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Special Symposium on »Financial instability and crisis«

with Philip Arestis, Robert Blecker, Marica Frangakis and Marc Lavoie

In early August 2009 the 2nd Summer School of the Research Network Macroeconomics and Macroeconomic Policies (FMM) was held in Berlin. As in the previous year, about 50 graduate students, young researchers and senior lecturers from all over the world came together to discuss »Keynesian Macroeconomics and European Economic Policies«. In response to current macroeconomic events, a panel discussion was organised, in which the global economic crisis and the prospects for alternative macroeconomic theories were debated. The participants in the panel debate were asked to provide written answers to some of the questions discussed in Berlin. These answers are documented below. The questions were asked by Till van Treeck from the Macroeconomic Policy Institute (IMK) in the Hans Boeckler Foundation in Duesseldorf.

*Philip Arestis**

Did you anticipate the current financial crisis?

I cannot say I had anticipated fully the current financial crisis. However, my work on housing and financial liberalization concluded on a number of occasions of potential problems. The book I co-authored and entitled *The Post-Bubble US Economy: Implications for Financial Markets and the Economy*, and the macroeconomic model developed for the purposes of the book, provided clear warnings of the impending housing bubble. Further work on the housing market well before August 2007, including letters to the Financial Times, had sent clear signals of the impending burst of the housing bubble and its consequences. Especially so at a time when central bankers, the Fed Chairman in particular, were arguing that the burst of the housing bubble would not have much of an impact in the economy. My work on financial liberalization had also clear warnings. Especially so in terms of the focus of the thesis on the »efficient market hypothesis« that all unfettered markets clear continuously thereby making disequilibria, such as bubbles, highly unlikely. Indeed, in this view, economic policy designed to eliminate bubbles would lead to »financial repression«, a very bad outcome in this tradition. The experience with financial liberalization is that it caused a number of deep financial crises and problems unparalleled in world financial history in terms of their depth and frequency. However, most important for the purposes of this con-

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tribution, it was the experience of the US with financial liberalization that is most telling in terms of the causes of the current crisis.

Everybody probably agrees that the underlying reasons for the current global financial and economic crisis are numerous and complex. If you had to highlight only one cause of the crisis, what would this be? Why?

My view is that the current crisis has been caused by the US financial liberalization experience and the financial innovations that followed it. The international financial imbalances and monetary policy pursued at the time were accentuating the process of financial liberalization and innovation rather than being the cause of the crisis. The rest of this section will attempt to explain the process just summarized. In the US financial liberalization begun in the 1970s, more precisely in 1977, when the US authorities started to deregulate the financial system. There was at the time a general ›atmosphere‹ of de-regulation and liberalisation, not just in the US but also in the UK and elsewhere. In the US there was the deregulation of commissions for stock trading in the 1970s to begin with. Then investment banks were allowed to invade the commercial bank territory, through the creation of the ›money market‹ accounts (current accounts that were unsecured). Another important step in the financial liberalization process was the removal of Regulation Q in the 1980s this time; that is removing the placing of ceilings on interest rates on retail deposits. The repeal of the key regulation Glass-Steagall Act (of 1933) in 1999 (promoted by the US financial sector, complaining about the Big Bang of 1986 in the UK) was the most important aspect of the US financial liberalization for the purposes of the question in hand. The final step in the process was the Commodity Futures Modernisation Act (CFMA) of December 2000, which repealed the Shad-Johnson jurisdictional accord, which banned single-stock futures in 1982 (the financial instrument that allows selling now but delivering in the future).

The apotheosis of the financial liberalization in the US, however, was the repeal of the 1933 Glass-Steagall Act in 1999. The repeal of the Glass-Steagall Act in 1999 allowed the merging of commercial and investment banking, thereby enabling financial institutions to separate loan origination from loan portfolio; thus the originate-and-distribute model. Indeed, financial institutions were able to use risk management in their attempt to dispose of their loan portfolio. Financial institutions can now provide *risky* loans without applying the three Cs: Collateral, Credit history and Character (person or institution able, or try, to pay the loan off even at hard times). This engineered a new activity that relied on interlinked securities mainly emerging from and closely related to the subprime mortgage market. Subprime mortgage is a financial innovation designed to enable home ownership to risky borrowers. The term refers to borrowers who are perceived to be riskier than the average borrower because of a poor credit history. The subprime mortgage market expanded substantially in view of rising home prices, which encouraged re-mortgaging. Rising house prices produced a degree of, in effect, Ponzi-type of situation, in the sense of the degree to which much rested on the continuing rise in house prices, which was clearly unsustainable.

Banks proceeded to set up trusts or limited liability companies with small capital base, i.e. separate legal entities, known as Structural Investment Vehicles (SIVs). Parallel banking

was thereby created outside the control and the regulatory umbrella of the authorities. This SIVs operation was financed by borrowing from the short end of the capital markets at a rate linked to the inter-bank interest rate. The short-term capital thereby raised, was used by the SIVs to buy the risky segment of the loan portfolio of the mother company, mainly risky mortgages. The risky loan portfolio was then repackaged in the form of Collateralised Debt Obligations (CDOs) and sold to other banks and the personal sector. So long as the short-term rate of interest was lower than the long-term rate, big profits materialise, and the housing market produced a bubble. When the yield curve was inverted, that is long-term interest rates became lower than short-term rates, the subprime mortgage market simply collapsed. It occurred following two years of rising policy interest rates (mid-2004 to mid-August 2007), after a prolonged period of abnormally low interest rates (initially 1997 – 1998 but more aggressively after the internet bubble of March 2000). The collapse of the subprime mortgage market by early 2007 also meant the end of the housing boom and the burst of the housing bubble. Defaults on mortgages spread to investment banks and commercial banks in the US and across the world via the elaborate network of CDOs.

The complex structure of the CDOs market complicated the task of credit rating institutions, which erroneously assigned AAA-status to many worthless papers. The overstated credit rating contributed to the growth of the CDOs market in the upswing but also to its downfall in the downswing. In fact in the aftermath of the subprime crisis in the US, credit rating agencies were blamed for their initial ratings of structured finance securities in that they did not reflect the true risks inherent on those securities. A policy debate has been triggered about the need to strengthen the regulatory framework for credit rate agencies; the April 2009 G20 London agreement contains relevant regulatory provisions – see ECB Monthly Bulletin, May 2009, for a summary of the relevant issues.

The sale of CDOs to international investors made the US housing bubble a global problem and provided the transmission mechanism for the contagion to the rest of the world. The collapse of the subprime market spilled over into the real economy through the credit crunch and collapsing equity markets. All this has led to the freezing of the inter-bank lending market since August 2007. A significant recession is well with us by now: the ›great recession‹ with \$ 4.1 tr. losses in the world financial system, less than half of which has been formally written off.

The analysis so far has been concerned with the cause of the crisis. As mentioned earlier two features accentuated the crisis and I turn my attention to these factors next. I begin with the international imbalances feature.

The rise of China and the decline of investment in many parts of Asia following the 1997 crisis there, created a great deal of savings. That amount of savings was channeled mainly into the US, helping to put downward pressure on US interest rates, which along with the Fed low interest rate policy pursued at the same time, enabled households there to live well beyond their means. Low interest rates at the same time helped to push up asset prices, especially house prices, thereby enabling the financial sector to explode. The explosion of the banking sector enabled lending to households and businesses to expand substantially along

with lending to other banks. All these imbalances created a more buoyant market for financial institutions thereby feeding the originate-and-distribute culture and machine.

The other feature suggested earlier is the type of monetary policy pursued at the time. More specifically, this feature springs from the monetary policy emphasis on frequent interest rate changes as a vehicle to controlling inflation. The impact of this policy was the creation of enormous liquidity and household debt in the major economies, which reached unsustainable magnitudes and helped to promote the current crisis. Especially so after the collapse of the IT bubble (March 2000), when central banks, led by the Fed, pursued highly accommodative monetary policies in their attempt to avoid a potentially deep recession. As a result of these developments, the transmission mechanism of monetary policy changed: the build up of household debt and asset holdings made household expenditure more sensitive to short-term interest rate changes. Furthermore, the current high debt levels, combined with the difficulties in the »real« sector, imply that lenders and equity holders stay away from the market place. Not forgetting the presence and magnitude of toxic assets, which pose real problems that still need to be sorted out. The dangers with this type of conduct of monetary policy are clear, in that frequent changes in interest rates can have serious effects: low interest rates cause bubbles; and high interest rates work through applying economic pressures on vulnerable social groups. There are, thus, severe distributional effects. But to repeat the main point of this thesis, the two features just discussed were not the cause of the financial crisis. They were merely accentuating the main cause, which was the US financial engineering, promoted by the financial liberalization attempts there, and heavily based on the subprime mortgage market.

