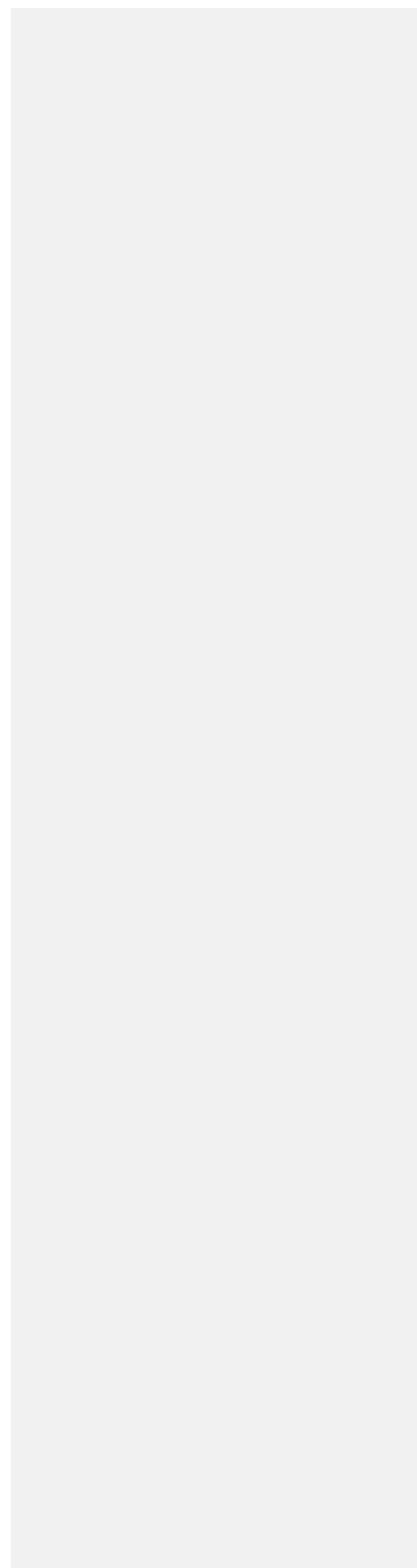


**Animal Spirits and the Economy**

**Growth Commission**

**George A. Akerlof and Robert J. Shiller**



**I am tremendously honored to be asked to speak at this meeting of the Commission for Growth and Development.**

**I have been asked to speak about my recent book with Bob Shiller, which is *Animal Spirits: How Human Psychology Drives the Economy and Why It Matters for Global Capitalism* with Robert Shiller.**

**I want to note at the beginning that my talk will be more abstract than the book.**

**The book has a large number of stories, and we make our points largely in terms of those stories.**

**I am going to concentrate my remarks on how we got into the current economic and financial crisis.**

**I will also concentrate my analysis on the United States, since I believe that the US is at the epicenter of the crisis.**

**Governments the world over are working to solve it.  
And they are enlisting economists to guide them through it.  
Economists rely on their vision of macroeconomics.  
Much of that vision comes from Keynes.**

**Getting it right then calls for a correct vision of how the economy works.  
The role of *Animal Spirits* is to provide such a vision.**

**XXXXX SLIDE (Role of Psychology) XXXXX**

**Current versions of macroeconomics greatly play down the role of psychology in the macroeconomy.**

**But, as we show in our book, there are at least eight fundamental macroeconomic questions whose answers depend largely, although not entirely, on the role of psychology.**

**So the first task of the book is to explain the role of psychology in the macroeconomy, and in answering these eight questions.**

**Keynes called this the role of people's *Animal Spirits*.**

**The first part of the book describes five different Animal Spirits.**

**They are: confidence, fairness, corruption and bad faith, money illusion and stories.**

**The second part of the book describes how these *animal spirits* play a key role in the answer to these eight macroeconomic questions.**

**These questions are as fundamental as why the economy fluctuates as much as it does;  
why and how monetary and fiscal policy affect the economy;  
and why there is involuntary unemployment.**

**Let me review just briefly how these concepts indicate how we have gotten into the current crisis.**

**Then I will review some of the particulars of the crisis in the United States.**

**XXXXXX SLIDE (Confidence) XXXXXX**

**The first of these *animal spirits* is *confidence*.  
The dictionary tells us that confidence means *trust*.**

**But *trust* means that people go beyond the usual rational use of information to make judgments.  
And that is just what we found in the boom that just ended.**

**People were making all kinds of business investments.  
Especially they were purchasing, and selling, complex financial instruments,  
on the basis of their trust.**

**This was not just in the housing and mortgage market.**

**It occurred in financial markets much more generally.  
Furthermore, they would not have made these investments if they had  
rationally analyzed the basis for making them.  
They made them because they were *confident*.  
As it turns out, they were *overconfident*.**

