EUROPEAN PARLIAMENT

REPORT

Policy Department
Economic and Scientific Policy

Monetary Dialogue - 8th December 2008

Background documents and Briefing notes

IP/A/ECON/RT/2008-04

PE 408.586

This series of briefing papers was requested by the European Parliament's Committee on Economic and Monetary Affairs.

Only published in English.

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Manuscript completed in December 2008.

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POLICY DEPARTMENT

MONETARY DIALOGUE DECEMBER 2008

Summary of Monetary Experts' Panel Briefing Papers

for the Preparatory Meeting – 3 December 2008, 10.30-12.30hrs, ASP 3E3

The following summary presents the respective topics of the briefing papers followed by brief points on the main answers of the experts to the questions asked. Only selected main points are mentioned here. For a complete argumentation, please refer to the subsequent papers.

1. The rationale for or against expanding central bank eligible collateral in times of distress

On 15 October 2008, the Governing Council of the ECB announced changes in what is to constitute eligible collateral, effective until the end of 2009. Marketable debt instruments issued in the euro area, but denominated in dollars, pounds and yen, are now eligible subject to a uniform additional haircut of eight percent. Euro-denominated securities issued in the United Kingdom are eligible, as well. Most importantly, the Eurosystem will lower the credit threshold for marketable and non-marketable assets from A- to BBB-, with the exception of asset-backed securities. An additional haircut of five percent will be added to all BBB-securities. Asset-backed securities are excluded.

Generally, the experts welcome this expansion of eligible collateral. The potential problems evoked by the experts are mainly the following:

<u>Moral hazard:</u> By easing the collateral lending requirement, the ECB more and more transforms from a lender of last resort to a buyer of last resort. This involves an incentive problem since it could encourage banks to engage in risky investments

<u>Consequences for the balance sheet of the ECB:</u> When the ECB accepts riskier assets, the probability to create losses at the expense of the central bank rises. Any serious problem deriving from a deterioration of the balance sheet would most likely have to be covered by government intervention. Potential counterarguments consist of the following: The haircut offers a certain protection against losses. Also, surpluses acquired in the past can cover a certain amount of losses. If necessary, other assets, gold and currency reserves can be sold. The last line of defence would be the tax payer.

<u>Valuation of collateral:</u> The ECB publishes the haircuts applied to different types of securities offered as collateral. For marketable securities the valuation is the most representative price on the business day preceding the valuation date. However, if the obtained reference price is more than five days old, has not traded in five days or if the security is not marketable, the Eurosystem defines a 'theoretical price'. The ECB does not publish the models, techniques or practices that it uses for determining this theoretical price. It also does not publish the actual theoretical prices. Concerns have been expressed that different national central banks have not used uniform methods for valuing illiquid collateral. Anne Sibert proposes reverse auctions as a possible valuation method to solve this problem.

Inflation: In the longer run, inflation is a major argument against a lenient stance towards collateral. There are fears that liquidity in the banking system gets so high that there are looming dangers of inflation which would materialise if banks start to lend money to firms at a large extent to finance investment in the real economy causing overheating and thus inflation. As long as the money stays in the financial sphere this danger does not occur.

Jean-Paul FITOUSSI – A wider definition of collateral, including troubled assets, should be accepted in the short term

Moral hazard is not a major problem in the current situation. The formal statement of most governments that no bank would be let to go bankrupt supersedes the risk for the ECB to give wrong incentives in accepting toxic assets.

A potential problem that may turn into an opportunity is that the crisis is substantially blurring the distinction between fiscal and monetary policy. Managing the mix of monetary and fiscal policy will require an unprecedented effort of coordination between the ECB and the euro area governments.

Gustav HORN - As soon as the crisis is over, the ECB should return to previous standards

The expansion of the collateral framework is a good idea for as long as the crisis lasts, since inflationary dangers are very much subdued and markets have calmed down. But as soon as the crisis is over, previous standards should again apply to avoid moral hazard as a result of the incentive problem and avoid inflationary pressures building up through ample liquidity.

On European level special guidelines are needed for the ECB, probably agreed upon by Ecofin, the ECB and the European Parliament, on what a central bank is allowed in times of crisis and when it has to return to "normal" behaviour.

Anne SIBERT – All securities should be accepted as collateral given severe enough valuations and haircuts

In principle, any collateral is adequate as long as it is appropriately valued and subject to proper haircuts. If the valuation is discounted aggressively enough with additional liquidity haircuts applied, there is no ex-ante subsidy to the borrowing banks: the risk-adjusted expected return equals or exceeds the risk-free rate.

But the ECB's valuation of collateral is somewhat opaque e.g. with unpublished valuation models and techniques and unknown "theoretical prices" for securities that have not been traded for five days or are not marketable. As a consequence, proper financial accountability of the ECB is impossible. Reverse auctions of securities could be one proposal to obtain a transparent pricing.

Charles WYPLOSZ - The case for a single regulator and a single supervisor for the whole euro area is now greatly strengthened

Central banks have for years resisted calls to explicitly take into account asset price inflation. The crisis has made clear that this position is untenable. They will have to develop their analysis of asset prices to identify bubbles with a reasonable degree of certainty and will have to take the responsibility for deflating bubbles even if they bring an expansionary phase to an apparently premature end.

Central banks will also have to clarify their role as lender of last resort. The task now is to design procedures for lending in last resort and to make them known to commercial banks. Moral hazard is not reduced by improbable doubts about interventions but by the conditions that will be imposed in the event of lending of last resort.

2. Crisis Management in the EU

In June, a non-binding Memorandum of Understanding (MoU) on Cross-Border Financial Stability was signed between EU Financial Supervision Authorities, Central Banks and Finance Ministries to facilitate the management and resolution of cross-border systemic financial crises. Now that we have been witness to a worsening of the credit crisis in recent months, the question is whether EU crisis management and resolution systems have worked well and whether the memorandum facilitated this.

The experts are not really convinced about the effectiveness of the MoU. The main reasons were that the MoU had only been signed recently, that it was vague on a number of issues and that it was non-binding. At the same time the crisis has not yet led to serious failures in cross-border crisis resolution. Large banks in Europe may be perceived as too big to fail after the shock that the Lehman Brothers collapse sent around the world, but the experts do not think they are too big to save with existing instruments. This was demonstrated by the collapse of Fortis, where an inter-state agreement was reached relatively easy. Nevertheless, all experts agree that there is scope for a more structured framework of EU supervision in the future, although opinions differ on how far-reaching such a reform should be.

The traditional way of describing a liquidity and solvency crisis still holds today. The real trouble began when a liquidity crisis turned into a solvency crisis. The US response to these crises starkly differed from the EU response. The response was more centralised, with an active fiscal authority and Fed. The experts disagree on which response was the best. Some praise US crisis management and some think it failed completely. Some claim national EU governments have done a fairly good job, and others are more sceptical. Nevertheless, all experts agree that lessons can be learned from the US experience with crisis management and resolution. One needs only to look at the major bailouts that have taken place there to discover a wealth of information on probable market reactions, moral hazard problems and other issues.

Guillermo DE LA DEHESA – Both EU and US supervisors have failed to prevent the crisis from happening, the EU also failed in coming up with an adequate crisis response

The increased sophistication of banking has made financial institutions stronger, more diversified and resilient, but at the same time their pro-cyclicality and correlation have become larger, increasing the probability of systemic crises. The US has shown large weaknesses in regulation, allowing regulatory arbitrage around its five federal regulatory and supervisory agencies, while supervision also failed in some individual EU member states.

The EU failed to deal with the following systemic crisis as well, in spite of attempts at coordination. The ECB has done a good job injecting liquidity but did not go far enough. In the future, the EU needs a "twin peaks" model of supervision, with one supervisor for financial market functioning and consumer protection and the central bank responsible for supervising stability and solvency. The EU needs more fiscal policy coordination as well.

Sylvester EIJFFINGER – The structure of both EU and US supervision needs significant improvement

The existence of a crisis was first denied, then gradually losses were discovered and now disposal of bad assets has begun. Bailout programs during these phases need to be temporary and as unattractive as possible for the financial institution.

Up to now the crisis has taught us a few lessons. First, the management remuneration structure of financial institutions was not optimal. Second, risk models based on Basel II rules have proven to be inadequate.

Third, financial supervisors have to be more involved with risk management in financial institutions. Fourth, the US framework of supervision has proven to be too much fragmented and totally ineffective. In the future, the benchmarks for a new EU framework should be sustainability, integrity and transparency.

Jean-Pierre PATAT – Improvement of supervision is necessary in the future, but for now EU Member State authorities seem to have handled the crisis well

The MoU on cross-border financial stability was not yet helpful in rescuing major cross-border financial institutions. However, this was not necessary because state authorities handled the crisis well. Bailing out large banks has not been a problem and will not become a problem in the future. In the US, the decision not to bail out Lehman Brothers was wise in terms of preventing future moral hazard. Sadly, markets reacted so strongly to its failure that we can expect every large bank to be bailed out from now on.

Unlike the ECB, the Fed has really enlarged the field and nature of its operations. This would not have been possible to the same extent in Europe. However, the EU still came up with efficient solutions. Supervision in Europe could be improved though, with better coherence and convergence in national supervision practices, by strengthening of the links between banks and insurance company supervisions and by the integration of the financial stability problematic in the supervision process.

Leon PODKAMINER – EU and US crisis management have differed in many ways, crisis resolution will probably be faster and less costly in the US

The MoU signed last summer cannot play any role in the crisis because it is not binding and because of its unspecific content. At the same time, there is no reason to assume EU banks are becoming too big to save. Although the asset value of some banks may surpass their home country's GDP, what matters is the quality of their assets.

We are in the middle of a traditional liquidity crisis that turned into a solvency crisis, which the US has approached differently from the EU. The US response was more centralised, with a bolder fiscal authority and a more active Fed. Two lessons may be learned from the US experience up to now. First, banks cannot be allowed to go bankrupt like Lehman Brothers. Second, a piecemeal approach will be both costly and ineffective.

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Topic 1

The rationale for or against expanding central bank eligible collateral in times of distress

The rationale for or against expanding central bank eligible collateral in times of distress

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Jean-Paul Fitoussi

Executive Summary

The current crisis is testing the capacity of policy makers to give adequate answers to the possibility of a major financial meltdown. The crisis began in the subprime sector, a relatively small segment of the mortgage industry. It is thanks to an insufficiently regulated system of financial innovations that it spread to the balance sheets of all financial institutions around the world. The briefing paper does not deal with the issue of what regulatory framework we should design. It rather focuses on the short run policy response to the crisis. I will conclude that most of the burden in this specific moment falls on fiscal policy, monetary policy having reached a liquidity trap situation. Nevertheless, monetary policy still has an important role (that it played already in the past months) in providing liquidity to the markets, and in facilitating the task of fiscal policy. In this perspective, I agree with Anne Sibert's BP of March 2008, in considering appropriate a wider definition of acceptable collateral, to include also "troubled assets". This should be done in the short run, though, and a number of medium term consequences, notably on the coordination between strictly interconnected fiscal and monetary policies, should be evaluated

Last September the largest economies of the world came close to the collapse of their financial systems. The bankruptcy of Lehman Brothers triggered an uncontrolled panic, and a domino effect was averted only by a series of urgent and thus uncoordinated measures by most governments of the G7 countries.

The crisis has begun with the banks (in the US and then in Europe), to spread to all the financial institutions. Today, the whole set of financial assets is heavily depreciating, with the first effects on the real sector that begin to be felt.

This briefing paper will quickly trace the development of the crisis, and then analyze what are the tools that policy makers have available to tackle the crisis. Coherently with the request, it remains focused on the short run measures. I will not deal with the different issue of what regulatory framework should we design in the future to prevent other crises like this one to happen again. I will conclude that most of the burden in this specific moment has to fall on fiscal policy. Nevertheless, monetary policy still has an important role (that it played already in the past months) in providing liquidity to the markets, and in facilitating the task of fiscal policy. In this perspective, I agree with Anne Sibert's BP of March 2008, in considering appropriate a wider definition of acceptable collateral, to include also "troubled assets". This should be done in the short run, though, and a number of medium term consequences should be evaluated

1. The Mechanism of the Crisis

The financial crisis, triggered by a modest number of defaults on subprime mortgages, has now the proportions of a global recession. The original defaults may be evaluated at around 300 billions of US dollars, an amount that is of an order of magnitude much lower than the financial distress it created. The mechanism is by now well known: a number of households in the US were able to access to subprime mortgages, in which the very home they were buying was used as collateral. The increase of housing prices allowed them to renegotiate the loans at better rates and/or to roll over their mortgages. When the housing market began unravelling, this refinancing scheme broke down, leading to defaults and foreclosures.