Do you see important parallels between the current financial crisis and the Great Depression of the 1930s? In how far do both crises reveal the inefficiencies of a particular type of capitalism?

There are important parallels between the current financial crisis and the Great Depression of the 1930s. The 1933 Glass-Steagall Act was designed to avoid the experience of the 1920s/1930s in terms of the conflict of interest between the commercial and the investment arms of large financial conglomerates (whereby the investment branch took high risk tolerance). The ultimate aim of the 1933 Glass-Steagall Act was to separate the activities of commercial banks and the risk-taking »investment or merchant« banks along with strict regulation of the financial services industry. The goal was to avoid a repetition of the speculative, leveraged excesses of the 1920s/1930s. Without access to retail deposits and with money market instruments tightly regulated, investment banks funded themselves using their partners' capital. The repeal of the Act in 1999 changed all that: it forced investment banks to branch into new activities, and it allowed commercial banks to encroach on the investment banks' other traditional preserves (not just commercial banks but also insurance companies, like the American International Group, AIG, and hedge funds, were involved in the encroaching). The important point to make is that the cause of both crises had similar origins. The unregulated financial sector in both cases promoted the risk-taking activities of banks and other financial institutions, which caused the corresponding crises.

This analysis refers to the US scene. In the UK the 1930s financial crisis was to a large degree home grown though paralleling the US one and the interaction between them made matters worse. The depression in the UK started well before 1929 and was more related to the decline of the old industries and then later the decline in world trade. There was not really a financial/banking crisis in the UK in the 1920s and 1930s, though there were, of course, problems arising from the return to the Gold Standard in 1925 at an overvalued pound and the alleviation of the recession by leaving the Gold Standard in 1931.

What are, in your view and in the light of the current financial crisis, the main flaws in the mainstream macroeconomic theory that has dominated the academic and political spheres over the past decades?

The flaws in the mainstream macroeconomic theory, the New Consensus Macroeconomics (NCM) theoretical framework, are numerous. These have been identified and discussed in my paper entitled *New Consensus Macroeconomics: A Critical Appraisal* (forthcoming in: Hein et al. 2009). Here I discuss the problems that relate to monetary policy as it emerges from the NCM and practised around the globe by central banks.

To begin with, the microfoundations of the NCM are based on the inter-temporal optimization of expected lifetime utility that reflects optimal consumption smoothing subject to a budget constraint. This optimization is based on the assumption that all agents are fully rational and, therefore, modeling the behaviour of the ›representative‹ agent is sufficient to understand and describe the intricacies of the real world. The economy is, thus, the sum of microeconomic decisions of all rational agents – the madness of the crowds is thereby assumed away. Markets comprise of ›rational‹ agents and are therefore ›efficient‹, the efficient market hypothesis referred to above. The inter-temporal optimization is also based on the assumption that all debts are ultimately paid in full; this is known as the transversality condition. This means in effect that all economic agents with their rational expectations are perfectly credit worthy. All IOUs in the economy can, and would, be accepted in exchange. There is, thus, no need for a specific monetary asset. All fixed-interest financial assets are identical so that there is a single rate of interest in any period. Under such circumstances no individual economic agent or firm is liquidity constrained at all. There is, thus, no need for financial intermediaries (commercial banks or other non-bank financial intermediaries) and even money. Basing the NCM model on the transversality condition, and on the idea that efficient markets would take care of themselves, the supporters have turned it into an essentially non-monetary, riskless, model with no liquidity preference present in the theoretical model. The absence of banks, risk, and liquidity preference in the NCM implies serious problems. This is so since banks and their decisions play a significant role in the transmission mechanism of monetary policy, and since decisions by banks as to whether or not to grant credit play a major role in the expansion of the economy (in the sense that a failure of banks to supply credit would imply that expansion of expenditure cannot occur). There is, thus, a disjuncture between this analysis and the role of monetary policy. It is amazing how such a non-monetary approach has been taken so seriously by

Central Banks around the world. So much so that their monetary policies are firmly based on the NCM theoretical framework.

The assumption of the long-run vertical Phillips curve is also problematic. NAIRU in this framework is independent of economic policy or demand considerations; only supply-side factors influence it. As we have shown in *The Relationship Between Capital Stock, Unemployment and Wages in Nine EMU Countries*, capital stock is an important determinant of the NAIRU, which invalidates the verticality assumption. The latter does not have much empirical support either.

The operating monetary policy rule whereby inflation above the target leads to higher interest rates to contain inflation, and inflation below the target requires lower interest rates to stimulate the economy and increase inflation is also problematic. This monetary policy rule embodies the notion of an equilibrium rate of interest. When inflation is on target and output gap (the difference between actual and potential output) is zero, the actual real rate set by monetary policy rule is equal to this equilibrium rate. This implies that provided the Central Bank has an accurate estimate of it then the economy can be guided to equilibrium of the form of a zero output gap and constant inflation (equal to the pre set target). In this case, aggregate demand is at a level that is consistent with a zero output gap. This would imply that the real equilibrium interest rate brings equality between (*ex ante*) savings and investment. Both the equilibrium rate of interest and the output gap are very difficult to estimate and yet are paramount in monetary policy making. Such uncertainty is bound to produce serious mistakes in the setting of interest rates to target inflation.

There is also the question of whether output gap, an important variable as just shown, can be measured accurately. A recent Federal Reserve Bank of San Francisco Economic Letter estimates output gap using different methods to conclude that they differ substantially. Seven estimates for the first quarter of 2009 are cited: the highest estimate is -6.2 and the lowest for the same quarter is -2.0; the rest five range between -5.6 and -3.1.

We may also note that in the operating monetary policy rule insufficient attention is paid to the exchange rate. The exchange rate is not included in this rule; it is only weighted into decisions when setting the rate of interest. Wide fluctuations in the real exchange rate contribute to »imbalances« in the economy through the domestic composition of output. There is, thus, the danger of a combination of internal price stability and exchange rate instability. The pass-through effect of a change in the exchange rate first on import prices and subsequently on the generality of prices, both goods and services, has weakened since the late 1980s. Consequently, real exchange rate fluctuations have had less offsetting effect on domestic prices than in earlier periods. The argument normally used to justify exchange rate changes affecting inflation is no longer valid under such circumstances. The impact of interest rate changes may have become more ambiguous. Evidence seems to show that capital movements are based more on equities than on other assets. A change in interest rates then may have the opposite effect on capital movements than otherwise. A secondary instrument in the form of direct intervention is necessary: central banks should engage in intervention on their own as a monetary mechanism. Be that as it may, the point is that more direct attention paid to the exchange rate by central banks is vital.

Do you believe that ›Keynesianism‹ will emerge from the current crisis as the new mainstream in macroeconomics? Or how do you expect the ›conventional wisdom‹ in macroeconomics to change over the next years or decades?

I do not think Keynesianism will emerge as the new mainstream in macroeconomics after the current crisis. And yet it sounds as if it might in view of the resurgence of interest in the policy issues, especially fiscal policy, of this paradigm. However, careful scrutiny of the reasons of such resurgence shows that most people argue for it as a temporary tool. Keynesian macroeconomic fiscal policy should be used but once the crisis is out of the way we should revert back to the NCM policy prescriptions. Indeed, policy makers should be very mindful of the government fiscal deficit and of the debt to GDP ratio, both of which should be returned to their pre-crisis levels. This is the standard argument of the NCM supporters currently.

On the other hand the NCM has been exposed so much as suggested above that some changes will be unavoidable. Such changes may very well be that targeting asset prices might be thought of as necessary along with the exchange rate and economic activity given more prominence in the operating monetary policy rule. But the essence of the NCM model as briefly summarized above, however deep in trouble it is as I have tried to show, would not change substantially. The supporters defend it by arguing that it is a necessary simplification of a complex real world to make the analysis more tractable; and as such it needs no change. Attempts to change it would make matters worse. Essentially, financial crises for the NCM supporters are anomalies. In this sense, Minsky's comment made in 1982, with slightly paraphrasing neoclassical theory to NCM theory, summarises the argument very well:

»From the perspective of the standard economic theory of Keynes's day and the presently dominant neoclassical theory, both financial crises and serious fluctuations of output and employment are anomalies: the theory offers no explanation of these phenomena« (Minsky 1982: 60).

