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**MECPOC, MOSLER ECONOMIC POLICY CENTER**

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*The proceedings of the Mecpoc Symposium consist of papers submitted by the guest speakers and transcripts of the speakers' remarks.*

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## SYMPOSIUM PARTICIPANTS

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Richard Werner is currently Chair in International Banking and Director of the Centre for Banking, Finance and Sustainable Development at the School of Management, University of Southampton. Werner is also a member of the School of Management's Executive Board, as well as of its Advisory Board. He has been a researcher at the Nomura Research Institute, European-Commission-sponsored Marie Curie Fellow at the Institute for Economics and Statistics, University of Oxford, senior staff consultant of the Asian Development Bank, Manila, an advisor to the ruling Japanese Liberal Democratic Party's Central Bank Reform Research Group and has served on several Ministry of Finance advisory panels. Werner has frequently appeared on Japanese and international television commenting on economic and financial affairs. His book *Princes of the Yen* became a number one bestseller in Japan, and his other book, *New Paradigm in Macroeconomics* (Palgrave Macmillan), correctly predicted the collapse of the U.K. banking system and property market, highlighted the problem of "recurring banking crises" and suggested workable solutions. In 2003, the World Economic Forum selected him as "Global Leader for Tomorrow" in Davos.

### LORD ROBERT SKIDELSKY

Lord Robert Skidelsky is Emeritus Professor of Political Economy at the University of Warwick, the author of *The World after Communism* (1995) and the internationally acclaimed biographer of the economist John Maynard Keynes in a three-volume work which won five prizes including the Lionel Gelber Prize for International Relations and the Council of Foreign Relations Prize for International Relations. He was elected a Fellow of the British Academy in 1994. In 1991 he was appointed to the House of Lords and served as Chief Opposition Spokesman on Treasury Affairs (1998-1999). From 1991 to 2001 he was Chairman of the Social Market Foundation and since 2002 has been Chairman of the Centre for Global Studies. Skidelsky is also a nonexecutive director of Janus Capital, Inc. A Russian speaker, he is a nonexecutive director of Sistema, chairman of LabRus Investment Club, founder and executive secretary of the U.K.-Russia roundtable and a director of the Moscow School of Political Studies.

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received his doctoral degree. He completed a post-doc at the University of California, Riverside. He has also held positions at the Swiss Federal Office of Statistics and in the banking sector, and regularly does consulting in the field of communications management. He has been involved in several national and international professional associations. Today he is a member of the Foundation Board of the Swiss Public Relations Institute.

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**WELCOME AND INTRODUCTION:  
WHAT LESSONS CAN BE LEARNED FROM THE GLOBAL CRISIS?**

I am delighted to welcome you to the second Mecpoc Symposium. In today's audience I recognize numerous students and faculty from Franklin College as well as from other local Swiss and Italian institutions; several business professionals, notably from the banking and financial sector; and many Franklin friends and alumni who periodically visit us. We hope that you will leave this auditorium with a better understanding of recent economic events and of the challenges we are still facing.

When we launched a new international symposium a year ago, the crisis appeared, in the eyes of many, to be under control. The economy, although not fully on its feet again, seemed to be recovering and back to normal. Yet, our symposium indicated that there was a significant challenge still ahead for the world economy, that central banks would soon be called to a dramatic rescue plan and that traditional central banking tools could prove inadequate to deal with the crisis. All these forecasts proved correct.

Another conclusion from most of last year's speakers that proved correct was that the then apparently rising inflation tendencies would recede. In fact, here things went a little too far: not only did inflation subside, but a fast drop in commodity prices was the game of last summer, with a number of consequences, more bad than good. Drivers were spending less money at the gas pump; that's (perhaps) a good side. But this also meant selloffs in stock markets and the consequent evolution and progressive transformation of the crisis.

What we often call the "global crisis" has so far been a sequence of crises: a liquidity crisis, a financial crisis, a food crisis, a record increase followed by a record fall in energy prices and other commodities, and then a banking crisis, asset deflation and a global economic recession.

If you ask me to find any good consequence of all this, it is the effect of the crisis upon students' alertness in economics classes (I can certainly confirm this has happened at Franklin): students definitely (and inevitably) demonstrate today a much greater awareness and curiosity in studying what can make an apparently secure global economic environment suddenly become so frail and precarious.

Was it because of bad governance decisions—some point their fingers at the U.S. Fed, others at the repeal of banking laws in the U.S.; or was it because of bad private decisions—some point their fingers at investors' failure to price risk properly; or was it because of unethical behavior—some point their fingers at greed and fraud?

Was it the fault of markets? If it was, then we need a stronger government component. Or was it the fault of governments? If that was the case, we need less of them. Or perhaps what we need is a different paradigm for governance and policymaking?

These are serious and fundamental questions that our epoch must urgently deal with. The Western world passed through a similar intellectual crisis in the Great Depression. In that context, a man from Cambridge, John Maynard Keynes—who had become a world star after World War I for denouncing the fragility of peace—was almost constantly at the center of the controversial discussions on how to recover from the Depression and how to strengthen and defend capitalism from its fragility. In the words of a scholar who is also one of our speakers today, he was an "unusual economist, a practical visionary." Everybody listened to Keynes, whether it was to seek inspiration or to sharply disagree with him, and it was he who provided the intellectual justification for the historical changes in capitalism that took place in the 1930s and 1940s. And I think this is the reason Keynes is being cited so often today, not only in relation to fiscal policy, but more importantly as a "master of thought." In the words of Professor Skidelsky, "great masters of thought do not discover reality; by changing people's beliefs and behavior, they create reality."

This crisis has shattered not only jobs, personal wealth, and economies, but also views and convictions about how the system works. The controversial and confused debate that has followed the outbreak of the crisis needs new masters of thought who can provide new answers. I don't think we should simply aim at restoring the pre-crisis world, as if what happened was just a very rare tsunami that will not be repeated in our or our children's lifetimes. There is, I think, something deeper that speaks of a need to "reinvent the institutions of capitalism" as Hyman Minsky contended 16 years ago in this same Franklin Auditorium.

The break in continuity in American politics marked by the election of Barack Obama could be part of this. And one theme of our discussion is going to be a critical review of the first 100 days of the new administration. In this general context we begin our discussion today: What have we learned from the crisis? Is the global crisis bringing in a new paradigm for policymaking? Is the crisis changing the way the world thinks about economics and politics? And have, in this perspective, the first 100 days of the Obama administration made a difference?

It's fair to say that today's panel is a unique combination of knowledge in economics, political economy, history, communication and management. And I wish to express my gratitude to the speakers for accepting our invitation to this symposium in Lugano. We're absolutely delighted to have you here in this room to produce a moment of intellectual energy around the theme of what the world has – or has not yet—learned from the crisis, and I wish you all a very exciting and productive afternoon.

Andrea Terzi,  
*Professor of Economics, Franklin College Switzerland*  
*Coordinator, Mecpoc*

## HOW THE CRISIS HAS CHANGED THE ECONOMIC POLICY PARADIGM

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In the midst of the worst economic crisis since the Great Depression, policymakers in the U.S. and in other nations have reduced interest rates, expanded central bank balance sheets, increased deficits to levels generally not seen since World War II and begun seriously rethinking financial regulation. This may come as no surprise to any student of macroeconomics prior to, say, the 1980s. However, the current crisis follows a period during which the vast majority of economists had come to a consensus (referred to by economists and hereafter in this paper as the “New Consensus”) regarding macroeconomic and regulatory policy, while the policy initiatives undertaken since the crisis began are almost entirely, and often violently, at odds with most of the New Consensus. This has led at the very least to the return of some previously spirited debates that most might have thought had been settled. For now, at least, it appears that most economists fall into two different camps: the first group considers the current crisis to be a one-time “shock” after which policy can return to “normal”; the second group, on the other hand, is highly critical of the first group and of policymakers for deviating from the New Consensus. However, there are others, some of them high-ranking members of the “consensus” view, who suggest that nearly everything needs to be rethought. The purpose of this paper is to describe some of these reopened debates being driven by the current crisis and then also to present the foundations of an alternative macroeconomic paradigm backed by some economists and economic research institutes that coherently incorporates the current crisis as well as the impact of current and proposed policy responses, which the previous consensus does not.

### I. The New Consensus Model and the Macroeconomic Policy Paradigm

In September, 2007, then Federal Reserve (Fed) Governor Frederic Mishkin delivered a speech entitled “Will Monetary Policy Become More of a Science?” To a student of monetary economics during the past, say, 30 years, the speech may have been significant for its clear and comprehensive survey of “the state of knowledge” of the field as it had come to be and its outlining of the New Consensus view. Mishkin there laid out nine core principles that the field had come to recognize as “truths,” which he (and the vast majority of economists like him) considered to be significant “scientific” achievements. He likewise articulated how these principles had come to be implemented by central bankers and furthermore provided a framework used by monetary policymakers even in real-world policy contexts in which considerable uncertainty was inescapable. Thus, none of the points raised in Mishkin’s speech would be a surprise to the current generation of monetary economists, even as he is more capable than most at organizing and articulating them; the entire content was standard for economists, while conclusions and the literature Mishkin referred to were similarly typical fare for graduate syllabi. The New Consensus paradigm had become nearly ubiquitous for monetary, fiscal and financial regulatory policies, and seemingly unchallenged. This section briefly describes each of these policy areas in turn within the context of the New Consensus view.

For monetary policy, Mishkin’s nine principles lay out the foundations of the New Consensus view:

1. *Inflation is a monetary phenomenon*: Adherents of the New Consensus unanimously agree that persistent inflation is the result of monetary policy, not fiscal policy, and not aggregate demand or supply shocks. This leaves central bankers alone responsible for maintaining low and stable inflation.
2. *The benefits of price stability*: New Consensus adherents have become convinced that the aggregate costs of even moderate inflation are substantial, while the benefits of a stable, very low-inflation environment are likewise substantial in terms of macroeconomic outcomes such as real GDP per capita.

3. *No long-run tradeoff between unemployment and inflation*: As a result of the widespread acceptance among New Consensus adherents that the long-run Phillips curve is vertical at the natural rate of unemployment or the output gap, economists thereby also agree that there is little to no cost in terms of unemployment or real output in the long run of attempting to stabilize inflation at low levels. This gives a “green light” for monetary policymakers to worry more about the inflationary effects of their actions and less about the short-term effects in terms of unemployment or the output gap. Indeed, due to the previous principle, maintaining low, stable inflation is in fact the policy most consistent with full employment in the long run.
4. *The crucial role of expectations*: New Consensus literature has argued strongly for the past three decades that low inflation expectations of private sector agents are the most important variable in determining whether monetary policy can be effective in keeping inflation low. Further, it is argued that shocks to the economy such as rising oil prices will be far less deleterious if the central bank is credible in its pursuit of low, stable inflation.
5. *The Taylor principle*: John Taylor’s “rule” (1993) provides central bankers with a framework for responding to various macroeconomic events. The framework is important for two reasons. First, it showed that such a framework was possible for interest-rate targets, whereas many previously believed such a strategy would fail absent targets for monetary aggregates. Second, it is a systematic policy feedback rule for interest-rate targets that is transparent, thereby enhancing credibility. Numerous central banks have been shown to follow a Taylor-like approach to setting interest rates over the past few decades.
6. *The time inconsistency problem*: New Consensus literature argued forcefully that central bankers should be bound to an approach such as that prescribed by the Taylor principle. Otherwise, the argument goes, central bankers attempting to maximize macroeconomic performance in the short run only (say, by reducing the unemployment rate below its natural rate) would be disastrous in the longer run once credibility was damaged, even if such a short-run policy might be time consistent (that is, it might be the optimal choice to make for the current period).
7. *Central bank independence*: Because of the need for policymakers to be mostly concerned about the long-run inflation rate, New Consensus adherents argue for an independent central bank that, once shielded from the inherent short-time horizons of politicians, would be free to do this.
8. *Commitment to a nominal anchor*: Milton Friedman often argued for money supply growth targets to “anchor” inflation. With real-world central banks setting interest-rate targets, these targets needed to be “anchored” by a strategy such as the Taylor principle wherein nominal interest rates would be changed in a manner consistent with low, stable inflation.
9. *Financial frictions and the business cycle*: Disruptions in financial markets could have significant effects upon the short-term performance of the macroeconomy that central bankers would have to be aware of. This is discussed in a bit more detail below.

Overall, the New Consensus argues that the central bank’s primary concern must be low inflation and that it must establish confidence and credibility in the eyes of private economic agents regarding current and future policy actions in order to achieve the central bank’s inflation goal. Economists and central bankers have concluded that a rule or at least a transparent, systematic framework for monetary policy strategy consistent with the Taylor principle with maximum possible independence is necessary to generate such confidence and stabilize expectations.

For the New Consensus, monetary policy is the dominant arm of macroeconomic policy and is considered sufficient to carry out this role via the nine principles above, provided that a central bank follows a

time-inconsistent policy strategy along the lines of the Taylor principle. As such, the role of fiscal policy in the New Consensus is nearly nonexistent. There are three reasons for this. First, as mentioned, fiscal policy is unnecessary given an appropriately run monetary policy. Using fiscal policy to reduce unemployment, for instance, would simply complicate a central bank's attempts to achieve low inflation, which according to the New Consensus is the best way to promote sustainable full employment in the long run at any rate. Second, the overwhelming majority of New Consensus adherents agrees that deficits "crowd out" private capital in the long run. This is the traditional "loanable funds" view in which saving finances investment spending and thus government deficits reduce the pool of saving available and raise interest rates; the overall effect is to reduce private capital accumulation and future living standards. Third, the government's budget must be sustainable in the long run, which here refers to the belief that rising government debt raises interest rates that can then bring exponential growth in government interest payments. The outcome of such a situation is government default (and the accompanying large macroeconomic costs) or "monetization" of the national debt (which brings inflation and the accompanying macroeconomic costs). To avoid these, the government must either now or in the future run primary surpluses to stabilize its debt service obligations. In short, New Consensus adherents strongly favor so-called "sound" fiscal policy in order to provide the policy space for independent central bankers to achieve low inflation while minimizing disruptions to capital accumulation and the achievement of maximum long-run improvement in living standards. Finally, regarding financial markets and regulatory policy, the New Consensus adherents supported almost continuous deregulation and unyielding encouragement of financial innovation. The regulatory structure put in place following the Great Depression was overturned; instead, the distinctions between banks and other financial institutions were increasingly blurred. Rather than concern with failures in risky-asset markets spilling from investment banking divisions into the banking divisions of a large financial institution, the new view was that financial institutions actually needed the ability to diversify into many lines of business in order better to weather the sort of financial disruptions and innovations seen in the 1960s and 1970s. The development of derivatives, securitization and other structured financial products was encouraged and in certain important cases (e.g., credit default swaps) completely deregulated. Here again, the consensus was that the ability to separate the risks of particular financial assets (such as the anticipated, albeit risky payment stream associated with a mortgage) and then sell these various parts to individual investors willing and able to take on these specific risks would be most efficient and reduce overall risk. In general, there was much faith in the ability of "market discipline" (for instance, in terms of setting risk-appropriate spreads for borrowing) to ensure systemic stability; in the Basel II agreement, there was a similar focus on "market discipline"; furthermore, very large financial institutions were entrusted with designing their own risk-management models and given the ability to reduce capital requirements when holding more or less risky financial assets (according to ratings agencies). Lastly, regarding monetary policy and financial markets, there was a rather strong consensus that central banks should avoid targeting financial asset prices or otherwise attempting to "prick" an unusual rise in asset prices; instead, most agreed that central banks would find it nearly impossible to identify such a "price bubble" in real time and that policymakers would do better to simply reduce the fallout after the fact.

Mishkin and most other adherents to the New Consensus characterized the period beginning in the 1990s and lasting through the early 2000s as the "Great Moderation." During these years, many articles were published documenting the reduced volatility in macroeconomic variables such as real GDP growth and inflation and the lower overall rates of inflation as evidence of such a moderation. Likewise, nearly all adherents considered the "Great Moderation" to be the outcome of the implementation of the New Consensus policy advice, which primarily involved the above-described characteristics of independent central banks pursuing low inflation according to the Taylor principle, "sound" fiscal policy and a deregulated financial system.

## II. From New Consensus to NO Consensus in the Macroeconomic Policy Paradigm

There is another reason Mishkin's speech is of interest, however: at the sunrise of the current financial crisis (which had begun in earnest about a month earlier), Mishkin therein summarized a policy paradigm more than 30 years in the making that has been arguably irrelevant to policymakers in confronting the most significant financial crisis and potentially the greatest economic downturn in over 70 years. Perhaps prophetically, Mishkin granted in the speech that New Consensus macroeconomic models "ignore financial market imperfections." Willem Buiter, himself a monetary economist of substantial repute and also a former policymaker with the Bank of England, went significantly further than Mishkin, arguing that the fact that central bankers were trained in the New Consensus paradigm "turned out to be a significant handicap when the central bank had to switch gears from being an inflation-targeting central bank under conditions of orderly financial markets to a financial-stability-oriented central bank under conditions of widespread market illiquidity and funding illiquidity" (Buiter, 2009, 1). In short, Buiter continues, "the economics profession was caught unprepared when the crisis struck"(1). This section describes areas related to the current crisis and the policy responses for which there might have previously been a New Consensus but for which now the situation is better described as one of "NO Consensus."

For monetary policy, consider the fact that the central banks for the world's two largest national economies—the U.S. and Japan—have set their interest-rate targets effectively at zero (Japan since 1998, the U.S. since December, 2008) and have indicated that this will continue for some time. The Taylor principle and a zero-interest-rate target are not necessarily antithetical, but in this case according to the New Consensus model the central bank must raise inflation expectations to further reduce the real interest rate and thereby stimulate aggregate demand. However, it is completely unclear how to carry this out in practice. In the late 1990s, given Japan's zero-rate policy, there was a good deal of research regarding monetary policy strategies at the zero bound for nominal interest rates, but, beyond the conclusion that policymakers should respond more quickly to financial instability and deflationary conditions in general than Japan's policymakers had before situations become very bad, there has been little to no consensus regarding what to do if the zero bound has been reached. And thus, while U.S. policymakers *did* respond more quickly in the sense that the interest-rate target was at zero around 16 months into the crisis, there remains significant disagreement regarding how much this matters and what else can or should be done.

In Japan, after three years with a zero-interest-rate target, the Bank of Japan (BOJ) moved to a strategy it dubbed "quantitative easing," in which it expanded the quantity of excess reserves to encourage bank lending and money creation, as in the traditional money multiplier analysis. However, growth in the economy did not return to "normal" and, while quantitative easing was abandoned in 2005, the BOJ's target rate since has still remained below one percent and is now again effectively zero. Overall, there is much disagreement among economists regarding the effectiveness of Japan's experiment with quantitative easing in stimulating aggregate demand, even as there is general agreement that a nominal interest-rate target of zero by itself is insufficient.

The Fed's approach since August, 2007, has been to design new standing facilities to help provide short-term finance to the banking system and money market participants, since money market spreads rose to historical highs above the federal funds rate and short-term funding overall ultimately ground nearly to a halt (particularly in fall, 2008). This approach is different from quantitative easing in Japan; Fed Chair Bernanke (2009) calls the strategy "credit easing" and argues that the increase in the Fed's balance sheet is the only similarity to the BOJ's strategy. Similarly, San Francisco Fed President Yellen explains that "we are focused on pursuing carefully tailored programs to remedy specific financial market dysfunctions," whereas "the BOJ targeted an extraordinarily high level of excess reserves in the banking system, in the hope that a flood of such reserves might stimulate additional bank lending" (Yellen, 2009a, 3-4).