The total amount of subprime mortgages is rather small, around 1 500 billions of US dollars. Even if we add credit card debt, we don't go beyond 2 300 billions. This represents about 20% of the total housing mortgages, and less than 4% of total household assets in the US (around 60 000 billions dollars).

The losses linked to the subprime mortgages could have been easily absorbed by the system with losses limited to the imprudent lenders. But these mortgages have been the heart of a chain of financial innovations that multiplied the effects of the initial shock. Thanks to these innovations the original lenders have been able to reduce their exposure to risk by packaging the mortgages into high yield securities sold to third parties. These securities were supposed to reduce the risk because of the lack of correlation between their components, and the dispersion of risks on a multitude of investors.

The party ended when the housing market slowed down; mortgages that would be viable only because the price of the collateral they were based upon was increasing, became "toxic". The sources for refinancing households dried, and lenders driven to sell collateral of defaulting borrowers had to do it at very low prices, that imposed large losses. Risks turned out to be correlated, and their scattering through securitization, instead of being a source of security, was the vehicle for spreading the infection to the whole system. Since the summer of 2007, a defining feature of this crisis has been the deep uncertainty of financial institutions about their own health, and the health of their neighbours

This deep uncertainty made banks reticent to lend to each other, and the interbank market dried up. This forced central banks to intervene since August 2007, to refinance banks and to inject liquidity into the system (see my Briefing Paper of March 2008)

The increasing distrust among banks is at the source of an important increase in risk premia (the spread between interbank market rates and main financing rates of central banks), that has never gone back to normal since the summer of 2007.

The crisis quickly engaged in a vicious circle, as banks tried to sell their assets in order to buy safe (public) debt, and stop the deterioration of their debt to capital ratio. But this race to sell further depressed prices and the value of their assets, thus worsening things even more

Today the crisis is spreading to the real sector. In an attempt to recover more reasonable ratios, banks hoard the liquidity they obtain, and if they lend they do so at extremely high rates. On the other hand, firms tend to use their own cash flow to restore more prudential ratios of debt to capital – especially in view of the shrinking value of their shares -- thus postponing investment. Households suffer from a negative wealth effect, as the value of their assets dropped sharply, and hence are reducing consumption. The result is a generalized decrease of aggregate demand that pushes the majority of economists to forecast a recession for at least the year 2009.

2. The Policy Response

There is an ongoing debate on the long run lessons to learn from the current crisis, and on whether (and if) the financial sector should in the future be more regulated. This being said, we can notice the unusual phenomena that economists are rather consensual in their analysis of what should be done in the short to medium run to contrast the crisis and shorten as much as possible the slowdown.

The tools that are debated are the standard ones, monetary and fiscal policy. I will discuss them in what follows.

2.1 *Monetary Policy*

Monetary policy has been rather active, and within limits it had been effective. As said above, since the beginning of the crisis central banks have flooded the markets with liquidity, and eased credit conditions; this happened through conventional and non conventional interventions, and as I argued before (Briefing Paper March 2008), with different macroeconomic effects: while the Fed proceeded with both aggressive rate cuts (3.75 points from August 2007 to October 2008) and liquidity injections, the ECB privileged the latter measures, and started cutting rates only last October (after an increase in July 2008!). The two strategies were equally successfully in terms of providing liquidity to the interbank rates and to contrast the tendency of short run rates to increase, but had different effects on long term rates, and hence on the macroeconomic environment (European long rates remained substantially larger than their US equivalent. We may start to feel the difference now that the crisis is quickly spreading to the real sector.

Central banks also put in place non conventional interventions, with the specific objective of ensuring sufficient liquidity to the interbank market, and *de facto* substituting commercial banks in that market. Open market operations have been reinforced notably by expanding the range of assets required as collateral, and including assets whose value was difficult to determine in the market. Furthermore, central banks have increased their exposure, by engaging in longer term loans to the banking sector.

This set of measures has not been as effective as it was hoped, in restoring confidence in the interbank market. Whatever the amount of liquidity injected into the market it was of an order of magnitude much lower that the one usually reallocated through the interbank market. Until very recently, when governments intervened directly, that market remained substantially non-functional.
As successful as it has been in avoiding a financial meltdown in the 15 months passed since August 2007, basically by partly substituting commercial banks in the interbank market, monetary policy has not been able to restore confidence. Commercial banks are forced to take an important rate (and reputation) risk when they access to the central banks' lending facilities. The massive injections of liquidity into the system have been hoarded (or invested in safe public bonds) by banks in an attempt (vain, given the sharp reduction in stock market prices) to restore more sensible prudential ratios. The liquidity trap re-emerged from economic history books, and is presently well installed in our financial systems. Monetary policy has run out of steam, at least as the main tool of policy intervention.

2.2 *Fiscal Policy*

Fiscal policy came late into the picture. It is only with Freddy Mac and Fanny Mae in September, that governments started asking how to intervene to stop the crisis. As of today, because of the difficulties experienced by monetary policy, governments are the main actors in the management of the crisis.

Like for monetary policy, fiscal policy intervention may happen by conventional and unconventional means. The consensus among economists on the unconventional means is amazing[1]. While details on the implementation may differ, the consensus is that the UK plan unveiled by Gordon Brown on October 8 contained all the elements needed to address the crisis[2].

a) The priority was to address the malfunctioning of the interbank market, caused by both substantial mistrust among institutions, and by insufficient capitalization of financial institutions

b) That was done through equity injections (debt/equity swaps), and with specific conditionality (executive pay, dividend policies, and above all lending requirements) to minimize the cost on taxpayers.

c) In addition to deposits, bank loans were guaranteed by the government, in order to eliminate the counterparty risk that had frozen the interbank market.

The Euro group first and quasi simultaneously, the European Union then, adopted a similar programme.

The fact that most European countries put in place a similar framework for intervention has to be applauded, because coordination increases the chances that guarantees will not be used (hence minimizing the actual cost to taxpayers) and, even more importantly, it reduces conflicts and free riding problems (as for example the ones experienced when Ireland unilaterally decided to guarantee bank deposits). Similarly, the initiative of a special short term lending facility of the IMF will be extremely important for countries (like Switzerland) whose GDP is largely inferior to their banks' exposure.

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[1] See for example the instant books published by VoxEU.org : "Rescuing our jobs and savings: What G7/8 leaders can do to solve the global credit crisis" (October 9, 2008), and "What G20 leaders must do to stabilize our economy and fix the financial system" (November 11, 2008). Both instant books are edited by Barry Eichengreen and Richard Baldwin, and are available for download at www.voxeu.org
[2] See for example "Gordon does good", by Paul Krugman, *The New York Times*, October 13, 2008.

After some initial hesitation, the American Treasury adopted a very similar strategy, and abandoned the idea of simply buying the toxic assets.

As a consequence of these measures, confidence is slowly being restored, and we lately observed a slow “unfreezing” of the interbank market.

Even the conventional tools of fiscal policy are being put in place or considered, to sustain aggregate demand. Last spring the American government sent a check to all households, and on November 9, 2008, China announced a fiscal stimulus package that will bring 586 billion of US dollars of spending (roughly 7 per cent of the country’s GDP) on railways, airports and other infrastructure, and on social welfare projects. Japan followed suit. The European Commission and the Council certified that the current situation represents the “exceptional circumstances” that the Treaties recognize as justification for a softening of SGP constraints.

Nevertheless, the need for traditional stimulus packages is less consensual among economists and policy makers. The G20 communiqué of November 15 takes a bold and unusual stance, in stating that, among the immediate measures to contrast the crisis, governments should

> *“Use fiscal measures to stimulate domestic demand to rapid effect, as appropriate, while maintaining a policy framework conducive to fiscal sustainability.”*

Nevertheless, large European countries are proceeding in sparse order, and in particular Germany, is resisting the pressure for an important fiscal policy stimulus[3]. This is unfortunate, because a coordinated effort would first and foremost be more effective, and then once again avoid free riding of countries increasing their exports thanks to their partner’s fiscal stimulus packages.

I believe that an important and coordinated fiscal stimulus, (quantified at the OFCE to be of the order of 2-3 percentage points of GDP), is necessary in European countries to soften the impact of the crisis on the real economy and on investment expectations. The director of the IMF proposed a fiscal stimulus of the same order of magnitude (2%).

3. Fiscal and Monetary Policy Coordination

In the preceding sections I clearly stated that the main actor in today’s management of the crisis is fiscal policy, both via the conventional and unconventional instruments described above. The injections of liquidity by central banks had an important role in preventing a meltdown of the financial sector, but were less effective in restoring the normal business conditions.

Nevertheless, central banks still have a very important role to play to support the effort of fiscal policy and to help shorten the transition out of the crisis, thus substantially reducing the costs for society as a whole.

First, in the case of the ECB, interest rates should be lowered significantly. It is today very clear that the rate raise of July 2008 was a mistake. And the two cuts of October and November 2008 were too small and too late. While this may not be the recipe for a better functioning of the interbank market, it will certainly help sustain the efforts of treasuries to provide the guarantees needed to restore confidence. Furthermore, lower ECB rates should drag down long term rates and ease borrowing constraints for firms that today pay prohibitive interest (see my Briefing Paper of March 2008).

[3] “Call for German Stimulus”, *Financial Times*, November 20, 2008

Second and we come to the main question of this briefing paper, the ECB should consider accepting toxic assets as collateral at its lending window. As Anne Sibert convincingly argued in her March 2008 Briefing Paper, the banks needing liquidity are those who can only offer toxic assets as collateral, while those with good assets will more likely need less liquidity. Reducing the rates without expanding the range of collateral would have the effect of channelling the liquidity where it is less needed. The situation resembles the one of Japan in the 1990s. Had the central Bank of Japan intervened earlier to buy the toxic assets held by the banking system, the episode of deflation would have been shorter and less pronounced.

A number of things have to be considered nevertheless. Contrary to most observers, I do not believe moral hazard to be a major problem in the current situation. Certainly it is a problem but the formal statement of most heads of governments that no bank would be let go bankrupt supersedes the risk for the ECB to give wrong incentives in accepting toxic assets as collateral. And at any rate, the risk of moral hazard could be minimized first by explicitly making it a short term measure, and then by devising a sanction for banks using the lending facility to dump toxic assets on the ECB without really needing it (a temporary or even long banning from the lending facility?). On the other hand, what I believe to be a potentially serious issue is the effect on the balance sheet of the ECB. Any serious problem deriving from this deterioration of the balance sheet would most likely have to be covered by government intervention. How to split the burden across Euro area governments may be a difficult problem, but the solution is strictly technical. Secondly, I don't see as realistic the threat of a political problem, in the form of a loss of independence of the ECB; even if this were possible, the number of governments involved would of course be a guarantee for independence.

The only potential problem which may turn into an opportunity is the fact that the current crisis is substantially blurring the distinction between fiscal and monetary policy. The boundary becomes fuzzy. Some central bank interventions have direct fiscal consequences, as it was crystal clear in the action of the Fed before the "nationalization" of Freddy Mac and Fanny Mae. Lending by the States to the private sector out of public borrowing is similar to the business of a bank and it has the effect (through the credit multiplier) of increasing the global amount of credit, that is a money counterpart, and thus of increasing the "quantity" of money.

Managing this mix of monetary and fiscal policy will require an unprecedented (and much awaited) effort of coordination between the European Central Bank and the governments of 15 euro zone countries. This is unchartered land even from a theoretical perspective, and a potentially dangerous situation if we look at the poor track record of cooperation between the ECB and euro zone governments. But it may also constitute the opportunity to finally think about redesigning the economic governance of the Euro area, as I have been constantly advocating in the past

The rationale for or against expanding central bank eligible collateral in times of distress

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Gustav A. Horn

Executive Summary

The expansion of the collateral framework by the ECB from October is a good idea as long as the crisis lasts, as since then inflationary dangers are very much subdued and markets have been calmed down a bit. But as soon as the crisis is over, the ECB should return to previous standards. This leads to a very important question. There have to be commonly accepted criteria when there is a crisis. Furthermore all major advanced economies that are important in terms of the global financial market should also agree on what central banks should do in times of crisis and how that differs from normal times. On a European level it means we need special guidelines for the ECB probably agreed upon by ECOFIN, the ECB and the European parliament on what the central bank is allowed to do in times of crisis and when she has to return to a "normal" behaviour.

1. Introduction

On October 15 the ECB announced that it would expand the collateral framework to expand the provision of liquidity. The reason of doing so is to keep the financial market institutions solvent at these times of distress. This is another step in the fight to overcome the financial market crisis and to prevent a melt-down of the financial system that could trigger a major economic crisis in turn.