What, in your view, would have to be the main ingredients of a reorientation of economic policies in the US, in Europe and at a global scale?

The obvious initial policy implication is that current monetary policy should be abandoned. Monolithic concentration on price stability can lead to economic instability. Coordination of monetary and fiscal policies is vital, along with discretion in applying them. The perception of how one reaches such a conclusion relies heavily on the belief that the objectives of macroeconomic policy are sustainable (environmental and otherwise) and equitable economic development and growth. Within this general focus, the main objective of macroeconomic policy is the achievement of full employment of the available labour force. Achieving such an objective would require, inter alia, the maintenance of a high level of aggregate demand consistent with the full employment of labour. Also, the provision of sufficient productive capacity to enable that full employment, where sufficient is to be interpreted in terms of quantity, quality and geographical distribution. The control of inflation

is regarded as a side issue unless inflation is exhibiting tendencies to continue to rise and to exceed double figures.

It is our belief that discretionary variations in the fiscal stance should be used in conjunction with automatic stabilisers to modify the business cycle. Automatic stabilisers should be re-enforced (through the adoption of more progressive taxation) and arrangements should be put in place, which enable adjustments to be made to the fiscal stance on a relatively frequent basis in light of macroeconomic developments. Industrial and regional policies are required to enhance supply. Public expenditure, particularly investment, can also be structured to ease supply constraints. Interest rate policy should be set so that the real interest rate is in line with the trend rate of growth, but this may be constrained by world levels of interest rates. Another constraint in this regard is the requirement of a fixed exchange rate. However, the main operations of the Central Bank should be directed towards financial stability. To summarise, fiscal policy should be used both in the short term and in the long term to address demand issues. Monetary policy should focus on financial stability. Regional and industrial policies should be employed to create the required capacity and to develop incomes policy to maintain low inflation. Distributional issues in this framework should have priority in the coordination of economic policies as proposed and discussed above.

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*Robert A. Blecker**

Did you anticipate the current financial crisis?

Yes and no. I believed that there was a housing bubble in the US economy and elsewhere, and I thought it could not be sustained indefinitely. I could see that the growth of the 2003 – 7 period was largely driven by the housing sector and was reliant on this unsustainable bubble. So, I was not surprised when housing prices peaked in 2006 and began to fall in 2007 and early 2008. I had thought the US dollar was overvalued for a long time, in spite of its partial decline after 2002, so I was not surprised when it began to fall more rapidly in 2007. I also thought the stock market was overvalued and was due for a correction. So when the stock market peaked in mid-2007, I yanked some short-run money I had saved out of a stock-based mutual fund, but I did not (alas!) move my long-term retirement funds out of stock market-linked funds at that time. I noticed that corporate profits began to fall in 2007 and early 2008, and that is usually a leading indicator of a recession.

In May – June 2008, I gave talks on ›the US economic crisis‹ at universities in Mexico and Italy. I said that the crisis had only just begun, and was likely to get worse. But I did not anticipate how big and sudden the crash would be in the fall of 2008, nor did I anticipate all the channels through which the financial system would collapse. Like many left economists, I had predicted crises many times in the past, and I had learned from experience not to be a ›chicken little‹ or to ›cry wolf‹. So, while I was aware of the possibility of a bigger collapse, I was loathe to predict that one was imminent.

Furthermore, I was wrong about what the immediate causes of the recession would be. While the housing crisis and subprime mortgage defaults were already very bad by mid-2008, it still looked as though the damage might be contained to certain sectors of the economy (e.g., construction) and that there would not be large spillover effects into the rest of the system. As of the summer of 2008, I was still focused on high oil prices and rising inflation. I thought that the Fed was likely to raise interest rates in responses to inflationary pressures, and that this would be the precipitating cause of a recession (although the recession is now dated as having started in December 2007, the data did not clearly show that until many months later, so I was not aware we were in one yet – though I could tell we were in a slowdown). I did not then imagine that, by the end of 2008, the Federal Funds rate would be nearly zero. What I did not realize was the extent of fragility in the entire financial system and the degree of interlinkage among so many financial institutions through the complex derivatives and swaps that had been created on the shaky foundation of bad mortgage debt during the period of rising real estate prices.

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Everybody probably agrees that the underlying reasons for the current global financial and economic crisis are numerous and complex. If you had to highlight only one cause of the crisis, what would this be? Why?

There were indeed many causes of the crisis, but the reason why it was so severe was the enormous rise in systemic risk due to the proliferation of bad lending practices at the bottom (subprime mortgages being only the tip of an iceberg of bad debt), securitization of loans in the middle, and complex financial derivatives and credit default swaps at the top – all of which were facilitated by financial deregulation that was encouraged by free market ideology. The way these financial markets evolved, loan originators lost the incentives to properly monitor and limit the risks of the assets that were created, while the securitization of the assets in turn led to a false sense of security on the part of investors that the overall risk had been minimized by diversification. The securitized mortgages in turn were bundled into more complex derivative instruments and then ›insured‹ by credit default swaps that gave a further false sense of security – without anyone having a clue about the true value and risks in the underlying assets or in the total package of derivatives and swaps laid on top of them. The way these assets were created, there was no way to have ›perfect information‹ or even minimally reliable information about their true value and risks.

This rise in systemic risk did not occur overnight, of course. The quality of the mortgages and other loans deteriorated in (roughly) 2005 – 7 as financial institutions pushed larger and larger mortgages (subprime and other) onto households with dubious ability to make the requisite payments, and as the bubble encouraged the fantastic belief that housing prices would continue rising indefinitely at historically unprecedented rates. Furthermore, additional amounts of consumer lending (e.g., home equity loans and credit card debt) were piled on top of the mortgage debt, with high asset prices (both for homes and in the stock market) encouraging a false sense of households' long-term net worth positions. Commercial real estate and nonresidential construction, after lagging behind in the early phases of the recovery (2003 – 4), eventually caught up and became overheated.

Finally, the key thing that turned a financial crisis into an overall economic disaster was the high degree of interconnection of the various facets of the financial system, coupled with the fact that the ›real‹ economy is so heavily dependent on the financial sector – a connection that is missed in mainstream economic models that presume ›monetary neutrality‹. When the asset markets collapsed, major financial houses either failed or had to be bailed out, credit markets froze up, and the real economy was unable to continue operating at normal levels. On the one hand, businesses could not get loans even for short-term financial needs, and on the other hand, foreclosed-upon homeowners and overindebted consumers could no longer afford to buy so many goods and services on credit. Standard Keynesian ›multiplier effects‹ then set in, causing even those consumers who had not gone excessively into debt to contract their expenditures as unemployment rose and incomes fell. In the end, the global boom of 2004 – 7 turns out to have built upon a financial house of cards, and once that house of cards collapsed, the boom turned into a bust.

Do you see important parallels between the current financial crisis and the Great Depression of the 1930s? In how far do both crises reveal the inefficiencies of a particular type of capitalism?

I am not an expert on the Great Depression, but I do think that we now have – however imperfect – some institutional and policy developments that have (so far!) prevented a serious global recession from turning into another major depression. Governments are much larger, and to a certain extent provide automatic stabilizers and (at least in some countries) are conscious of the need for fiscal stimulus. Fiscal stimuli to date have been too small, poorly coordinated, and not global enough in scope, but they are nevertheless much greater than what the world had after the stock market crash of 1929. Monetary policies that have been fixated on controlling inflation were part of the problems that led up to the present crisis, but eventually most central banks have realized the severity of the problem and have responded with interest rate cuts and financial institution bailouts. The US Fed, after being late to recognize the onset of the crisis (it was still preoccupied with inflation until mid-2008, and Ben Bernanke originally dismissed the burst of the housing sector as limited in its spillover effects), did react aggressively in the fall of 2008 with over 1 trillion US \$ of purchases of bad assets to rescue the banks and other financial institutions (thus exceeding the Treasury's infamous and badly managed 700 billion US \$ TARP programme). The Fed has stuffed about 800 billion US \$ of reserves into the banks, and while this has not yet induced them to resume lending in light of the continued weaknesses in the real economy, it has nevertheless prevented a worse banking panic or collapse. In short, policy responses have often been too little, too late, or too uneven, but they have vastly exceeded the policy responses of the 1930s. Thus far, the policy responses have not sparked a recovery, but they have probably contained the worst of the financial crash of late 2008 and are helping (hopefully) to help the system find a bottom that is somewhat better than the 1930s, though still very depressed and painful.