An additional complication emerged in fall, 2008. Prior to Lehman's bankruptcy in September, 2008, reserves added via standing facilities were necessarily sterilized (that is, the created reserves were drained) immediately via open market operations in order to achieve the Fed's target for the federal funds rate. After Lehman's bankruptcy, the Fed's standing facilities were expanded while new ones were added; however, the Fed's balance sheet no longer had sufficient securities to sell as an offset for sterilization purposes. Reserves in circulation thus soared to more than \$800 billion from the previous level of under \$20 billion while the federal funds rate fell to around zero (given the large excess reserves left circulating). Furthermore, even with the additional Fed actions, interest rate spreads in financial markets remained at historically high levels above risk-free rates, reflecting the enormous strains in the short-term financial markets. Lastly, because lending to the nonfinancial private sector essentially collapsed, particularly with regard to housing or any other loans that would normally have to be securitized (e.g., credit cards), the Fed announced in late 2008 and again in March, 2009, that it would expand its "credit easing" approach and purchase \$300 billion in Treasuries and create another standing facility to purchase \$1 trillion in asset-backed securities.

For purposes here, it is important to realize that there is little or no consensus regarding the ultimate effectiveness of the Fed's actions. While one rarely heard concerns that quantitative easing in Japan would lead to uncontrollable inflation, many economists and financial journalists conclude that the Fed's actions are likely to be inflation-inducing. This is interesting, since even though the Fed's balance sheet has grown by more than \$1 trillion and reserves have risen by over \$700 billion, the U.S. monetary base has risen to only around 10 percent of GDP (from a starting value of about 5 percent), which is well below the level reached earlier in Japan (25 percent of GDP at the peak of quantitative easing) and which clearly did not result in a significant rise in inflation (to the contrary, Japan's economy continued to be characterized by low inflation or even deflation). Nevertheless, John Taylor (2009), like many others, recently argued that "there is no question [the increase in reserve balances] will lead to inflation unless it is reversed" and then questioned whether the Fed would be able to "change course in time." Many others have echoed Taylor's concerns regarding the rise in the monetary base and/or the Fed's balance sheet. On the other hand, the recent substantial increase in the planned sizes of purchases of both Treasuries and asset-backed securities demonstrates the Fed's own belief that efforts to this point have actually been insufficient and are not inflationary. Yellen (2009a, 4) further noted that she was "sanguine that the Fed's new programs will be helpful in restoring credit flows." She even acknowledged that "many of the new approaches are experimental, and there is a great deal of uncertainty concerning their likely effects." She added in a subsequent speech that "few, if any, models are prepared to tell us what macro effects [the Fed's actions] might have" (Yellen, 2009b, 9). Thus, Yellen effectively confirms that current central bank actions for dealing with the financial crisis have no basis in the New Consensus research program, as Buiter lamented. In other words, as Mishkin alluded, those at the highest levels of the profession—including those at the most prestigious research universities, who also happen to be the academics most likely to be appointed to positions of influence on policy—had essentially bypassed the study of the causes and potential policy remedies for financial instability. Most significantly, one sees here key architects of the New Consensus such as Taylor, Yellen, Bernanke and Buiter holding essentially irreconcilable positions on the appropriate policy response to the crisis. Particularly noteworthy is that Taylor's most damning criticism of the Fed was to point out that it had abandoned the New Consensus framework for monetary policy strategy that then-Fed Governor Mishkin had so clearly summarized only 18 months earlier. As Taylor put it, "the success of monetary policy during the great moderation period of long expansions and mild recessions was not due to large discretionary interventions, but to following predictable policies and guidelines that worked" (2009, 1).

Regarding fiscal policy, again consider the recent deficits of the world's two largest economies, as shown in Figure 1. Deficits in the U.S. from 2000-2009 are presented alongside those for Japan from 1990-1999 since this is the decade that follows collapses in equity and real estate values in the respective countries.

The U.S. deficit is estimated to be 10 percent of GDP in 2009 (which, according to CBO figures, ignores the TARP funds, since these were essentially asset swaps and thus more akin to monetary policy operations). As with monetary policy, clearly both countries have been following fiscal policies substantially counter to the New Consensus view, which strongly prefers so-called “fiscal soundness.” In stumping for his fiscal stimulus package in early 2009, President Obama declared that virtually every mainstream economist recognized the need to use fiscal stimulus in times such as these. However, this is not true at all. In fact, while some New Consensus adherents agree with this statement, many others do not. In her recent speech, Yellen highlighted some of these disagreements, and her disagreement with Taylor in particular with regard to the effectiveness and usefulness of discretionary fiscal stimulus:

In his paper for this session, John [Taylor] asserts that the BOJ’s quantitative easing strategy worked well, while fiscal policy was ineffective. My interpretation of the evidence is exactly the opposite... [The BOJ’s] expansion of excess reserves to extraordinary levels appears, on its own, to have had very little impact... For all these reasons, I support Marty’s [Martin Feldstein’s] conclusion that there is an exceptionally strong case for substantial fiscal stimulus over the next few years. (Yellen, 2009a, 3-4)

It is interesting that Yellen (a New Consensus adherent on the political left) and Feldstein (on the political right) agree on the need for stimulus, as the consensus on fiscal policy has fractured mostly along traditional political lines as in earlier debates on the merits of Keynesian fiscal policies. In much the same way he criticized the Fed’s current inconsistencies with the New Consensus, Taylor (an economist on the political right) now also criticizes current fiscal stimulus sympathizers for their lack of adherence to previously agreed-upon research:

After years of study and debate . . . many economists [concluded] that discretionary fiscal policy actions, such as temporary rebates, are not a good policy tool. . . . Indeed, this was the conclusion of my research . . . and that of many others. As Eichenbaum (1997) put it, “there is now widespread agreement that countercyclical discretionary fiscal policy is neither desirable nor politically feasible,” or, according to Feldstein (2002), “There is now widespread agreement in the economics profession that deliberate ‘countercyclical’ discretionary policy has not contributed to economic stability and may have actually been destabilizing in the past.” . . . To be sure, that consensus apparently broke down during the debates about fiscal stimulus [in 2008] when a number of economists testified to the effectiveness of such a temporary stimulus program. (Taylor, 2008, 4)

Again, Taylor is far from alone, which an article in the *National Post* confirms:

John Cochrane of the University of Chicago recently noted that the idea of fiscal stimulus is “taught only for its fallacies” in university courses these days. Thomas Sargent of New York University noted that “the calculations that I have seen supporting the stimulus package are back-of-the-envelope ones that ignore what we have learned in the last 60 years of macroeconomic research.” (Brannon and Edwards, 2009)

Overall, much as in the current debate over monetary policy, one sees a rather clear break from the previous consensus in which a substantial number of economists support at least a temporary break due to “extraordinary circumstances,” while others admonish the first group for not remaining faithful to the previous consensus in which discretionary fiscal policy is unnecessary and even counterproductive to macroeconomic stability.

In fairness, however, the heart of the New Consensus view on fiscal policy described above, namely that governments must adhere to intertemporal budget constraints, remains mostly intact; indeed, Obama's head of the Office of Management and the Budget, Peter Orszag, has been a leading researcher in this area and has published widely on the dangers of persistent deficits. The current proponents of fiscal stimulus have by and large argued that the government should return to supporting balanced budgets if not substantial offsetting surpluses once the crisis is over. Thus, the debate about fiscal policy is almost exclusively about the efficacy of short-term fiscal policy, whereas consensus remains regarding fiscal policy over the longer run. It will, though, be interesting to see if yet another instance of NO Consensus will emerge if economic conditions do not improve significantly in the next few years, since in that case the current temporary fiscal stimulus will be on the verge of becoming much more than that.

Regarding financial regulation, perhaps the best indication of the move away from the New Consensus is Alan Greenspan's *mea culpa* in October, 2009, in which he admitted that relying on "market discipline" for assessing risks and limiting excesses in the financial system had turned out to be a "flawed" strategy. A number of other pillars of the New Consensus view on financial regulation have been questioned in the current crisis, as well, including the view that ratings agencies can be relied upon to enhance market discipline; the view that spreading financial risks to individual investors willing to hold them via securitization was more efficient and reduced systemic risk; and the view that the policymakers should not attempt to diagnose and stabilize an asset-price bubble in real time. Furthermore, there is now acceptance that the previous regulatory regime—Basel II included—did not sufficiently address systemic risk and did not in particular address nonbank financial institutions, as calls for a "systemic risk regulator" grow in policy circles. Space constraints limit a further detailing of the significant and complex debates in this area, but overall, much as with monetary and fiscal policies, two things are clear: first, the New Consensus paradigm has provided virtually no guidance for the policy responses of the past 18 months (Bernanke in particular noted that a significant problem had been that there was essentially no policy in place for resolving bankruptcies of large nonbank financial institutions like Bear Stearns, Lehman and Merrill Lynch), and second, there is no current consensus among economists or policymakers on the appropriate path for financial regulation in the future.

### **III. Wanted: An Alternative Policy Paradigm**

As the crisis has appeared to reopen policy debates that previously seemed to have been settled—such as the transmission mechanism of monetary policy, the efficacy of fiscal stimulus and the appropriate balance between regulation and innovation—policymakers are left without a coherent framework that is relevant for a modern capitalist economy with advanced financial markets. As Buiter put it:

"I believe that the Bank [of England] has by now shed the conventional wisdom of the typical macroeconomics training of the past few decades. In its place is an intellectual potpourri of factoids, partial theories, empirical regularities without firm theoretical foundations, hunches, intuitions and half-developed insights." (Buiter, 2009)

But while Buiter and others search for a new paradigm, a number of researchers associated with think tanks such as the Center for Full Employment and Price Stability, Centre of Full Employment and Equity, and the Jerome Levy Economics Institute have been at work on this same problem for many years already. This paradigm is largely embedded within the post-Keynesian "school" of economics and stands on the shoulders of previous economists such as Thorstein Veblen, John Maynard Keynes, Joseph Schumpeter, Hyman Minsky, Paul Davidson and many others. This section presents seven core principles of the macroeconomic policy paradigm developed by these economists and the implications of each principle for the current NO Consensus period in which policymakers find themselves. Again, space constraints prevent a more thorough description of the paradigm (see research at the above-mentioned institutes for that), but the principles here relate directly to the areas of policy concern in the current crisis and resulting NO Consensus.

1. *Central bank reserves do not fund or otherwise restrict bank lending except under a gold standard or currency board regime.*

The version of banking learned by virtually every student of economics at every level is the money multiplier. In the money multiplier model, central banks change the quantity of reserves in bank reserve accounts via open market operations or direct lending; banks then are presumed to have additional capacity to lend until reserve requirements rise as a result of the deposits created by the bank loans to equal the quantity of reserves initially created by the central bank's actions. However, this model is irrelevant to modern monetary systems not operating on a gold standard or a currency board. In the real world, a bank loan creates its own deposit, while banks obtain additional reserves in money markets or from the central bank at the latter's stated lending rate if necessary to meet reserve requirements. That is, the creation of a loan and (concurrently) a deposit by a bank are in no way constrained by the quantity of reserves. Instead, the terms set by the central bank for acquiring reserves (which then also affects the rates banks borrow at in money markets) affect a bank's profit margin on a newly created loan. Thus, expanding its balance sheet can create a potential short position in reserves, and thus the profitability of newly created loans, *not* the bank's *ability* to create the loan.

Overall, the acts of extending credit and creating bank liabilities (i.e., "money") are completely unrelated to the quantity of reserves circulating unless a gold standard or currency board is in place (in which case bank lending is constrained by the quantity of reserves banks can obtain). For the current NO Consensus paradigm, this implies that "quantitative easing" by the Bank of Japan had no effect on banks' abilities to create new loans. Similarly, U.S. banks' abilities to create loans are unaffected by the recent rise in the Fed's balance sheet or the large increase in reserves held by banks. Furthermore, it is nonsensical to suggest that banks "are not lending out their reserves" or they "are not lending out government-invested funds" (such as the TARP). Rather, banks create loans when a credit-worthy borrower desires additional funds for his/her business or household.

2. *Central bank operations are about interest rates, not quantity of reserves or money.*

Because the quantity of reserves has nothing to do with banks' abilities to lend, the only direct operating target for the central bank is an interest-rate target. For banks, reserves can only settle payments or meet reserve requirements, and thus their demand for reserves is very interest inelastic. Further, in the aggregate, banks cannot create or destroy reserves; they can only shift the existing quantity from bank to bank. Only changes in the central bank's balance sheet change the aggregate quantity of reserves. Therefore, if the central bank creates more reserves than banks desire, the interbank interest rate falls to the remuneration rate set by the central bank on bank reserve holdings. Likewise, if the central bank creates fewer reserves than banks desire, the rate rises to the central bank's stated lending rate at which point more reserves are created via direct central bank lending to banks. In other words, attempting to directly manipulate the quantity of reserves is in fact *de facto* interest-rate targeting. Thus, as the monopoly supplier of net reserves to the banking system, the central bank has complete ability to set an interest-rate target wherever it desires; the base rate in the economy is *not* set by private financial markets (this assumes flexible exchange rates; with fixed exchange rates, the central bank may need to adjust its interest-rate target according to market traders' preferences in order to maintain parity). Furthermore, the central bank can similarly set risk-free rates across the entire term structure of interest rates, since it can set a bid and an ask in any of these markets (as the monopoly supplier of reserves) or (equivalently) set remuneration and lending rates at any maturity it desires. When the central bank chooses not to set rates across the term structure, risk-free rates are primarily set by expectations of the central bank's short-term target.

Regarding the current NO Consensus, this implies that the Fed could have much more simply and directly brought down longer-term interest rates as well as spreads between risk-free rates and riskier lending rates.

Already in August, 2007, Warren Mosler proposed that the Fed announce lending rates to member banks for maturities up to six months. When the Fed did not do this, spreads rose significantly for bank borrowing at these maturities. In December, 2007, the Fed did begin the TAF facility, but here again did not announce rates but instead fixed quantities of its lending and allowed rates to be auctioned to the highest bidders, which then left spreads elevated. After Lehman's failure, the Fed's inability to provide liquidity at shorter maturities contributed significantly to counterparty risk that crippled financial markets. The Fed again eventually stepped in to provide liquidity in commercial paper markets, and this time did in fact set a fixed spread above its target rate, which ultimately was one of the larger successes of the Fed's overall response to the crisis. In other important cases such as the Fed's announced purchases of Treasuries and asset-backed securities, it has again returned to announcing quantities of intended purchases rather than desired rates or spreads, and these actions have had to date (June, 2009) little effect on market functioning.

3. *Currency-issuing governments spend by simultaneously crediting bank reserve and recipient deposit accounts.*

There is no operational constraint on the spending of a currency-issuing government not operating under a gold standard or a currency board. These national governments spend by simply crediting the deposit accounts of the recipients and the reserve accounts of the recipients' banks, which involves merely increasing numbers on a spreadsheet. Government spending is thus not constrained by taxation or bond sales, as these similarly involve simply debiting numbers in an accounting spreadsheet. Solvency is *never* at issue in these cases; default on debt or interest payments is a policy *choice*. While it is certainly the case that excessive government spending can be inflationary, *this* is the only operational constraint upon government, not the government's ability to obtain its own money via taxes or bond sales (which, again, actually *destroy* the government's money as these result in debits to bank accounts). As such, large deficits in the U.S. and Japan, for instance, which have been incurred in recent crises in no way threaten the solvency of national governments.

4. *Government deficits create net saving for the nongovernment sectors.*

The New Consensus view that government deficits "crowd out" savings available to finance private sector borrowing for capital investment is only relevant in a gold standard or currency board regime in which funds available to lend are actually constrained; otherwise, as above, whatever amount of debt the government issues has no bearing on the funds that can be created by banks to lend to others in the private sector. In the non-gold standard case, the appropriate way to consider the deficit is to recognize that the government and nongovernment sectors have offsetting financial positions necessarily. That is, if the government is in deficit, then the nongovernment sector must be in surplus, and vice versa; net financial flows overall necessarily net to zero. This is represented visually in Figure 2, which shows flows between the government and nongovernment sectors, where the nongovernment sector is broken into the domestic private sector (households and businesses) and the international sector (current account balance). From the figure, a government deficit necessarily corresponds to an increase in foreign saving (reduction of the current account balance) or an increase in domestic private sector net saving, or some combination of the two.

The relationship can be demonstrated still more precisely using balance sheets, as well, for the bond purchaser and the recipient of government spending, as in Table 1. From this, the private sector's net financial position has unambiguously improved, as the bond investor's net worth (or net saving of financial assets) has not changed, while the recipient of the spending has seen an increase in net worth. The net effects are similar if the deficit is incurred via tax cuts, as in this case the taxpayer's net worth is greater than without the tax cut, while the bond investor's net worth is unchanged.

The implications of this relationship for the current NO Consensus is that the historically large government deficits being incurred in response to the crisis have—as predicted—coincided with an increase

in household net saving, just as they have in previous years and as shown in Figure 3. In other words, the rising government deficits in the U.S. have improved the private sector's net financial position to the point that private sector net saving is in fact greater than at any time since the early 1990s.

5. *Bond sales by a nonconvertible currency-issuing government are for interest-rate maintenance, not financing.*

If a currency-issuing government does not need its own money to spend, why does it issue debt? The answer is found by considering again central bank operations. To begin, a government deficit raises the quantity of central bank reserves in circulation, absent a government bond sale. This increase in undesired excess balances in reserve accounts will cause the interbank rate to fall below the central bank's target, since banks cannot by themselves change the aggregate quantity of reserves circulating. To offset the increase and return the interbank rate to the target, there must be a bond sale by either the central bank or by the government. For this reason, a number of economists argue that government bond sales are interest-rate maintenance operations, not financing operations, since government spending is not limited operationally by taxes or bond sales. In short, the government and/or the central bank necessarily offer an interest-bearing alternative to holding reserves in order to achieve a positive interest-rate target for the central bank.

The implication for the current NO Consensus is primarily that this explains why large government deficits in Japan and now in the U.S. have not led to rising interest rates on outstanding government bonds. In Japan, long-term government bond rates have remained below 1.5 percent, often significantly lower, even when the Bank of Japan was not purchasing government bonds in pursuing its quantitative easing strategy. Similarly, in the U.S. long-term government bond rates have been at historical lows, only recently rising as reports of an improving economy and expectations of an increase in the Fed's target have become prominent in the late spring and early summer of 2009. Again, one sees that the crowding out argument of the New Consensus is not relevant and can again only be applicable under a gold standard or currency board; in the absence of these, the government is not actually "borrowing," and its deficits *increase* nongovernment net saving, thus leaving interest rates on risk-free government bonds mostly to follow current or expected monetary policy.

