LONG-TERM INVESTING: AN OPTIMAL STRATEGY IN SHORT-TERM ORIENTED MARKETS

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Keynote Address

LONG-TERM INVESTING AND THE EVOLUTION OF CAPITALISM*

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PATRICK BOLTON: It's my great pleasure to introduce our keynote speaker this evening, Joseph Stiglitz, who is the Co-chair of the Committee on Global Thought. Of course, you know Joe in many capacities and for many reasons. Joe won the Nobel Prize in Economics in 2001 for his extensive work on asymmetric information and market failures. This is the Joe Stiglitz that I know, that most economists know, but there are many Joe Stiglitzes. Joe went on to have an extremely successful career in public policy and he was an author of the report on the Intergovernmental Policy on Climate Change, for which the whole team of authors was awarded the Peace Nobel Prize in 2007. Joe was also a member of the Council of Economic Advisors in the Clinton administration, and Chief Economist at the World Bank. All this time, he was writing articles and many very excellent books. He is better known to the outside world for books like *Globalization and Its Discontents*, *Freefall: America, Free Markets, and the Sinking of the World Economy,* and recently *The Price of Inequality: How Today's Divided Society Endangers Our Future.*

JOSEPH STIGLITZ: It is a real pleasure to be here. I just want to make a few introductory remarks and then open it up for questions. I want to put long-term investing in the context of the evolution of both capitalism and our thinking about capitalism as a market economy. Many of the models we use to think about a market economy were shaped in the 19th century, in a world where companies were owned by

* *Remarks have been edited for clarity.*

their owner and where the issues of agency were not so strong. But even in those early days, the issues of corporate governance began to be discussed—though not in that vocabulary.

One of the really interesting articles written at the end of the 19th century was by Alfred Marshall, where he was asked to summarize the achievements of the economics profession in the 19th century and the challenges in the 20th century. His view, of course, was that the great achievement of the 19th century was Marshallian Economics. But the unasked question was what makes corporations work. He recognized that his theory, as good as it was for describing a small company where the owner actually made the decisions, was not good for the capitalism of joint shared stock companies that were beginning to become more and more important. He asked what makes these corporations work, and if I were to summarize his answer, it was really based more on sociology than economics. It was the idea that well-brought up English boys—it was all boys and men—who went to good boarding schools learned all about doing things for God, King and Country, and it was just a very small leap to go from that to for God, King, Country and Company. You would serve the company, not for mercenary returns, but because it was your job and your responsibility.

This was a totally non-economic explanation of how corporations could actually function, and a far cry from both the theory and the reality of what's happened in capitalism over the last 100 and some years. Over time, the issues of the separation of ownership and control have become much more serious. In the 1930s, lawyers Adolf Berle and Gardiner Means talked about the importance of the separation of ownership and control and what it meant for the legal theory of property, but that work didn't enter into mainstream economics. We continued plunging ahead as if nothing had changed.

Over the last eight years, things have continued to evolve in this direction, except there is another layer to the complexity: not only are corporations run by people who are not the owners, but the investments are made by people who are managing other people's money. What has evolved is a type of what we call capitalism, or a market economy, characterized by a long agency chain, where everybody is doing work on the behalf of other people all the way down the line. My own work on the economics of imperfect and asymmetric information tries to place this notion of the separation of ownership and control on a theoretical basis and to point out that when you have these agency chains, there is enormous discretion for what can be called bad behavior. The longer the chain, the more opportunities there are.

It is interesting that a very distinguished Nobel Prize winner, who is not now part of the mainstream in economics, Herbert Simon, talked a long time ago about the implications of this. One of his statements that has not been given sufficient attention recognizes the nature of these agency problems in both the public and the private sector. In effect, he said that agency problems are pervasive in the public sector and in the private sector; one sector is not better than the other. The public sector often produces things which have more difficult problems of measurement, but that is also true of the private sector in some cases, such as in the financial sector, where measurement of performance is also very difficult. Where there is a well-defined performance measure, in principle, you can elicit better behavior than when there are not such good metrics.