What are, in your view and in light of the current financial crisis, the main flaws in the mainstream macroeconomic theory that has dominated the academic and political spheres over the past decades?

Mainstream macro models are truly an embarrassment after the events of the last year. Virtually everything that happened to cause the crisis has to be treated as an exogenous shock in a standard model (IS-LM, AS-AD, etc.), but cannot be explained within that framework. Moreover, the admitted need for strong stimulus policies is completely contrary to the orthodox view of an automatic adjustment mechanism to an aggregate demand shortfall that relies upon falling prices to raise real balances. As even many conservative policy makers (e.g., Bernanke) recognize the need to avoid deflation, the bankruptcy of the textbook models has never been more apparent.

The consensus view in macroeconomics revolves around the concept of a NAIRU that is a stable attractor for the economy in the absence of bad government policies (fiscal or monetary) or other exogenous shocks. This view assumes that the main source of inflationary threats and systemic instability is the labour market, where workers are allegedly poised

to win large wage gains and spark accelerating inflation if unemployment goes below its ›natural rate‹. Accelerating inflation in turn is supposed to be boosted by rising inflationary expectations if actual inflation runs ahead of previously expected inflation rates. Even if this view had some credibility for the inflations of the 1960s and 70s (and it is debatable for those), it has long since ceased to be relevant to the situation of the 1990s and 2000s, when both policy shifts (e.g., inflation-targeting monetary policies, either official or de facto) and institutional changes (e.g., greater international competition and capital mobility, ›flexibilization‹ of labour markets) have dramatically weakened labour movements globally, and labour markets have ceased to be the main source of inflationary pressures. What the mainstream missed was that inflationary pressures had shifted to global commodity markets, beyond the control of national or regional policy makers, while the deregulated and liberalized financial sectors became the new main source of endogenous instability.

Heterodox or ›post-Keynesian‹ macro theory looks notably better in hindsight, especially in light of Minsky's contribution which emphasizes financial fragility and the build-up of systemic risk in a booming and unregulated economy. Nevertheless, I think many recent heterodox models have put too little emphasis on commodity markets. Kalecki always included raw materials along with labour in his ›prime costs‹ (AVC), but the former have tended to disappear from most recent formalizations of neo-Kaleckian models (including my own). Neo-Kaleckian models with financial sectors and debt accumulation have started to proliferate, and these do get at the most important source of instability in contemporary capitalism. Nevertheless, this work is still being developed, and more research is needed to develop empirically grounded and theoretically cogent models of financial instability. Paradoxically, heterodox macroeconomists seem to be ahead of the curve in theory, but have lagged behind on the empirical front, and I think we need to put more emphasis on econometric research to test and ground our models.

Do you believe that ›Keynesianism‹ will emerge from the current crisis as the new mainstream in macroeconomics? Or how do you expect the ›conventional wisdom‹ in macroeconomics to change over the next years or decades?

Keynesianism had a brief rebirth during the Asian/emerging markets financial crisis of 1997 – 99 and the subsequent recession (with the attendant threat of deflation) around 2001 – 2. However, Keynesianism was quickly forgotten thereafter as the profession embraced the idea of a Great Moderation that was based on the successful application of consensus macro policies, and after aggregate demand problems seemed to have solved themselves during the global boom of 2004 – 7. So, while ›Keynesian‹ thinking certainly has come back into the limelight in the past year, it is too early to conclude that this will force a major realignment of the economics profession. What does seem to have happened is that recent events have lessened the credibility within the mainstream of the most extreme views of the self-regulating nature of financial markets – even Alan Greenspan has confessed that he was wrong in this respect, and Joseph Stiglitz's view of the inherently imperfect nature of capital markets has been vindicated. A lot depends on whether this crisis proves to be prolonged and deep, in which case the cognitive dissonance of the mainstream approach will become more

and more evident, or if the US and global economies start to recover soon in which case the motivation for a profound rethinking will be lessened.

What, in your view, would have to be the main ingredients of a reorientation of economic policies in the US, in Europe and on a global scale?

For at least the last two business cycles (roughly, 1991 – 2000 and 2001 – 8, with of course some variation among countries), the US and other global economies have relied on unsustainable financial booms and bubbles to undergird expansions and have fallen into recessions after these booms or bubbles turned into busts and panics. In the US, the main features were the IT-led stock market bubble in the late 1990s and, of course, the infamous housing bubble in the early 2000s (plus another brief stock market run-up that ended in 2007). Moreover, capitalist economies have increasingly relied upon debt to finance expenditures that exceed current incomes in order to bolster aggregate demand. In the US case, with which I am most familiar, working class households increasingly relied upon debt (e.g., credit cards) to make up for stagnating real earnings, while middle-class households were able to secure new kinds of loans (e.g., home equity) based on the inflated asset values of their assets (stocks, homes, etc.). 'Financialization' led to increasing profits for the financial sector itself and a squeeze on profit margins in industrial operations (which increasingly had to be outsourced to be competitive). Thanks to financial and trade liberalization, both booms and the busts have become more synchronized among countries, while contagion effects in financial markets spread faster than ever.

The biggest challenge for policy, therefore, is to find a way to promote robust and sustainable growth with full employment in a way that does not rely on financial bubbles or rising debt ratios to artificially pump up aggregate demand. The notion that maintaining price stability or steady, low inflation is sufficient to allow the economy to grow at its maximum potential rate in the long run needs to be abandoned. Greater financial regulation is required – perhaps on a global scale – to prevent the creation of excessive systemic risk. Fiscal and monetary policies need to be calibrated with employment targets, not just price targets, in mind.

However, one situation that seems unsustainable in the long run but has not yet collapsed is the matrix of global trade imbalances, led by the US current account deficit and East Asian (especially Chinese) surpluses. Currency manipulation by China is a classic case of what Joan Robinson called 'the new mercantilism', in which some countries protect their industrial employment at the expense of others'. The US, for its part, was (until the crisis) content to continue borrowing internationally to feed its appetite for consumption unmatched by domestic production and incomes. Many observers agree that this cannot continue forever, but no one knows when or how it will end. The present crisis has temporarily cut the US deficit in half (from about 800 billion US \$ in 2006 to about 400 billion US \$ in 2009-Q1 at an annual rate), but this is largely a result of the sharp decline in US consumer spending. With production supply chains that are highly integrated across national boundaries, any recovery in the US economy is likely to generate a quick recuper-

ation of the US trade deficit (especially if other countries lag in the recovery, hence depressing US exports).

The outlines of a realignment of global savings and expenditures that could lessen these imbalances are fairly clear: in the long run, US consumption will have to grow more in line with income, while the surplus countries (including Germany and Japan as well as China and others) will need to rely more on domestic demand and less on exports to propel their economies. Redistributive policies to boost workers' consumption demand could be helpful in this regard. A currency realignment involving a lower US dollar and higher values of some other currencies (especially the Chinese yuan) is a necessary part of such a rebalancing, but is unlikely either to occur automatically or to be sufficient by itself to cure the large imbalances. The development of an international source of liquidity or global reserve asset that would be delinked from the US dollar – although currently resisted by US policy makers – would be helpful for ensuring that other countries' desires to hold reserve assets do not overvalue the US dollar from the perspective of a global trade realignment.

*Marica Frangakis**

Did you anticipate the current financial crisis?

Let us start with a definition. What is a »financial crisis«? Although there is no universally accepted definition, we shall adopt the one proposed by Eichengreen. Namely,

»A financial crisis is a *disturbance* to financial markets, associated typically with *falling asset prices* and *insolvency* among debtors and intermediaries, which *ramifies through the financial system, disrupting* the market's *capacity to allocate capital* within the economy. In an *international* financial crisis, disturbances spill over national borders, disrupting the market's capacity to allocate capital *internationally*« (Eichengreen 1987: 2).