**Let me now describe the role of *corruption and bad faith*.  
Very few economists foresaw the problems that were developing.  
The standard view among economists was that private markets would be self-  
policing.  
It assumes that people would be knowledgeable buyers and sellers.  
They would only undertake increased risk if they were duly compensated by  
higher expected returns.**

**Thus, there was little worry about the absence of regulation in both the  
securities and real estate markets.**

**But, this self-policing view does not take appropriate account that people were  
overconfident.  
And therefore they did not do the self-policing that they were supposed to do.**

**There is a principal of capitalism which means that capitalism will take  
advantage of overconfidence.**

**XXXX SLIDE (Snake Oil) XXXXXX**

**It is true that capitalism will produce what people *really* want, as long as firms  
can make a profit.**

**XXXXXX SLIDE (Snake Oil II) XXXXXXXX**

**But, more subtly, and more generally, capitalism also produces what people  
*think they* want, as long as firms can make a profit.**

**Unregulated capitalism may produce good medicines that cure our ills.**

**I believe it will.**

**But unregulated capitalism also produces snake oil that does not cure our ills. It may even find it profitable to produce the desire for the snake oil itself. In fact that is one major reason for the Food and Drug Administration in the United States.**

**It protects us against buying snake oil medicine.**

**The book is full of stories, and one of the stories is relevant to this.**

**William Rockefeller, the father of John D. Rockefeller the first, in the 19<sup>th</sup> Century would tour the US Middlewest in his buggy.**

**And when he reached a new town he would go to the Town Square, give a talk and distribute flyers saying that Dr. Rockefeller was in town. He had the miraculous cures.**

**Then he would repair to the best hotel suite in town and sell his wares to those who came for the cure to their ills.**

**Indeed, the contrast William Rockefeller and his son is apt. William was selling snake oil, and represented one side of capitalism, whereas in contrast John D. sold real oil, which really did satisfy people's wants, and represents the productive side of capitalism.**

**The principal of snake oil has special relevance for asset markets. Assets to most people are only pieces of paper.**

**Most investors surmise the value of financial assets from what others, such as accountants and rating agencies, tell about them.**

**These accounting and rating agencies also have their own incentives.**

**And those incentives are not fully aligned with the public's interest.**

**And so when people are overconfident, financial markets tend to produce assets that take advantage of that overconfidence.**

**If unprotected by effective regulation, people will be sold snake oil assets.**

**And an industry will arise to produce them.**

**This is what we have just seen in Wall Street and beyond.  
XXXXX SLIDE (Stories) XXXXXXXXX**

**There is a further *animal spirit* which bolsters the previous two.  
People act and think and live according to stories.  
That goes for their economic decisions as well as their personal decisions.**

**And there is usually a story about how the economy is behaving as it does.  
These stories have some grain of truth, but they often are overexuberant, on  
the one side, or too pessimistic on the other.  
10 years ago there was the dot.com story.  
In the recent past there was the story that financial engineering could make  
financial assets much more safe than the underlying securities.  
Modern finance financial packaging had figured out ways to reduce risk.**

**People bought into these stories.  
They were overconfident.  
And markets took advantage of those beliefs to sell them what has later  
proved to be snake oil assets.**

**XXXXXX Why does the economy fall into recession XXXXXXXX**

**These three *animal spirits* then explain how fluctuations in human psychology  
play a key role, in why the economy fluctuates as much as it does.  
We think that is *the key* role in business cycle fluctuations.  
The confidence comes and the confidence goes.  
The stories come and the stories go.  
The snake oil comes, and also goes.**

**We think that the current financial crisis is explained exactly by such  
fluctuations.**

**That is one major thrust of the book. It tells us the origins of the current  
financial crisis.**

**XXXX Slide Why Does Fed Have Effect: Insofar as It Does? XXXX**

**Let's now apply these principles to the current crisis.**

**I am now going to talk about the US, which is what I know most about.**

**I think that it is also especially important here, because I believe that this is a crisis that is centered in the US, but that the same over-exuberance, for the similar reasons, has infected the whole world.**

**So let's turn to the US.**

**XXXXXX SLIDE What are the powers of the Fed? XXXXXXXX**

**There are limitations to the power of conventional open market operations. They occur when short term interest rates have been driven down to zero.**

**But then the Fed has other powers, which is to lend out money directly.**

**In the 1930's the US government finally took decisive action to prevent the occurrence of bank runs.**

**XXXX SLIDE Four lines of Defense XXXXXXXXXXXX**

**It established a monetary and financial system with four lines of defense.**

**The first line of defense was bank regulations.**

**Typically these are capital adequacy requirements.**

**As a second line of defense, if that fails, the Fed can use the discount window, which is effective, in a liquidity crisis, or in a bank panic.**