6. *The legacy of Hyman Minsky: The banking and financial sector should support economic expansion and not unnecessarily contribute to systemic risk.*

Hyman Minsky's contributions to economics centered on the inherent instability of the modern capitalist financial system. Space constraints limit discussion here of Minsky's analysis (see Minsky [1986] in particular, as well as numerous recent pieces published by former colleagues of Minsky on the financial crisis by the Jerome Levy Economics Institute); however, some principles of financial regulation from a Minskyan perspective can be laid out, the overarching approach for which is to support, not lead, the economic system. Most importantly, given the necessarily procyclical nature of the financial system and banks, Minsky was never in favor of relying on "market discipline" and ratings agencies that characterized the New Consensus view and Basel II. Minsky's approach emphasizes that rising leverage and securitization imply greater systemic risk, even where risks are being distributed to various willing investors in an effort to "diversify" and reduce overall risk, since in every case what is left is essentially a financial system with a leveraged long position in a particular asset class or (more broadly) in the economy itself. Regarding bank regulation, because bank liabilities are government-insured for the most part (and are then functionally liabilities of the federal government), the preferred approach is for the central bank to provide unlimited lending to banks at stated rates as far out along the term structure as desired (again, instead of "market discipline"). On the asset side, banks would be limited to holding regulator-approved assets (home loans, corporate bonds and so forth), lending on their own credit analysis (as opposed to the "originate-and-distribute model" which encourages increasingly complex forms of securitization) and marking to approved regulator credit models of expected cash flows (instead of capital gains of assets or

collateral, as is usually the case during buildup of asset-price bubbles). From the Minskyan perspective, “too big to fail” means “too big to exist”; that is, an institution that becomes so large that its failure has significant systemic consequences should not be allowed to become so large in the first place. Overall, regulations and supervision would be designed to limit the systemic disruptions (such as via pre-approving proposed financial innovations [Tymoigne, 2009] or prompt resolution of failed financial institutions), while at the same time Minsky always realized that this was not entirely possible or even completely desirable, since procyclical innovation and leverage are an inherent characteristic of an evolving capitalist system.

7. *The legacy of John Maynard Keynes: Active, discretionary fiscal policy is appropriate and necessary given the procyclical nature of the banking and financial sector.*

The current approach of the Obama administration is that the financial system must lead the real economy in recovery; this is also widely accepted by most outside of the administration. Thus, one simultaneously hears that the banks are doing all right (particularly following the stress test results, but overall as an effort to instill “confidence” in the financial system), while at the same time plans are made (as above) for a \$2 trillion bailout of so-called toxic financial assets. Both of these cannot be true, but the overarching concern by the administration with “confidence” in the financial system necessitates such an inconsistent approach.

The most important shortcoming is that the approach fails to recognize the necessarily procyclical nature of the financial system. That is, banks and others in the financial system extend credit when borrowers are creditworthy and have profitable projects to invest in; but the latter are most creditworthy and have the best projects to finance when the economy is doing well. The opposite is true when the economy is doing poorly, and it is true now; hence, waiting for the financial system to lead the recovery is the wrong strategy. Furthermore, instead of desiring to take on more leverage to spend and invest in more business projects, the real private sector is most interested in deleveraging at this time after years of excessive leveraging. Thus, one reads that the household sector is now deleveraging at a pace not seen in 40 years (Zezza, 2009), while household debt service ratios as reported by the Fed have fallen the most since the early 1980s. This is the classic paradox of thrift Keynes explained.

But from Figure 2, the only way that the domestic private sector can increase its aggregate saving is via either an increase in government deficit or an improvement in the current account balance. There are obvious limits at this time to raising domestic saving via an improvement in the trade balance, as the rest of the world is mired in a similarly deep recession and has little desire to raise imports from the U.S. This leaves the government sector to raise private saving, which can be done the “easy” way, via direct fiscal stimulus to raise private sector incomes and saving as the latter attempts to deleverage, or the “hard” way, via traditional automatic stabilizers that raise government deficits as household and business spending and then incomes all fall. Automatic stabilizers merely put a floor on how far aggregate incomes will fall by reducing tax burdens and providing subsistence income to the unemployed, whereas fiscal stimulus can raise incomes and spending, particularly if the chosen stimulus has higher multipliers (that is, all forms of stimulus are not equal). As Figure 3 shows, the increased government deficits have accommodated the private sector’s desired net saving, as both have increased in tandem; again, from Figure 2, this occurs *by definition*. But, unfortunately, to this point most of the increase in the government’s deficit has been via automatic stabilizers while aggregate spending and income have fallen (albeit modestly in nominal terms). Even the Obama stimulus package appears to be less targeted toward spending and tax cuts that would provide larger multiplier effects upon aggregate demand once it finally is fully set in motion, even as it is certainly better than nothing.

As for the current NO Consensus, there are three points to make. First, as Warren Mosler often puts it, the crisis is in nominal terms; it is not a real crisis. In other words, while people are unemployed, actual

productive capacity remains in place, but idle. Second, the solution, particularly when the private sector is desiring to deleverage at a historic pace, is for the government sector to add significant debt, which it is currently doing, though not anywhere near the levels necessary to sustain full employment. Third, this fiscal option is not available to a government under a gold standard or currency board, or for the nations of the European Monetary System due to the Maastricht Treaty constraints; rather, it is the existence of a currency-issuing government operating under flexible exchange rates that provides the policy space to run large, accommodative fiscal deficits to offset private sector deleveraging without incurring the risks of government default or rising interest rates on the national debt.

#### IV. Concluding Remarks

Just a short time after Mishkin gave his presentation on the state of professional thinking on monetary policy, the New Consensus paradigm was of little use to policymakers dealing with the greatest financial crisis since the Great Depression. Today, more than 18 months later, what was a New Consensus has become NO Consensus, with many older, hard-fought debates that had been thought previously settled—the transmission of monetary policy, the efficacy of fiscal stimulus, the balance of regulation and market discipline—now returning *en force*. On the other hand, a number of economists have been developing over the past several years an alternative paradigm which is relevant to a modern capitalist economy and which can coherently incorporate recent events and policy actions. Indeed, there has been some movement toward this paradigm—though largely accidentally and unrecognized—for example in the moves by the Fed to set interest rates low and (eventually) provide credit via standing facilities in the historically large fiscal stimulus and in the recent debates regarding rethinking financial regulation along the lines of systemic stabilization. However, at present at least, it appears that most in the profession view current events as not yet warranting a complete rethinking of previous paradigms (with some, like Taylor, viewing even the current temporary deviation from the New Consensus as the *real* problem), even as some powerful voices in the profession have been calling for this.

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Figure 1. Fiscal Deficits for Japan (1990-2009) and the U.S. (2000-2009)

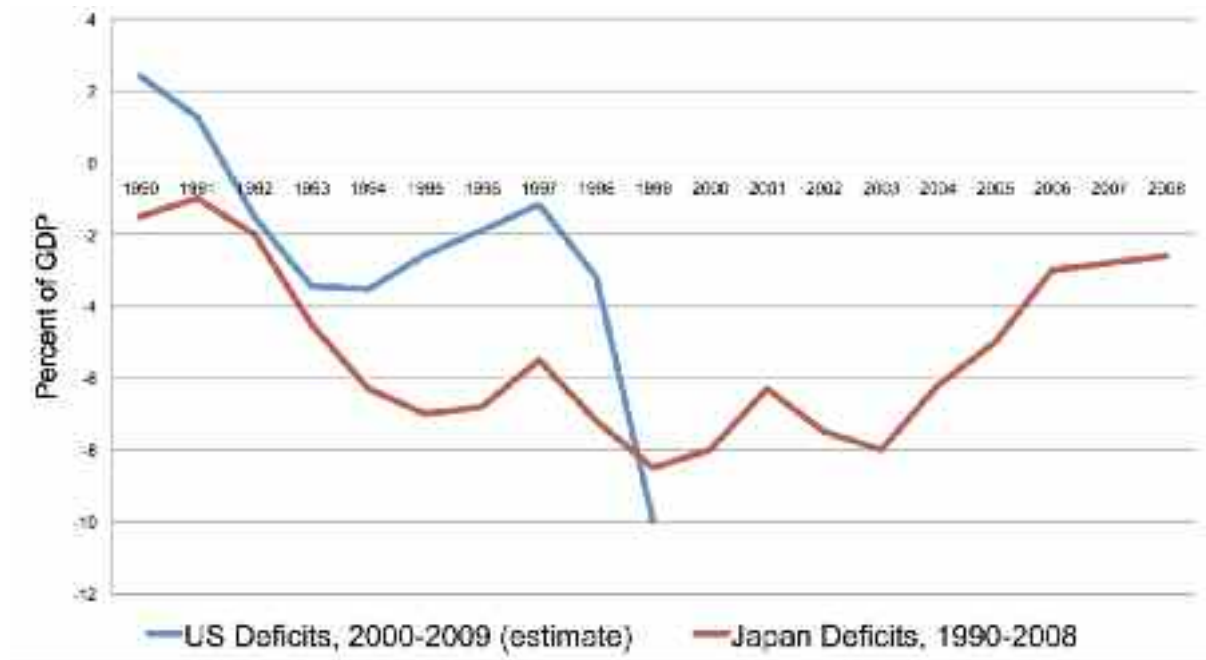


Figure 2. Financial Flows between Sectors of the Economy

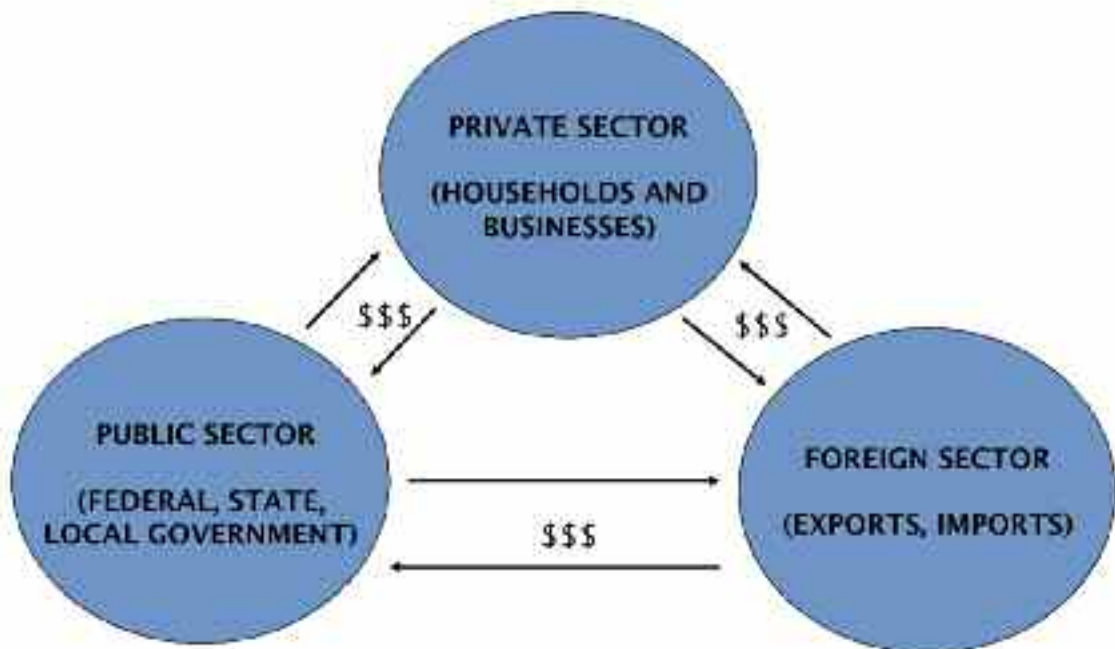


Figure 3. U.S. Government Deficits and Private Sector Net Saving

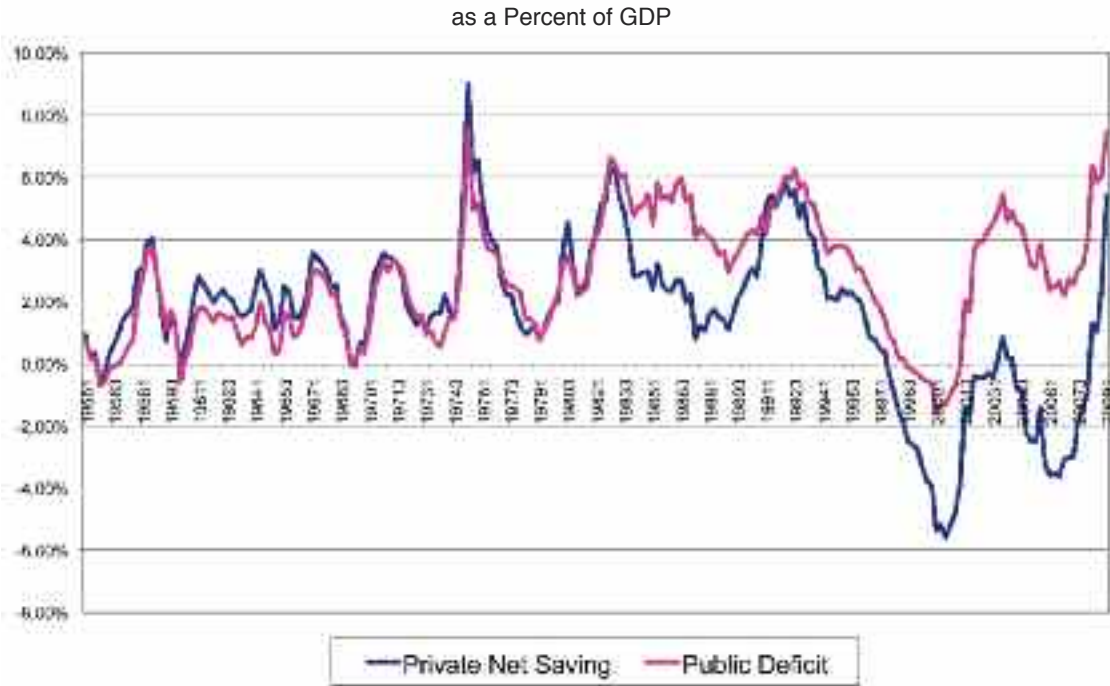


Table 1. Private Sector Balance Sheet Effects of Government Deficits

<i>Govt. Spending Recipient</i>		<i>Bond Investor</i>	
Assets	Liabilities / Equity	Assets	Liabilities / Equity
+ Deposits	+ New Worth	- Deposits + Bond	No Change

## CENTRAL BANKS DURING TIMES OF FINANCIAL STRESS

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### 1. Is the crisis new and different?

This paper is concerned with the role of central banks during times of financial crisis with specific reference to the current as well as to several previous relevant crises. To understand the role of central banks—what they are currently doing, what they should be doing, and also to understand their pronouncements—it is important to take a look at how we got ourselves into this crisis. In an ideal world, I would also have enough time to cover their specific operating procedures; however, this latter section will have to remain brief due to time and space limitations.

There is a strand in the literature as well as in the media that seems to suggest that this crisis is *new and different* from past crises. Two arguments are made to support this contention directly or indirectly. The first is that nobody predicted the current crisis since, it is insinuated, it is such an unprecedented and new problem. The second argument is that there are a number of new-fangled and complex financial instruments which, since they did not exist in past crises, is supposed to demonstrate that the present crisis is new.

#### 1.1 The present crisis could not be predicted

Let us first address the question of whether the current crisis was to some extent predictable and whether warnings had in fact been issued. Many observers, including the British Queen, were surprised that a crisis of such proportions could happen out of the blue. “Why did nobody predict it?” was Her Majesty’s question. “*Cui bono?*” The argument that the crisis was unpredictable has served two important stakeholders well: On the one hand there are politicians and central bankers who carry the responsibility to deliver financial stability. Since they failed so dramatically and appeared to have been taken by surprise, they had an incentive to argue that it was natural to be taken by surprise and to have failed to prevent the crisis in the first place – after all, nobody could possibly have predicted it. On the other hand, there are those financial sector decision makers who have accumulated significant financial losses, nonperforming assets or otherwise failed in their duties to shareholders, customers, regulators or the public at large. Again, the argument that the crisis was an unpredictable thunderbolt appears to absolve them from criticism.

Let us now consider whether the claim is true that the crisis was unpredictable. The record shows that there were fairly specific predictions. A number of economists warned that certain developments in the banking systems of several countries were unsustainable, threatened financial stability and were likely to cause a crisis with more or less severe consequences. Due to space and time limitations, and due to my comparative advantage in commenting on my own predictions, I will here confine myself to the latter.

My key comments can be divided into country-specific predictions which mainly concerned the U.K., the U.S., Ireland, Spain and Austria, where my early warning indicators (more about these later) gave the most dramatic tocsins, and secondly, into warnings about the global financial system. I will briefly summarize these below in the above order.

*(a) Predictions about specific countries*

*(i) U.K.*

I pinpointed the U.K. financial and real estate sectors as a likely epicenter of a major financial and banking crisis from 2004 until the outbreak of the financial crisis. As it turned out, the first major bank to fail was indeed in the U.K., when Northern Rock had to be nationalized in September, 2007 – one year before the failure of Lehman Brothers in the U.S. and six months before the emergency sale of Bear Stearns to J. P. Morgan bank. I have argued that the Bank of England, whose job includes the maintenance of a stable financial system, has failed to ensure a necessary condition for that, namely the avoidance of asset bubbles which, once created, will burst and badly damage the banking system and thus the economy, creating boom-bust cycles. I have argued that the U.K. housing market had already reached the state of a “bubble” by 2004 and it was just a question of time when (not if) it would burst, taking the banking system with it (see Werner and Thomas, 2004, and Werner, 2005a).

My 2005 book, *New Paradigm in Macroeconomics*, features chapters on the “recurring banking crises” and describes the mechanism behind banking crises – which includes the creation of asset bubbles fuelled by excessive bank lending as a precursor. In the book as well as in speeches surrounding its launch I identified the U.K. property market as a bubble about to burst – with all the consequences this implies in my model, more about which later (Werner, 2005b, 2005c)<sup>1</sup>. In the book the most efficient responses to crises and, even more importantly, the steps needed to avoid such problems in the future are identified. As I think we will see, they have stood the test of time well.

*(ii) U.S., Ireland, Spain, Austria*

The above are the other countries mentioned in my past research as facing future banking crises. In the U.S., the central bank has been encouraging the creation of a real estate bubble ever since the “dotcom” equity bubble burst in 2000. Even more blatant examples that I identified were Ireland, Spain and Austria. In all of these countries a key warning signal of future banking crises (which is also a predictor and explanatory variable of asset bubbles) gave unmistakable warning signs<sup>2</sup>. The signals about the economies of the U.K., Ireland, Spain and Austria preceded the outbreak of the global financial crisis. I also found that the bubbles stopped earlier than in the U.S. and potentially acted as signals of pending problems in the U.S. banking system. While this is currently only speculation awaiting further research, one reason for such a sequencing (in contrast to the general perception) may be that the music stopped first in some European countries, thus reducing the risk appetite of European banks for further investments in U.S. credit derivatives. That in turn could have contributed towards triggering the crisis in the U.S. credit derivatives market by resulting in the default of the two Bear Stearns credit derivative funds in 2007 – which set off the sequence of events that eventually resulted in the Lehman failure and precipitous falls in world equity markets in September, 2008<sup>3</sup>.

<sup>1</sup>A slide of the latter speeches in London and Vienna says: “U.K. property prices: Driven up by mortgage credit; danger of bust. ... ECB policy: Boom in Ireland, bust in Germany. ...” Werner (2005a) says: “In times when banks lend heavily for speculative purposes, such as the margin lending of the 1920s in the U.S., the property lending of the 1980s in Scandinavia and Japan, or that of the 1990s in many Asian countries, as well as the real estate lending presently in the U.K., asset price inflation is likely to occur. Meanwhile, consumer prices may hardly rise. ... Such asset price rises are not sustainable and hence threaten the stability of the financial system and the economy.”