The evolution of capitalism over the last 100 years has really made it very different from the kind of economy that we model in our basic economics courses. There are very different implications for performance and behavior. We have a new form of capitalism that goes beyond corporatism to what you might call financial market capitalism, where a financial market plays a central role and those providing the capital are not managing their own money, but other people's money. This financial market capitalism has not worked very well. If you have any doubt about that, you can look at the crisis of 2008. But it was not just the crisis. If you look at how the financial sector allocated funds and rated different bundles, its performance was disastrous. The loss of output as a result of that disastrous performance is now in the trillions of dollars. I sometimes put it provocatively that outside of wartime no government has ever wasted money on the scale that America's private financial sector has—not necessarily an achievement!

On the other hand, a very different form of capitalism, one that we also don't fully understand, has evolved in China. It is different in that ownership is often ambiguous. For example, there are Township and Village Enterprises (TVEs), companies that are owned by the township and village. In this system, we don't even know what it means to be owned. It is a very different kind of capitalism from American- and European-style, Marshallian capitalism.

Looking at performance in terms of GDP and reduction of poverty, this new kind of capitalism has done a lot better. In fact, in terms of performance for most citizens, American managerial capitalism has had a really dismal record. The median wage of a full time American male worker today is lower than it was in 1968, more than 40 years ago. While there has been growth, a large fraction of Americans have not participated in that growth. Median income for a family household is now lower than it was in 1995. If median wealth of the average American is down to the levels that it was in the early nineties, all the increase in wealth essentially has accrued to those at the top. So in terms of how we assess whether an economy is doing well, certainly one of the metrics that we would want to use is how the representative or typical individual is doing, and the answer to that is not very well. On the other hand, as I say in the case of China, this version of state capitalism that we don't understand has succeeded in reducing poverty by some 400 or 500 million people, the largest poverty reduction program ever, along with growth that has been sustained over 30 years at close to a 10% rate. No one knows whether or for how long it will continue, but what is clear is there is another model of capitalism that has now worked long enough that it has had very big impacts on large numbers of people.

Our standard models do not fully explain this. At the same time, in the United States and Europe we do not have the kind of simple, Marshallian model of capitalism that we teach. Both of these are models of, versions of, economies marked by agency problems, and there are different ways of addressing these agency problems.

We have come to realize that there are a whole variety of persistent irrationalities in market participants. The model that again has been the dominant paradigm is that everybody is rational and has rational expectations. When you look at the 2008 crisis and at the behavior of millions of participants, you cannot reconcile what happened with rational expectations. What you can do is to say that there are rational people who were very good at exploiting irrational people. I think this is an important lesson: One of the advances or innovations in our economy is the ability to exploit irrationalities. When I say irrationalities, I mean a whole set of people who do not understand markets fully—from people who are financially illiterate to the Chairman of the Federal Reserve.

Let me just give you one example. You may recall that the Chairman of the Fed encouraged people to buy adjustable-rate mortgages. The argument he used was probably his second worst argument.

His worst argument was his advocacy of the tax cut for the rich in 2001, in which he said it was imperative that we give the tax cut to the rich because the country faced an eminent national disaster, because Clinton had left a legacy of a 2% GDP surplus. If that continued we would pay off in short order the entire national debt and it would be impossible for him to manage monetary policy without any Treasury bills. He said it was imperative to act now before this calamity occurred. I always thought that was the worst argument that I ever heard. If we were on the verge of paying back the national debt at some point in the future and the Fed chairman went to Congress and the administration saying that we have a problem with monetary policy unless we spend more or cut taxes, I cannot conceive that they would say, oh no, we refuse to cut taxes or increase spending. I think they would find some way of cutting taxes and increasing spending to respond to this national emergency. Well, the consequence was that argument was a critical voice in getting the tax cuts passed, which are one of the four contributors to our current budgetary issues.