The expansion of collaterals however can prove as a risky measure since it means that all those institutions eligible to deposit collaterals at the ECB not only have easier access to liquidity. They also can deposit assets of higher risk at the ECB. If worse comes to worst this may leave the ECB with those risks. In other words, banks and other financial market institutions get rid of their risky investments at the expense of the central bank. Furthermore there is fear that with the extended liquidity provision, the danger of a future rise in inflation rate above the target rate increases.

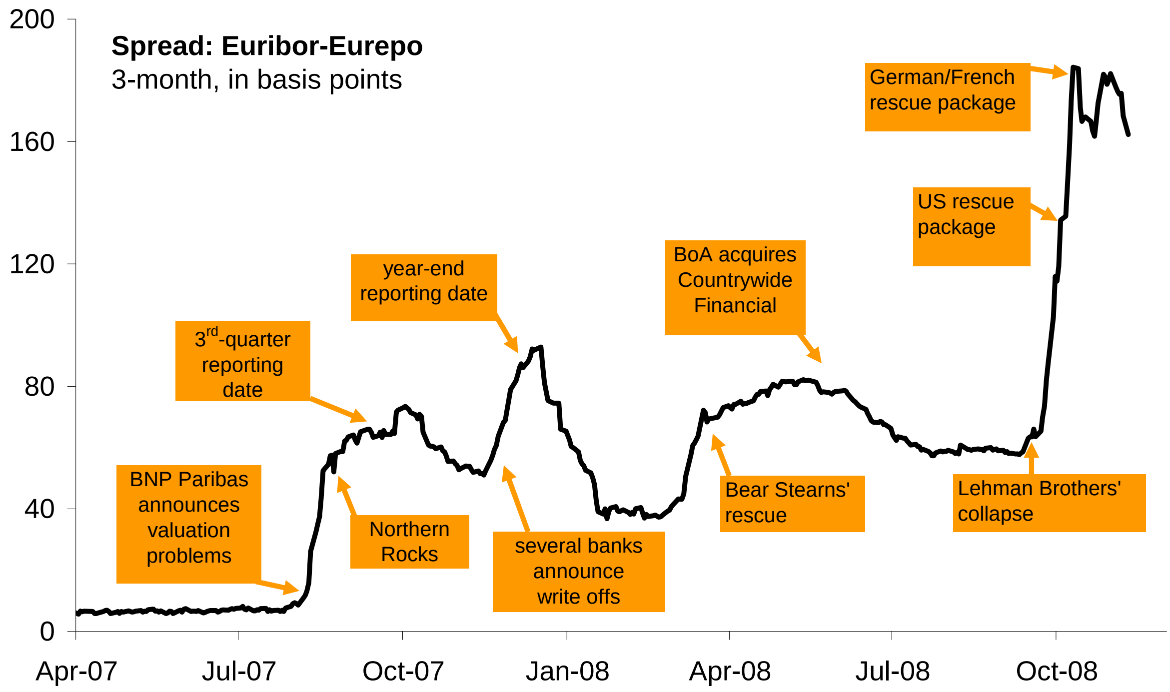
In the following the pros and cons of a more lenient behaviour of the ECB will be discussed. In a first step the issue will be discussed in a rather technical sense. In a second step the scope will be broadened. In this section the issue will be analysed against the backdrop of the financial market crisis.

The conclusion is that the expansion of the collateral framework is a good idea as long as the crisis lasts, as since then inflationary dangers are very much subdued. But as soon as the crisis is over, the ECB should return to previous standards. This leads to a very important question. There have to be commonly accepted criteria when there is a crisis. Furthermore all major advanced economies that are important in terms of the global financial market should also agree on what central banks should do in times of crisis and how that differs from normal times. On a European level it means we need special guidelines for the ECB probably agreed upon by ECOFIN, the ECB and the European parliament on what the central bank is allowed to do in times of crisis and when she should return to a "normal" behaviour.

These lessons should be learned from the present situation in order to improve future crisis reaction ability. Furthermore any long term damage in terms of high inflation triggered by the fight against the crisis should be avoided.

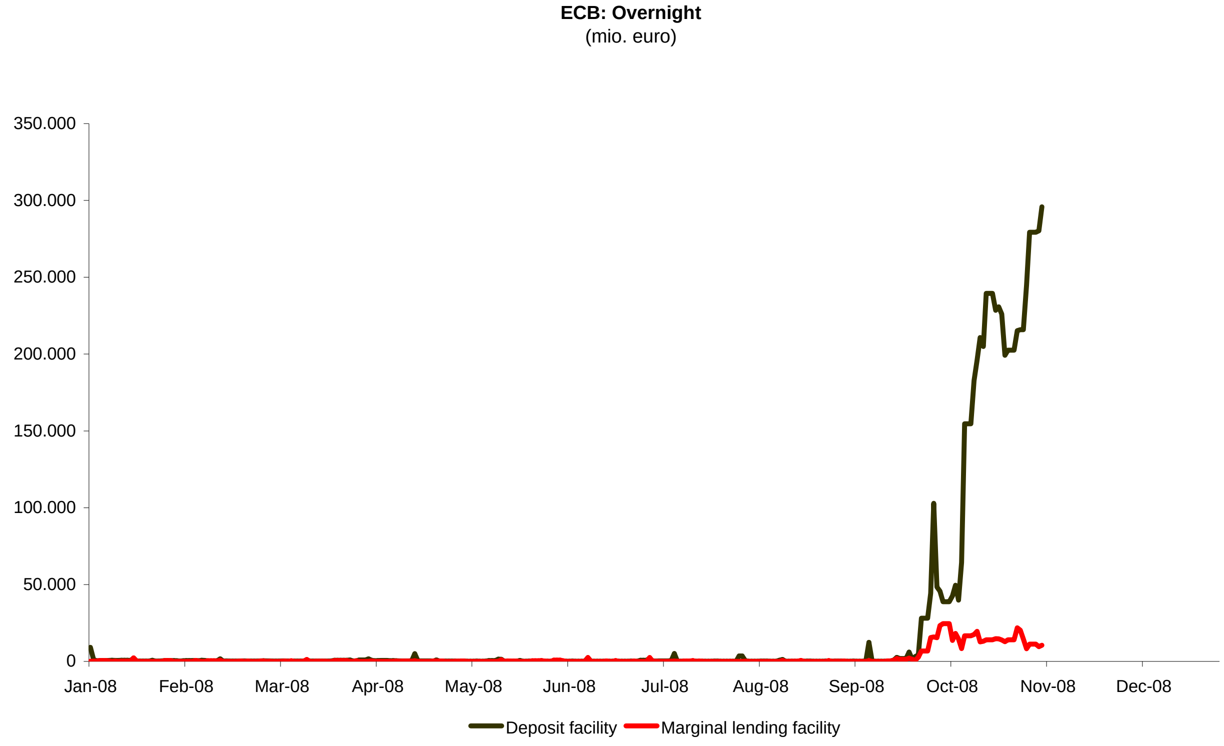
2. The expansion of the collateral system

In October the ECB expanded her collateral framework and started to accept collaterals with higher risks. The basic reason was that banks were still suffering from a severe liquidity restraint originating from a fundamental lack of trust among banks. Since the very beginning of the crisis lack of trust has been the major problem endangering the circulation of money within the banking sector. The situation had become even worse when Lehman Brothers collapsed. How intensive the crisis was at the end of September 2008 shows up in the spread between the two interbank interest rates Euribor and Eurepo that defines the risk premium of giving uncollateralized money to other banks. At that time it skyrocketed. At the same time, interest rates for ECB tender operations were also markedly higher than the ECB's target rate. Basically it meant that banks could get short term money only at high costs – probably too high to refinance longer term assets properly. As a consequence each day banks ran into danger to lose significant amounts of money. It was only a matter of time when more and more banks would collapse.



Therefore the ECB was under pressure to do anything to get the risk premium down in order to stabilize the banking system. By expanding the collateral framework banks could give more assets to the ECB and thus additional opportunities were given to increase liquidity. At the same time, the provision of longer-term refinancing was changed to a fixed rate tender procedure with full allotment. The result of these two measures is somewhat mixed. Although the spread has come down slightly, it is still much higher than before the crash of Lehman Brothers. Despite the less restrictive collateral system and full allotment, the crisis is not yet overcome. Nevertheless it would be worse when the ECB would not have acted in this manner.

A look on overnight lending of the ECB shows how great needs of banks still are.



Since the end of September figures have risen dramatically and they still remain on an extraordinary high level. The two graphs together show that banks are still in desperate need of liquidity and accordingly their demand is high even at the high interest rates. In other words the inter-banking market presently is almost completely in the hands of the central banks. Without central banks acting as lenders of last resort we would have seen a complete melt down of the financial market system.

However there are some caveats to be made. When the ECB accepts now riskier assets the probability to create losses at the expense of the central bank has risen. Even when the financial crisis may be overcome one day and assets may regain value it is not guaranteed that the ECB can sell them with profits. The ECB takes this into account to some extent by applying a uniform haircut add-on between 5 and 10 % and other down payments. Thus there is a certain protection against losses. But what happens when a worst case scenario comes into effect and the ECB will have to sell these assets and looses money?

Then there is a second line of defence. During the past years the ECB has acquired huge surpluses. Out of these a certain amount of losses can be covered. If necessary other assets like gold and currency reserves have to be sold. If all that is not enough, national central banks have to step in and cover the losses from their surpluses. They have to do so according to their share in the ECB-system. These shares were also used when profits of the ECB were distributed among national central banks.

If the reserves of the ECB and the national banks are not high enough – what seems, given the huge amount of assets at the central banking system, to be highly unlikely from a present point of view - the last line of defence is the tax payer. Either public deficits or taxes in member states have to be raised in order to finance the central banking system. That means in the end the member states and their citizens would have to carry the burden. But that would also be the case if central banks would not act in the described manner. Then a severe economic crisis would unfold. The result would be shrinking wealth and high unemployment.

Then at last, the tax payer would have to step in and take over the losses produced by a badly managed financial market system.

Even if losses can be avoided several problems remain. By easing the collateral lending requirements, the ECB more and more transforms from a lender of last resorts to a bad bank that owns "toxic assets". It becomes a "buyer of last resort ". This involves an incentive problem since it could encourage banks to engage in risky investments. And it could lead to the perception that a central bank in possession of many bad assets could start to print money in order to be able to buy all the more of them to stabilise financial markets. That is clearly forbidden by the Maastricht treaty but even the mere impression that it could happen, would incite inflationary expectations triggering a price wage spiral. Therefore it would be preferable if national governments would play the part of a buyer of last resort, if necessary. In this case the negative influence on the central bank is very limited. That could help to prevent destabilising expectations.

Inflation is anyway a major argument against a lenient stance towards collaterals. There are fears that liquidity in the banking system gets so high that there are looming dangers of inflation. But these would only materialise when banks start to lend money to business firms in a large extent to finance investments in the real economy. Then the economy may get overheated and inflation occurs. As long as the money stays in the financial spheres this danger does not occur. Furthermore it is very easy to withdraw liquidity fast as soon as an economy starts to accelerate. The ECB just has to sell the assets she has bought during the crisis.

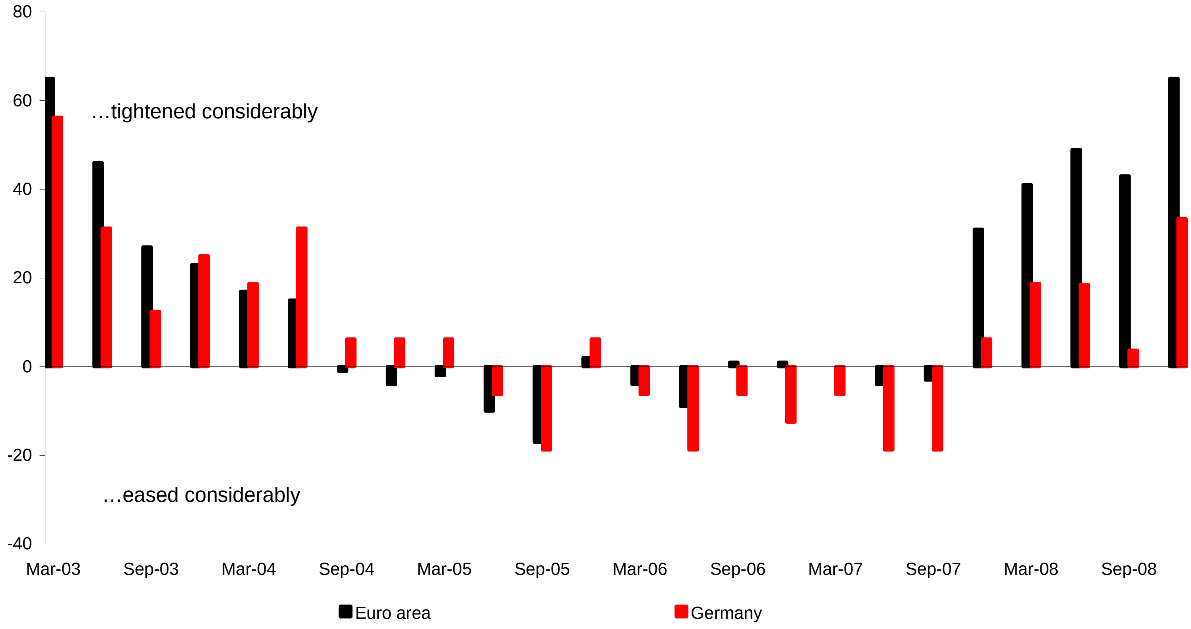
On the other hand, with ample liquidity the danger of another bubble in the financial markets remains. But again, also in this case the ECB could immediately sell the assets and withdraw liquidity. However, to address this problem more fundamentally, proper new regulations have to be put in place. Among them should also be new tools for monetary policy. Interest rate policy is a too rough instrument to prevent bubbles since it affects the whole economy. Therefore manufacturing would be also adversely affected, if a financial market problem arises. This is suboptimal. Preferable would be specific minimum reserve requirements for financial investments. By those, these specific problems could be tackled in an appropriate manner.