<sup>2</sup>For details of the warning signals, see the monthly Liquidity Watch reports produced by my investment research firm Profit Research Center Ltd., Tokyo ([www.profitresearch.com](http://www.profitresearch.com)).

<sup>3</sup>I am referring to the Bear Stearns High Grade Structured Credit Strategies Fund and the Bear Stearns High Grade Structured Credit Strategies Enhanced Leverage Fund. These funds, measured in billions of U.S. dollars in size, were both basically wiped out in July, 2007. They were operated by Bear Stearns Asset Management, a 100-percent subsidiary of the Bear Stearns Companies, which were bought in March, 2008, by J. P. Morgan with New York Fed funding and guarantees to avoid an incipient insolvency.

*(b) Predictions about the global economy and financial system*

I have also made predictions since 2002 in more than half a dozen speeches, mainly to the investment and hedge fund community, about the global economy and its financial and banking sectors. The main predictions were that we had to expect greater and bigger cycles and that standard business cycles would turn into “vast bubbles and downturns” followed by banking and economic crises. I coined a new expression to refer to the risk of this happening which reveals where I believe responsibility lies: “Central Bank Risk.” In brief, I showed that central banks tend to create cycles. My argument was that, given greater legal powers and more independence, central banks had to be expected to do more of what they do best – and that is to create cycles and financial crises. I thus predicted in 2002, 2003 and 2004 that “in coming years” we would experience “vast bubbles and downturns,” and I estimated the risk of this happening being at a “historically unprecedented level.”<sup>4</sup>

I think it can be said that my predictions were fairly specific. But I was by no means the only economist to predict the crisis. Thus, in summary it can be said that the crisis was not unpredictable; it *was* predicted. This suggests that it had clearly identifiable features that served as a warning (as discussed below); these warnings were, however, ignored by those who had decision-making power (central banks, governments and their regulatory agencies, and executives at the large financial institutions involved). It is not surprising that they are clinging to the story that the crisis could not be predicted.

**1.2 The present crisis is unprecedented and different in its features**

History is unlikely to repeat itself precisely. The question is whether there are certain important features or mechanisms that can be identified to be significant and to occur repeatedly.

Specific features of the current financial crisis are new. This is often emphasized by the adherents of the “new crisis” school. There is a long list of acronyms representing specific financial instruments that until recently had not entered mainstream monetary economics, but that during 2008 suddenly came to be cited frequently even in the daily general press. Examples are ABS, MBS, ABCP, CDO, CDS, SPC, SIV, subprime mortgages, as well as the list of brand-new Fed-created acronyms describing the Fed’s responses since 2008 (such as TSLF, TALF, AMLF, MMIFF) in addition to Treasury’s TARP, CAP, CPP and PPIF and the FDIC’s TLGP. This gives the impression that the crisis is mainly related to a number of new instruments (and likewise a recovery only possible by inventing new responses). There is a temptation to conclude that all these newfangled instruments – since intimately linked to the losses, near blow-ups and failures of financial institutions – must also have been the cause of the crisis. And as they are new instruments, this would demonstrate that the present financial crisis is unprecedented.

Granted, the activities of banks and securities houses in recent years looked somewhat bewildering to some observers. It seemed to be a form of alchemy that managed to turn what is now called “toxic waste” into triple-A rated securities that eager and commission-based salesmen working for U.S. securities firms were recommending to gullible institutional investors such as the German *Landesbanken*.

The acronyms may be different in this crisis. But each crisis has its own new financial products that appeared attractive at the time, yet turn into “nonperforming assets” in due course. In Japan during the 1980s, there was much talk about “zai-tech” (financial technology) products into which “tokkin” (special fund) accounts of institutional investors were sunk in the expectation of high returns. The big investors who did not liquidate their long positions in these at the end of the 1980s probably do not exist any more. Before the 1920s, few people had heard of “margin loans.” They seemed an attractive and sophisticated

<sup>4</sup>“Central banks now pursue their own political agendas, which may include the ... creation of vast bubbles and downturns. ... What is the benefit of crises? ... According to World Bank staff, a “crisis can be a window for structural reform,” and it can “be an opportunity to reform the ownership structure in the country” (Claessens *et al.*, 2001). “Central Bank Risk is the risk of the ... creation of price, output and currency swings by central banks. Central Bank Risk has increased significantly over the past decade – it is now at a historically unprecedented level” (Werner, 2002).

new form of financial engineering that allowed investors to “generate wealth” in record time. In late 1929 it also was the instrument that crushed the largest number of “investors,” or indeed lenders. So, if anything, we can already ascertain that each financial crisis seems to involve what only just prior to the crisis was considered “advanced financial engineering” often supported by the clever mathematics of university professors of finance, trained mathematicians or physicists.

Thus today’s banking crisis is not the first banking crisis of its kind. It is true that a near-breakdown in the interbank market, as we observed in late 2008, is rare; but it has happened before, such as in the 1930s or when Britain declared war on Germany in August, 1914, starting what is known in Britain as the “Great War.” Granted, the nominal extent of the problem is larger today than in the past; but this is always the case due to the inflationary bias of our monetary system.

In the 1980s and 1990s alone, almost 100 countries experienced banking and economic crises (Caprio and Klingebiel, 1999). Banking crises are therefore relatively common. Given such large numbers, it stands to reason that they can be explained by a smaller – and perhaps very small – number of variables. The contention that banking crises – including ours today – are nothing new can be supported, if we can establish that they can be explained by the same mechanism. Further, if such a mechanism can be identified, it must then be ascertained whether it yields indicators that may help predict – and hence prevent – crises. Finally, such a mechanism is then also likely to yield insights into the most efficient responses to crises. All this will put the action of central banks today into perspective.

I would suggest that the cause of crises is as old as banking. And banking is at least 5000 years old, going back to the fairly advanced Babylonian banking system, which was the heart of a cashless, credit-based economy with forward contracts, cashless settlement and the like. Below I thus attempt to distill out briefly the key factors that all these crises have in common. A test of these explanations is whether they help in predicting crises. Here, I believe, the approach has performed well.

## **2. What are the main causes of banking crises?**

### **2.1 Open questions in monetary economics**

In the mainstream approach to macro- and monetary economics, money hardly features. Banks don’t feature at all. Over the past year or two, the economics experts at leading universities across the globe thus faced the difficult experience of receiving phone calls from eager journalists asking questions such as “Can crises not be predicted?” and “Please explain to us why we have banking crises.” They had to respond that they had no idea, since banking does not even feature in their models of the world.

Given this state of affairs in economics I believe it is fair at this juncture to ask some very basic questions, such as: “What is money?” The textbooks tell us: “We do not know what money is” (see, for instance, Miller and VanHoose, 1993). The central banks today give us a long list of potential definitions, ranging from M0 to M4. Which one is it? The monetarists who use these terms admit that they don’t know. There are also significant problems in the empirical application of any of these monetary aggregates: They do not seem to be in a stable, reliable relationship with economic activity. In the early 1980s this problem began to be noticed and by the end of the decade it had become a big conundrum. Many papers were written about this puzzling anomaly, referred to variously as “a velocity decline,” a “breakdown in the money demand function,” and even the perhaps slightly more figurative “Mystery of the Missing Money,” because monetary aggregates were rising a lot but GDP wasn’t rising by as much.<sup>5</sup> Where was the money going?

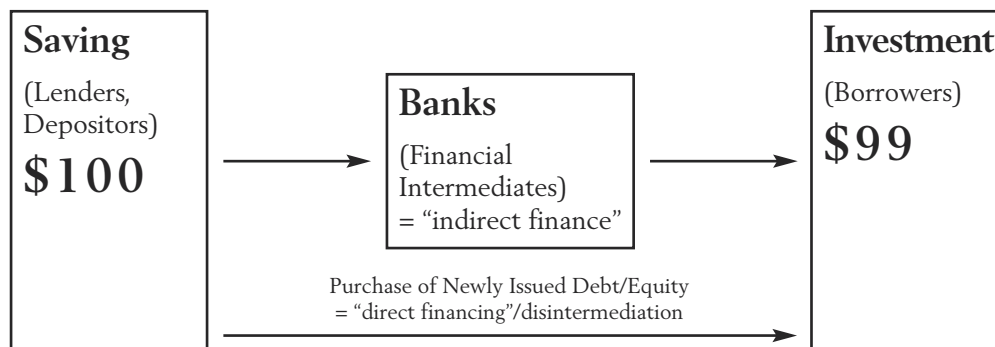
Since the mid-1990s, virtually no new papers have been produced on this question. Observers will be forgiven for thinking that the answer had been found. Yet, the reason there aren’t any papers anymore is

<sup>5</sup>For a summary survey of these issues, see Werner (2005).

because people have given up seeking answers. But let's not give up so easily. Instead, let's ask another question: "Who creates money and how is it allocated?" The fact is, in most countries, only about 2 percent of the money supply is the sort of money that you'd think of first, the money that's in your wallet, notes and coins. In most countries, around 98 percent or even 99 percent of all the money is not notes and coins. Now, we understand where this 1-2 percent, the paper money, comes from, because it usually tells us: It has "Federal Reserve Note" or "Bank of England" written all over it. So the more interesting question is, "Who creates the rest of the money?"

Before I come to the answer, there's another puzzle in the mainstream finance and banking literature. Some empirical papers, such as Fama (1985), have shown that banks must have some special power, some kind of monopoly power, compared to other financial institutions. But there is no clear answer as to why that should be. Banks are treated like other financial intermediaries. The textbooks represent this by giving the example of a new deposit of, say, \$100 in a bank. With a reserve requirement of 1%, the bank is then shown to be able to lend out \$99 to new borrowers. Meanwhile, the bank will deposit \$1 with the central bank as its reserve. Hence the bank is "just an intermediary" (Figure 1).

Figure 1. Textbook representation of banks as financial intermediaries; reserve requirement = 1%



## 2.2 Answers

I pose that this representation is inaccurate and misleading. First of all, there is a methodological issue. How did the authors come up with these explanations? We should always question the methodology, and we should always strive to adopt a scientific research methodology. The natural sciences approach matters by first considering the empirical facts. In economics, the facts are history. So, historically, where do banks come from? And empirically, how do they actually operate? If we adopt this approach – and in this paper for space and time limitations we can only briefly mention the result – we find that there is a good reason why banks are special. Schumpeter called the banks "the central settlement system of the economy, that settles all the credits and debits," and therefore he proposed that we should really start from credit transactions. Things like notes and coins are just a residual, a special case, he argued (Schumpeter, 1954).

There is literature out there saying that credit is key and also that banks are special. This has to do with concepts like the "money multiplier," the "credit multiplier" or "credit creation" – all of which you will not find mentioned even once in the 700 or so pages of the leading monetary economics textbooks of today (Walsh, 2003; Woodford, 2003). Here are some of the facts that you're not supposed to know, which is why they're not in the textbooks:

First of all, I have to disillusion you. People talk about "bank loans." I'm sorry to say, but there is no such thing. Bank loans don't exist. Why? A loan transfers an item from the lender to the borrower, so that the borrower has exclusive use of it. If I lend you my car, I cannot also drive it myself. That's a loan. And that's not what banks are doing. When banks "lend money," they are not extending loans. What they do is far more important and has far bigger implications for the economy. I would argue that this is the single most

important fact about how economies work: When banks do what is called “lending,” they do not actually transfer money from somewhere else. Instead, they create money out of nothing.

I shall illustrate this by returning to the textbook example of a new \$100 deposit with a bank. Let us consider the bank’s balance sheet. In step 1, the new deposit creates a new liability on the bank’s balance sheet (Figure 2). The bank is smarter than the textbook writers, so instead of giving \$1 to the central bank and lending out \$99, it will give the entire \$100 to the central bank and say, “That’s our new reserve.” How much of the \$100 will the bank extend as a “loan”? Since the \$100 are now on the asset side of the bank’s balance sheet as reserve, the bank will point out that the \$100 is 1% of \$10,000. So theoretically the bank can now lend \$10,000 minus \$100 and have deposits of \$10,000 minus \$100. By lending \$9,900 and receiving deposits of \$9,900 the bank would meet the formal reserve requirement of 1% with its \$100 central bank deposit. While this calculation is straightforward, it is less obvious how this should work in practice. To be precise, how can the bank lend \$9,900 “out of” a total of \$100? It seems a physical impossibility. But has banking ever been hampered by the laws of physics? We may be constrained by the fundamental laws of thermodynamics – such as energy preservation: “You can’t create something out of nothing.” But this is only confined to physical matters. It does not apply to disembodied things such as thoughts, ideas and, indeed, numbers on paper (or in the computer). We are discussing banking here, not physics. And banking ultimately is accounting. In fact, it now transpires that it is very creative accounting in a somewhat devious way.

*Figure 2. A more accurate illustration of the role of banks*

<b>Balance Sheet of Bank A</b>			
<i>Step 1. Deposit of \$100 by customer at Bank A</i>		<i>Step 2. \$100 used to increase the reserve of Bank A</i>	
Assets	Liabilities	Assets	Liabilities
	\$100	\$100	\$100
<i>Step 3. Loan of \$9,900 granted by crediting borrower's bank account with deposit</i>			
Assets	Liabilities		
\$100	\$100		
+ \$9,900	+ \$9,900		

*Contrary to the standard depiction of the credit creation process in most textbooks, each individual bank creates credit and money when it extends a loan. The original deposit of \$100 becomes the 1% reserve on the basis of which loans 99 times as large can be granted by the same bank. Credit creation has “lengthened” the bank’s balance sheet.*

Let us assume there is a borrower who would like to borrow the \$9,900. First, we need to sign a loan contract which features such details as how quickly the compounding interest will double or treble your total repayments or how easily the bank can foreclose on you and make you homeless. The moment this contract is signed by both parties, it has become an asset which the bank can by rights feature on the asset side of its balance sheet. Thus the bank’s assets grow by \$9,900. You see where we are heading. The bank now has a new asset worth \$9,900, and the borrower would like to withdraw this money. The bank will say: “Nothing is easier than that. Luckily for you, we have opened a bank account for you with us. Please check your balance.” And the borrower will find that it shows a balance of \$9,900. Where does this “money” come from? Did the bank transfer it from any other part of the economy? Of course not – then we would be confined by the laws of thermodynamics and would have a problem. Instead, the bank’s accountants, when receiving the signed loan contract, issued instructions to a data entry clerk to type the figures \$9,900 into the bank account of the borrower on the agreed date. The treasury department of the

bank may at this stage not even have been informed, so that there may not even have been a chance for the bank to seek to raise such money from elsewhere. But there is no need for that anyway. The money is still only in the bank – and that means it is merely a number. So how did the sum of \$9,900 come about? It was created out of thin air. Now that is precisely how 98-99 percent of the money supply is created in virtually all countries. That of course is an interesting feature that, I would argue, makes banks special. If I had a (legal) money printing press at home, I think that would make me somewhat special.

We find that the creation of the majority of our money supply is in private hands. It has been that way for a long time. We have thus already arrived at a level where we can venture a first, rudimentary explanation of the current global financial crisis. The main cause is the privatization of money creation and its allocation. Banks are profit-seeking institutions. They do not think about the macroeconomic and social welfare implications when they create money and transfer it to their customers. They don't consider whether or not it is actually a qualitatively good transaction that leads to welfare enhancement or whether new money is being created and given to an unproductive speculator who can now lay claim on finite resources far larger than all the money ever going through the hands of those productively engaged in such activities as teaching or healing people. There can be little doubt: Banking has been an industry oblivious to sustainability considerations for centuries. The system has been put in place by interested parties without any public debate, and I think now it's time to have this public debate. But we have another objective in this presentation, so I am pressing on.

Next, we should be aware of some empirical features concerning the credit market. It is established fairly clearly in both theory and empirical practice that because money is very special, there is much demand for it. When I was an undergraduate student and for the first time heard about the money demand function, I thought, "What are they talking about? My demand for money is infinite!" If demand and supply don't match, the market is not in equilibrium. In that case, the market is rationed. There is a rule about rationed markets: They operate according to the "short side principle," which says that whichever quantity of demand or supply is smaller will be transacted. In the case of money it is fairly easy to find out whether demand or supply is smaller. Since money demand is virtually infinite, it all depends on the supply. And we have just found out that 98 percent or so of money is supplied by commercial banking operations. Indeed, as Stiglitz and Weiss (1981) have shown, banks always ration credit, because the theoretical equilibrium interest rate would be so high it would be off the chart. As a result, only risky borrowers would come forward, saddling the banks with significant nonperforming loans. Therefore it makes sense for banks to ration the supply of credit. Therefore the supply of credit, which is created by banks, is the key variable in macroeconomics.

Now I'll get to a few important points on the basic rules for sound and stable banking and how to avoid crises. Keynes in his 1930 *Treatise on Money* said that we should divide money into its use for speculative purposes and its use in the real economy, which he called "industrial circulation." Fisher earlier had a similar idea. Friedman later considered these proposals favorably, but concluded that they could not be implemented in practice because the money supply could not be disaggregated by the use of money. The reason for this was the traditional definition of money into the M aggregates, such as M2 or M3. Since 1992 I have proposed a credit approach, because an accurate measure of the money supply is actually credit creation and because this has the additional advantage that we can divide this credit money qualitatively by its use. In other words, we can actually do what these great economists have been proposing for a long time. We define money as credit and divide it into credit used for transactions that are part of GDP ("real circulation credit" or CR) and credit used for non-GDP transactions ("financial circulation credit," "speculative credit creation" or CF). The non-GDP transactions are financial transactions and those real estate transactions that are also mainly financial hence are not part of GDP.

The vast volume of financial transactions – buying, selling, churning and turning of speculative financial players – is of course not part of GDP. Therefore, it is not surprising to find that whenever credit is used

for financial transactions, it cannot affect nominal GDP (for instance in the form of consumer price inflation). This finding already provides my explanation for the so-called “velocity decline.” When newly created money is injected into the real estate market, it will have an impact on real estate prices – they will rise. If this money suddenly dries up or is even withdrawn, what happens with real estate prices? They go down. So credit for financial circulation (speculative credit creation) is always unsustainable because there is no underlying real income generation to service or pay back these loans in aggregate – you may be able to do it in individual cases but never in aggregate. So there is our main source for banking crises. The variable to watch in order to forecast when the next banking crisis will happen is the ratio of credit for financial circulation to total credit. This is also the variable that should be used to prevent the next crisis.

With reference to Japan, this ratio doubled from 15 percent around 1980 to 30 percent ten years later (Figure 3). This is just a ratio. The absolute figures were, of course, enormous because total credit also grew extensively, but the financial credit grew by much more. And that explains the Japanese real estate bubble, which is the prototype for what we’re currently experiencing. Another example of this speculative financial credit creation occurred in the 1920s through margin loans in the U.S. Here, stocks are used as collateral for banks to create credit. In the Japanese case, the definition of CF was bank credit extended to real estate companies, construction companies and nonbank financial institutions (which mainly invested in the real estate sector). Nowadays, we have financial innovation, and we have new examples of speculative and unsustainable credit creation: loans to structured investment vehicles that invest in financial instruments; loans to hedge funds that speculate; loans for mergers and acquisitions (this also creates credit without adding to productive activity in the form of new goods or services); loans to private equity funds; and, of course, direct investments by banks.