His second worst argument had to do with advocating adjustable-rate mortgages. He argued that if you had bought an adjustable-rate mortgage or you borrowed with an adjustable-rate mortgage in 1995, you would have been much better off in 2003 than if you had gotten a fixed-rate mortgage. That's true, but why was that true? It was true because Greenspan had lowered interest rates to levels that had never been seen before, and markets could only anticipate things that were historically in its distribution. It was because of his action that the short-term interest rates were so low and the variable-rate mortgage would have done so well. It was not because of any rational calculation. In fact, when the interest rate came down to 1%, what you could have predicted about the likely maximum of the fallen interest rates was not very great.

It was a one-sided bet: it could not go down very much, but it could go up a lot. So what he was telling them, in effect, was that if you believed markets were rational—which those people did—and unless you had inside information—which only he had—the market rates for the long and the short should be roughly equivalent. The only difference is that by going short and doing a variable-rate mortgage, you were inducing volatility. In markets with capital market imperfections, where you can't go to the bank overnight and say I'm sorry I want to get a new mortgage when the interest rates go up, you end up in a difficult situation. It was this situation that led to literally 7 million Americans losing their homes and many more in distress.

This is a little bit of a digression to emphasize that even seemingly fairly sophisticated individuals do not understand risk management. If the Chairman of the Fed doesn't understand risk management, how can you expect somebody who doesn't have a high school education or just has a high school education to understand it? But that means that there is an enormous scope for sophisticated people to exploit others, and that has been one of the real innovations in our financial sector. They really perfected the ability to exploit.

The scope and breath of these potential instances of exploitation going all the way to misrepresentation is remarkable, but so is the slowness with which we come to understand them. Let me give you another example from events of recent times. You may remember this quaint notion of the LIBOR, the London Interbank Offered Rate, on which $350 trillion of derivatives and hundreds of billions of dollars in mortgages are indexed. Now, do you think the London Interbank Offered Rate represented the rate at which banks in London lend to each other? I might have called for hands, but I didn't want to embarrass anyone. The name sounds like it is the rate at which banks lend to each other. Many people still believe that that market still exists and derivatives are still indexed to this number. But we should have known in 2007 and 2008 that it wasn't what it said it was, because in 2007 and 2008, bank lending dried up. There was no interbank lending. If you have no interbank lending, how do you have a rate at which banks lend? You can say there is a concept of what banks would lend to each other if they were willing to lend, but once you get into that realm, you are in the realm of manipulation. If you actually look at the microeconomics of how the rates are set and the role of a few intermediaries in this rate-setting process, one realizes that the system had been rigged for a long time. With that rigging, it was not only possible to manipulate rates, they did manipulate rates. That continues today.

As another example, if you look at those London Interbank rates, there is no relationship between those rates and metrics of the riskiness of the banks as measured, by for instance, credit default swap (CDS) spreads or bond interest rates. The Bank of America is willing to tell us that the CDS spread has gone through the roof, so it can borrow from other banks as if nothing had happened. If that is true, it is a statement about rationality of markets and market imperfection. Again, we can almost be sure that this is a floating number.

I emphasize all of this to highlight that this new form of financial managerial capitalism is not necessarily directing resources and energy to making our economy or our society more efficient. But it has had some very big consequences that I want to finish my remarks on. The big consequence is that it has encouraged short-termism. Keynes worried a great deal in general theory that short-term speculators focused on short-term returns, which undermined long-term investments. If markets were perfect in this efficient market hypothesis, then there should be no real discrepancy between short-term and long-term, because the long-term is nothing more than the sum of the short-term. If, for example, you plant a tree, the market would give you return between today and tomorrow reflecting the fact that the tree has grown between today and tomorrow. Even if you're a short-term investor, as that tree grows, you will get a return. If markets were perfect, focusing on the short-term would not necessarily be inconsistent with the long-term. But markets are not perfect. That is part of the big lesson. There are very large discrepancies between social returns and private returns. There are ways in which enhanced capital can manipulate markets, for instance by giving information that is a fake signal of how well they are doing. The result is that innovation does not go into making the economy perform better over the long-term, but into increasing short-term private returns.