Does the financial crisis that started with a credit crunch in the summer 2007 fit the above description? We believe it does, although the linkages were not immediately obvious at its outset. Thus a housing boom in the USA ended with the collapse of the subprime mortgage market, following a 2-year gradual increase in the Fed policy rate. This initial disturbance spread to the investment, as well as to the commercial banks in the US and across the world via an elaborate network of securitized mortgage derivatives, leading to mounting uncertainty, as it became clear that precarious borrowing had intricately woven its way through the global financial system.

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In the near panic that followed, asset prices fell, as hedge funds, investment banks and other exposed debtors entered a process of deleveraging. The wave of defaults by homeowners was joined by defaults by highly leveraged mortgage lenders and by holders of asset backed securities. The default by the US investment bank ›Lehman Brothers‹ – established on the eve of the 1929 Crash, which it survived – is indicative of the ramifications to the financial system caused by the initial financial disturbance of 2007.

Further, the trouble encountered by a number of major banks in Europe in the course of 2008 pointed to the fact that this was an international crisis.

Could the financial crisis have been anticipated? John Kenneth Galbraith, writing on the 1929 Crash, has noted that: »No one, wise or unwise, knew or now knows when depressions are due or overdue« (Galbraith 1992: 51). Paraphrasing him, we would argue that »no one knows when a financial crisis is due or overdue«. On the other hand, there are indicators which may suggest that a speculative bubble is in the making. Such indicators include asset price inflation, increased leverage, large sustained current account deficits, a slowing trajectory of economic growth and overall global imbalances, including an increasingly unequal distribution of income and wealth. Close observation of the US economy, as well as of global interrelations would suggest that all kinds of tensions were building up; i.e., the pressure on the financial structures and on the economy at large was mounting.

Neither was the experience completely novel. A ›déjà vu‹ was felt by many students of things past. However, as the Great Depression and earlier panics and crises faded from our collective memory, confidence in the efficiency of the market returned and with it, the optimism that one can get rich fast and at little, if any, cost. This optimism ended with a bang in the ensuing crisis.

Everybody probably agrees that the underlying reasons for the current global financial and economic crisis are numerous and complex. If you had to highlight only one cause of the crisis, what would this be? Why?

The ongoing crisis is both a financial and an economic one. It has both macro and micro aspects. Although it began as a financial disturbance, the problems in the financial sector in part reflect underlying economic problems, such as growing global imbalances and deepening distributional inequality within and across countries.

Roughly, we can distinguish between the *proximate causes* of the crisis and the *fundamental issues* behind it, where the former include a loose monetary policy and inadequate financial regulation and supervision, while the latter include what may be called »asymmetric globalization«¹.

Starting with monetary policy, we need to go back to the early 2000s and the burst of the dotcom bubble. Fear of further financial turbulence led to a policy of low interest rates in the US over the period 2001 – 2004, which in turn triggered a housing boom. However,

1 We borrow the term from the Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System, submitted to the UN Conference of June 2009.

when fear of inflation took over, the Fed reversed its policy, putting into motion a wave of defaults by homeowners.

The negative implications of loose monetary policy for financial stability were further multiplied by financial sector deregulation and capital market liberalization, a worldwide process that began in the late 1970s. Lax financial oversight complemented the framework within which financial institutions have been operating in the US as well as globally.

Not surprisingly, the standards of prudent lending were dangerously relaxed, while the motive to monitor the borrowers was shifted away from the banks to nowhere in particular, as loans were bundled into packages, that were then divided into asset-backed securities and sold to investors looking for profitable investment opportunities in a low interest rate environment. Since nobody seemed to know what these securities stood for, they were rated by the credit rating agencies, which habitually awarded them high ratings, especially as their fees were paid by the issuers. This was a win-win situation, while prices were rising. When the tide turned, the uncertainty inherent in the securitization process, which is different to the probabilistic risk associated with any type of investment, created havoc.

These developments were clearly permitted, if not encouraged, by a loose regulatory and supervisory framework, ruled by the principle that markets are inherently efficient, even if they take a tumble occasionally. Thus, whole sectors of finance, the so-called »shadow banking system«, including hedge funds, special investment vehicles and other conduits (often bank-owned, but off their balance sheet), was lightly, if at all, regulated.

In the US, the deregulatory thrust culminated in the repeal of the Glass Steagall Act of 1933, prohibiting a bank holding company from owning other financial companies, by the Gramm-Leach-Bliley Act in November 1999. It is worth noting that in 1998 sub-prime loans amounted to 5 % of all mortgage lending in the US, while by 2008, they were approaching 30 %.

In view of the dominant position of US and European financial institutions in world finance, the monetary and institutional developments briefly described above laid the ground for the crisis-to-come.

This was further exacerbated by what is known as »asymmetric globalization«, whereby the distribution of economic, social and political power nationally and globally becomes increasingly unequal. Examples are the weakening of trade unions, deficiencies in corporate governance and the breakdown of social conventions, as inequality in the distribution of income and wealth deepens. On a global scale, certain countries, largely concentrated in Asia, produce and lend, while others, especially the USA, consume and borrow. This state of affairs has also been described as »fragile globalization« (Mason 2009).

The increasing interlocking of the global economic system thus heightens its vulnerability to external shocks, accounting for both the fast rate at which a financial crisis originating in the USA spread to the rest of the world and the rate at which a financial crisis turned into an economic crisis of global dimensions.

In our view, it is the nexus linking the various aspects of the current crisis, which needs to be highlighted not as a »single cause«, but as a unique pattern of relations embracing the economic, social and political spheres.

Do you see important parallels between the current financial crisis and the Great Depression of the 1930s? In how far do both crises reveal the inefficiencies of a particular type of capitalism?

The first important parallel between the current crisis and the Great Depression is that of size. Nine months after the peak of April 2008, the decline in world industrial production and trade, as well as in the world stock markets is commensurate to that of 1929, i.e., to the corresponding fall from the peak of June 1929. Quoting Eichengreen and O'Rourke:

»To sum up, globally we are tracking or doing even worse than the Great Depression, whether the metric is industrial production, exports or equity valuations. [...] The ›Great Recession‹ label may turn out to be too optimistic. This is a Depression-sized event« (Eichengreen/O'Rourke 2009: 10).

Size however is not the only parallel. There are other interesting parallels, although the origin of the two crises is different, in view of the fact that the 1929 crisis started with the crash of the stock market, whereas that of 2007 with a credit crunch in the interbank money market, preceded by a bubble in housing prices and in residential mortgages.

These parallels include:

- Speculation based on a sense of confidence and optimism, important ingredients of the ›mood‹ of the market;
- Financial engineering and innovations, conceived to avoid or minimize the effect of regulation;
- Lax oversight, allowing bad corporate governance practices to take hold;
- Underlying economic problems and especially the building up of imbalances both at the national and at the global level.

The importance of confidence and optimism has been described by Galbraith as »faith in the good intentions and even in the benevolence of others, for it is by the agency of others that they will get rich« (Galbraith 1992: 187). Alan Greenspan's reference to »irrational exuberance« evokes such »faith«. It is this climate which primarily makes it possible for fancy financial innovations to appear convincing, such as the mortgage and other asset backed securities and the credit default swaps, which very few, if any, investors could understand or evaluate, but which many were eager to acquire!

Furthermore, under these conditions corporate malfeasance may easily go unnoticed and therefore it becomes more common. This was the case in the 1929 episode, as it has been revealed to be the case in the current crisis, too (e.g. the Madoff pyramid!). In other words, in both instances, finance evolved from »hedge« to »speculative« to »Ponzi« finance, to use the Minskian terminology (Whalen 2007).

Loose financial regulation and lax oversight further allow such phenomena to go unchecked. This was the case both in 1929 and currently.

Last but not least, the underlying economic conditions in 1929 displayed some important imbalances, as do those of the current crisis. More specifically, the distribution of income and wealth in the 1920s was highly unequal. This meant that the economy was dependent

on a high level of investment or a high level of luxury consumer spending or both. That is, it was vulnerable to changes in particular types of demand. The combination of a fall in the demand for capital goods and of the stock market crash induced a steep decline in aggregate demand, which the demand for luxury goods could not compensate for.