**There is also a third and fourth line of defense.**

**Deposit insurance means that people, even in a failing bank, have no special reason to take their money out.**

**So there will not be a bank panic in the first place.**

**But there is yet a final line of defense.**

**That is, if a bank should fail, then the Government automatically has legal standing.**

**As the issuer of the Deposit Insurance, the FDIC becomes the automatic holder of the defaulting bank.**

**As a result, the government can take over the bank and conduct an orderly disposition of its assets.**

**These four lines of defense mean that, if the formal banking sector dominates financial markets, no major liquidity problem will arise.**

**But over the past thirty years there has been a huge growth in a shadow banking system.**

**Shadow banks are financial intermediaries that behave as if they were a bank, but technically are not.**

**These entities borrow short, very much like taking in bank deposits, and then hold long-term portfolios.**

**This whole shadow banking sector, with trillions of dollars worth of assets, had few (or none) of the four lines of defense.**

**Since the 1970s the system of finance had greatly changed two other ways.**

**First, it had become common for the originators of loans to subsequently securitize them and sell off the different tranches of the payments of those loans.**

**Second, people had also discovered that they could buy derivatives that would protect them against risk on these securitized loans.**

**XXXXX SLIDE Current Crisis XXXXXXXXX**

**As long as there was confidence, there were no problems.**

**These markets were liquid.**

**But as soon as we lost confidence, institutions like hedge funds, bank holding companies, and investment banks have been unable to borrow the funds they need.**

**And they are suspicious of lending to the shadow banking system.**

**They also lack the capital to do so.**

**XXXX Slide XXXX**

### **Implications for Current Crisis**

**So what should we do about it?**

**Here Bob and I offer have some suggestions based on our analysis regarding the role of animal spirits.**

**Our analysis so far explains how we got into the current crisis.**

**Our previous unwarranted confidence has disappeared.**

**Suddenly stories went from the wonders of home-ownership to stories about snake-oil houses and their snake-oil mortgages.**

**The shadow banking system, which depends on borrowing short and lending long, is now threatened in this crisis.**

**In our view, which also underlies the economic philosophy responsible for the set-up of the Federal Reserve and also the Employment Act of 1946, the government and/or the central banks have a responsibility for maintaining the *macroeconomic* conditions that underlie a healthy capitalism.**

**On the one hand that means that aggregate demand should be maintained at a level close to full employment.**

**But such an aggregate demand target is not sufficient in the current collapse.**

**Because it is not just a decline in aggregate demand that has occurred.**

**It is also a loss in confidence.**

**There is a view that all we need to do now is to give the banks enough capital so they do not go bankrupt.**

**But that view is naïve and wrong.**

**The shadow banking system, securitizations, and derivatives were serving a function for the economy.**

**This was the way in which much of the economy's credit was being generated. The originators of the loans initiate them. They would not hold the loans themselves, but, instead, would pass them on to be securitized.**

**But with the loss in confidence, the trust in this system collapsed.**

**It cannot be put back together again.**

**It is a case of Humpty Dumpty.**

**Remember who Humpty Dumpty was.**

**Humpty Dumpty was an egg.**

**He was fragile.**

**So when he fell, all the king's horses and all the king's men could not put Humpty Dumpty back together again.**

**Our previous financial system depended on confidence that was fragile.**

**There has been a collapse of the credit system in the US and in much of the rest of the world.**

**An indicator of that in the US is the fall in commercial paper outstanding.**

**Since July 2007 it has fallen by more than 25 percent.**

**[<http://www.federalreserve.gov/releases/cp/outstandings.htm>]**

**So it is the role of the government, not just to shore up the banks, to see that they do not go bankrupt, but to see that the credit system is operating.**

**Providing liquidity in such a systemic crisis was in fact the original goal in the creation of the Federal Reserve.**

**When a banking crisis occurred, the Federal Reserve was supposed to be the lender of last resort.**

**So our recommendation for the US is the following.**

**That the government establish two intermediate targets.**

**One target is the standard demand target.**

**That should aim to obtain full employment, provided credit markets were functioning tolerably well.**

**This should be the basis for the conduct of normal monetary and fiscal policy.**

**In addition there should be a credit target.**

**Credit should be targeted at the level necessary to obtain full employment.**

**By a credit target we do not mean some specific numerical measure.**

**We mean, generally, that loans that would be naturally granted when the economy is at full employment will be available.**