The irony is that as capitalism has evolved, our market economy has evolved. Many aspects of the agency chain that I described before have increased the problem of short-termism, relative to what it was 70 years ago when Keynes was writing about it. The problems I think are clearly far worse today than they were when he writing. The dangers of this short-termism are much greater, because there are many investment research projects that are long-term in nature and could only be done with a long-term horizon. For instance, development, in general, is a long-term process, so somebody like me who is very concerned about it must have a long-term horizon. That was something that was manifested very early and led many countries to create development banks, because the private banks were interested in short-term lending, not in long-term investments that were necessary for the development process.

One of the real challenges facing the world today is climate change. Climate change is a long-term challenge. If you use the kind of short-termism that many in the market follow, you might discount the future at 10%, because anything out there more than 30 years is of no interest. We leave that for another day, but there won't be another day if we discount the future at those rates. Frank Ramsey made a very strong argument that we shouldn't be discounting at all and that ethical considerations mean that we ought to give weight to the future generations as much as we do to the current generation. Whatever your view on this is, it is clear that this kind of short-termism will not be able to address long-run problems like climate change.

This brings me back to one of my hopes for sovereign wealth funds and other long-term investors. I hope they will begin to think about these long-term problems, and that they might reflect their agents, which are states that ought to have a long-term horizon. In reflecting their owners—society more generally—they will take a long-term perspective. But if they are going to do that, then they have to behave differently from the short-term financial institutions. They cannot just borrow their benchmarks or judge how well they are doing relative to those in the financial sector who have cultivated the short-termism that has had such an adverse effect on our economy. To me, we are in an exciting period because we have had the success of the growth of a large amount of capital in sovereign wealth funds, some of which have been very explicit about taking a long-term view. My hope is that others will join them in realizing that we have to address these issues from this long-term perspective.

FURTHER DISCUSSION

BOLTON: Joe, I want to ask a question on something that came up during the panel, which I know you have thought a lot about and on which it would be interested to hear your view. Earlier today, someone asked the panel about Europe, which is another potentially long-term problem that we will have to deal with, though maybe not as severe as climate change. What changes does Europe have to bring about for global investors to come back in and be willing to invest? What should Europe to do to regain the confidence of the global capital market?

STIGLITZ: There are actually several things. Taking Europe in a broad sense, it has to reverse the policies of austerity that are leading, predictably, to recession. The OECD just recently made its forecast for 2013 and said that Europe will remain in recession. This is not a surprise to any of us who looked at these programs of austerity, which have never worked. This goes back to systematic irrationalities we were talking about before in the financial market. There are irrationalities in other areas as well. Herbert Hoover believed that contraction would lead to the restoration of the economy, and it converted the stock market crash into the great depression. After that, the IMF tried its experiment in East Asia and Argentina. One of these irrationalities is that after all these experiments—many of them involuntary, with the same consequences—that people have not learned. We are now seeing these experiments all over Europe. There have been a few small countries that have cut back public expenditures and, at the same time, have had trading partners that have grown robustly, so that exports filled the gap of the short-fall in government spending. That is particularly true with flexible exchange rates. But with global growth slowing down and with Europe not being a small country, but several large countries, and with the countries within Europe having fixed exchange rates, the prospect of austerity working is close to zero.

The second thing that needs to be done is structural reform. The real problem is the structure of Europe, not the structural reforms in the individual countries. Basically, the framework of the Eurozone is fundamentally flawed. Many of us recognized that in the beginning, but I think these fundamental flaws have come out very strongly in the last two or three years.