By analogy, income and wealth distribution is very unequal at the present time, too, both between and within nations. The credit bubble and the rising house prices, on the one hand, and the increasing flexibility of the labour market, on the other, have made it possible for advanced societies to maintain aggregate demand and thus unemployment at a socially tolerable level. In the less advanced and developing countries, the income and consumption imbalances are more striking and therefore demand is much more precarious.

What are however the prospects? The Great Depression went on for almost a decade. How long, before the current crisis and recession reach a turning point? In the same way that the current crisis could not have been *precisely* predicted, neither can the upturn!

However, one important difference between the 1930s experience and that of today is the policy response of the central banks and of governments. In the 1930s, fiscal policy was ruled by the principle of the »balanced budget«, while monetary policy, anchored on the gold standard, was of limited, if any, use. Today, the lesson of the past seems to have been learnt, at least in general terms. Thus, central banks across the world have responded to the 2007 credit crunch by injecting liquidity into the financial system. When it became clear that the crisis was one of solvency, bail out schemes were set up, which, in spite of their various problems (lack of transparency, need to align ownership with control, fairness) have so far prevented a major financial meltdown. Lastly, fiscal policy, albeit strongly debated on both sides of the Atlantic, is aware of the significance of supporting aggregate demand. On these counts, it is hoped that the current recession will not turn into a slump of the 1930s proportions.

What are, in your view and in light of the current financial crisis, the main flaws in the mainstream macroeconomic theory that has dominated the academic and political spheres over the past decades?

The recent UN Report of the Commission of Experts attributes part of the explanation of the current crisis to the economic theories that motivated the financial and economic policies during the last three decades. Namely:

»the belief that economic agents are rational, that governments are inherently less informed and less motivated by sound economic principles, and therefore their interventions are likely to distort market allocations, and that markets are efficient and stable, with a strong ability to absorb shocks« (UN Conference 2009: 17).

Even the Economist admits that

»many people view the financial crisis that began in 2007 as a devastating blow to the credibility not only of banks but also of the entire academic discipline of financial economics« (The Economist 2009: 71).

Indeed, one of the most serious implications of the current crisis, like the 1929 one, has been to directly challenge the main tenets of economic orthodoxy. These are as follows:

- That macroeconomic policy is more or less superfluous. In particular, it is presumed that the economy behaves like a stable general equilibrium system. If problems arise, these are due to micro issues, or ›imperfections«. Once these are dealt with, the macroeconomist has nothing to add (Leijonhufvud 2009).
- Accordingly, monetary policy focuses on inflation targeting, to the exclusion of other socioeconomic policy objectives. This is especially true of central banking in the EU.
- Further, fiscal policy is constrained by worries of the ›balanced budget« type. Again, this is a cornerstone of economic policy in the EU and especially in the eurozone.
- That financial markets are efficient, in the sense that even if individual decision makers get asset prices wrong, the market as a whole gets them right. Thus, deviations from equilibrium values do not last for long, while bubbles cannot form, or, if they do, they do not last. In other words, financial instruments are driven by an ›invisible hand« to some set of prices that reflect the underlying value of assets. This is the Efficient Market Hypothesis, which came to prominence in the 1990s.

In keeping with the Neoclassical Economics School, which came to prevail in the economics profession in the late 1970s, economics has thus been seen as a ›science« on a par with e.g. physics. A high level of theoretical abstraction and a sophisticated use of complex mathematical models have been employed to prove the point. In this way, however, economics became gradually divorced from reality. Most importantly, a complete disengagement from distributional issues and an infatuation with the efficiency of the market became the official hallmarks of the profession.

During this time, dissenting voices have not been uncommon. However, they have not been heard widely, while they have been actively discouraged by those benefiting from the existing state of affairs, at least until recently.

Do you believe that ›Keynesianism« will emerge from the current crisis as the new mainstream in macroeconomics? Or how do you expect the ›conventional wisdom« in macroeconomics to change over the next years or decades?

In a recent note, entitled *The Keynesian moment*, Paul Krugman argued that

»If you were going to turn to only one economist to understand the problems facing the economy today, there is little doubt that the economist would be John Maynard Keynes« (Krugman 2008).

Indeed, the current crisis has led to a revival of interest in alternative economic ideas and philosophy. This is a welcome development, to the extent that it reintroduces political economy, ethics and morality to the economics profession, issues decisively pushed aside by the prevalent orthodoxy.

Will ›Keynesianism« be the new ›mainstream«? To the extent that Keynesianism is not a closed set of ideas, i.e. a dogma, its becoming the new orthodoxy is a contradiction in terms!

What is the legacy of Keynes, however, and how can it be expected to influence ›conventional wisdom‹ in macroeconomics? This is a huge area, where disagreements amongst followers of Keynes are not uncommon. By way of concentrating on what we consider to be the main elements of the Keynes method, we shall follow Wray's approach:

»Keynes required only three conditions to ensure the possibility of equilibrium with unemployment: historical time, autonomous spending and existence of a non-producible store of value« (Wray 2007: 3).

According to this taxonomy, historical time introduces uncertainty as a direct variable into the process of decision making. Furthermore, spending is influenced by expectations of the future, while the alternative to consumption or investment is the accumulation of money balances, where the future appears uncertain or unpromising. Lastly, this is made possible by the fact that money is an asset that is not produced by labour. In this sense, it can ›become a bottomless sink of purchasing power, overturning Say's Law and subverting any market forces to return the system to full employment« (ibid).

By contrast, the neo-Classical model, by ruling out uncertainty, precludes the holding of money, as well as any institutions linked with it, such as banks and other financial intermediaries. Similarly, instability is ruled out, since all outcomes can be hedged, while unemployment is simply an ›anomaly‹ of the system!

The basic Keynesian model, on the other hand, can be extended to account for a variety of factors, present in the modern world of finance and in the economy as a whole. For example, contrast Hyman Minsky's ›Financial Instability Hypothesis« to the until recently dominant ›Efficient Market Hypothesis« (Minsky 2008).

Building on Keynes' appreciation of the distinction between risk and uncertainty, Minsky developed his hypothesis, according to which the main instability experienced in a modern capitalist economy is a tendency to explosive euphoria, which government policy (›circuit breakers‹) needs to keep under watch, in order to avoid (a) the building up of a mania and (b) should one occur, its turning into a panic (Kindleberger 2000). Such government intervention needs to be of the fiscal type, since monetary policy should not be used as a countercyclical force. On the contrary, the central bank should promote financial stability through the use of quantity controls during a speculative boom and intervening as a lender of last resort in a bust.

The onset of the neoliberal era, with its emphasis on deregulation and privatization, has driven to obscurity many tenets of the Keynes method of study. As Krugman has pointed out:

»If Keynes receded in our consciousness over the past few decades, it wasn't mainly because of uninformed criticisms from the right; it was because central banks seemed to have everything under control [...]. But his analysis remained as valid as ever, under the right conditions. Those conditions reappeared first in Japan during the 90s; now they are everywhere. And in the long run, it turns out, Keynes is anything but dead« (Krugman 2008: 1 – 2).

What in your view would have to be the main ingredients of a reorientation of economic policies in the US, in Europe and at the global scale?

The depth of the crisis has shaken confidence in the theoretical and policy tools of the prevalent ideology – neo-Liberalism – and of the economic dogmas supporting it – neo-Classical economics. Although we are probably still far from a radical resetting of the economic theory and policy agenda in universities and in the decision-making seats of government, the search for a reorientation of economics has started.

It is imperative that alternative views are expressed in clear, unequivocal terms, so as to influence public opinion and thereby government policy. Unless work on the necessary fundamental reforms is undertaken now, there is a risk that the momentum for reform will be lost with the recovery. Signs of such a loss of momentum can already be discerned in the EU, where the straitjacket of the Stability and Growth Pact is appealed to, overlooking its procyclicality, which of course amplifies the effects of the crisis!

A group of economists have put forward a *Progressive Program for Economic Recovery and Financial Reconstruction* of the US economy, based on »well established economic principles forged by political economists like John Maynard Keynes [...] and developed by numerous economists« (Balakrishnan et al. 2008: 3). It is an interlocking set of policy initiatives that include the following:

- A massive fiscal expansion program to promote economic recovery;
- Economic policies to restore the societal balance of power and health to labour, communities and families while making the transition to a greener economy;
- Policies to reconstruct, regulate and manage financial institutions, so that they serve the needs of people and contribute to financial stability;
- Principles for international cooperation and coordination to help the world economy recover and make a transition to fairer and more balanced global growth.