*Figure 3. The proportion of credit used for speculative purposes in Japan*



So this is how a bubble economy works: You start with an increase in speculative credit creation (CF). Rising financial credit creation pushes up asset prices, which improves corporate balance sheets, and collateral values rise. This creates a very positive and euphoric outlook for financial investors, companies and banks alike. Banks increase their loan evaluation ratios, as they feel justified in expanding credit further, and therefore financial credit creation rises further. However, all of the speculative credit creation is unsustainable and in aggregate must turn into bad debts – if there is no suitable government or central bank intervention.

The downturn is triggered by a slowdown in CF. The trigger is usually the central bank, but it could also be a shock. As the bubble gets very big, almost anything could trigger a turn for the worse. But when it happens, you first notice the credit creation to the financial sector falling, which leads to asset prices falling. This creates the first bankruptcies—of overstretched speculators—and some unemployment, though initially small. Bank bad debts must increase and of course that means banks get more risk averse. As a result they reduce credit creation further and you have another round of contraction, bankruptcies and

slumping demand. This downward spiral can go on for a long time. Next year Japan will be in the twentieth year of its slump.

So the cause of past banking crises is always the same: an asset bubble created by speculative (and unsustainable) bank credit creation like those in the U.S. in the 1920s, Scandinavia and Japan in the 1980s, the Asian crisis in the 1990s, the U.K. property bubble until 2007, the U.S. property bubble and Irish and Spanish bubbles until recently.

However, credit creation is not only about asset bubbles and banking crises. Banks do not have to lend to speculators (although it may often appear to be compulsory – or how else could one explain their reckless behavior?). It is important to remind ourselves that banks can create money and give it to people who use it for transactions which are part of GDP. That creates two possibilities, namely a) inflation without growth and b) growth without inflation. The first one is not desirable: This is basically when credit is created and used for consumption, i.e., for activities that don't add to the stock of goods and services. Again, if money is created and the same amount of goods and services is being chased by this increased money, their prices must go up. That's called consumer price inflation. But there is another possibility – and that's the Holy Grail of macroeconomic policy – namely growth without inflation. Credit creation that is used for the production of new goods and services will always be noninflationary and create pure growth. This is always possible, whether we are below so-called “full employment” or at full employment. We can always have further growth without inflation because the money creation creates new goods and services so that there is no reason for inflationary pressures. That's why this is called productive credit creation.

### **3. Policy implications**

#### **3.1 How to avoid bubbles and banking crises**

So how do we avoid banking crises and unproductive credit creation, both of the speculative and the consumptive kind, and ensure that we obtain mainly productive credit creation? This is what some may call boring, old-fashioned banking. It used to be what bankers focused on – when they preferred a quiet life without banking crises – but also with lower bankers' pay. The pay, but also the advances of modern economic theory, persuaded many bankers otherwise. So what is required for productive credit creation? All we need is transparent regulation of the qualitative allocation of bank credit, with a simple rule: bank credit must never be given to those who will use it for non-GDP transactions. This means mainly the financial speculators. Such a regulation is enforceable, because banks do ask borrowers a lot of questions as part of their credit analysis. Central banks also ask banks many detailed questions about the use of the newly created credit. Finally, by so drastically restricting access by speculators to bank credit, we are in no way prohibiting financial speculation. To the contrary, speculators will continue to be free to speculate. What should be forbidden, however, is to give them access to newly created money, which affects us all and the stability of the economy and financial system. Meanwhile, the speculators will be free to access the allegedly efficient capital and financial markets to raise their funds. It is ironic that hedge funds engaged in allegedly highly complex financial transactions in the end could do their jobs only because they relied on plain, old-fashioned bank credit (creation). That is what gave them the excess returns. And that is what must be taken away from them. Let them earn double-digit returns without being able to access newly created money.

Unfortunately, modern economic theory has rejected the idea of directing bank credit as an unwarranted interference in the efficient functioning of free markets. Ironically, now, after the horse has bolted, governments have been taking steps precisely to monitor bank lending and its allocation, in order to ensure that small firms obtain loans. In other words, the current crisis has demonstrated the need to intervene in the credit market. Of course, once we admit that, then it becomes clear that we could have avoided the entire problem if we had done so several years ago. In actual fact, given that the credit

market is rationed, it is not very difficult for welfare and efficiency-enhancing government intervention to take place. Had proper regulation of the qualitative allocation of credit creation taken place earlier – by preventing speculative credit creation – the entire financial crisis and preceding bubble could have been avoided.

This leads us to another issue: Who carries the greatest responsibility for the crisis? Many people are involved in this, carrying partial responsibility. But usually they have no power or even knowledge about the credit aggregates, which are really the problem. The central banks have both the data and the instruments to intervene and prevent crises and bubbles. They intervened in the allocation of credit until the early 1970s, when they monitored very directly the quantity and quality of credit allocation (credit guidance, or credit controls, as it is sometimes called). As a result, they avoided, in many countries for decades, financial crises. But central banks had to stop doing this. It rendered their power too obvious. They were pitching for greater legal powers and central bank independence and hence had to downplay their ability to manipulate the economy as well as their power to create boom and bust cycles. If such power had been widely known, would we have made central banks so unaccountable? Today, they can virtually do what they want – democratic institutions have virtually no way left to influence the economy. It is largely in the hands of unelected technocrats who know what is good for us (a justification that was very popular in Nazi Germany, by the way). So it was argued that more power should be given to central banks and the world would be better off for it. The empirical evidence is now in: That's not the case. So the role and independence of central banks need to be reviewed.

How can we end the cycle of recurring banking crises? We either return the power to create money to the public, for instance in the form of true government money issuance, which unfortunately currently we don't have, or we institute rigorous controls and transparency over the money creation and allocation process. There would have to be discussions of the type, "Should Bank A newly create and give money to this hedge fund, or should it create money and hand it to an environmentally sustainable and interesting project that is good for the local community?" We could also abolish central banks entirely and render them departments of the government, the Finance Ministry (or Treasury), which would then put me very much into agreement with some of the things Scott was saying, if that were the world we live in. Perhaps we should create such a world. Or we make the central banks legally dependent on democratically elected institutions, accountable and transparent, especially concerning their credit creation policies. And then we monitor and restrict credit creation to make sure it is granted only for productive uses.

### **3.2 Suitable post-crisis policy responses**

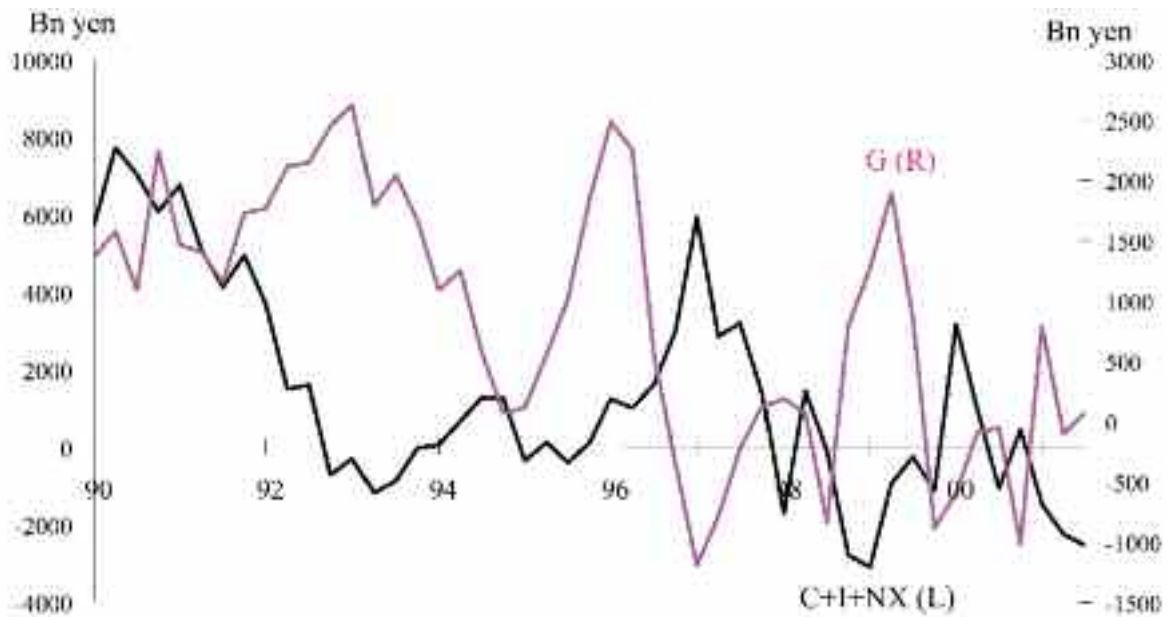
What are the solutions once a crisis has broken out? The cause of crises has been credit creation. The solution also has to involve credit creation. This is not too difficult. It is not as if factories have disappeared. The working population in most countries is still there, nothing has been swallowed up by the ocean, so our problem amounts to an accounting problem. Well, let's change the accounts! The institution that can do that legally within the current framework, without big institutional changes, is the central bank. Just to give an example of correct policy responses, look at the U.K. in 1914, Germany in 1933, Japan in 1945, Malaysia in 1998 or China in 2008. The correct responses are few. You will find many examples of wrong responses.

The problem with the current bailout in fiscal expenditure is that it is often not linked to credit creation. Fiscal expenditure *per se* does not increase credit creation *per se*. Fiscal expenditure does not mean government money issuance. This is so in most countries, including the U.S., because the Federal Reserve is not a government entity. It was created as a bankers' cartel, is owned by the bankers and, despite the existence of a politically appointed board in Washington, we can't treat it as being fully part of the government. With the birth of the Federal Reserve in 1913, national debt really took off in America, because the government couldn't create money anymore. Despite the fact that the U.S. Constitution

identifies only the government as having the right to create money, this power has been outsourced and the government has to borrow from the central bank at compounding interest. Naturally, the debt burden must rise.

At the same time, increased fiscal expenditure will not stimulate the economy because it is not directly linked to credit creation. My empirical work on Japan, the first country to embark on a vast post-crisis fiscal expansion program, showed that for every yen the government spent, which is the pink line, private demand fell by 1 yen (Figure 4).

Figure 4. Government expenditure G vs. private demand in Japan



Source: Cabinet Office, Government of Japan

Latest: Q4 2000

For details on the econometrics, see Werner (2005). The statistical results were strong, the coefficient for government expenditure coming in at virtually exactly -1. The logic is as follows: When the government issues bonds to fund its public sector borrowing requirement, it drains this money from the economy. It will inject it again with the other hand, but it is a zero-sum game. The amount of money (or credit) circulating does not increase, thus there cannot be more nominal economic growth. In other words, with the same size of the income pie, an increase in government expenditure merely increases the government's share of this pie. Thus the private sector share must decline by the same amount, resulting in complete crowding out. This is not the textbook type of crowding out – which takes place via interest rates: rates declined for over a decade in Japan. It is a form of quantity crowding out due to the restriction in credit creation. So when the government injects money with the right hand, it takes the same money out with the left by issuing bonds, and if the bond buyers, private sector nonbank investors, pull the money out from somewhere else, the effect will be zero. This is what I argued in 1995, and it has held up well (Werner, 1995).

I also proposed how this can be resolved. There are many possibilities, but here is one way to recapitalize the banks or increase credit creation or boost demand at zero cost. Since we have to utilize credit creation, current institutional arrangements leave us with the banking sector and the central bank. Connected to this, one also needs to ensure that the bill for fiscal expenditure stays with the banking sector, including the central bank, and is not passed on to the government (i.e., the taxpayers). The taxpayer was not responsible for this banking crisis, so why should the taxpayer pay? The central bank and the banks were responsible, so they need to be left with the bill for this. That way, the problem can be solved in the most

efficient way, and indeed at zero additional social costs. Unfortunately, the post-crisis responses in many countries turned this principle on its head and left governments and taxpayers with unprecedented bills. Even when the central bank was utilized, often governments allowed themselves to be persuaded to foot the bill. Although the Fed intervened apparently without prior consultation with the Treasury in several cases of financial rescues and asset purchases, in the March 2009 Treasury-Fed Accord the Treasury agreed to foot the bill of all central bank expenses if the Fed so wishes (Federal Reserve and Treasury, 2009).

By contrast, let us consider how Japan escaped from far bigger banking problems far quicker and at little cost to the taxpayer. I am emphatically not talking about the recent Japanese banking and economic problem, but the banking crisis of 1945. The bad debt problem amounted to virtually 100 percent of bank assets. Banks had mainly two items on their balance sheets: forced loans to the ammunition industry, which had ballooned in the last year of the war (in 1945, with the arrival of American troops, they were worth nothing!) and Greater East Asian Prosperity Bonds (forced war bonds). These were also worthless. (Actually that's not precisely true: one can still buy them for around \$10 on eBay! I've got two on my wall.) So the banks' balance sheets on the asset side consisted of nothing valuable. By comparison, bank balance sheets were impaired only up to 30 percent in the 1990s. Nevertheless, in 1947 bank credit creation was ballooning and the economy accelerated dramatically. How was this achieved? Since the U.S. required a fast recovery, there was no debate about whether accounting tricks should be used or not. We must remember that the central bank can simply buy all the nonperforming assets from the banks – for instance, at a face value of 100, although we know they are worth only 10. While it then appears as if the central bank will sustain a loss of 90, in reality it will make a profit of 10. Its cost of funding is zero, and it obtains something that is worth 10. This is how the Bank of England helped the British banks in 1914. Even if the Bank of England still had all those European “enemy country” bills of exchange on its balance sheet today, they would not be an issue, as inflation would have rendered them minor items over the past century. Remember, central banks do not have to mark their assets to market.

I made another proposal in 1997 which has been picked up by some U.K. economists—Andrew Smithers, Tim Congdon and now Charles Goodhart. I found that this is how Germany reflatd in 1933. To kick-start bank credit while avoiding fiscal crowding out of the kind just described, the German government did the logical thing: Instead of funding government expenditure through bond issuance it raised funds by borrowing from the commercial banks. In this case, as we discussed earlier, new purchasing power is created out of nothing, together with banking sector liabilities (called “money”). There will be no crowding out and fiscal policy will be fully effective. An expenditure of US\$10bn will boost the economy by \$10bn.

If one wishes to be more radical, there are other solutions to avoid crowding out and to kick-start the economy. The crisis may tell us that it is perhaps time to rethink our financial architecture. There are better, more sustainable systems. For example, Friedman (1982) made this suggestion: Why don't we abolish the central bank and turn it into a small department within the Treasury? One could argue that one person sitting at a small desk inside the Treasury could do the job better than the Federal Reserve system's thousands of overpaid staff. This is not how the U.S. system was designed, for various reasons, and Friedman understood those quite well. So he was very much aware that the central bank is not the government and that it pursues a different agenda from the government. Do we need central banks? I think we should make sure the central bank is much more aligned with the government in its goals, and therefore fiscal policy will always be linked to monetary policy.

Why aren't these simple policies being adopted? I have published much on them since 1994 in Japan, where I've had monthly columns in the papers. One reason may be genuine lack of public awareness. But that alone may not be enough; there is also the role of vested interests. According to the World Bank, crises can actually be quite useful. A crisis can be a “window of opportunity for structural reform” and, very interestingly, for “transferring ownership” in a country. Empirically we find that when it is convenient, the

right thing is done, as in the U.K. in 1914, Germany in 1933, Japan in 1945 and perhaps the U.S. in 1963. This leads me to the last example: Kennedy, it seems, also understood that fiscal expenditure had to be linked to money creation to be effective. But since the Fed apparently refused to monetize his spending he must have gotten his brother Bobby, the Attorney General, to check the laws. Bobby must have come back and said, “John, go ahead, because the Constitution says that only the government has the right to coin money.” And so here is the U.S. government money they issued (Figure 5).

*Figure 5. U.S. government money from 1963: United States Notes, without the Fed seal*

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It is identical to the Federal Reserve Note of the time, but it is entitled “United States Note.” Notice there are not two seals as on standard U.S. money, but only a red “Treasury Seal” on the right. This money was issued only by the government and had no connection with the central bank. Fiscal expenditure paid for in this way is fully monetized and does not crowd out private demand, nor does it impose a compounding debt burden on future generations.

#### **4. Central bank operating procedures**

I will conclude with a final comment on central banks’ operating procedures. Central banks claim that they make monetary policy by moving interest rates, which is what we are familiar with. It is not so well-known today that academics did not believe this central bankers’ story until the 1980s. For decades they felt that this claim was not true. But then, since around the 1990s, academics have given up resistance and have just accepted what the central banks are telling them: monetary policy is all about setting interest rates. When you look into how they changed their view and came to accept the central banks’ story, you find that the methodology is not scientific; it is not based on an empirical examination of what central banks are doing. It is a case of uncritically repeating the assertions of the central bankers.

The empirical record contradicts this story. We are all familiar with the main chart in economics, featuring a downward sloping demand curve and an upward sloping supply curve.

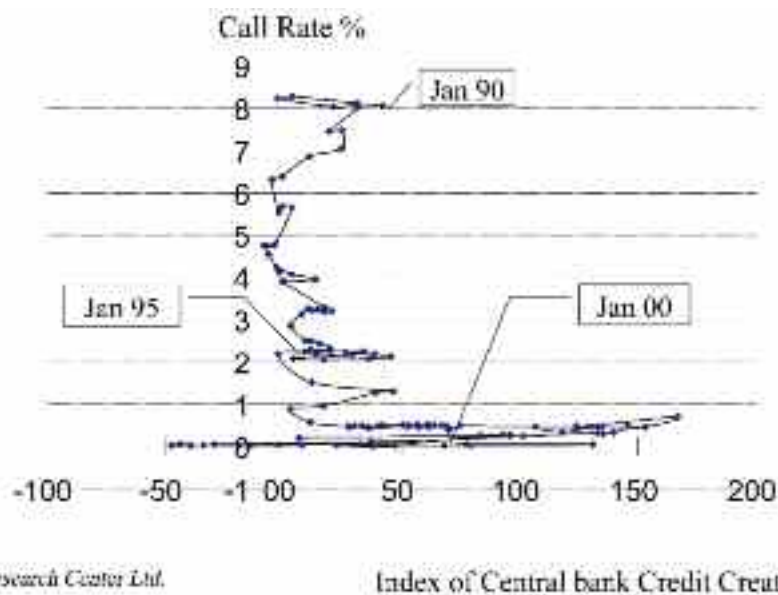
The official chain of causation is that short-term nominal rates affect both the whole yield curve structure and financial markets, economic activity and prices. But this requires, empirically, a negative correlation between nominal short rates and nominal growth – low rates lead to high growth, high rates lead to low growth – and the causation from rates to growth. However, the evidence is weak or non-existing. It turns out that the story of a negative correlation between interest rates and growth is based on theory, not on empirical facts.