Let me just give two examples of what I call a fundamental structural flaw. They have a framework which allows for free mobility of capital anywhere within the Eurozone, but with banking systems that are national in character. Now ask yourself, if you had your money in Euros would you feel more confident keeping your money in the Spanish bank or putting it in a German bank? A general observation of which there is empirical evidence is that the government backs any banking system. After the crisis of 2008 money flowed into the American banking system. Did it flow in because it had demonstrated that it could manage risk well? No, it had demonstrated quite the opposite. It had been the source of the global problem and it had demonstrated incompetence. But why did money flow in? Because everybody knew that the US government had deep pockets and it had shown a willingness to bail out those banks. It said it would begin with $700 billion, but everybody understood that that was just a first offer, and if it needed more, more would be forthcoming. So that's where the money went.

Right now, if you look at the spreads on banks and on the sovereigns on each of the countries in Europe, they are almost perfectly correlated. That means that when people put their money in the bank, they understand that what really keeps the bank going is the sovereign. If the sovereign is getting weaker, money is going to leave the sovereign, so now money is leaving Spain. But then what happens? It is not just austerity that is bringing Spain down. As money leaves, you have the combined effect of austerity and a credit crunch. It is not just austerity, but also the credit crunch, and the two then reinforce each other. The system is dynamically unstable. Money starts to leave, and as it leaves Spain, things get worse and then even more leaves. That is dynamic instability. If nothing happened, maybe it would have worked out. But economies are always buffeted by shocks, so it was inevitable that there would eventually be some shock and that the equilibrium would be disturbed. Once that happened money started leaving. It has been leaving Greece, Spain, and Portugal, and it could start leaving some of the other countries.

A second example of what you might call dynamic instability is debt. Pre-labor mobility, an idea that sounded like it would lead to greater efficiency, was based on the premise that wages correspond to productivities. But they don't. Particularly, there is one big gap called taxes. Part of taxes is your liability for paying inherited debt. Think of yourself as a young person in Ireland, where you have an enormous inherited debt of 130% of GDP, inherited because the European Central Bank (ECB) insisted that Ireland socialize private banks' debts. It was totally unjustified, but the ECB insisted on it against the advice of many people. What does that mean? The talented people leave the country. As they leave, the debt burden on the remaining people gets bigger per capita. What does that mean? Greater incentive to leave.

These unstable equilibria that have been created were evident in the beginning, but the effects have just been realized. Moving away from austerity, at least two structural reforms are needed. There must be mutualization of debt, which could take on many different forms. The second is a common banking system, not just common regulation which Germany is willing to have, but common deposit insurance and common resolution. Unless you have that, you have this instability that is so evident, and as long as you have that instability, it is going to be very difficult to attract investors into Europe.

BOLTON: What about the LIBOR?

STIGLITZ: One can understand why you would want an index and why you want it to be indexed to something that cannot be so easily manipulated. You want it indexed to something observable and non-manipulatable. The number that I would probably go toward is the U.S. Treasury bill rate. That is a much bigger market, and it is still manipulated by the central bank, but in the same way the LIBOR is effectively indirectly manipulated. The T-bill rate and the LIBOR rate move very closely with each other, so you have to ask if there is any significant social benefit for using the LIBOR rather than the T-bill rate. For most individuals, there isn't. If those two rates were not exactly the same, we would know we had a real LIBOR, but we are not going to get a real LIBOR, and therefore, the loss you get by going to a T-bill is relatively small.

AUDIENCE QUESTION: I completely agree that there has been a certain amount of capital misallocation by the private sector of the last cycle. It's not that the public sector is innocent in this, in the context of the policies of the state, of housing, and of the real estate market. In Spain, for instance, it happened in the context of a financial sector to a large extent dominated by the regional banks backed by the state. So it's not that the public sector is completely innocent, and I'd like to know your comments about that.