**Above all the government must see that the major banks are solvent, and able to lend.**

**There are three methods to achieve the credit target.**

**Method 1. In the US, the Fed can do expansionary discount window operations.**

**This increases the supply of credit.**

**The Fed has inventively engaged in such policies.**

**The most inventive of these is the TALF, or the Term Asset-Backed Securities Loan Facility.**

**The first offering on TALF illustrates how it can work powerfully.**

**In this offering, the Fed offered \$200 billion of loans of one-year maturity against a pool of collateral such as new car loans.**

**The collateral was rated AAA.**

**Treasury contributed a \$20 billion junior tranche of the \$200 billion.**

**That means that Treasury takes the first \$20 billion of loss, so the Fed's \$180 billion is fairly safe.**

**It is safe enough that the Fed is legally empowered to make such a loan.**

**This scheme simultaneously accomplishes three goals.**

**First, it gives powerful incentives for banks to make new loans.**

**The most they can lose is the initial haircut on what they put up, which is likely to be quite small.**

**Current spreads between Treasury bills and the types of loans that would go into the collateral pool should more than compensate for potential losses due to small haircuts.**

**Second, TALF renders the Fed's portion of the collateral sufficiently safe.**

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**Third, Treasury's money can go much farther than if it were buying troubled assets outright.**

**For example, if with Treasury taking up 10% of the collateral, a billion contribution could support \$1 trillion worth of new credit.**

**Such order of magnitude of impact on credit is what is needed to replace the fallen Humpty Dumpty.**

**TALF is playing a key role in the current Obama financial plan.**

**More generally, TALF shows us that there are two sides to creative finance: It may have gotten us into this crisis. But its genius may also get us out of it.**

**Method 2. The government can inject capital into the banks.**

**That potentially removes a major constraint on their willingness to lend.**

**Such injections, of course, have to be made to see that the banks are solvent.**

**Method 3. The government can use Government Sponsored Enterprises to make direct loans.**

**The US government is already doing that through Fannie and Freddie in a very big way.**

**But the government now should be making provision to enhance its capability to loan directly.**

**For example, insofar as the government attains ownership or control over some banks with good management skills, it should use these institutions as a vehicle for direct injection of credit into the economy.**

**To summarize, our recommendation is that there should two targets.**

**The first target is the usual monetary-fiscal target, projected to reach full employment in the absence of a credit crunch.**

**The second target is the level of credit that would be associated with full employment income.  
These targets should be achieved by the use of methods one, two, and three.**

**I will skip the discussion of the significant problems with each of these methods.**

**XXXX SLIDE XXXXXX**

**Why do we need such targets?**

**There are two reasons.**

**First the government itself should be realistic about what needs to be done.**

**In the Great Depression both Hoover and Roosevelt had many pragmatic schemes to put people back to work and to keep the credit markets from falling apart.**

**But because they were operating without Keynesian theory, they did not know how much to target.**

**Their operations were orders of magnitude short.**

**Unemployment in the US only fell below 10 percent in 1941, considerably after the start of World War II.**

**Second, there will be political difficulties with any plan that is devised.**

**It will be expensive, and there will be massive sticker shock.**

**The two targets approach is necessary to legitimate the government's plan of action.**

**The two targets approach comes from the rationale that achieving full employment should be the first goal of macroeconomic policy, as stated in the Employment Act of 1946.**

**That of course is the macro message for the US.**

**The direct relevance of this for the underdeveloped world is, of course, that what happens in the US and in Europe will have profound effect on the developed world because the demand for imports, and foreign direct investment will depend very greatly on what is happening in these two areas. There is another message for underdeveloped countries, which is that economic growth does not just occur because markets are deregulated.**

**XXXXXX SLIDE Play-pen problem XXXXXXXXXXXX**

**There is the play-pen problem.**

**The play-pen problem comes from the life of toddlers.**

**If you put your toddler in the play-pen you do not have to watch them very much.**

**But if you let your toddler out of the play-pen you need to watch what she does.**

**The same is true of financial markets.**

**Suppose you de-regulate financial markets on the one hand.  
For example suppose you allow derivatives that you did not allow before.**

**Then you need additional regulation to see that the markets do not get out of control.**

**If you let your child out of the play-pen, that is if you give her the freedom to wander about the house, then you need to watch her.**

**The rhetoric that we hear about deregulation always misses this point. It says that we need either more or less deregulation.**

**The view that deregulation should go in only one direction fails to appreciate the soft snake-oil underbelly of capitalism.**

**If you allow markets more freedom in one direction, you also need to regulate them more in another.**

**And that is one of the major factors that results in manias and panics.**

**Our major message then is that capitalism does work, but the problem is that it may work all too well.**

**And then it has also to be curbed.**