Theory says that prices move to deliver equilibrium where the two curves intersect. If this describes the call or money market, we find that central banks can’t target both interest rates (the price) and quantities. But does it describe reality? We only ever achieve equilibrium and obtain this result if a long list of assumptions hold, such as perfect information, complete markets, perfect competition, no transaction costs, utility maximization of agents, immediate price adjustments, absence of friction, etc. One might wonder which planet this refers to. Last time I checked, none of these assumptions held on planet Earth. The reality is that in our world, information, time and money are rationed. That means

everything is rationed and no market is in equilibrium. That changes economics profoundly. Disequilibrium economics is what we should be talking about, as I mentioned before, and it's very simple, based on the "short-side principle." Neoclassical economics has thus served an important function: It has demonstrated that equilibrium could exist only if we lived in a world of perfect information, etc. In other words, it has proven that there can never be equilibrium on this planet because the required assumptions are so stringent that we know for sure they will never apply to our world. But this result is now official: Greenspan has said that there's a flaw in how the free market system works and that his understanding of banking and markets has been wrong.

Since we live in a world of rationing it suddenly becomes possible for central banks to determine both interest rates and the quantity of credit creation – almost independently. Empirically, there is evidence that the correlation between nominal interest rates and nominal growth is positive, and the statistical causation runs from growth to rates. There seems to be some form of cognitive dissonance: While the traditional official party line is "Low rates lead to high growth, high rates lead to low growth," the facts are that high growth leads to high rates, low growth leads to low rates. This is different from the official story by two dimensions: causation and correlation. How can this be? The official story requires equilibrium. There is no such thing in reality. Figure 6 shows overnight interest rates on the left axis and the quantity of credit created by the central bank on the right axis, again using the Japanese example.

Figure 6. Evidence for rationing in the Japanese call market



Source: Profit Research Center Ltd.

This chart suggests that there is no equilibrium as the central bank seems able to choose any combination of price and quantity. This implies that central banks have more tools available than they like to tell us: They can set one policy rate and they can vary the quantity of their own credit creation independently – in virtually any direction. The ECB offers a further example: While interest rates are the same in euroland, the quantity of credit creation of the member central banks (and also of the banking systems) is quite different. If one wants to know the situation of the Irish and German economies it is little use trying to interpret interest rates. The quantity of credit creation in these countries, however, has information value. The trouble is that central banks have an incentive to misinform us, which the empirical record shows they have done in the past (Friedman, 1982; Horiuchi, 1993; Werner, 2003). Thus their role, status, transparency and accountability need to be reconsidered urgently.

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## KEYNES AND THE ECONOMIC CRISIS

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*(Revised version, August 2, 2009)*

I am not going to say too much about Obama's first hundred days because little enough has happened in them. When the title of this talk was mooted, it looked as though we would be comparing him to Roosevelt and *his* first hundred days, which saw a barrage of legislation laying the foundations of the New Deal. The economic situation today is not as desperate, and practically all the reforms to the financial system are still in the future. What we have had so far is a series of rescue operations, most of them started under the previous Administration—bank bailouts, stimulus packages. Whether they will be enough to bring about a complete recovery and over what period, time will tell. What I want to do instead is to outline some of the ideas that I have developed in my forthcoming book, *Keynes—The Return of the Master*, because I do think Keynes is a master and that his theory offers the most profound understanding of the causes of the present economic crisis, what is needed to overcome it, and how to prevent similar breakdowns in the future.

### What Went Wrong?

The story of the present meltdown starts with the American subprime mortgage crisis and the role of financial engineering in bringing it about. Its contours are familiar enough. Banks lent to borrowers who were not credit-worthy. They turned the housing boom into a housing bubble, as house prices and home ownership rocketed between 2001 and 2006. This was due to a surge in the supply of credit. The credit explosion was partly the result of cheap money, but also of predatory lending. The banks scooped up the ninjas—borrowers with no incomes, no jobs, no prospects. They teased them with virtually free money for the first years of the loan. Securitization—the general name given to the financial innovations of the period—enabled this to happen. Credit default swaps are particularly important because they gave the banks the illusion that their lending was virtually risk-free. Credit default swaps were the means by which mortgage-backed securities entered the world banking system.

We all know the sorry outcome of the speculative frenzy: collapsing house prices, rising default rates, the increasing toxicity of bank assets, the freezing of inter-bank lending, the fear and actual occurrence of bank insolvency. Once the banks stopped lending to each other and to their customers, you got a credit freeze, and everything else followed with astonishing speed in the autumn of 2008. The collapse of commodity prices started in July, accelerating with the bankruptcy of Lehman Brothers in September. Stock markets collapsed, and then the real economy started shrinking. Up to the middle of 2008 it was still possible to make growth forecasts which assumed only a very slight fall in the rate of growth for the following 12 months. Then they all had to be revised downwards as the real economy went into a nose dive. One of the difficulties of discovering where we are today are these projections from bodies such as the IMF and the OECD that are all backward-looking. Is the present stock market bounce just a blip or the start of a durable recovery? No one knows.

The question is, why did a situation which seemed reasonably healthy in 2007 and even in the first half of 2008 suddenly turn out to be so diseased? The earliest explanations blamed greedy bankers, incompetent regulators, misaligned incentives and so on. But none of these touched on fundamental economic theory. That came later. The chief ones currently being canvassed may be grouped under two headings: government failure and market failure. The first is associated with the New Classical economics and the second with the New Keynesian economics. But neither, it seems to me, gets to the root of the matter. For that we need to return to Keynes himself.

### Current Explanations of the Crisis

The New Classical economists find themselves in an uncomfortable position. According to the doctrines chiefly associated with them—rational expectations theory, real business cycle theory and efficient market theory—the present crisis should not have happened, because assets are always correctly priced. This is roughly what New Classical economists mean when they say that agents have rational expectations. Rational expectations are correct expectations. If this is true, a decentralized market system would never be subject to breakdown except in circumstances which had never happened before. Individual mistakes are randomly distributed and cancel each other out.

This being the case, New Classical economists are committed to the view that business breakdowns must be due to exogenous “shocks,” events which cannot be fitted into models which assume normal distributions of contingencies. The main candidate for the shock which generated the present crisis is “excessive credit creation” and its main author is Alan Greenspan, till recently the hero of all conservative Americans, an all-wise master of the financial universe. Greenspan, it is alleged, kept money too cheap for too long. By the time he tried to remove the punch bowl, the party had gotten out of hand. By the time interest rates did finally go up, it was too late to do anything except bring about the collapse of the housing bubble and by doing that involve the whole of the banking system in the ensuing ruin. Surprisingly, there has been little criticism by the New Classical economists of the loose fiscal policy of the Bush administration. This is because Bush was a conservative hero and, after all, he spent those deficits wisely—didn’t he?—by invading Iraq and Afghanistan and on other such noble enterprises on behalf of freedom.

The story is that “excessive credit creation,” promoted by a one-percent Fed funds rate between 2003 and 2005, produced asset price inflation. Greenspan, in other words, produced a “money glut” from which a reaction in the form of credit restriction was inevitable. This is really a rerun of the conservative explanation for the Great Depression of 1929-1932. So you are getting a very old record dressed up in new math. The basic idea is always that the boom has to end in a slump because the boom is the sin and the slump is the wages of sin.

In blaming the crisis on Greenspan’s cheap money policy, the New Classical theorists are forced to sacrifice one of their favorite intellectual propositions: the neutrality of money. This states that if the money stock is growing faster than productivity, as it certainly was in the early 2000s, the only effect will be to increase the rate of inflation; it will have no effect on relative prices. This is simply another way of stating the equally well-known “policy ineffectiveness proposition,” which says that monetary expansion (or contraction) has no effects on the real economy. But what the New Classical economists now have to admit is that Greenspan’s policy threw the economy out of equilibrium. Money, apparently, is not neutral, and policy is not ineffective. The New Classicals might reply that lenders were “surprised” by the cheapness of money into making loans which could not be repaid. But it had been the main object of Milton Friedman and, following him, the New Classical economists, to show that this type of “fooling” was no longer possible. Very cheap money by the Fed should not have led to “excessive credit creation” by the banking system if lenders were correctly anticipating inflation. The yield spread between the Fed funds rate and the banks’ loan rate would simply have increased, choking off any housing bubble. This of course did happen after the banking crisis had occurred, not because the banks were expecting inflation, but because they were trying to rebuild their balance sheets.

The New Keynesians blame the crisis not on government failure but on market failure. Markets can fail, they argue, because they are plagued by all kinds of information problems. As a result, trading at wrong prices is possible and frequent. The main source of information failure investigated by the New Keynesians is “asymmetric information”: insiders have an informational advantage over outsiders. The credit customer knows more about his risk of default than the bank does; the insurance buyer knows more about his health

than the insurance company does. Achieving efficient exchange under these conditions is difficult. Suspecting that the insider will use his superior information to cheat, the outsider will pay only a low price and therefore the insider will want to sell only bad goods. In the secondhand car market, all that will be left is a “market for lemons.” New Keynesians also explain the stickiness of wages and prices in response to a shock by “menu costs,” the cost of adjusting prices quickly to every change in conditions.

The New Keynesian models seem to fit some current facts rather well, such as banks giving out loans to borrowers who could never pay them back. The flaw in these models is that they assume that someone—the credit customer, the insurance buyer—possesses perfect, or at least superior, information. However, the present crisis shows that we are in a world of uncertainty, with the blind leading the blind. This is a crisis of symmetric ignorance, not asymmetric information. Bankers were not only greedy, but, as Taleb says, “phenomenally skilled at self-deception.” Robert Merton and Myron Scholes, who in 1997 received a Nobel Prize for their work on derivatives’ pricing methods, believed in models which led to the collapse in 1998 of their hedge fund Long Term Capital Management. The only people who were not really ignorant were the traders, who never bought the efficient market hypothesis. Their aim was to get in and out of trades as quickly as possible to make sure that they were not left holding the baby when the music stopped. They knew it was bound to stop, but meanwhile they might have retired with \$50,000,000.

“Menu costs” might explain why individual firms faced with falling margins lay off workers rather than adjust their wage contracts. But a firm’s profit expectations reflect not just its own cost curves, but its expectations of future demand in the economy. Like the New Classicals, the New Keynesians try to derive macroeconomic outcomes from decisions at the micro-level, differing from the former only in their assumption that knowledge of outcomes is asymmetrically rather than symmetrically distributed. Symmetric ignorance, or what Keynes called uncertainty, is ruled out by assumption.

#### **Keynes’s Explanation: Uncertain Expectations and Money**

The heart of Keynes’s explanation of why market economies are not automatically self-adjusting to full employment is that economic actors have *uncertain* expectations about the future. Those economists like Paul Davidson are right, therefore, when they place uncertainty at the center of Keynes’s picture of economic life. Holding cash provides a way of dealing with uncertainty. But it also causes a collapse of aggregate demand, or spending, which sets the economy on its downward slide.

Recession in Keynes’s economy is usually triggered by a fall in investment demand relative to intended saving due to more pessimistic expectations about the future. The ratio of saving intended for new investment falls; the ratio of saving to be held as money rises. The importance of money, Keynes wrote, “essentially flows from it being a link between the present and the future.” As a consequence “a monetary economy... is essentially one in which changing views about the future are capable of influencing the quantity of employment and not merely its direction.” Shifts in attitude to investment are key to the dynamics of the economic system. When fear of the future grows, there is a flight from investment into cash—from illiquid to liquid assets—and the economic machine runs down.

The existence of uncertainty explains why investment is heavily dependent on the “animal spirits” of businessmen; the role of money as a store of value explains why a key price in the system—the rate of interest—is “sticky” just when it needs to be at its most “flexible.”

The classical belief that the economy was self-correcting rested on the view that the rate of interest was the equilibrating or balancing element in the economic system. It was the instantaneous adjustment of this price to shifts in the supply of saving and the demand for investment which was supposed to maintain the balance between the two. When the desire to save ran ahead of the inducement to invest, the rate of interest would fall. (This was the basis of the classical prescription that people should save more and spend less in a slump). By contrast, Keynes argued that the rate of interest has little effect on saving (which

depended on the level of income), but a big effect on investment. For any given state of profit expectations, the continued expansion of investment depends on a corresponding reduction in the cost of borrowing.

But here was the snag. “The rate of interest,” Keynes writes, “is the price which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash. The greater people’s ‘liquidity’ or ‘cash’ preference, the higher the rate of interest they will charge for parting with money.” A collapse in the expected profitability of investment tends to lead to an increase in liquidity preference, thus pushing interest rates up, when they need to come down. The logic of Keynes’s *General Theory* is completed by this demonstration that the rate of interest can remain above the rate of profit necessary to secure full employment.

Why, Keynes asks, should anyone outside a lunatic asylum want to hold money? The answer was:

Partly on reasonable and partly on instinctive grounds, our desire to hold money as a store of wealth is a barometer of our distrust of our own calculations and conventions concerning the future.... It operates, so to speak, at a deeper level of our motivation. It takes charge at the moments when the higher, more precarious conventions have weakened. The possession of actual money lulls our disquietude; and the premium which we require to make us part with money is the measure of the degree of our disquietude.

In short, Keynes distinguished between the *risk premium*, which is expected to be rewarded by greater wealth, and the *liquidity premium*, which is compensation for a decreased sense of comfort.

This is a completely recognizable picture of the recent credit crunch. Keynes did not deal explicitly with the behavior of banks. But his liquidity preference analysis applies to them. Because of their bad loans, all the major lending institutions are now trying to increase their cash balances, so they are raising the rates at which they are willing to lend to customers.

Keynes recognized that the increase in liquidity preference might make monetary policy ineffective, especially at the bottom of a slump:

Cheap money means that the riskless, or supposedly riskless, rate of interest will be low. But actual enterprise always involves some degree of risk. It may still be the case that the lender, with his confidence shattered by his experience, will continue to ask for new enterprise rates of interest which the borrower cannot expect to earn.... If this proves to be so, there will be no means of escape from prolonged and perhaps interminable depression except by state intervention to promote and subsidize new investment.

Keynes’s emphasis on uncertainty, and on the role of money as a way of dealing with it, has been virtually obliterated from modern mainstream economics.

### **Saving and Investment**

In the Keynesian analysis you get a downturn when the propensity to save rises or the inducement to invest falls. Now it is true that investment in the U.S. never recovered from the collapse of the dot.com boom in 2001. At the same time, America was enjoying a huge consumption boom. Surely, one could say, this increase in consumption offset the stagnation in investment. And of course it did. Investment fell, consumption rose. Why was this position unsustainable? The short answer is that an increasing share of the consumption was being financed by borrowed money, i.e., the borrowing was not producing the means to repay the debt by creating new assets. As in the war, it was creating deadweight debt. This is the basis of

the view that the crisis and downturn were the result of a “saving glut” or, as Martin Wolf more accurately put it, an “investment dearth.”

One can identify two sources of saving which were not finding an outlet in new investment. The first was the build-up of corporate profits, which were being returned to shareholders in the form of dividends or used to buy back shares or for mergers and acquisitions or in increased depreciation allowances. In other words, much of it was being hoarded or applied to what Keynes called the “financial circulation” rather than the “industrial circulation,” that is, not in buying new assets but in swapping titles to existing assets, which simply increases the prices of those assets. The other source was Chinese, and more generally East Asian, saving.

The historian Niall Ferguson has described the Chinese-American symbiosis as “Chimerica,” which he says seemed “like a marriage made in heaven.... East Chimericans did the saving. The West Chimericans did the spending.... The more China was being willing to lend to the United States, the more Americans were willing to borrow.” The trouble with Chimerica is that the Americans didn’t invest East Asian savings: they *consumed* them. In short, Chinese savings enabled the Americans to consume beyond their means. Chinese investment in U.S. Treasury bills failed to correspond to the development of new American assets producing a flow of income from which to service the debt. What it did do was to enable Alan Greenspan to run an exceptionally cheap monetary policy in the first five years of the new millennium. Yet, as he acknowledges, cheap money had only a “modest effect on recorded developed country investment,” despite the fall in the long-term rate of interest. Instead it financed a big rise in house prices and the cheap refinancing of mortgages to buy consumer durables.

As a result of the investment dearth, the saving glut created from these two sources was not eliminated in the run-up to the 2008 collapse. Indeed, with East Asia growing faster than the U.S. and Europe, the gap between intended saving and intended investment grew. The U.S. consumption boom was at best a short-term answer to the growing gap between the two. It offset the deflationary effect of the saving glut without eliminating it. It was essentially a race between whether the housing bubble or the dollar collapsed first. As it was, the collapse of asset prices, first housing, then other securities, drastically diminished the wealth of most Americans and thus caused them to rein in their spending in order to rebuild their balance sheets.

How then to explain the investment dearth? Keynes expected that as societies got richer the returns to investment would fall and spending would switch increasingly to consumption. But he thought this would need to be brought about by a conscious policy of redistributing income from higher saving to lower saving groups. However, the redistribution of income in the last 20 years or so has gone in the opposite direction. The fact is that America was suffering from *under-consumption* masked by borrowing. Profits were gaining at the expense of wages. People were borrowing more, and working harder, to keep up accustomed living standards, but their actual wages were stagnant. Why were they stagnant? Because the things they had produced before were being produced much more cheaply in Mexico and East Asia. This was the major cause of the profit inflation in the American economy. In other words, the investment dearth in the American economy was partly the result of a depression of wages relative to profits. Since it is consumption demand that drives investment, the tendency to under-consumption by a large swathe of working-class and even middle-class America was bound to put a damper on new investment.

### **The Debate over the Stimulus**

The New Classical economists have been unanimously against a fiscal stimulus, just as the Old Classical economists were in 1929-1932. This follows logically from their premise: if the economy is already at full employment a fiscal stimulus cannot improve matters; indeed, since government spending is likely to be less efficient than private spending, it will lower the medium-term growth prospects of the economy. Here is John Cochrane of Chicago University:

If the government borrows a dollar from you, that is a dollar that you do not spend, or that you do not lend to a company to spend on new investment. Every dollar of increased government spending must correspond to one less dollar of private spending. We can build roads instead of factories, but a fiscal stimulus can't help us to build more of both.

Paul Krugman was enraged by this statement, pointing out that the conservative argument against fiscal stimulus was a rerun of the "Treasury View" of the 1920s:

If there was one essential element in the work of John Maynard Keynes it was the demolition of Say's Law—the assertion that supply necessarily creates demand. Keynes showed that the fact that spending equals income...does not imply that there's always enough spending to fully employ the economy's resources.

It followed that, in situations in which there were underemployed resources, extra spending by government did not have to be at the expense of private spending.

How is it possible for New Classical economists to claim that economies remain fully employed with unemployment rates shooting up to 10 percent and businesses closing down for lack of orders? The answer given by the New Classical economists is that the unemployment of the unemployed is voluntary and therefore should not count as unemployment at all, but rather as a voluntary choice for leisure. If they are excluded from the workforce, it does of course follow as a matter of logic that government borrowing from the public to build roads will be at the expense of private borrowing to build factories and will not therefore increase total employment.

Few economists put the case against a fiscal stimulus as crudely as John Cochrane does. Most of those against a stimulus rely on some version or other of psychological "crowding out." If confidence in government policy is impaired—say, because its deficit is seen as expanding beyond limit—the government may well have to pay an increasing price for its debt. Although government deficits have been rising to 10 percent or more of GDP, few expect western governments to default on their debts. However, a more subtle form of default is inflation. If the public expects the government to inflate away its debt, the rate of interest it will demand for lending to the government will rise in line with the anticipated rate of inflation. This may be starting to happen in the U.S. and U.K., with markets pushing up yields on long-dated Treasury bonds even as base rates fall towards zero. Since the rate at which the government can borrow determines the whole structure of interest rates, this will force up the cost of borrowing for the private sector as well.