In sum the most serious problem with expanding the collateral framework is the incentive problem. All other problems are also existent, but can be tackled with an appropriate reaction of the ECB rsp. of governments.

3. How to deal with a financial market crisis

The present crisis on financial markets is not the first one in recent times. In 2000 /2001 the dot com bubble burst. Then also all major economies faced a severe economic downturn since the crash on stock markets worsened lending conditions significantly. That brought investment to a halt. The same happens now albeit the root of the crisis is not an overvalued stock market this time.

Bank Lending Survey:
Loans or Credit Lines to Enterprises, Credit standards for approval
Net percentage of the difference between...



Looking at the lending survey one realises that lending conditions in the Euro area have become worse and worse since the end of 2007. In Germany the most important economy the process started a bit later but the tendency is the same. These results indicate that a financial market crisis sooner or later spills over to the real economy triggering severe downturns on a global scale. Therefore it is of utmost importance to have rules in place how to deal with those sorts of crisis. The lengthy discussions usually taking place reasoning on question like whether this sort of crisis will be confined to the economy of its origin or to financial markets are completely unnecessary. All these questions have been settled by facts. Financial markets are global markets and they affect the real economy. Hence a wait and see attitude shown by some European governments and the ECB in the early stage of the present and past crisis is completely inappropriate.

Instead, what is needed is a fast reaction of economic policy. The speed of a reaction can be enhanced if rules on what is to do are in place. This applies also to the ECB. In order to avoid incentive problems with the lenient collateral procedure the ECB and governments as well should return to their pre-crisis behaviour as soon as the crisis is over. But as soon as the next crisis occurs – something that cannot be excluded - certain reactions that have proven useful during present and past adverse situation should be in place very fast. Among them is the expansion of the collateral framework and a fast decline of interest rates as the Fed has shown.

The decisive question is when is there a crisis and when not. There were several symptoms that could be observed ahead of the unfolding crisis. One is the significant decline of share prices. They dived very fast during the past crisis and a bit slower during the present one. The other indicator is the risk premium of uncollateralized lending among banks that were rising dramatically in relation to its past record even before Lehman Brothers went down. But research in this field has to on. But it seems necessary to define a set of reliable criteria that determine a financial market crisis situation. One could define a threshold value for these criteria. If that threshold is surpassed the crisis procedures should be applied. These rules should be established at best at a global level but at least by a decision of ECOFIN, the European parliament and the ECB council. Then a faster, clearer and more appropriate reaction than during the present and past crisis should be possible.

Eligible Central Bank Collateral in Times of Serious Financial Distress

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Anne Sibert

Executive Summary

- On 15 October the ECB massively expanded the set of securities that it accepts as collateral.
- All securities should be accepted as collateral, given severe enough valuations and haircuts.
- The ECB should be more transparent in explaining how it values illiquid securities as collateral.
- The ECB could use a reverse auction to value securities but it should avoid outcomes with fire sale prices.
- Crisis conditions mean that the Eurosystem could need recapitalisation; an automatic arrangement to provide this should be in place.
- The ECB's policies have not solved the crisis. Backed by the funding of euro area governments, the ECB should insure or act as universal counterparty in interbank lending.

The two main roles of a central bank in a modern society are to provide a stable means of payment and to ensure the smooth functioning of financial markets. The second role requires supporting the infrastructure of financial markets, by providing or regulating a payments system, and by ensuring that the main markets remain liquid. In this briefing paper I focus the ECB's performance on this latter task during the recent financial turmoil.

What has the ECB's recent strategy been?

On 4 September 2008, the Eurosystem reported on its biennial review of the risk control measures in Eurosystem credit operations. The press release conveyed satisfaction with the status quo, remarking that the Eurosystem's acceptance of a wide range of collateral contributes to the resilience of euro area financial markets. Some small changes were announced: minor restrictions on the eligible collateral for Eurosystem repurchase agreements ('repos')[4] and for discount window ('marginal lending facility') borrowing[5]; slight technical refinements to prevent abuses of the collateral system.

Real change waited until 15 October, when the Governing Council of the ECB announced massive changes in what is to constitute eligible collateral, effective until the end of 2009.[6] Marketable debt instruments issued in the euro area, but denominated in dollars, pounds and yen, are now eligible subject to a uniform additional haircut of eight percent.[7] Euro-denominated securities issued in the United Kingdom are eligible, as well. Most importantly, Eurosystem will lower the credit threshold for marketable and non-marketable assets from A- to BBB-, with the exception of asset-backed securities. An additional haircut of five percent will be added to all BBB- securities. The exclusion of asset-backed securities makes sense. Retail-mortgage-backed securities rated AAA often trade at less than 50 cents on the euro; retail-mortgage-backed securities rated BBB- are effectively worthless.

What should be accepted as 'adequate collateral'? Are the Eurosystem's valuations appropriate?

If the Eurosystem is properly capitalised and capable of taking credit risk (default risk) on its balance sheet, in principle any collateral is 'adequate collateral', as long as it is appropriately valued and subject to proper haircuts on this valuation. If the Eurosystem valuation of the securities offered as collateral discounts them aggressively enough and if it applies additional liquidity haircuts on top of these aggressive valuations, there will be no ex-ante subsidy of the borrowing banks by the Eurosystem: the risk-adjusted expected return to the Eurosystem on its lending equals or exceeds the risk-free rate.

Are the Eurosystem's valuations and haircuts sufficiently aggressive? The ECB publishes the haircuts applied to different types of securities offered as collateral. For marketable securities the valuation is the most representative price on the business day preceding the valuation date. But, if the obtained reference price is more than five days old, has not traded in five days or if the security is not marketable, the Eurosystem defines a 'theoretical price'. Unfortunately, the ECB does not publish the models, techniques or practices that it uses for determining this theoretical price.

[4] A repo is an agreement where the borrower sells a security to a lender and simultaneously agrees to buy the security back at a fixed price at a given later date. Thus, it is equivalent to a loan where the security is used as collateral.

[5] The marginal lending facility allows eligible counterparties to obtain overnight loans from the national central banks against eligible collateral. The interest rate is 50 basis points above the interest rate in the ECB's main refinancing (that is, liquidity-providing) operations.

[6] A minor technical amendment followed on 12 November.

[7] If a security worth $1 million has a haircut of ten percent, then it can be used as collateral for a loan of $1 million minus ten percent of $1 million, or $900,000.

It also does not publish (even with a lag to take care of commercial confidentiality issues) the actual theoretical prices that it assigns to the securities that it accepts as collateral for which there is no readily observable market price. As a consequence, proper financial accountability of the ECB is impossible. In addition, concerns have been expressed that different national central banks (NCBs) in the Eurosystem have not used uniform methods for valuing illiquid collateral. Spain is a country often mentioned in this context. This issue cannot be cleared up if the information on pricing methods and actual prices is not in the public domain.

The ECB is not alone in its opaque behaviour. Responding the US House Financial Services Committee, Federal Reserve Chairman Ben Bernanke said, `Some have asked us to reveal the names of the banks that are borrowing, how much they are borrowing, what collateral they are posting.' He commented that the Federal Reserve believed that this would stigmatise banks and be counterproductive. Rather paternalistically he summarised, ‘We take collateral, we haircut it, it is a short-term loan, it is very safe, we have never lost a penny in these various lending programs.’ On 7 November, Bloomberg News filed a lawsuit the U.S. Freedom of Information Act to force disclosure of the Federal Reserve’s lending.[8]

How should the ECB value collateral?

In deciding how to value the assets that they sell, Treasuries often use auctions; auctions also seem to be an appealing way to value illiquid assets that the ECB holds as collateral. In his Congressional Testimony on the 2008 proposed legislative package to use federal funds to buy toxic assets from troubled firms, Ben Bernanke suggested that a reverse auction should be used to value illiquid assets. A typical auction involves competitive bidding among buyers with the intention of driving up the price; a reverse auction involves competitive bidding among sellers with the intention of driving down the price. Reverse auctions come in many forms: one can start with a high price and lower the price until only the required amount of the security is offered or one can start at a low price and then raise it until just enough of the security is offered. Bids can be sealed or sellers can openly compete. Economists can design reverse auctions so that the buyer pays something close to the reservation offer of the seller. This will reduce the possibility of investment losses for the Eurosystem and, ultimately, euro area tax payers.

It is possible to go too far, however and care must be taken that the resulting price is not too low. If the auction is too successful, it may further stress troubled financial institutions. To see this, recall that the reason that there is no price is that the markets for many asset-backed securities have almost completely frozen. Dysfunctional markets can occur in the presence of asymmetric information, but it is doubtful that one institution knows more than another about the value of the underlying securities in a particular asset-backed security. It is probable instead that the markets have frozen because the sellers do not want a market price revealed. To see this, consider a stylised numerical example of a financial institution. Like most financial institutions, this one is highly leveraged: it has liabilities equal to 30 and equity equal to 1. It has good quality, but mostly illiquid, assets of 25. It also has a particular type of asset-backed securities that it values at 6. It believes that the true value of these securities is about 5. It might like to sell some of these securities to increase its liquidity, but if it realised a price of 5 it would have to value all of these securities at 5. Because it is highly leveraged, a small change in the price of the securities can leave it perilously close to bankruptcy. If the government were to hold an auction that were overly successful and established a fire sale price of, say, 4 for these securities and the financial institution were required to value its holdings of these assets at 4 then it would be insolvent.

[8] Reported in Matthews, Steve and Craig Torres, ‘Bernanke Says Federal Reserve Won't Reveal Details on Loans,’ Bloomberg, 18 Nov. 2008.

A criticism of using auctions is that some of the securities are too idiosyncratic for an auction. In this case, the ECB would face a similar trade-off: the haircut applied should be sufficiently severe as to discourage abuse but not so severe as to make legally bankrupt institutions that might not otherwise be insolvent.

What is the effect on the balance sheets of the ECB and the Eurosystem of accepting a wider range of collateral?

The ECB does not do repos or discount window operations. This is operationally decentralised through the NCBs. This explains why the ECB has a tiny balance sheet and the Eurosystem has a huge balance sheet. All losses incurred in the context of normal monetary policy and liquidity operations by any of the NCBs are shared throughout the Eurosystem on the basis of their shareholdings in the ECB.[9]

Under crisis conditions, the provision of adequate liquidity inevitably exposes the Eurosystem to capital losses and capital inadequacy. In the worst case, it could fail unless the ECB prevented bankruptcy through money creation and thereby jeopardised its inflation mandate. Currently, there appears to be no agreement on how, or even if, the Eurosystem should be recapitalised. This is not a trivial political problem as some countries banks are more exposed than others. However, the absence of an agreement on the automatic recapitalisation of the Eurosystem according to some clear and unambiguous fiscal sharing rule is scandalous and could undermine the effectiveness of the ECB just when it is most needed.

A mechanism that the Eurosystem might use is to have the Eurosystem swap any collateral that receives that is not effectively free of default risk for euro area government securities. These euro area government securities would be supplied on demand to the Eurosystem by a Special Purpose Vehicle created and owned by the euro area national governments. This vehicle would acquire toxic collateral, at the valuations established by the ECB, by issuing debt guaranteed jointly by the euro area national governments. All central banks need clear, unambiguous and instantaneous fiscal backing and indemnification for losses along these lines or through substantially equivalent mechanisms. The absence of a clear fiscal backup mechanism for the Eurosystem for losses incurred as a result of its monetary and liquidity operations is a major systemic weakness.

