwined to fail, these banks are effectively subsidized by the government, it distorts the whole financial market because they can get funds at a lower interest rates than firms that are not effectively guaranteed. We have to do something about transparency; I mentioned how in the response to the crisis we actually reduced transparency by going through less transparent accounting. We need to do something about the credit default swaps. The bailout of AIG, one company, one company, costs us first 89 billion dollars then when nobody was looking we kept giving it more and more money so the total today that they gotten from us is almost 180 billion dollars. Now that's an amount that is hard to fathom and the reason I feel so intensely about this is that when I was on the Council of Economic Advisors we would debate for years, hours, days about this program or that program that needed a billion here or a billion there and we said we couldn't afford it. We looked around and we said inner city schools in America are decrepit, we have to do something about it but people like Reuben said we can't afford it. We looked around at problems of toxic waste in many of our cities and we said no we can't afford it.

There were so many things that we looked around and said we could've made a difference, a very big difference for a few billion dollars, a few billion dollars. President Bush vetoed a bill providing health insurance for poor children saying we couldn't afford it and it costs a few billion dollars and suddenly one firm gets 178 billion dollars and most of it we'll never get back. It's equal to the amount of foreign aide that we'll be giving to Africa over a quarter of century, it's equal to all the foreign aide from all the advanced industrial countries to all the developing countries over a period of two years. I mean these amounts are just hard to fathom and I dwell on it because it's so large that people have just swept the number aside and said oh yes it's a 178 billion dollars, go on to the next topic. But we should not forget about the magnitude of the money that has gone to one firm and what could've been done with this money. Well that problem was a problem with credit default swaps, that's what got that firm into problems and we haven't done anything or almost anything about that. It was over the counter credit default swaps, some statements, were gonna encourage people to trade on exchanges, no assurances that these exchanges will be adequately capitalize but in any case encourage is not

enough we should not allow these non transparent over the counter derivatives. Especially traded by banks that are effectively underwritten by the US government because they're too big too fail. I could go on but I think the point is clear there is a rich agenda of regulations.

Finally in January President Obama began outlining some of the things that needs to be done. Paul Volker has articulated an agenda, it's only about a third of what needs to be done but it's a beginning of a move in the right direction. The final comment that I want to make just very briefly, that while we have been focusing on these short-term problems, the recession, there are a whole host of long term problems that haven't gone away, they've gotten worse. Problems of climate change, problems of restructuring our economy to make it more competitive, changing global comparative advantage, moving, outsourcing, and manufacturing. Problems in our healthcare sector that everybody knows about, problems in our energy sector, a whole host of economic and social problems. The unfortunate thing is that the resources that we've had to deal with them have been greatly diminished at a magnitude that's a little hard for Americans to fathom. When President Bush became the present, our national debt was 5.7 trillion dollars, by ten years from now it's estimated that our national debt will be almost four times that amount. Now I don't want to dwell on the national debt because it's only one side of the balance sheet, there are liabilities, there are assets. If we spend the money to create a more productive economy, infrastructure, technology, education, then that's a good thing. Every firm borrows to enhance its productivity, to enhance its profit but the core worry is that too much of the spending, especially the bailout of the banks, some of the wars that we've been fighting, are not increasing our productability, are adding to our liabilities but not adding to our assets.

As I said before one of the problems, one of the mistakes that we made in dealing with our banks is that we didn't have a vision of where we wanted to go and I think that's a broader problem now. I think we need a vision of where we as a society, where we as an economy need to go. It should be shaping our stimulus; it should be shaping every one of the other aspects of our economic program, it's not just a piece meal or list, it really is a question of tradeoff, priorities, and balancing. And the final thought I want to leave with you is that in addressing these problems it can't be done just by the private sector. The big mistake that we made in the run-up to the crisis was that too many people believed that unfettered markets would by themselves lead to efficient outcomes and solve all our problems, that was the mistake. We need a balance between the market and the government, we lost that balance. If were going to address this issue of vision of where were going, were going to have to restore that balance and that in a way is the central idea of my book Freefall, thank you.