Conservative economists are much less frightened of "quantitative easing" or what is popularly called "printing money." A government can do this by selling securities to the central bank in exchange for cash, which it then uses to meet its excess of spending over revenue. Or the central bank can inject cash into the economy by buying long-term government bonds from the banks. The banks swap their securities for cash and then expand their lending against their higher cash reserves. Here is New Classical economist Robert Lucas in support of Fed Chairman Bob Bernanke's policy of boosting the money supply:

It is fast and flexible. There is no other way that so much cash could have been put into the system as fast as this \$600bn. was, and if necessary it can be taken out just as quickly. The cash comes in the form of loans. It entails no new government enterprises, no government equity positions in private enterprises, no price fixing or other controls on the operations of individual businesses, and no government role in the allocation of capital across different activities. These seem to me important virtues.

The virtue of quantitative easing as opposed to bond-issues is that it may lower the cost at which a government has to borrow money from the public to finance its own spending.

It's not clear to me at any rate how support for any kind of stimulus, whether fiscal or monetary, can be reconciled with the assumption that the economy is always at full employment. If the latter is true the only effect of increasing the quantity of money will be to increase the rate of inflation. On this assumption, the psychological effect of quantitative easing would be to raise rather than lower the long-term interest rates.

Printing money may not be an effective antirecession remedy for another reason. As Keynes pointed out, "If money is the drink which stimulates the system to activity...there may be several slips between the cup and lip." If the banks' desired ratio of cash reserves to deposits is increasing, as may well be the case if they hold a lot of toxic assets, they will not lower the interest which they charge for loans; if profit expectations are falling more quickly than the rate of interest, lowering the rate of interest will not increase the amount of loans; and, even if some people are stimulated to invest more, economic activity may not increase if other people are simultaneously increasing their saving to pay off debt. In technical terms, the money multiplier—the change in the total money stock for any change in the quantity of injected cash—may be quite small, or even negative. Between January and June, 2009, M2 in the U.S. collapsed even as the Fed was pumping money (M1) into the banks. For Keynesians it is the spending of the money, not its creation, which provides the "stimulus." The virtue of quantitative easing is that it may lower the cost at which a government has to borrow money from the public to finance its own spending. But this effect, like that of the fiscal stimulus, depends on the expectations the public holds about government policy.

Thus the stimulating effects of either fiscal or monetary expansion may be disappointingly small. The truth is that there is no easy way of digging yourself out of a hole. It is far more important to take precautions against falling into one.

### **The Keynesian Economy**

Keynes's chief domestic prophylactic against uncertainty was what he called "cheap money, wise spending." To offset fluctuations in private investment demand, money should be kept permanently cheap, and the state's capital budget, which consisted of all public, or publicly influenced, investment programs, should be used to keep total spending at a full-employment level. By contrast, the government's "ordinary" budget for current spending should normally be in surplus. Keynes was just as keen to keep global demand continually high. He believed that a principal cause of the Great Depression had been a global "saving glut" originating in the United States. The U.S.'s, and to a lesser extent France's, accumulation of gold through its current-account surplus had forced all other countries on the gold standard to deflate their economies. It was to avoid a repetition of this deflationary pressure that Keynes worked out his plan for an international clearing union in 1941 which was designed to prevent countries from accumulating or hoarding reserves.

In time, as the returns from investment fell, the domestic aim of policy should switch to reducing income inequalities (thus raising the "propensity to consume") and increasing leisure time, with shorter working hours and more frequent holidays. In the golden age of capital abundance, with the economic problem solved, people would learn to live "wisely, agreeably and well." This was Keynes's answer to the question, "What is economic growth for?"

### **Conclusion**

As we come out of the present economic crisis, Keynes's analysis of why an unmanaged, unregulated market economy is liable to collapse, how to escape from a slump, what policy and institutions a stable full-employment economy would require, and what economic growth was for, should again command attention. A highly desirable consequence of the reemergence of Keynes's analysis would be a second dethronement of the classical school which has led bankers, regulators and governments so grievously astray.

## QUESTIONS FROM THE FLOOR

**GEORGES ROCOURT:** My question concerns your comments on rational expectations and their non-validity in an operational sense. I am a bit confused on one aspect and perhaps I didn't understand how you addressed this. You have said individuals cannot correctly formulate expectations about the future using a rational-expectations methodology, yet your original quote from Keynes said that money is in fact the vehicle that mediates the present to different expectations in the future. What is, in your opinion, the correct methodology or praxis for individuals creating a vision of the future? Without that, they cannot make decisions, can they? Or am I missing something?

**BOB GEBHARDT:** Leading from the previous question, I would ask if there is an important role for equity markets in returning some form of discipline to the banking sector. This carries on from the previous speaker as well, who didn't even mention bank equity in discussing the sources and uses of bank funds. There was reference to bank profitability by the previous speakers but no discussion of equity in the private ownership of banking, assuming that one day equity value does return for the major banks.

**SKYDELSKY:** You know, I am really quite surprised by the first question, i.e., "How can you make decisions without having correct expectations about the future, or some basis for forming such?" I make them all the time and so do you, actually, but you don't teach that they can be made. I think Keynes was trying to bring economic theory closer to the way we actually behave rather than construct models, platonic models on how we would behave if we had perfect information and so on. How do we decide whether to go into the stock market today? We form an expectation of what its value will be in six months, a year, five years or whatever. And if you ask, "On what basis are you forming that expectation?" A rational-expectations person would say — let's assume this is his first foray — that today's price reflects the correct value of the stock; you have no expectation except that any subsequent information is going to alter your expectation of what it will be. You have absolutely no areas of doubt, but in fact that's not how it happens; you are taking a gamble. I know from my own experience on boards of a couple of companies that when we have these discussions we always end up by saying we do not know but we have to act, we have to decide. Now, one of the reasons we hold cash in periods of great uncertainty is to postpone having to decide. In other words, the flight to cash is a barometer of our mistrust of our own calculations about the future, and this actually links directly into the second question, "What about profitability of bank equity?" We invest because we have certain expectations about the income streams which will be generated by the investment over often a long period. On what are these based? Keynes suggested the following. First of all, they are based on what other people believe. Secondly, we believe that the situation as it now is will continue into an indefinite future; we do very, very crude extrapolations and these he called conventions. We believe certain conventions, and one of them is that we do what other people do. Have you noticed that all forecasters herd together? That's not because all of the people who forecast market values have correct information about the value of the shares, it's because they look at each other's forecasts, thinking, "I'll be out of things if I say something very different, and I may lose my job as forecaster." That's actually how it works. Now, in my judgment, what empirical evidence is there for expectations-based economics? You can't have empirical evidence. As Einstein (I mean Einstein!) said, "Not everything that matters can be counted, and not everything that can be counted matters." It's an impossible question to try to answer. You could do some sort of empirical about what you base your expectations on. You probably would then develop some empirical, but has anyone presented empirical evidence to confirm the rational-expectations hypothesis? Of the two hypotheses, many of our decisions are based on uncertain expectations and many of our decisions are based on rational expectations. I would say without any further appeal to empirical evidence that one is much more intuitively plausible than the other. And that would be the basis, that would be my default position.

## PANEL DISCUSSION: OBAMA'S FIRST 100 DAYS AND LESSONS FROM THE GLOBAL CRISIS

FRANCESCO LURATI

*Università della Svizzera italiana*

Thank you. Andrea invited me to contribute to this panel discussion with economists by sharing a communication perspective.

Let me first comment on the term "paradigm" used in the title of the conference. A paradigm is a combination of two dimensions. On the one hand, there is the action dimension, that is, the behavior of people. On the other hand, there is the human-interpretational dimension, that is, what people define as being success factors. A paradigm is formed when behaviors and what are defined as the success factors are aligned and then contribute to the creation of a shared understanding among different constituents about how firms or the economy, in general, create value. It is important to stress that the human-interpretation side is about what the market and the society consider acceptable, and therefore it has to do with expectations.

I would like to address the expectations side of the possible paradigm shift that we are discussing today by mentioning a few data that have characterized the last 15 years of financial euphoria. And I would like to do this by asking if what they represent is acceptable. Is it acceptable that financial assets around the world are about \$160 trillion, 3.5 times the global GDP? If you look at the U.S. data, it is even bigger, 4.5 times. Is it acceptable that the outstanding derivatives around the world are 14 times bigger than the GDP? Is it acceptable that the financial sector has been increasing 2.5 times faster than the overall GDP in the last 15 years? Is it acceptable that 40 percent of corporate profits is formed by financial profits? Is it acceptable that the ratio of household debt to overall household income increased from 60 percent in 1982 to 130 percent in 2007? These are key questions concerning the change in the paradigm because they deal with expectations. Without a definitive (negative) answer, it is difficult to imagine a paradigm shift.

Robert Skidelsky, in his contribution, briefly addressed the changes instituted or launched during the first 100 days of the Obama Administration. I believe that a paradigm shift will happen only if the new Administration is able to modify the understanding of how the financial sector should contribute to the value-creation of a nation.

And here I would like to contradict in part what has been said before concerning the change brought about by Obama. Although I agree that no tangible changes have occurred yet, I think a significant change has been made in terms of how the White House communicates. This is an encouraging sign, since communication plays an important role in changing expectations and therefore in changing the interpretational side of a paradigm as well.

I think that with the Obama Administration we are seeing a move away from a communication approach of fear towards a communication approach of understanding, and I think this is key when you want to change a paradigm. I am just referring to the current crisis. Under the Bush Administration, if you go back and look at press conferences held by Henry Paulson, the communication style was exactly like the one already established by Donald Rumsfeld a few years earlier, that is, fear. There was no attempt to understand or to explain what was going on. With Obama, I think the rhetoric has dramatically changed. It is not about fear, it is about trying to explain. If you go back six days to Obama's speech in Georgetown, both the content and the style were dominated by attempts to answer critics or calm the worries of different stakeholders around the nation and the world. He basically built his speech around that, which is pretty refreshing compared to the previous Administration. There is also an attempt to explain what Obama imagines for the future, a future in which prosperity is fuelled not by excessive debt, recklessness, speculation and fleeting profit, but by skilled productive workers. Core to Obama's thinking is also the

belief that in order to understand how to get there, we first need to understand how we got here. This is also a big change compared to the rhetoric we were used to in the last eight years. In other words, Obama is trying to prepare the field for change by having people build a common interpretation. He wants the different parts of society to “co-orient,” as communication specialists would say.

Now, I fully agree that we don't know what Obama is going to do with this understanding. He has claimed that new rules rewarding drive and innovation will have to be imposed or applied on Wall Street. We don't know what these rules will be, if they will be a Stiglitz-type proposal of a financial-products safety commission (similar to the FDA agency in charge of drug pre-release reviews) or a Paul Davidson approach in which private financial markets are detached from public financial markets. Or the model introduced to us earlier by Richard Werner concerning the GDP transaction and the non-GDP transaction.

A second change introduced by Obama that may have an impact on a paradigm change is the willingness to identify clear responsibilities. With the previous Administration, nobody seemed to be considered responsible for the financial meltdown. Paulson would only “point his finger” at the people opposing his solution. These people were implicitly accused of being unpatriotic and, therefore, “bad” Americans, following the post 9/11 rhetoric. Paulson's focus was to impose his pre-defined view, not to understand what caused the problem. With Obama I think there is an attempt to understand that things are not simple and that there is a collective responsibility. In this regard, I would like to quote a few passages from the Georgetown speech delivered by Obama last week regarding the housing market: *“Instead of saving their pennies to buy their dream house, many Americans found they could take out loans that by traditional standards their incomes could not support. Others [and here Obama is implicitly referring to predatory lending] were tricked into signing these subprime loans by lenders who were trying to make a quick profit [These are pretty tough words]. And the reason these loans were so readily available was that Wall Street saw big profits to be made.”* A few other excerpts from the speech by the new President of the United States complete a lucid and thorough analysis: *“No one really knew what the actual values of these securities were, but since the housing market was booming and prices were rising, banks and investors kept buying and selling them, always passing off the risk to someone else for a greater profit without having to take any of the responsibility.”* And concerning this, he concludes that *“Everybody was making record profits—except the wealth created was real only on paper.”*

I don't think we ever would have heard such words from the people of the previous Administration! One can translate Obama's words as saying that banking and money are special. However, one can also interpret them as an implicit description of a pyramid scheme, a slightly different version of a Ponzi scheme. And if this is the interpretation we give to Obama's words, we should also acknowledge that a lot of people in Wall Street should accompany Madoff to his new home...

But Obama does not see Wall Street as solely responsible. He also clearly blames the American people, who, instead of buying what they could afford with their savings, went for houses that were clearly beyond their financial means. There is, therefore, a collective responsibility shared by all members of the society.

This brings me to my next point—the role played by the media in influencing the behavior of households. Right now the media is struggling to digest what has happened by asking, “Are we responsible?” Some people say “No!” and point to a recent contribution by Chris Roush, “Unheeded Warnings,” published in the *American Journalism Review*, that contains a long list of articles published in the last 10 years denouncing what was going on and predicting what could happen. One may wonder why no one was reading those articles. Politicians were not listening, consumers were not listening, households were not listening. Why? The answer is pretty obvious. Because they were enjoying the party. And when you are in this kind of mood, your attention is very selective. When your stocks and 401(k) are going up, why listen to scarecrows? But this is only one part of the story, the one you hear from those who believe that the media shares none of the responsibility.

Others believe instead that the media is responsible, a view that is also shared by journalists. In fact, a recent study by Abrams Research found that 62 percent of journalists feel they were somewhat responsible in this mess. Along these lines, an interesting idea has been developed recently by the Knight Digital Media Center (an institution co-sponsored by UC Berkeley and the Annenberg School for Communication at the University of Southern California), whereby Robert Nielson points out that good reporting was out there, but too many other news reports played up contrary, obfuscating points of view. And who were these others?

First of all, the cheerleaders. A lot of cheerleading was going on at that time. In this group we found analysts who were regularly being invited to write in newspapers. So much for critical journalism! And then we have an entire television media industry including CNBC, Fox Business Networks, CNN, etc., that is basically a marketing extension of Wall Street. Or channels such as HGTV and Home & Garden TV that specialized, among other things, in instructing American people on how to become rich by flipping houses and leveraging the availability of cheap money. These two typologies of TV played a major role in promoting the deadly financial cocktail that brought us to where we are today. They have proactively shaped Americans' expectations.

Media have, therefore, a major role to play in the making of a new paradigm. A clear unbalance is visible today. The media that have embraced an activist approach belong to the group that has steered an entire nation into a collective, speculative frenzy. The most progressive media, such as the *Washington Post* and the *New York Times*, instead, have not been able to counterbalance this influence. The problem with them is that they are still functioning according to the old journalism paradigm in which news and opinions are exposed in a balanced way, letting the audience make up its mind. Today, the audience is more attracted to strong ideas delivered through narrowcasting channels, such as blogs or specialized TV channels. The progressive and "intelligent" media have to learn the new way of journalism if they are to play a role in shaping a new economic and societal paradigm. And, incidentally, as pointed out by the Knight Center, this will also help them not to disappear.

Having said that, we are all aware that the major obstacle to such a change is *advertising*. Advertising, as we all know, is the lubricant of commerce, but it can also be the main obstacle to "intelligent" media and therefore to the free formation of expectations and, eventually, to democracy.

So, these are a few "communication" insights into a very complex discussion about the economy and its future.

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RICHARD WERNER

*University of Southampton and ProfitFund*

I think this is a fascinating discussion and before I answer your question, if I may just make a few remarks about how I think this is extremely well linked to Francesco's comments and also to the earlier discussion we had at the end of Lord Skidelsky's points about expectations. In fact, Francesco ended with the words that expectations are created, and this is also what I found in my empirical work: there is a lot of manufacturing of expectations going on. In other words, we are talking about manipulating people and their actions, which is why I am cautious when we talk about expectations. I didn't mention the word expectations in my presentation because, just as I think also Lord Skidelsky feels, I disagree with the mainstream misuse of the concept, and the use of expectations in their models, and that's one reason why I am very cautious. There is a misuse of the concept of rational expectations, but actually even the concept of adaptive expectations, and other formalizations, is potentially not helpful. There is one fact about expectations: virtually by definition, as the cycle turns they are wrong. We know about the realities, which Keynes also described very well, whether it's a beauty contest type of thing or herd behavior, but

in our search for a correct theory of the macroeconomy, expectations which are wrong can't be all that useful, right? We need ingredients that give us a correct explanation about what is happening with the economy. Simplicity beats complexity, and here again, like Lord Skidelsky, I am against this overuse of mathematics, which is really a way of saying, "Oh, it's got to be complex to be true," when, in my experience and in empirical experience, the truth is quite simple. If we agree that there is no empirical evidence that a theory of expectations can even be formulated, perhaps we shouldn't use it. There is also another reason, and I think Lord Skidelsky would agree, that the use of expectations has been a problem with bad economics, because whenever there is a gap between a theory and reality it has been easy for the economist to say, "Ah, the difference you see is not invalidating or contradicting my theory, the difference is expectations," because, conveniently, we cannot measure them. There has been a fudge in economics, and that is something we should discourage. Aside from saying that there is uncertainty, and these are also the words of Lord Skidelsky, do we need another theory of expectations? Because I'm arguing that there is imperfect information, which is why there is no equilibrium; you need perfect information for equilibrium, and that is how you get this equilibrium economics.

Referring again to Francesco's comments, I have also had some experience with journalists and have an anecdote for the audience. I started out as a purely academic economist in various research institutes at Oxford and in Tokyo. Then I took a job as chief economist at Jardine Fleming Securities in Tokyo, and one thing that changed dramatically was the number of times I was cited and interviewed by journalists. When I gave up the job years later, the media were no longer interested. I spoke to some journalists about that, and it seems to be an editorial policy of what Noam Chomsky would call the "corporate media," because media are also large-scale corporations with certain interests. Two, there is an explicit policy to interview analysts and economists at the large mainstream financial institutions and get their views into the newspapers. As in Francesco's example, they can even write articles. Yes, I once wrote a half-page article for the Nikkei financial newspaper when I was at Jardine Fleming. Afterwards that was much harder to do.

The system seems to like this sort of thing. I was also shocked by the "Flip That House" show when I came from Japan to the U.K. in 2004 because it was a *déjà vu*. Switch on the telly, and you see all these programs on all the channels about how to do up your house, sell it on, buy another house, cleverly put in a bit of money, sell on at a profit, the market is going up, get a mortgage. There were details on how to do that everywhere, and half of the newspapers were real-estate advertisements. It was so obvious what was going on.

I would like to return to one of the previous points of my presentation. It seems the system likes cycles because there are so many incentives in there that make this quite attractive. One can apply this to the central banks, using the inductive methodology: Central banks claim that their job is to create stability of prices, growth and currencies. However, I am very suspicious because, where is the empirical evidence? An alternative hypothesis is supported by the fact you can actually read in central bank publications that crises are good, crises are useful. The Bank of Japan has said the crisis is actually helping Japan to engineer structural change and change the political system. If the alternative hypothesis is that the job of central banks is to create cycles, we actually find a lot of empirical evidence. That is the brief answer to the question "Is there too much finance in the world?" Yes, obviously there is, there is too much speculative credit creation, and casino capitalism is therefore the result. I envisage as a solution that this be restricted. The qualitative use of credit is key, and methods to directly control and direct credit have worked extremely well. This is the core of the East Asian economic miracle which is based on that concept. Incidentally, there is also another answer to one of the points raised by Lord Skidelsky when, before Keynes had published his 1936 general theory, Germany and Japan were in full employment, which was based on a credit creation approach, which was a sort of branch of the earlier Keynes, if you will.