There is less of a problem when NCBs provide financial support to troubled financial institutions in their jurisdiction. Under the Treaty, this is only permitted if the associated government agrees to compensate the central bank for any losses that are incurred. If this were not the case, the NCB would be making a direct loan to the government, which is against the Treaty. Complications exist, however, when a troubled bank does not have a clear nationality, as was the case with Fortis, which was partially nationalised on 28 September with the governments of the three Benelux countries purchasing shares, and Dexia, which was partially nationalised on 30 September with the Belgian, French and Luxembourg governments all acquiring an interest. Unfortunately, such shining examples of ad-hoc cross-country cooperation cannot be relied upon. There needs to be a clear formal sharing rule for bail outs of cross-border banks. As increasing numbers of financial institutions register as a Societas Europaea (that is, as a European public company) under the Council Regulation on the Statute for a European Company, adopted in October 2001, the problem will become more acute.

[9] The ECB is owned by all 27 EU central banks, not just by the 15 euro zone NCBs. The relevant shares are therefore scaled by the share of the 15 euro area NCBs in the total capital of the ECB

Are the present liquidity injections by the ECB effective?

The ECB's collateral policy and liquidity injections have not restored the operation of the wholesale financial markets. This is not surprising. When Lehman Brothers filled for Chapter 11 bankruptcy protection on 15 September 2008 – the largest bankruptcy in US history – what many believed to be a liquidity crisis was revealed to be an insolvency crisis of epic proportions.

Even after immense capital injections by national governments, intended to get the banks to resume lending, the Euribor-OIS spreads indicate that there remains massive default risk fear or illiquidity fear among banks.[10] Markets for unsecured lending have ground to a halt.

Such extreme dysfunction in credit markets can be explained by adverse selection. To see this consider the following highly stylized numerical example. Suppose financial institutions – call them "banks" – each want to borrow the same amount from financial institutions that have funds to loan. Half of the banks are in good shape; they are willing to pay 7 percent and always repay their loan. The other half of the banks are in bad shape; they are willing to pay 14 percent, but default with probability 1/2.[11] All banks can post collateral equal to the value of the loan, so that if the loan cannot be repaid the lenders receive their principle, but no interest. Lenders require an expected return of six percent to be willing to make a loan.

If there were no informational problems, then the credit market is fully liquid. Lenders are willing to lend to the safe banks at an interest rate of at least 6 percent and the safe banks are willing to borrow at an interest rate of no more than 7 percent. Thus, the safe banks will get a loan at some rate between 6 and 7 percent. Lenders get an expected return of six percent by lending to risky banks at 12 percent and the risky banks are willing to borrow at rates up to 14 percent. Thus, the risky banks will get a loan at some rate between 12 and 14 percent.

Suppose, however, that there is asymmetric information: a bank's type is known only to the bank. If lenders lend to all banks, the probability that any bank repays is ¾ and the interest rate must be at least 8 percent to get an expected return of 6 percent. Safe banks will not borrow at 8 percent; thus, the only banks that will borrow are risky banks. Lenders set the interest rate between 12 and 14 percent and only risky banks accept loans.

Note that in normal times, this adverse selection problem is not terribly important. Suppose 19/20 of all banks are safe and 1/20 of all banks are risky. Then, with asymmetric information, the probability that any bank repays is 39/40 and lenders only need to charge about 6.15 percent to get an expected return of 6 percent. All banks get loans. In turbulent times, with many different qualities of banks, however, the problem can become severe, resulting in high interest rates and a drastic reduction in lending. To see this, suppose that there are five types of banks, each type making up 20 percent of the bank population. The table below gives the maximum interest rate a type-*i* bank will pay, R_i, the probability that a type-*i* bank will repay its loan, P_i, and the minimum interest rate r_i at which lenders would be willing to lend to the type-*i* bank if there were complete information.

[10] Euribor-OIS spreads are an important indication of illiquidity and risk in euro area money markets.
[11] A story might be that the bad banks must make a risky, but high-return, investment to survive.

Table 1. Adverse Selection Example

Type	1	2	3	4	5
R_i	7	8.5	9.5	11	14
P_i	1	6/7	5/7	4/7	3/7
r_i	6	7	8.4	10.5	14

As can be seen from the table, with complete information, each bank would receive a loan. Suppose that there is asymmetric information, however. If all banks are to receive a loan then, the probability a bank repays is 5/7 and the interest rate must be 8.4 percent for the lenders to make an expected return of 6 percent. But, if the interest rate is as high as 8.4 percent, type 1 banks will not borrow: they exit the market. This causes the probability of repayment to drop to 9/14 and the lenders must charge an interest rate of about 9.3 percent. This causes type 2 borrowers to exit the market and the repayment probability drops to 4/7. The lenders must charge an interest rate of 10.5 percent and the type 3 borrowers exit the market. The repayment rate drops to ½ and the lenders must charge 12 percent. This causes the type 4 borrowers to exit the market. Only type-5 borrowers get loans, paying 14 percent. In examples where the number of types becomes large, the market can nearly vanish altogether.[12]

Governments can improve the situation by getting the banks to pool. It can do this in two ways. First, they could offer to guarantee unsecured interbank lending, independently (as do the Dutch and Irish governments) or jointly. In the former scenario, it is important that cross-border transactions be insured as well as domestic ones. Alternatively, they could set up an arrangement whereby the Eurosystem acts as universal counterparty in interbank lending at a range of maturities, probably up to 1 year.

What is the likely long-term effect of the current turmoil on central banking in the euro area?

The central bank will be given a significant regulatory and supervisory role. There will have to be a formal resolution of the problem of capital depletion of the ECB/Eurosystem. A vehicle with an open-ended and uncapped capacity to swap risky collateral acquired by the ECB in its monetary and liquidity operations for euro area sovereign debt is a possibility. A euro area fiscal facility, administered by the European Commission, with the ability to tax and issue its own debt may have to be considered.

[12] This type of "market for 'lemons'" story is due to Akerlof (1970).

Public intervention in presence of acute financial distress

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Charles Wyplosz

Executive Summary

The crisis started by depleting the asset side of commercial bank balance sheets. On the liability side, this has taken the form of decapitalization, a therefore threats to solvency. The Paulson plan initially aimed as cleaning up the asset side by absorbing the toxic assets and by establishing a price for these assets, thus revealing the full extent of the losses and forcing recapitalization or bankruptcy. The British plan focused instead on the liability side and private state guarantees to new bank borrowings in order to allow a restart of the interbank market, which massive injections of liquidity by central banks never succeeded in keeping functioning.

As central banks provided more and more liquidity, they have been led to gradually enlarge the range of assets used a collateral. In the case of the ECB, which operates through swaps, the collaterals remain the property of the banks. This still leaves the ECB with some counterparty risk. Would losses threaten its independence? This seems highly unlikely, if only because the ECB’s statutes are established by the Maastricht Treaty.

In the long run, the evolution of commercial banks will largely be determined by the regulatory changes that will undoubtedly follow. It is likely, but far from certain, that banks will tend to be smaller and focused on a narrower range of activities, with deposit-taking and loan-making more central than they had become over the last decade.

Central banks too will have to draw the consequences of the crisis. They have resisted suggestions that they should bear some responsibility in containing asset price inflation, including housing prices. This view is now more difficult to defend. Central banks also insisted so far that they cannot even discuss their lending in last resort responsibility. The crisis has shown that there are many systemically important banks. Even though they have displayed an impressive ability to innovate and cooperate, there has been much improvisation along the way. The task now is to design careful procedures for lending in last resort.

Finally, the case for a single regulator and a single supervisor for the whole euro area is now greatly strengthened. At the same time, the merits of separating the tasks of banking supervisor from those of monetary policy may have been exaggerated.

Warning

This note does not focus directly on the questions put to us in mid-October because subsequently the situation has been radically transformed by the adoption of the Paulson plan (TARP) first, then the British plan and, finally, the radical transformation of TARP.

The problem

The massive losses borne on toxic assets first, and next on a wide range of other assets, have impaired the banks' ability to operate as credit-granting institutions, in some cases leading even to insolvency. It may be helpful to start with the definition of a bank's net worth or capital:

$$\text{Net worth} = \text{Capital} = \text{Assets} - \text{Liabilities}$$

Following large asset losses, even if it remains positive, net worth typically becomes too small to meet the regulatory requirements imposed by the Basel II Accord, or just by prudential considerations. This means that banks must promptly raise capital.

A key problem concerns the valuation of assets. The Basel II Accord stipulates that assets must be marked to market, i.e. that their value must be continuously assessed on the basis of their market value. This assumes that there exists a market. A distinguishing feature of the crisis is that many markets have stopped to operate. As a result, there is no way for banks to even determine their losses.

If markets had not stopped functioning, banks could either have kept their impaired assets and marked them down according to the prevailing price, or sold these assets, realizing their book losses but being protected against future price declines. Since the crisis started, markets vanished because there were only sellers, no buyers. As a result, banks were facing losses of unknown proportions while being unable to protect themselves from further losses. A number of dreadful consequences followed:

- Unsure of their own losses, and of whether they were solvent, banks grew highly suspicious of one another. They stopped lending to each other, for fear of that borrowers could go bankrupt before paying pack. In effect, the interbank markets seized up. Since the interbank market is where banks obtain cash, their primary commodity, normal bank lending all but came to a standstill.
- Banks knew that sizeable parts of their capital had evaporated and that solvency would require recapitalization. Raising capital, however, was difficult. To start with, banks did not know how much fresh capital was needed. In addition, not knowing the precise situation of banks, potential investors were either unwilling to step in or requesting huge discounts, making recapitalization very costly to incumbent shareholders. As a result, most banks opted for a wait-and-see approach. This is one reason why the crisis lingered for more than one year.
- With the banking system hovering in mid air, firms and households have found it increasingly difficult to borrow. In addition to its deeply contractionary effect, the credit crunch depressed housing markets around the globe. Falling house prices deepened the original source of the crisis, the rout of mortgage loans in the US. This led to further declines in bank assets. The knot grew increasingly tight, week after week.
- The crisis turned definitely worse when large banks that relied heavily on short-term loans could not renew maturing borrowing and therefore pay back their debts. When Lehman Brothers collapsed on September 15, the assets that it had issued and that were held by many banks and financial institutions around the world became nearly worthless. Instantly, we faced the risk of a domino-like succession of collapses, potentially wiping out a huge proportion of the industry.

Policy responses: the central banks

As soon as market turmoil emerged on August 9, 2007, central banks around the world have provided banks with considerable amounts of liquidity. The ECB was the first to intervene, followed by the Fed and the Swiss National Bank. It took a few more days for the Bank of England to follow suite. The aim was to uphold the interbank market at a time when banks stopped lending to each other. In effect, central banks played the role of an intermediary, borrowing from some banks and lending to others. It quickly appeared that banks were keen to accumulate vast amounts of cash in order to improve the quality of the asset side of their balance sheets and to reduce their needs to borrow to face unexpected payments.

The details of these interventions have differed from one country to another, and over time in each country. Two aspects are of particular interests. First, in order to eliminate risk, central banks lend against collateral. Typically, they announce a list of assets that they accept as collateral. It turns out that the ECB's list of accepted collaterals was set quite widely in 1998. In contrast, the Fed's list was more restrictive and US banks quickly run out of acceptable collateral. This has led the Fed to repeatedly enlarge its list, gradually allowing even for some toxic assets. Eventually, most central banks, including the ECB, did the same. This means that central banks now hold assets of questionable values.

The possibility that commercial banks will pass some of their losses to their central banks is worrisome. Obviously, in order to maintain a minimum of liquidity, central banks are taking the risk of encouraging commercial banks to download some poor-quality assets. Does this open a serious moral hazard issue? A first answer is that the new arrangements adopted by central banks are explicitly temporary and will be terminated as soon as normalcy returns. Of course, this sets a precedent that could encourage commercial banks to bet on more rescues of this type in the future. A second answer is that this particular channel is of second order of importance in comparison with the massive bailout carried by national Treasuries. Finally, the ECB does not buy assets but engages in swap operations. The commercial banks are committed to take these assets back at an agreed upon date, at the same price as they were initially tendered. The only potential loss borne by the ECB is therefore of the counterparty type, namely that some commercial banks might fail.

A further evolution is that, initially, central banks intervened on the interbank market, lending through auctions. Afterwards, several of them – in particular the Fed – have been led to lend directly to individual commercial banks whose needs for cash were imperative. More recently, the Fed has even started to lend directly to non-banks, in effect substituting for the banking system.