STIGLITZ: In my mind, the main failure of the public sector was in not circumscribing the private sector from doing what it has done repeatedly. The interesting thing is that there is nothing really that unusual about this housing bubble. There are housing bubbles all the time. Now, you have those on the other side saying that markets have always been efficient, but the fact is that when you look over the history, you see that this has been part of capitalism since the beginning. You do not need a public sector Fannie Mae and Freddie Mac to explain excessive volatility in the housing market.

Secondly, whether the Fed lowered interest rates too much or not, if financial markets were working well, this would have been a great opportunity. Can you imagine my saying to you that the reason I lost money was my workers were willing to work for me at too low of a wage, and because they were working at too low of a wage, I squandered my opportunity? If a firm said that, you would have laughed at them. What did the financial markets say? The reason we behaved so badly was our major input, the cost of capital, was too low, so we decided to squander capital, rather than using capital in ways that would lead to good investments and sustained economic growth. It would have been an opportunity for our economy really to retrofit for global warming, to invest in an enormous amount with high social returns. You cannot blame any part of the government for having done that.

The third point is that there is some evidence that home ownership has social benefits, and that people who own their home do better, they are more involved in schools, their kids do better and so on. No one ever said, we want people to move into a home beyond their ability to afford, so that one month later they'll be out of a home. That was not part of the social agenda. Instead, we made a big mistake—we trusted the banks. We wanted them to find a home appropriate for each individual. We thought the private sector was good at making risk assessments; instead, they were good at exploitation. A public sector agency, the New York Housing Authority had actually no problem sticking to its 30 year mortgages and then had no problem throughout the crisis. The problem is that Fannie Mae and Freddie Mac were privatized in 1968—40 years ago—and that was a mistake. In my mind, there are problems caused by "too big to fail," and that included not only Fannie Mae and Freddie Mac, but the big banks. We have not fixed that problem.

We also continue to allow incentive structures that were designed to encourage the excessive risk-taking and short-sighted behavior that is part of modern managerial capitalism. If you look at the incentive structures, they were not shareholder maximizing. They were not good incentive structures. Anybody who studies incentive structures over the last 30 years has said that. To give you an example, if you want an incentive structure that mitigates risk and provides high-quality incentives, you do not want to reward somebody if the stock market is going up because interest rates are lowered. He did not contribute to the lower interest rates that led to the stock market bubble. If you're running an airline company and the price of fuel goes down, leading to a big input, and shares go up, the CEO did not do that. What you want to do is have incentive structures that extract resources. One way of doing this is relative performance compensation schemes. I have co-authored a number of papers describing versions of this, and there has been no interest in the private sector in designing better incentive structures. To go back to what Marshall said, it used to be that people who made $5 million for running a company thought that was adequate for them doing their best job and putting in all their effort. Now the rational is that if that person only makes $5 million and does not get a bonus, he'll spend half his time on the golf course. I do not find that totally credible.

AUDIENCE QUESTION: My question is about inequality, the topic of your recent book. It seems that technology doesn't feature prominently in your thoughts on this matter, even though arguments have been made that it is essential. I'd like to know what you think of that.

STIGLITZ: There are many aspect of inequality in the United States and Western Europe having to do with a decreased share at the very top, hollowing out of the middle, and increased poverty at the bottom. Each of them has their own explanations. Part of the explanation for why the middle has done so poorly is a skill-bias technological change. Another part is globalization, in the way that it's been managed, which is asymmetric. But there are other factors, like the weakening of the unions and of social protection. One of the points I make in my book is that technology and market forces are global and yet the outcomes are distinctly national. America has performed worse in each of these dimensions than other advanced industrial countries. We have the least equality of opportunity and the most inequality. Yes, market forces are there, but why have they played out in the United States in different ways? That's what I focus on in my recent book. Certainly when you look at the top, some of the problems that I've been talking about play a particularly important role, like corporate governance. Others countries have been imitating the inequality we have at the top, but we clearly have been the global innovator.