Thank you very much.

SCOTT FULLWILER  
*Wartburg College*

Some of you might know Robert Shiller, who has written some of the better books on bubbles, first on the stock market bubble and then on the U.S. and real estate. I think you should be one of the people he looks up when he does his next book because of course he's going into cultural and sociological factors that are driving expectations.

I have a quick point, an interesting story regarding rational expectations. When I was in the job market about nine years ago, I was interviewing at one of the top five liberal arts colleges. I was being shown around by someone who had a Ph.D. from Chicago, and I asked him, "So, what do you think about rational expectations?" This of course was when the stock market was at its peak, etc., and he replied, "It's wrong, it's completely wrong, 100 percent wrong, there is no way that it is correct. Having said that, it is the only possible way to model expectations." That's what we are dealing with. I thought that was a pretty good point. I left expectations out of my presentation on purpose because Lord Skidelsky is on the panel and I figured he would talk about it, and the second reason is that Lord Skidelsky is on the panel and I didn't want to say something stupid about Keynes. However, I would say that the process Francesco was talking about is absolutely driven by expectations because the only margin of safety you had on a lot of these real estate loans and securities was the underlying collateral. If you didn't have an expectation that the value of that collateral was going to increase, why would you have been making the loan or buying the security in the first place? I am not saying rational expectations are correct, but I am saying there are expectations. Now, I am not giving up just yet on the mathematical modeling of expectations because I don't know what the future holds, that's my expectation I guess. But I think of advances in complexity theory, complex systems theory, etc.: if you had some reasonable assumptions that we actually live in a nonlinear world, that we live in a world where people's expectations are not correct, we live in a world where macroeconomics matters and macro effects on financial statements matter, and there are some people doing what they call agent-based modeling which throws in a lot of different types of agents with different types of expectations... I don't know that they've gotten anywhere yet that bears the sort of fruit you are looking for, but I'm not going to say that they never will. I do think one of the problems they have is that they have no macro-models yet that are stock-flow consistent.

Lastly, addressing the question, "Is there too much finance?" Of course we have been talking about Keynes and financial vs. industrial circulation. I think that before Keynes, Veblen had a very similar concept. In terms of restricting credit creation, we've tried some things in the past. One was the gold standard, which didn't work out too well because when you have a gold standard you restrict credit creation but you also restrict employment and all sorts of other things to the quantity of gold. So we went in a different direction, where we had a fiat currency and we didn't restrict credit creation, and now we see where we are. So, I would say I prefer a fiat currency like we had but I also favor the sort of regulation that you have been talking about, that Minsky talks about, and so forth. So, yes, there is too much finance, but even though there are a lot of folks talking about the gold standard now, particularly in the U.S., we obviously got rid of it because it didn't work so well.

That would be the end of my statement.

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LORD ROBERT SKIDELSKY  
*University of Warwick*

With regard to finance, I think there is too much. I think finance is a handmaid and should not be the master. I was on a panel with Robert Shiller quite recently, and he was talking about the Shiller model for pricing futures in the housing market. I said I want deinnovation in finance, not innovation, deinnovation. I want simpler, simpler finance, and he looked puzzled and said, "Oh, I'll have to think about that" as he saw his model being threatened, because he wanted to develop it to make the housing market more secure.

There are a lot of people who have very good insights but are completely ignored by the economics profession. I am thinking of George Soros, who has written five books, but he's not rated. Why? Because he is not a professional economist. The validity of his insights, the fact he is extremely successful in testing his theories with the Quantum Hedge Fund doesn't count at all. He doesn't have a model and he doesn't use maths. Taleb, black swan, randomness, good statistician, he's never been cited in any economics book I've read recently, discussing some of the same things.

Use of language, I think is very important. Consider the linguistic imperialism of economists: they appropriate words which we think have one meaning and then twist them to their own meaning and then you can't use those words in any other way again. Rationality: belief in models devised by Chicago economists; irrationality: belief in anything else. It's true. Even Shiller, whom I have a lot of time for, Shiller and Akerlof recently wrote a book called *Animal Spirit* in which they define as irrational all the things that a lot of people would call rational, rational in terms of the world in which they live. Keynes did not believe in irrationality as the most important principle, he believed in rationality and that rational response to uncertainty took certain forms. You read in ordinary press now that the course of the development of securitization was hunger for yield lift. Translate: I am trying to make a profit from selling a dicey security with a fraudulent perspective.

Another very important point is noise. I think we all suffer from a surfeit of information: I have less information, not more information. I have no trust in all these cascades of information. It means you can't have a solid view about anything any longer. You are simply like a leaf blown in the wind, one day there's this news, another day there's that news. Everything that is solid melts away, and you are left a complete wreck intellectually. So, less information, newspapers once a week, television two hours a day, at least news channels (you can have lots of soaps, I don't mind that), but news very, very restricted, and of course that would have the incidental advantage of restricting advertising. Why aren't people listening to the journalists? Because the herd is going the other way. Keynes again said something, bankers are not people who foresee danger and try to avert it. They prefer to be ruined in a conventional way.

Last point: inductive methodology. Well, I'm sure it has uses for all kinds of things, but epistemologically it's very flawed, because it does depend on accepting the inductive principle, that is, on accepting a structure of the universe which is essentially linear. We know the story of the turkey, of course. He used to be fed every day until the hand that fed him wrung his neck. He believed in the inductive principle, that turkey. But that's something we can discuss forever.

## REJOINDERS AND QUESTIONS FROM THE FLOOR

**MORRIS MOTTALE:** A question for all the panelists. What is next? I'm sure a lot of members of the audience came actually looking for answers to forecasting any future developments in, I hate to use the word, international finance, let's say, international economy.

**NICHOLAS HASKO:** It seems to me that one key issue in this discussion is time dependency of economics as a discipline. How does one overcome this sort of things? It seems that as time goes on, it will be more and more difficult. Certainly, what you're proposing is important, but more regulation or more responsible journalism won't happen by itself.

**JOHN AUXILLOS:** My question is about what is next in mortgage systems in the United States. George Soros published a book last year, I think, and suggested that the U.S. system should incorporate some elements of the Danish mortgage system where, in the process of mortgage securitization, credit risk is retained at the origin and the interest risk is left to the bond traders in the market. What do you think of this in the context of U.S. and also world finance?

**UNKNOWN:** Professor Werner defined the Fed as a banking cartel. Would you elaborate on that?

**ROXANA CAZACU:** I have a question pertaining to regulation and rating agencies. How were some of the companies rated and where did they finally end up?

**REBECCA SELF:** I was interested in the line in your PowerPoint presentation about returning the power to the people, and I was thinking about microfinance or a variety of different alternative currency movements. I wonder how you envision returning the power to the people.

**RITA LYSENKO:** Lord Skidelsky said that decision making based on expectations is usually not so efficient. We do in fact make decisions every day. If they're not based on expectations, then they are based on what?

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**LURATI:** Since most of the questions were economic, I will address the point about why people didn't hear what journalists were saying. An aspect I didn't mention is that journalists had the feeling they really didn't have the access to the data necessary to do their jobs. As Richard Werner pointed out earlier, one important piece of data that was available in the past but not today is the quality of loans. It is not enough to say, without having real data, that we have a hunch that what is going on out there is not solid, that some households are not creditworthy. In fact, journalists who can't back up their hunches because the data has disappeared find themselves having to work with guesses instead of with solid evidence. And this changes the work and efficacy of journalists dramatically.

If you want media to back up a certain agenda, you have to put them in a position to be able to work with data. Financial activists like CalPERS (California Public Employees' Retirement System) or Robert Monks or Ethos in Switzerland have understood this, and what they do is aggregate data for the media. There are several ways to do this. For instance, create rankings based on relevant indicators. These rankings can be generated using criteria defined in standards and regulations. This is what Ethos does, for instance.

Another approach corresponds to what organizations such as CalPERS do. They monitor the companies listed in their portfolios against specific performance criteria they consider relevant. In case the criteria are not met, they provide the media with these data in hopes that public exposure will force the company's board and its top management to change. (Unfortunately, CalPERS has been focusing more on shareholders' favorable criteria than on long-term criteria that have to do with the intrinsic value of companies.)

To conclude, I think the media will be able to contribute to the creation of a new paradigm, if what I call “external aggregators” such as think tanks or activists help them access the strong data the financial system does not provide.

What I like about Obama is that he acknowledges that the problem is complex. He thinks there is a collective responsibility and a need for cultural change. He acknowledges the complexity of the reality and the current situation. And this doesn't provide an answer tomorrow morning. I believe this is the big difference between progressive thinking and conservative thinking. Answers are not simple. They are complex and require intellectual honesty.

**WERNER:** Thank you very much. There is a list of questions. I will be extremely brief on each. The first one was about forecasts, basically what we think is going to happen next. Fundamentally two scenarios: one is that policies are changed and things improve. The other is that the decision makers don't adopt all or some of the policies which are necessary and sufficient, and therefore there won't be a lasting recovery for a while. Having lived in Japan for 12 years, throughout the 1990s, I am constantly amazed by the refusal of policymakers, especially central bankers, to accept facts or revise wrong decisions. Next year, as I said, Japan will be in its twentieth year of recession, so unfortunately that is a possibility. Of course, what we hear from the Fed and also from the Bank of England concerning expansion in credit creation sounds much better, although they express it slightly differently. However, on March 23 the Fed and the Treasury released a short one-page statement, timed to coincide with a huge release by the Obama administration on one of the big banking bailout programs. It got zero coverage in the mainstream newspapers or television media. In this statement the legal framework is being created for the Fed to send the bill for all its purchases of toxic waste, bad assets, banks, insurance companies, etc., to the Treasury, transfer the whole lot to the Treasury, therefore demonetize it, increase national debt by a couple trillion dollars and create a big, big burden on the economy. So, that's a bit worrying. Hopefully they did that only because they thought it would help stability. However, the alternative scenario of a continued long recession does exist. We just have to watch what is going to happen now. How can we implement some of the policy advice that we have given? I would say the main thing is that the general public needs to become more aware of some of the key facts, such as that 98, 99 percent of all the money is privately created by private profit which maximizes decision makers who may not care at all about national welfare, social welfare and the macro outcome. If the public is better educated, and of course this is where economics is to blame, but also the media and others, then hopefully politicians will get pressure from grassroots. That's how everyone in this room can contribute; it's our responsibility to spread this knowledge and make more people aware that big things are going on.

The question about mortgage-bond marketers referred specifically to Denmark, where basically it is an approved structure that if the issuers or the originators of the mortgage, the debt, maintain a stake in the risk and therefore potential liability, a strong incentive is created for them to make sensible decisions. Something like that is required if we want to continue down that road at all, and perhaps we may not want to wish that.

I was asked to elaborate on the fact I called the U.S. Federal Reserve a banking cartel. If you take any definition of cartel, then, yes, I stand to that. Certainly, when you look at its history, that's how it was created, and also in its ownership status. Until 1939 the majority of central banks in the world were privately owned. With the Fed it is perhaps a bit more obvious how this happened. The Fed for all intents and purposes is the New York Fed, which is owned by Wall Street banks. So if we consider that the New York Fed bought Bear Stearns and gave a massive guarantee, I believe it was 20 or 30 billion, a minor figure these days, to J.P. Morgan, then we should remember that J.P. Morgan is probably the single biggest owner of the New York Fed. You can look at this as you wish, but these are some of the facts.

I think that rating agencies were also part of the collusive network of people and entities with conflicts of interest that basically helped to flog, as Lord Skidelsky put in much better terms, the fraudulent products that were being pushed on innocents. Of course it's obvious because they get the money, the fees, from those who want the rating, so of course they always have this incentive problem.

How can we return the power to the people? Specifically I was referring to the power to create money. There are different possibilities. One would be to take it entirely away from privately owned banks. Actually, in a way, this is what Friedman was also saying when he talked about 100 percent reserve requirement banking. Abolish fractional reserve banking and make banks more like fund managers without the power to create credit. Then use the government finance ministry to expand or reduce the money supply, much like the inventors of paper money used to run their economy, the Chinese economy, where the government had full control over the money supply when it conducted open market operations already in the tenth century. There is a fantastic description of this in Marco Polo's *The Travels*. Since he was a merchant he provided a good technical description of the first open market operation in a paper money system. So, there are other possibilities. The technicalities are very simple. The biggest obstacle, coming back to a sort of power-related issue, is that the vested interests are behind the current system. How do you overcome that? By informing people, by talking about it, by having symposiums like this, I think. Yes, Francesco pointed out that data on the quality, the disaggregation of credit, used to be much more easily available. Because of the increased independence of central banks, not surprisingly, as I was predicting in the Japanese case, they were actually able to reduce the number of relevant, pertinent data series on credit creation, sectoral allocation. In Japan they just entirely abolished the monthly data series, which had been very good. That has been a problem, so central banks need to be reviewed in their excessive power and their independence. Thanks very much.

**FULWILLER:** In terms of what's going to happen, I should qualify my presentation. I wasn't intending to imply that the paradigm I presented would become the consensus any time soon. I was simply presenting a paradigm that could account for what's happened and the sort of problems that Buiter was mentioning in a way that was not ad hoc. Given that I am a Keynesian, I have an expectation about what is going to happen, but I also know it's going to be wrong. But it seems there are some things going on: we are going to have bigger deficits in the future, we are going to have, certainly we are having right now, some kind of discussion about systemic regulation, something that hasn't been discussed for a while. Where those debates go is anybody's guess at this point. Given what Richard just mentioned, who are the people at the table in the discussion? J.P. Morgan, Goldman Sachs and that sort of folks. So some of my ideas and maybe some of Richard's may not get a whole lot of discussion, at least in the short term. With regard to what's going to happen, I find interesting this discussion in the U.S. about getting finance and banking going before anything else can work. Back in the early nineties when the U.S. had a banking crisis as well, in the savings and loan industry, we never said we had to get banking going: we closed down banks and we had them bought out and so forth. Then the U.S. Treasury Secretaries went over to Japan and said, "You guys are propping up these banks with toxic assets. What are you doing?" We have to do what we did in the early nineties. And so here we are 10 years later, doing exactly what Japan did. Bill Black, a professor at UMKC who was formerly a high-ranking regulator, made that point recently.

I think there's going to be a debate at some point about deficits, and that kind of worries me if the Obama team is like the Clinton team, essentially the same people, or descendents of the same group. Ever since Clinton cut deficits and the economy performed very well in the late nineties, democrats have changed their tune to believing that deficits are really bad things. For some reason the fact that we had a stock market bubble creating capital gains and tremendous tax receipts from the capital gains, they missed that one. So, it would be an interesting debate.

About mortgages: I think mortgages are very difficult things for people to hold, at least in the U.S., because you have the opportunity to prepay mortgages. If interest rates rise and you are holding a mortgage, the market value just fell; if interest rates fall and the borrower refinances, you are left with a bunch of money that you have to reinvest at a lower rate. So, if interest rates rise or fall, you end up with trouble of one kind or another with mortgages. Recognizing that, in the U.S. some institutions, such as the savings and loan industry, were designed to hold mortgages. When that went belly up we had government-sponsored enterprises like Fanny Mae and Freddie Mac that essentially took over in the early nineties, although they already owned quite a few. They accelerated significantly from the early nineties through the present period. So, we haven't figured out a great way of designing the institution that is going to hold mortgages in the U.S. system.

That leads me to the rating agencies, of course. The traditional method of banking used to be to lend on the basis of credit analysis within the bank. Then the loan criteria began to be based upon "What can I sell? What can I sell and what can somebody else package as a highly rated instrument?" That changed things considerably. So the rating agencies had a huge role to play because if they had rated things differently, of course, the outcome might have been different. Their excuse was, well, they didn't have any data previous to 2001 on subprime and so they were rating things because... That goes back to expectations again, right? In 2001 the U.S. economy was doing fairly well, we were in a real estate bubble, so people were paying back their mortgages or refinancing and prepaying, so the securities all looked like they were going to pay off. And that explains the circular upwards spiral that you showed on your graph earlier.

Power to the people: This wasn't a question for me, but at Wartburg we have a new program on social entrepreneurship of which I am the program director, so that is an issue that is very important to me as well. I am very much in favor of microfinance and things like that, but I do think that at the macroeconomic level if you get full employment of your resources, it is primarily a coincidence, so I think you are always going to need demand management. I think that by itself microfinance is a piece of a portfolio to return power to the people, but I think there will be trouble in the long run without some sort of Keynesian demand management.

SKYDELSKY: How do you end intellectual path dependency in economics? Well, I did make a suggestion, which was to split it up institutionally and separate micro from macro.

Soros and the mortgage system: I think that's too complex. You have to find someone, either the originator or some other institution, that holds the mortgage for some time, five years or something like that.

Rating agencies: The trouble is that they are procyclical; they underprice risk in the upturn and overprice it in the downturn. And of course it's automatic: if you are downgraded, your credit worthiness is immediately impaired, so when you actually need to increase your borrowing, let's say, you find yourself downgraded from triple A to something else. But the root of all this does lie in conflict of interest.

Expectations: Yes, I think you misunderstood what I was saying. It's not that you don't have expectations, of course you do. Think of expectations as beliefs about what's going to happen. Of course you've got those, but I am just saying they are not rational in the sense required by the rational-expectations theory. That's all. If you are afflicted by uncertainties and you want to know what to believe, the easiest thing is to ask an expert what he thinks is going to happen and then you form a sort of opinion. The only way that opinion relates to anything that is actually going to happen is that it gives you some sense of security and makes you feel that you are part of the group.

Power to the people: I would like to conclude with something I would have liked to say had I talked about "Obama's first 100 days" and about the reshaping of the world. One important requirement is to end the huge global trade imbalances which have built up between the United States and China in particular. This

requires most urgently the creation of an international reserve currency unit and penalties on persisting creditors just as Keynes devised in his Clearing Union plan in 1941. Tiny steps were made toward that at the G20 meeting by increasing the SDR facilities at the IMF. It also requires taxes or controls such as a Tobin tax on international capital movements, but perhaps even more. And if you accept those reforms, they imply a shift from export-led to domestic-led growth, and that means a slowdown in the pace of globalization. The benefits of efficient markets and efficient allocation of capital are real, but they can be purchased at too high a price in terms of democracy and social cohesion. That's part of an answer to the question about power to the people. It means they shouldn't just be clogged on globalization projects which destroy local democracy and accountability ... it's Washington Consensus. Governments shouldn't be responsible for Washington Consensus, they should each be responsible for their own people. And when the so-called efficient market hypothesis lands us in a deep slump, it's even more unacceptable. Free trade isn't God and protectionism isn't the devil. You've got to accept that there may some tradeoffs between these two concepts.

The resulting conclusion is that creating a more plural world system is part and parcel of creating a slowing down of globalization. We should begin to think of America as the fifth wheel on regional power chariots rather than the driver of each one. In any case, that reorientation, which has somehow been foreshadowed by Obama, is sensible as U.S. power wanes relative to that of Britain and Europe. A more plural political system would play its part in ending global economic imbalances since the U.S. would no longer have to please the world on borrowed money or claim the right to print dollars at will to protect freedom.