In the same vein, the outcome of the UN Conference on the World Financial and Economic Crisis concluded that

»this crisis [...] represents an important opportunity for meaningful change. Going forward, our response must focus on creating jobs, increasing prosperity, strengthening access for health and education, correcting imbalances, designing and implementing environmentally and socially sustainable development paths and having a strong gender perspective« (UN Conference 2009: 4).

Overall, the need for a reorientation of economic policy is gaining ground, while the revival of interest in Keynes' analytical concepts and tools indicates the search for new principles, better suited to the current state of the economy and of society. Such a search however needs to take into account aspects of the economy that were not as pronounced in Keynes' day as they are today.

In particular, globalization is much more pronounced today than it was in the early 20th century. For instance, outsourcing, increasing migration flows and the rise of new

centres of capitalist production in Asia and elsewhere are either new phenomena or greatly intensified. At the same time, the economic and social divisions have deepened, making the need for radical structural reform imperative. Last but not least, the on-going climate crisis, made worse by the current economic and financial crisis, means that any restructuring must be done with minimal disruption to the environment (Bello 2009).

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*Marc Lavoie**

Did you anticipate the current financial crisis?

The straightforward answer is that I did not. One of the reasons that I did not pay too much attention to the few Cassandra cries that one could hear before August 2007 is that I had seen Wynne Godley watching the stock market indices every morning and looking very much disappointed whenever they were not going down when I visited him at the Levy Institute in the Spring of 2000. The indices did crash, but a year later. I also remembered Warren Mosler telling me, in early 2001, that housing prices in Florida and elsewhere in North America were about to go down. They did but five years later. By the time they started going down after having continued to skyrocket, I had stopped paying any attention to housing prices, also discouraged by the fact that, based on that advice, I had decided to keep my small house instead of purchasing a big new one!

In addition, I must shamefully say that I was totally unaware, as were no doubt many of my colleagues in economics, of all the arcane terms that any reader of the financial press now has come to recognize, such as MBS, CDO, CDS, ABCP, etc. Even as late as September 2008, I remember a student in my graduate class in monetary economics telling me that the next big thing to cause trouble would be credit default swaps, the CDS.

The August 2007 freeze on European overnight markets, accompanied by large interventions by central banks in the US and in Canada, was certainly a wake-up call. That's when I started paying more attention to the new features of the financial system, such as securitization, which until then, I only saw as a convenient and fashionable alternative to issuing certificates of deposits for banks that were specialized in making loans instead of collecting deposits, an alternative that also helped banks circumvent the BIS-imposed capital adequacy ratios (Lavoie 2003: 518 – 519).

It also turned out that in the Fall 2007 I decided to use the Arestis and Sawyer's *Handbook of Alternative Monetary Economics* as the textbook for my graduate class in monetary economics. That book was full of chapters on liquidity, credit rationing, deregulation, financial liberalisation, financial bubbles and crises, speculation, and Minsky's financial fragility hypothesis. With the Northern Rock saga and a continuum of banks announcing large MBS-related losses, this was certainly a good way to get back into the analysis of financial instability. It also induced me to revisit my earlier interest in Minsky's Wall Street view, having published my first paper on that topic nearly 25 years earlier (Lavoie 1983). This process of updating was completed by the Fall 2007 Berlin conference organized by the Research Network Macroeconomics and Macroeconomic Policies, which provided many enlightening sessions on the banking crisis, and by the April 2008 Annual Minsky conference at the Levy Institute. The talks of several portfolio managers there convinced me that the slow-down of the economy would turn into an ugly recession.

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So if the question is – did you anticipate the recession tied to the current subprime financial crisis? – I believe I can answer in the positive, from April 2008 on. But others were much more optimistic. Even as far back as November 2008, the consensus view among forecasters was that neither the US nor Canada would experience an overall negative rate of growth in 2009 (Informetrica 2008). If I did not anticipate the financial crisis very well, many experts did not correctly anticipate its consequences.

Everybody probably agrees that the underlying reasons for the current global financial and economic crisis are numerous and complex. If you had to highlight only one cause of the crisis, what would this be? Why?

The key cause, in my view, was the widespread use of securitization. It should be made clear that securitization is understood in two different meanings. Take the case of mortgages granted by banks. Securitization in its old meaning implied that the bank would keep the mortgage on its books on the asset side, but issue securities based on these loans, with the mortgage-based securities (MBS) now appearing on its liability side. Securitization in this first sense is akin to liability management. To finance their loans, instead of issuing certificates of deposits (CDs) that are of a relatively short duration, banks issue long-term bonds that have the additional advantage that they help them cover term risk. Only mortgage loans conforming to strict norms and insured by some government agency were eligible to such conversions, so there was very little risk for the investors. In and of itself, this first kind of securitization is of little consequence and has been pursued successfully for decades – and still is.

Securitization has been given an entirely different meaning since the mid-1980s however. Among other things, securitization is used as a means to remove entirely the loans from the balance sheet of banks. It is now linked to asset management. The (mortgage) loans are sold off to an independent special purpose entity (SPE) or special investment vehicle (SIV), that then issues the mortgage-based securities (MBS) or the collateralized debt obligations (CDO) that have been distributed worldwide. Wall Street banks were the underwriters of such issues, and they also procured default insurance (CDS) on these, along with insurance companies such as AIG. They ended up holding billions worth of these MBS, CDO and CDS when the crisis of confidence arose in August 2007.

This new ›originate and distribute‹ model of banking, based on a perversion of securitization, has removed the risk from the balance sheet of the bank granting the loan. Backroom and frontroom management have also benefited from a bonus system that was rewarding short-termism, based as it was on current sales and accounting profits. This has become true at all levels of the transaction chain. In the case of real estate, everybody gets a commission and benefits from an expansion in the amount of loans being granted: the broker who finds the mortgage borrower, the appraiser who checks the value of the property, the loan officer who grants the loan, the securitizers that transform the loan into a security, the lawyers who check the legal aspects of the operation, the rating agencies paid by issuers to give a rating to the securities, the mathematicians who were providing the models to rate synthetic securities, the underwriters who sell the security. The chain can be further extended

to the credit default insurers, the pension fund managers getting bonuses to exceed industry returns norms.

One does not need a PhD in economics to get the feeling that such a setup, with rampant conflict of interest, is bound to become unstable, encourage fraud, and encourage unsustainable indebtedness, especially when tied to a growing ›shadow‹ unregulated banking system and a deregulated banking system. As the French say, ›après moi, le déluge!‹. Indeed, this is what happened.

To several finance specialists, including some heterodox economists, securitization in this second sense was preferable to liability management. French regulationist Michel Aglietta (1996), for instance, argued that since banks were in charge of the payment system, it was best to remove credit risk from banks, and transfer it to non-bank financial institutions and to investors, so that the payment system would be immune from the risk of insolvency arising from credit risks. What Aglietta and these finance specialists did not catch was that securitization of the second kind, enhanced by synthetic derivatives, created two interrelated additional problems: first, a disconnect between the institution creating a credit risk and the institution holding the risk; second, a lack of transparency regarding the true nature of the assets being sold to other banks and investors. These induced and allowed banks to grant bad loans and to get rid of them, passing them over to unsuspecting and not-so-unsuspecting investors.

Do you see important parallels between the current financial crisis and the Great Depression of the 1930s? In how far do both crises reveal the inefficiencies of a particular type of capitalism?

Indeed, there are many similarities between the period leading up to the August 2007 freeze and the 1920 – 1929 period. Some observers have underlined the structural shift of income shares away from wages and the middle class (Livingston 2009). I would focus on what is probably a related feature – the rise in the debt ratios of households. In the 1920s there were two causes to the rising household debt ratio: the minor cause was speculative activity on the stock market; the major cause was a bubble in the real estate market. Indeed, at that time, just as now, the real estate market collapsed first, followed after a few wiggles by a collapse of the stock market many months later, accompanied or even shortly preceded by a collapse of real economic activity. The sequence that we observed with the subprime crisis replicates this to a large degree. Prices in the US real estate market started to fall in the summer of 2006; the financial system came on the brink of collapsing in August 2007 and a succession of bad news about it were released for more than a year; this eventually caused the stock market to come down for good only in mid September 2008, after the US real GDP growth rate had already fallen into the negative zone.