All these actions, which violate normal central bank prudential rules, raise some uncomfortable questions. To start with, central banks have taken risks that can lead to substantial losses. In that case, they may see their own capital eroded, which would force them to ask for government injections. Some observers fear that central bank independence is at stake: would not governments seek to impose on their central banks some conditions? In the case of the ECB, the threat seems minimal. Its independence is guaranteed by the Maastricht Treaty. Of course, demands could be informal – e.g. demands regarding exchange rate policy would seriously constrain monetary policy – but what if the ECB refuses? It would then have to reduce its own lending which would put extreme pressure on the banking system, possibly triggering a wave of bank failures, with devastating effects on the real economy. It seems extremely unlikely that any government would be prepared to entertain such a scenario.

Policy responses: the Paulson Plan

In order to understand the policy responses, we need to distinguish between bank assets and liabilities, the two sides of the balance sheet. The crisis originated with asset value losses. This is why the TARP, the US Troubled Asset Relief Program of the Paulson plan, envisioned the purchase by the government of toxic assets. To that effect, the US Congress established a new institution, the Office of Financial Stability, endowed with $700 billion. A first objective was to relieve banks of the assets that they could not sell because their markets had disappeared, as explained above. A second objective was to establish prices at which assets still held by banks could be valued. The intention, therefore, was to clean balance sheets and reveal the need for recapitalization.

The Paulson plan suffered from three main limitations. First, at which price would the Office of Financial Stability buy the toxic assets? If the price was low, this could push many banks into bankruptcy. As a result few banks would participate and the program would be useless. If the price was high enough to entice banks to participate, the Office could suffer large losses if it were to subsequently sell these assets at a lower price, in effect imposing a penalty of taxpayers. Second, would banks be able recapitalize, as required once their losses were finally valued? Raising capital in the existing situation might prove to be mission impossible. Finally, since participation to the program was voluntary, each bank would still remain suspicious that other banks had not fully cleaned their balance sheets, which could prolong indefinitely the interbank market seizure.[13]

Policy responses: the British Plan

The logic of the plan announced by PM Gordon Brown is the inverse of the one that underpins the Paulson plan: it focuses on the liability side of the balance sheet, with two main aims. First, implicitly assuming that nothing can be done to remove toxic assets, the British Plan aims instead at improving the ability of banks to deal with them. This means replacing the capital that has been destroyed, possibly to levels higher than those specified by Basel II. The second aim is to restart the interbank market, a precondition for return to normalcy. This is why the plan undertakes to guarantee new borrowings of those banks that accept the government funds. This should remove the suspicion that prevents banks from lending to each other.

The British plan has been quickly adopted, at least its logics and with some differences, in a number of countries in Europe and elsewhere. The US has even decided to use the resources available in TARP to follow a similar strategy. While adoption of the plans has improved the situation, the interbank markets remain edgy and quite illiquid. This is illustrated in Figure 1 which displays a standard measure of liquidity in the interbank market.[14] The programs have brought an immediate but only partial improvement.

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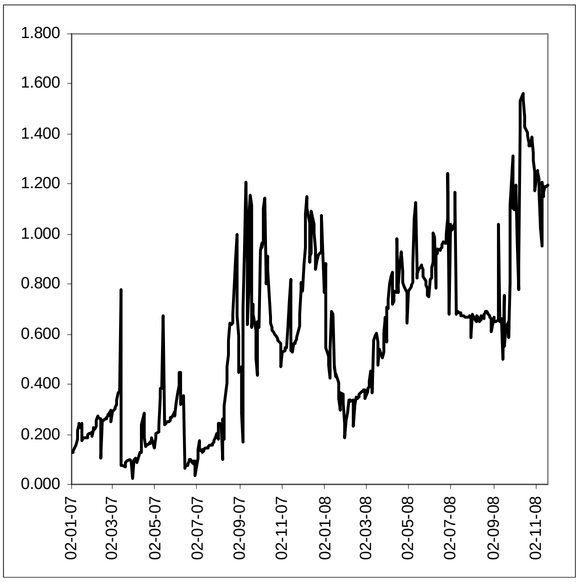
[13] A fourth problem is that the troubled assets are not a homogeneous lot. This implies that the program should organize several different auctions, one for each class. Dividing neatly the assets into separate classes may be very tricky.

[14] The spread is the difference between interest rates charged by banks to each other without guarantee and interest rates on collaterized borrowings. The difference in maturity – EONIA’s overnight vs. three month Euribor – justifies a small spread. The rest reflects risk perception and illiquidity.

Figure 1 Spread between secured (EONIA) and unsecured (3-month Euribor) interest rates



Source: http://www.euribor.org/

Financing

The central bank interventions and the bailout packages of the Treasury packages add up to staggering numbers. Importantly, most of these are not fiscal expenditures. The central bank liquidity injections – much of which are soon reversed – represent genuine money creation, but they are hoarded by commercial banks. They are not used to extend credit to the private sector and therefore are not inflationary. The borrowing guarantees offered by the Treasuries to commercial banks are just that, guarantees. They will incur costs only if banks default. Since these guarantees are provided at cost, they may end up being profitable, much as they could be costly if banks default. The sums injected into banks in the form of recapitalization represent an investment. Whether the investment will be profitable or not depends on whether the price paid for shares, which often includes a subsidy, will be recouped when these shares are eventually sold. This is where most of the costs risk emerging.

End of the crisis?

It may be that, in the coming weeks, the packages will succeed in slowly getting banks to recover healthy enough balance sheets to resume their normal lending activities. At present, we are stuck in a vicious circle. Commercial banks feel too vulnerable to lend, which results in a credit crunch. The crunch provokes a recession, which takes a toll on all asset prices and increases the vulnerability of banks and financial institutions and discourages private sector spending. This, in turn, increases the riskiness of bank loans and justifies ex post banks' resulting to grant loans. This may be why the Treasuries' guarantees on *new* loans do not succeed in eliminating the spreads in the interbank markets. Not only do banks worry about *existing* loans outstanding, but they must be concerned that, in the event of a counterparty failure, it would take time to cash in the state guarantees. Counterparty failure remains a serious threat because many banks still hold substantial amounts of toxic assets, whose value declines as the recession reduces the value of the underlying assets. It may well be that the original aim of the Paulson plan, the absorption of toxic assets, will have to be considered anew.

Long-term effects

Commercial banks are likely to be permanently transformed by the crisis. The banking system as a whole will have to significantly shrink to absorb the losses incurred during the crisis. Those banks that did not invest much in toxic assets are in a position to grow relatively to the banking system but it is likely that the banking system will never fully recover to its former size. Much will depend on the regulatory changes that will necessary follow. It is too early to know what these changes will be. Yet, it is a safe bet that they will focus on limiting the expansion of banks during period of economic growth.

Central banks too will change. For years, they have resisted the view that they ought to explicitly take into account asset price inflation, that is financial bubbles. The crisis has made it clear that this position is not tenable. Central banks must recognize that there may exist times when asset price inflation must override their usual objectives, price stability and economic growth. Central banks have rejected this responsibility on the ground that bubbles are difficult to detect and that their instrument, the interest rate, is too blunt. This is true, but the extreme costs currently borne strongly indicate that there is simply no other choice. Over time, central banks will have to develop their analysis of asset prices to identify bubbles with a reasonable degree of certainty. They will also have to take responsibility for deflating the bubbles, even if in the event they bring an expansionary phase to an apparently premature end.

Central banks will also have to clarify their role as lenders of last resort. For decades, lending in last resort was considered by central banks as an unspeakable issue. For fear of creating moral hazard, central banks never accepted the view that they would *have to* intervene in case of systemic failures. The crisis has amply demonstrated that there are too many banks that are systemically important – too big to fail – for lending in last resort to be optional. During the current crisis, central banks have had to innovate as they proceeded with their interventions. Even though they have displayed an impressive ability to innovate and cooperate, there has been much improvisation along the way. The task now is to design careful procedures for lending in last resort, and to make them known to commercial banks. Moral hazard is not reduced by improbable doubts about interventions but by the conditions that will be imposed in the event of lending of last resort.

This will require that central banks be involved into bank supervision. Over the last decade, the British model of a single supervisor distinct from the central bank had become fashionable. The crisis has revealed the limits of this model. This observation is especially important for the euro area, where bank regulation and supervision is conducted at the national level. Many observers have long warned that this was an unhealthy arrangement. Once the need for a single euro area supervisor is recognized, the question will arise whether this function should be exercised by a new institution or by the ECB. The ECB stands as a very reasonable option.

Topic 2

Crisis Management in the EU

Financial crisis management in the EU and the euro area

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Guillermo De La Dehesa

The present financial crisis has been a good stress test for financial crisis management systems in both sides of the Atlantic. It has also shown the differences in the way the authorities of both the US and the EU have responded to it in order to address its systemic nature. It is clear that the US is the one which has originated this crisis by showing large weaknesses in its regulation, not only of their mortgage markets but also of its securitization system and of the easy regulatory arbitrage allowed to be made by banks around its five federal regulatory and supervisory agencies. But the EU not only has shown a major failure of supervision in some member states, but, most importantly, a lack of capacity of dealing with systemic crisis in a coordinated form. The fact that the European Union is based on the exclusive power of member states national authorities and that these have shown to be extremely reluctant to give more power to the Union, results in the fact that dealing with systemic crises becomes almost impossible, unless there is not a large degree of coordination among them, which it has not been the case until today.

It is now worth remembering that, in June 2007, two months before the beginning of this financial crisis, the EU Parliament Econ Committee requested papers for the Monetary Dialogue on exactly this issue: that is, if in our view the EU had a system of financial stability and supervision which could deal with a systemic financial crisis. I have to congratulate the ECON Committee because, at that time, only very few economists and only one international organization (the BIS) had given warnings about the high probability that something very serious was going to happen in the financial markets, after so many years of large current account imbalances, low inflation, low interest rates and rapid credit expansion. Nouriel Roubini, William White, Kenneth Rogoff and Wynne Godley are among these few.

In my June paper for the Econ Committee, I wrote the following: “Financial stability and supervision in the world in general and in the European Union in particular is becoming increasingly complex and difficult to achieve for several reasons:

First, financial institutions are becoming increasingly international, having affiliates in many different countries under different regulators and supervisors. Second, financial institutions are increasingly becoming financial conglomerates and covering all financial services: commercial and investment banking, insurance and pensions, securities trading, asset management and merchant banking, so they have to be supervised by different institutions in each country. Third, the consolidation of financial institutions is progressively increasing both within borders and across borders. Fourth, financial products have become increasingly complex and sophisticated, because they are based on mathematical models of great complexity, and need very skilful regulators and supervisors to properly understand them and to guess their level of risk. Fifth, short term “return on equity” and “shareholder value” have increasingly become the main objectives for managers of financial institutions, thus, giving them an incentive to take up more risk. These five trends make financial institutions stronger, more diversified and resilient, but, at the same time, their pro-cyclicality and correlation are becoming larger, increasing the probability of systemic crises.

In this rapidly changing environment, the present structure and systems of supervision in the EU have an increasing difficulty to cope with these new challenges, even more in the case of an unexpected systemic crisis. At the moment, in most member states of the EU 15, regulation is done generally by governments and sometimes by the EU institutions and supervision is done by a different array of structures. Banking supervision has been done traditionally by the national central banks, but today, in more than half of its member states the central bank is involved in the supervision, but in some cases not directly, not exclusively, or not at all: Austria, Belgium, Denmark, Germany, Finland, Ireland, Luxembourg, Sweden and the UK are in one of these three categories. Moreover, securities and insurance supervision are mostly done by other agencies, which run from 1 agency in the case of Belgium, Finland, Luxembourg and the Netherlands; to 2 agencies, in the case of Greece, Italy, Portugal and Spain and to 3 agencies, plus the Ministry of Finance, in the case of France. Finally, there are a six member states where all supervision is centralized in one institution, as is the case of Austria, Denmark, Germany, Ireland and Sweden and the UK.

In all, there are around 40 financial supervisory authorities in EU 15 member states. As a consequence, EU supervision is mainly based on the principles of subsidiarity, minimum harmonization, home country control and mutual recognition. The obligation to cooperate and coordinate based on these principles is legally binding to EU member states. Internal cooperation between these national supervisory authorities is based on a network of bilateral memoranda of understanding (MOU). The latter are supplemented by a growing number of multilateral committees, either by sector (the Committee of European Banking Supervisors (CEBS) and the Banking Supervision Committee of the European System of Central Banks (ESCB) for banks, the Committee of European Securities Regulators (CESR) for securities, and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) for insurers, or across sectors, among these three committees.

The first rational reaction to this too complex and diverse supervisory structure should be one of worry. How are these large and diverse numbers of supervisors, going to act together and in a quick and urgent manner in the case of a liquidity crisis, similar to the one in 1998, in order to avoid a new systemic risk?" (End of quote)

Since then, the crude reality of the actual very serious financial crisis has shown that the EU has a major issue of economic governance in general and even more so in the case of dealing with economic and financial pan European or systemic risks. This economic governance is based on four basic pillars: First, monetary policy is entrusted to the ECB. Second, financial regulation and supervision is entrusted to the Member States, with a very loose coordination among them. Third, fiscal policy is entrusted to the Member States but coordinated through the Stability and Growth Pact and fourth, structural reforms are also a competence of Member States but loosely coordinated through the Broad Economic Policy Guidelines, within the framework of the Lisbon Agenda. Unfortunately, the Lisbon Treaty does not contain any improvement in this European Union economic governance.

I am going to show a few recent examples about the relative failures of these pillars, by recognising before hand that they are a major improvement from the previous situation which it was much worse:

1) Financial supervisory failure, this crisis has been originated in the US and most economic analysts thought at the beginning that it would be mostly contained within the US frontiers with some negative spill-over effects on the EU, Japan and other developed countries. Nevertheless, it has had very deep negative economic consequences on the EU.

One of the reasons is that some EU banks and financial institutions, through their off-balance sheet conduits and SIV, were buying CDO instruments based on sub-prime mortgages and other risky credits and loans from US commercial and investment banks.

These off-balance sheet vehicles had been authorized by some national supervisors, even without obliging the banks to take their equity tranche or first default into their balance sheets. Even more, some of the supervisors did not know the size and extension of these vehicles and the amount of risky assets that they were holding. Only the night of the 8th of August 2007, the ECB new about them and was forced to inject almost 100 billion of euros to help Euro Area banks to refinance these conduits, once commercial paper markets, where these conduits were refinancing their long term assets with very short term liabilities, dried up. How was it possible that some supervisors allowed this huge term miss-match of assets and liabilities in off-balance conduits without capital? Moody´s came with a first guess about the size of these off-balance sheet vehicles pointing to 600 billion dollars in the US and 500 billion in the EU.

If we try to find a common denominator about the conduit and SIV proliferation in European banking is that there has been major supervisory coordination failure in spite of all the MOU and other financial coordination policies mentioned earlier. The main lesson is that in those countries where the banking supervision is not entrusted to the central bank, but to a government agency (Germany, Switzerland, Belgium and Luxembourg) or an independent institution (the UK), the problem created by conduits and SV has been much larger in size and in the volume of risk involved (with the Netherlands being the main exception to this rule given that its number and volume of conduits was huge in spite of its central bank being the sole supervisor). By contrast, in those countries were the sole banking supervisor has kept being the central bank (Spain, Italy, Portugal, Austria and France) the size of the problem has been much smaller or non existent.

There are a few reasons for that: First, by definition, a central bank knows private commercial or universal banks better than an agency of the government or than an independent agency because central banks are much closer to them. They lend and do open market operations with them every day, know their liquidity needs and hold their reserves. Second, central banks are all of them fully independent institutions from the government and from politics in general. Third, being the lenders of last resort, they have a larger incentive than other supervisors to avoid having to act as such in case of a large crisis. Fourth, by contrast, governments tend to have an incentive to help credit expansion because it helps economic growth and provides more fiscal revenue.

This issue is extremely important for two other reasons. First, some EU supervisors without coordinating with their other colleagues or even with their own central banks, have allowed their supervised banks to develop a competitive advantage versus other competing European banks, in the same single market, by allowing them to create large and highly profitable (but risky) off-balance sheet vehicles to make more profits and to avoid setting up the necessary regulatory capital. Second, now, when such decisions have proved to be wrong are the EU is on the verge of having a credit crunch given the number of bail outs and the banks difficulties to refinancing their off-balance sheet vehicles unless they are refinanced by the ECB, all the rest of banks without such vehicles in the Euro-Area are also suffering the consequences of those supervisory failures because in an environment of incertitude and panic investors do not tend to discriminate much among them for lack of detail solvency information.

What is needed to do to improve this extremely complex and under performing supervisory system when faced by systemic crisis?

It seems clear to me that the first step should be to try to create a system of supervision based on the "twin peaks" model, by which independent agencies supervise the correct functioning of financial markets and consumer protection and central banks supervise the stability and solvency of all financial institutions, that is, not only banks but also insurance companies, brokers and dealers, investment and pension funds. The second step should be to apply this model to all the EU countries by unifying the large number of agencies and supervisors of markets and leaving all supervisory roles of financial institutions in the hands of the central banks. As they are better coordinated among them by being most of them members of the Euro System of central Banks (ESCB) they can perform in a much efficient way.

The third step should be to try to go, as soon as possible, to a unique EU supervisor of markets by establishing an Independent European Financial Markets Supervisor (IEFMS) for the whole of the EU as well as an Euro-system of Financial Market Supervisors (ESFMS) under the umbrella of the IEFMS the same as in the Euro Area with the ECB and the ESCB. At the same time, it should be given to the ECB a full mandate for financial stability of all European financial institutions to be implemented through its ESCB network. That is, Member States will end having, each of them, a national financial markets supervisor and a national financial institutions supervisor, which are members of the IEFMS and the ECB respectively and take all decisions together, the same way as today are taking the monetary policy decisions at the ECB.

2) Monetary policy failure. One of the most striking issues of this financial crisis has been to see the ECB not only raising interest rates in July 2008 under the argument that a temporary burst in part of the Euro Area harmonised CPI could eventually bring second round effects, but also signalling and keeping a upward bias on future rates movements when economic activity was slowing down. In the previous Monetary Dialogue to that interest rate raise, several of us, in our briefing papers, tried to explain to ECON the difference between an increase in inflation and a relative price change, as the one then based on a large increase in oil and food prices not fully based on a jump of demand but rather on temporary (or once for all) problems to keep supply catching up with its demand. Moreover, demand that was mainly non Euro Area internal demand, because EU internal demand was starting to decline.

As these two components of the Euro Area consumer basket only represent around 25% of the total, so, in order for inflation keeping growing further, food and oil had to double in price, once again, in the rest of 2008 and in 2009 and, if not, HCPI inflation will tend to fall, as it has happened a few months later. Therefore, it was not a good policy to increase rates at that moment. Moreover, in the previous Monetary Dialogue we also try to explain that such a large surge in oil and food prices would have a recessionary effect on economic activity.

The ECB has excellent economists, as well as permanent and council members, who have a deep knowledge of these issues and who know how to make economic activity and inflation predictions to guide monetary policy decisions of the ECB, so that, there must be a problem of governance within the ECB in order to justify or to being able to understand such a decision. Unfortunately such an ECB decision has reduced its excellent monetary policy stability reputation gained since 1998. Later on, the ECB reduced rates by joining the FED, the Bank of England and the Bank of Japan on their coordinated reduction of interest rates. But later, it only reduced rates by 50 basis points, while the others did a larger reduction. This lower reduction could be explained by the fact that the economic situation in the US, Japan and the UK is more serious than in the EU, but now that the Euro Area is officially in recession, let us hope that next time its rate reaction will be bolder and deeper.

On the other side, the ECB has done an excellent work supplying liquidity to the Euro Area banking system and to be creative about the collaterals being accepted and has been slowly increasing the terms of its refinancing. Nevertheless, it has not gone as far as the Bank of England or the FED. The FED is not only injecting liquidity into the system but also making large loans to distressed banks and insurance companies and, what is more important, becoming a market maker of last resort by buying directly hundreds of billions of money market instruments, commercial paper, notes and bonds and even shares and taking the risks involved in these transactions. In the meantime the ECB has not done any of this. Chairman Ben Bernanke has been quite clear in pointing that the US must avoid a deflation at any cost and it is ready to monetise these interventions by using its final resort strong power: its "printing press". I know that all members of the ECB Council have read Ben Bernanke analyses about the American Great Depression and the Japanese deflation so I expect that if they do not do react in a similar way to the FED is because they see an extremely low probability of deflation in the Euro Area.

In any case and looking into the future, it would be wise, when giving the ECB a new mandate of financial stability, to try to add to its mandate the need to taking into account estimates of the size of the output gap together with its inflation forecasts in its monetary policy decisions.

3) Fiscal Policy coordination failures. It is very worrisome to see how some European finance ministers did not know either the extent of their banking problems nor the fact that financial crises tend to produce contagion effects because developed countries financial systems are highly intertwined and therefore, correlated. The main proof of that worry is to see that when they were watching the US banks having to be bailed out by the FED and the US Treasury, some of them came out with expressions such as "it is the end of the Anglo Saxon model" or "it is the end of the US financial supremacy" just to find out that, only a couple of days later, several large European banks had to be bailed out as well at their home countries!

EU bail out of banks has been done with great expedience by the Member States national fiscal authorities (such as in the UK and somehow in Germany) or by two or three treasury authorities together, as in the Benelux, where fortunately there is a long history of policy coordination among its members. But unfortunately, in the EU there are some small Member States with large banks, with assets several times larger than their GDP, which, if they go bankrupt, their Treasuries do not have enough fiscal fire power to help them getting out. This issue makes it necessary to have a large coordination of all the EU treasuries to try to avoid it happen.

Nevertheless, when we witness that the two leaders of the two larger Member States of the Euro Area are not capable to agree on how to deal with the necessary fiscal push to try to smooth the slowdown of economic activity in the Euro Area and the EU, then a coordination failure seems inevitable. I do understand that Member States's different levels of debt and fiscal positions in terms of GDP makes them more difficult to try to act together, but this does not mean that they cannot coordinate their fiscal policies in a more efficient way.

Once again, it seems as if national interests predominate over Union interests making it very difficult to deal with pan EU economic problems. The same can be said about bank deposit insurance. Each EU Member State has different arrangements about deposit insurance when the aim is to reach a fully integrated single market for financial services and not even in the middle of a potential EU bank run, a couple of months ago, national fiscal authorities got to act together.

Another final issue related to the negative consequences of Member States refusing to delegate power to the Union or to coordinate their policies relates to debt issuing. It has been rather surprising to see that, in the middle of financial panic last October, there was a huge inflow of capital into US treasury bonds, notes and bills led both from US national as well as foreign institutions and households, both from developed and developing countries, looking for refuge. Even more, people in developing countries increased hugely their demand for "green-bucks" to get rid of their national depreciating banknotes. Paradoxically, although the US has been the originator of the crisis it is the only country that people trust in the last instance, not even Switzerland anymore. Both movements made the dollar to surge and the rest of the currencies to fall, provoking a major failure of the yen carry trade.

If the EU would be have been able to issue bills, notes and bonds, as a Union of 27 Member States, instead (or besides) the individual 27 Member States, EU and foreign investors would have allocated a much larger proportion of their capital flows into EU debt instruments looking for an alternative refuge to the US and the euro would be competing more successfully against the dollar in the international financial markets.

All these examples tend to show the weaknesses of the EU economic policy reaction when economic problems become pan European or systemic and the need to improve as soon as possible the present economic governance in the EU, as well as the urgent need to profit by these lessons in order to establish a solid framework for avoiding coordination failures in financial, monetary, fiscal and stability management policies within the EU.

Crisis Management in the EU

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Sylvester C. W. Eijffinger

Executive Summary

The ECB is doing crisis prevention in many ways, in particularly through promoting co-ordination and co-operation between national supervisors, mainly through the ESCB Banking Supervision Committee, and providing liquidity management on the inter-bank markets. The ECB has reduced the rate for its main refinancing operations with one percent within the past month from 4.25 to 3.25 %.A non-binding Memorandum of Understanding (MoU) on Cross-Border Financial Stability was also signed last summer between the Financial Supervision Authorities, Central Banks and the Finance Ministries of the European Union. Stress test and crises management simulations have also taken place. This MoU is designed to facilitate the management and resolution of cross-border systemic financial crises and will seek to facilitate private sector solutions, to minimize the economic and social costs, while promoting market discipline and limiting moral hazard. However, in practice it looks like Member States have taken very different approaches in face of banking problems and crisis management, for example in the Benelux countries, in Ireland, in Germany, in Denmark and in the UK to mention some. After the introduction, Section 2 will describe the development of the crisis with the denial phase, the discovery phase and disposal phase of the crisis. Then we analyze in Section 3 the nationalization of banks and the three conditions that need to be fulfilled to make a bailout as unattractive as possible. In Section 4 four important lessons for the credit crisis are drawn for the future. Finally, in Section 5 the benchmarks for the new financial system are analyzed: sustainability, integrity and transparency. Financial engineering and innovation has a price, which is that financial crises do occur every now and then. Regulators and supervisors have to let markets develop in order to achieve economic growth. They should learn the lessons of the past crises, but they can never prevent the next financial crisis, which will show itself in a different shape.