By contrast, except at the very end of the expansion, debt ratios of non-financial corporations in the US did not rise. In Canada, the business debt ratios were even on a downward trend. These stylized facts are reminiscent of the situation of non-financial firms in the 1920s, before the Great Depression. In 1929 the debt ratios of business firms were equal to or lower than what they were in the early 1920s. The Great Depression did not occur because non-financial firms had over-indulged in leverage. Thus the root cause of the problem, or

so it seems, arises from the link between household borrowers and the banking sector, and within the financial sector itself.

Another obvious similarity between the Great Depression and the current financial crisis is the financial environment ruling during the course of events that led to these two crises. In both periods, there was very little regulation of the financial sector. Regulations have been eroded ever since the late 1960s, but at an accelerating pace in the 1980s and 1990s, with the advent of monetarism and the rising popularity of the free-market ideas advocated by Milton Friedman and the many right-wing think-tanks that now dominate media space and attention. Representatives of financial markets have put tremendous pressure on governments to remove regulations and to leave newly-created financial activities unregulated. The regulators themselves became adverse to financial regulation, as can be ascertained from a reading of the memoirs of Alan Greenspan – the former Chair of the Federal Reserve. Even the much-acclaimed Basel II capital regulations were to some extent based on self-regulation, as banks had to make their own assessment of their risky positions. As a result, there has been a multiplication of financial frauds – or to put it more kindly – opaque assets, accompanied by abuses of margin borrowing and an overextension of leverage positions, all this leading to a financial mess of epic proportions. One could say that a process of *financialization* is the common thread between now and the period leading to the Great Depression.

What are, in your view and in light of the current financial crisis, the main flaws in the mainstream macroeconomic theory that has dominated the academic and political spheres over the past decades?

Speaking of the academic sphere, I would argue that the main flaw of mainstream macro is its methodological individualism foundation. Within the framework of the subprime crisis, atomism is exemplified by the long-held belief that risk analysis could focus exclusively on individual firms and banks, without taking into account the macroeconomic conditions and implications, that is, by ignoring systemic risk. Heterodox authors by contrast have paid attention to holism. Highly relevant to the current crisis is the observation that herd behaviour or »group behavior is the essence of financial markets« (Wojnilower 1983: 179). Holism also sustains the possibility of macroeconomic paradoxes, or fallacies of composition, that contradict the pure aggregation of a representative agent. The Keynesian paradox of thrift is the best-known example; the paradox of costs with higher wages leading to higher profits is another. Within monetary economics we may consider the paradoxes of liquidity and risk.

In modern finance theories of the neo-Classical type, most assuredly the efficient-market theory, liquidity is of little concern. Informed market participants always manage to arrive at a transaction price reflecting the correct fundamental value of an asset. What is at issue is only the expected return and the estimated risk of the asset. By contrast liquidity is a crucial element of post-Keynesian economics. The paradox of liquidity can be seen from two angles. First there is the obvious fact, related to Irving Fisher's debt depression, that the attempt of economic agents to become more liquid transforms previously liquid assets

into not-so-liquid assets. But there is a second paradox of liquidity, which says that financial innovations seem to increase liquidity when they are really diminishing it. In a recent book Anastasia Nesvetailova (2007: 78) claims that

»to Minsky and his followers therefore, every institutional innovation that leads to both new ways to finance business and new substitutes for cash assets, decreases the volume of liquidity available to redeem the debts incurred«.

Thus, she continues, »in the process of financial expansion the financial system contrary to appearances, becomes *progressively illiquid*« (emphasis in the original). The financial system gets ever more layered, with virtually nobody holding safe assets without capital loss risk.

The paradox of liquidity can be extended to a paradox of risk. Financial innovations designed to reduce risk at the microeconomic level by spreading it over a larger number of financial institutions – as is the case with the whole gamut of financial futures and financial derivatives – end up creating a larger amount of macroeconomic or systemic risk. For instance, it is now widely believed that the extensive use of mathematical models to quantify risk, yielding the illusion of precise and objective assessments, encouraged banks and other financial institutions to pursue more risky strategies and to use more leverage. Each microeconomic agent believes that he or she is now covered against risk; but the risk is still there, in the form of counterparty risk. Indeed, even if the counterparty seems to be safe, the counterparty's counterparty may not be, and its failure may well spill over. Thus, risk-reducing microeconomic financial innovations end up producing a more risky macroeconomic environment. Derivatives were likened to the contingent markets of the general equilibrium model à la Arrow-Debreu. But we do not live in such a world. We live in a world of fundamental uncertainty à la Keynes and Knight. Thus ultimately, as summed up long ago by another Minsky follower, Albert M. Wojnilower (1980: 309), the »supposed immunity to financial risk always turns out to be illusory, and the risks and costs of shattering the illusion may be considerable«.

Do you believe that ›Keynesianism‹ will emerge from the current crisis as the new mainstream in macroeconomics? Or how do you expect the ›conventional wisdom‹ in macroeconomics to change over the next years or decades?

I certainly have the feeling that behavioural finance will have a larger hearing within schools of finance. Will Keynesianism also make a comeback within departments of economics? I really don't know. Willem Buiter (2009) – a neo-Classical economist – has recently affirmed that the macroeconomic mainstream research over the last 40 years (New Classical economics as well as the New Consensus) had been a useless distraction. Will he be more convincing than Kaldor and Tobin were when New Classical economics took off? In a sense, at least within North American economics departments, bastard Keynesianism was always present, as can be verified from a perusal of undergraduate textbooks. What is absent is a more radical form of Keynesianism – post-Keynesianism. It would not take much to introduce more radicalism in these textbooks. For instance, inverting the slope of the aggregate demand curve in the AS/AD model, making it upward sloping on the ground that Fisher's debt ef-

fect can overwhelm Pigou's wealth effect, disposes of the claim that markets have self-correcting mechanisms at the macroeconomic level.

Keynesian counter-cyclical policy, fiscal policy in particular, has certainly made a comeback in the media and among policy makers, at least with Bernanke and Obama, so much that it may even filter to the ivory towers of economic departments. Will the huge Japanese and American budget deficits bring back functional finance into fashion, or will they vindicate the partisans of orthodox finance? In any case, Gregory Mankiw (2006: 42 – 43) has reported that

»the macroeconomic research of the past three decades has had only minor impact on the practical analysis of monetary and fiscal policy [...]. The fact that modern macroeconomic research is not widely used in practical policymaking is prima facie evidence that it is of little use for this purpose«.

Policy advisors and policy makers never stopped thinking in terms of the simple Keynesian macro model.

More worrisome is the attitude of the general public. In the midst of the recession, in June 2009, no less than 69 % of polled American respondents said that they had quite a bit or a great deal of doubt about greater government involvement, and 58 % said that the President »should focus on keeping the budget deficit down, even if it takes longer for the economy to recover« (Meckler 2009: 1). As was pointed out by Krugman (2009), Americans thought the same in 1935 – 1936, asking for balanced budgets, which induced the US government to back-pedal and reduce the deficit, thus leading the way to an aborted recovery and the 1937 – 1938 recession. Changing the conventional wisdom among non-economists may be just as important a task.

What, in your view, would have to be the main ingredients of a reorientation of economic policies in the US, in Europe and at a global scale?

There is no doubt that a lesser obsession with low price inflation and a greater concern for full employment is the key here. It was always asserted by central bankers and mainstream economists that the provision of price stability was the best contribution that monetary policy could make. This assertion has now been proven to be completely false. The subprime financial crisis has erupted in an environment of low inflation that has persisted for about 15 years. The crisis has originated in the country that is the best example of unfettered capitalism and financial deregulation – the United States. That country now has the highest rates of unemployment – despite its highly flexible labour markets.

Unregulated markets have proven that they cannot be trusted. The best brains in banking and finance, those whose capabilities supposedly justified the enormous salaries and bonuses that they were earning, have driven huge and long-existing institutions into bankruptcy. Through the financial mess that they have created, they have brought down with them millions of jobs and have forced states to encounter huge budget deficits. All this should convince legislators that stiffer regulation of the financial system is required, banning in partic-

ular securitization of the second kind. Putting limits to the earnings of bankers and other corporate executives also ought to reduce the incentives for destabilizing behaviour.

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