1. Crisis management in the European Union: an introduction15

The ECB is doing crisis prevention in many ways, in particularly through promoting co-ordination and co-operation between national supervisors, mainly through the ESCB Banking Supervision Committee, and providing liquidity management on the inter-bank markets. The ECB has reduced the rate for its main refinancing operations with one percent within the past month from 4.25 to 3.25 %.A non-binding Memorandum of Understanding (MoU) on Cross-Border Financial Stability was also signed last summer between the Financial Supervision Authorities, Central Banks and the Finance Ministries of the European Union. Stress test and crises management simulations have also taken place. This MoU is designed to facilitate the management and resolution of cross-border systemic financial crises and will seek to facilitate private sector solutions, to minimize the economic and social costs, while promoting market discipline and limiting moral hazard. Those parties that have specific common financial stability concerns are encouraged to develop Voluntary Specific Cooperation Agreements with a view to provide for more specific and detailed, procedures and arrangements of crisis management and resolution for their respective countries and in relevant contexts. However, in practice it looks like Member States have taken very different approaches in face of banking problems and crisis management, for example in the Benelux countries, in Ireland, in Germany, in Denmark and in the UK to mention some. Even if in most cases the direct effects have been national, major spillover effects may arise both for foreign banks operating in the region and/or policy measures to be taken in another Member State. In a statistic prepared for the ECON Committee of the EP, financial institutions were ranked according to their size and diversification of ownership among EU Member States in order to do a 'pre-selection' of financial institutions potentially vulnerable to systemic risk and important for cross-border stability in the EU.

Section 2 will describe the development of the crisis with the denial phase, the discovery phase and disposal phase of the crisis. Then we analyze in Section 3 the nationalization of banks and the three conditions that need to be fulfilled to make a bailout as unattractive as possible. In Section 4 four important lessons for the credit crisis are drawn for the future. Finally, in Section 5 the benchmarks for the new financial system are analyzed: sustainability, integrity and transparency.

2. The development of the crisis: the denial, discovery and disposal phase

This credit crisis, as we all know, has its roots in the subprime crisis of summer 2007. However, at that point it was not acknowledged that this subprime crisis could grow out to be a larger crisis; even more so, this was denied. The development of the crisis is quite aptly put in The Economist of April 3rd 2008: "First there was disbelief and denial. Then fear. Now comes anger." The anger is of course caused by the failure of financial supervision, which will become clear in a later part of this paper.

The *denial phase* is exemplified by several points, especially by Chairman Bernanke of the Federal Reserve, who said that "the Fed does not see the tightening of credit conditions in the market as severe enough to have macro-economic implications."[16] He did note that the subprime crisis was not completely played out yet, so conditions could still worsen.

[15] The author gratefully acknowledges the very helpful comments of Prof. Dr. Lex Hoogduin and Mr. Edin Mujagic, MSc and the excellent research assistance of Mr. Rob Nijskens, MSc.

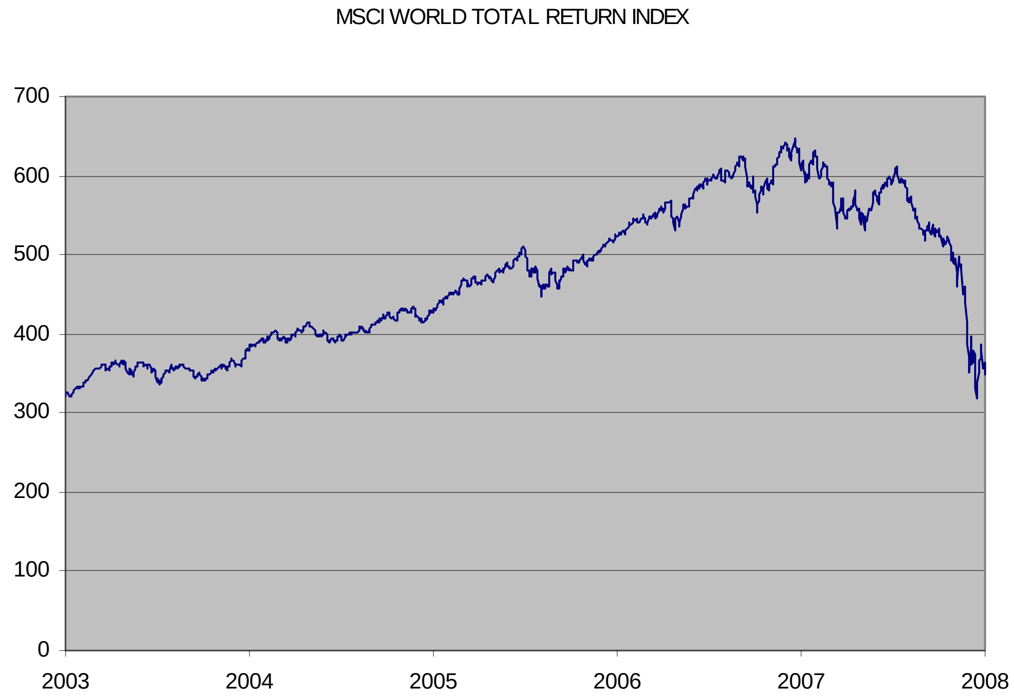
[16] The Economist, *Bernanke sees little threat of credit crunch*, July 19, 2007

However, the Fed also noted that the Bear Stearns case was reassuring as its losses could be absorbed by the financial system without much adverse effects for credit supply; the Fed did not see an immediate threat of a broad credit crunch. Even in 2008, just before the collapse of Lehman Brothers, its CEO Richard Fuld seemed to deny that there was something wrong. He blamed short sellers for the "symptoms of a sickness rooted in denial", just to shield himself from the "pain of reality"[17] that was imminent. In October 2008 some finance directors of non-financial companies still denied that there is a liquidity problem, even if interbank rates have shot up through the roof[18] (see also the graph on Euribor rates below).

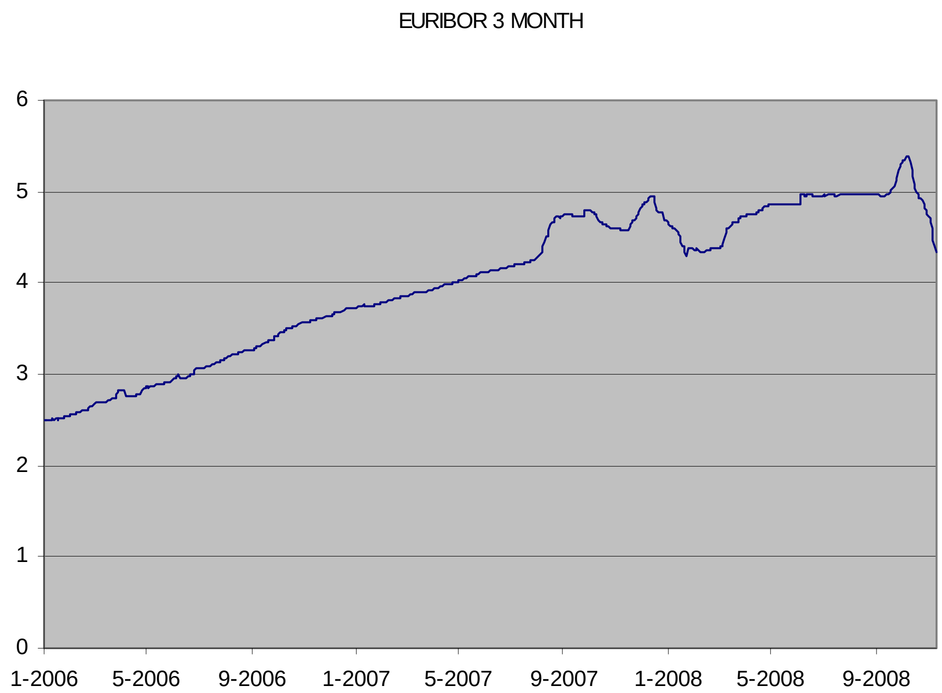
Then, during the course of 2008, the *discovery phase* started. Banks started to write off bad loans and securitization products, a process that also uncovered many hidden linkages among financial institutions. Asset holdings by banks and other financial institutions had been very opaque, hiding the linkages to (among others) subprime mortgages in the United States. Because of the losses on their loans and other assets, many banks were in serious trouble. In the end contagion of the subprime crisis became reality when several banks started to collapse, the most notable example being Lehman Brothers[19]. Because of the lack of confidence in the markets, marginal costs of capital and interbank lending rose tremendously as risk premiums went up (see also the graphs below). A good illustration is also the fact that banks in the euro area deposited record amounts of euros at the ECB, i.e. they did not want to lend that money to others, a clear sign of lack of confidence. In the first graph, the value of existing equity capital has declined greatly and thus the costs to attract new capital have risen. In the second graph, we see that the risk premia for interbank lending have risen during the course of the crisis. Therefore, banks could not attract enough buffer capital or renew their short term financing.

This led to the *disposal phase* of the crisis: national governments stepped in to rescue banks that were important for the financial system, to prevent a systemic crisis from happening. These actions were aimed at restoring the confidence and thus liquidity in the markets. As we can see below, the costs of capital (a measure for solvency) and interbank money market rates (a measure for liquidity) have indeed surged but declined during the last half of 2008 by the emergency measures by governments and central banks. This can be best seen in the development of the three-month Euribor interbank interest rate.

[17] The Financial Times, *Denial disguises reality of Lehman crisis,* September 14, 2008
[18] The Financial Times, *Finance directors should plan early,* October 28, 2008
[19] The Economist, *Cross-border contagion,* September 18, 2008



Note: this graph represents the total return on the MSCI World Market index, which can be used as a proxy for the cost of capital. We can see that the marginal cost of capital has increased tremendously, as the value of equity capital has declined during the last half of 2008.



Note: this graph represents the three-month Euribor interbank interest rate. We have zoomed in to better show the increase during 2008, followed by a spike in September and a decline after government injections.

3. Bail-outs and nationalization of banks: three conditions that need to be fulfilled

Several banks and insurers in Europe have been nationalized or bailed-out, i.e. assisted with emergency (tier 1) core capital. Examples of this include the government takeover of ABN AMRO and Fortis in the Netherlands, the emergency assistance to ING, AEGON and SNS Reaal, the bail-out of Dexia in Belgium and the bail-out of UBS in Switzerland.

Bail-outs or nationalizations by the government need to satisfy three criteria. First, the nationalization needs to be *temporary* to keep intact the level playing field on the financial markets. This holds for both banks and insurers. Second, the government and thus the taxpayers need to face an *upward risk*, which arises when the bank is privatized after the nationalization period. Although it is not the intention for the government and taxpayers to make a profit of the bail-out or nationalization, they are entitled to this upward risk because they are providing risk-bearing (tier 1) core capital. Additionally, the government should profit from the transaction in the form of high interest rates that financial institutions have to pay for the emergency assistance. Third, there should be a *downward risk* for the financial institution involved and its executives and shareholders. They have caused the problems that the bank or insurer is faced with, so they also have to feel the pain by respectively giving up bonuses and options and lower stock prices.

These three conditions need to be fulfilled to make a bailout as unattractive as possible by making the costs as high as possible, so that the management of the institution has an incentive to revert to the normal course of business as soon as possible. Since public money is involved, the government should be accountable both at the national level and the EU level to make sure that these conditions are fulfilled and to avoid competition in conditions between the EU countries.[20] This should also hold *ex ante*: the circumstances in which this assistance takes place are very rare, and the conditions will be very painful.[21]

4. Four important lessons from the credit crisis

This credit crisis has provided us with four important lessons: (1) the top management reward and remuneration structure has been excessive, (2) the risk management models based on Basel II have proven to be inadequate, (3) the financial supervisors in the US and Europe have not been involved thoroughly enough and (4) the US framework of financial supervision has proven to be too much fragmented and totally ineffective.

First, top executives reward and remuneration packages have been asymmetric in the sense that there is no downward risk or limited liability for top managers. The reward structure should be more aimed *at the long term,* and both the upward and downward risks should be *symmetric* and stretch beyond their term in office.

These executives have chosen for an Anglo-Saxon reward structure. This means that they cannot have Rheinland protection as well. Managers should take their responsibilities when things take a turn for the worse. We can think of negative bonuses and conditional options (in case of large risks that only manifest after the manager's term in office is over), or the manager may resign when staying in office is no longer credible. The compensation structure should hold "In good times and in bad times". This also means that the Boards of Directors (Trustees) should no longer only consist of top managers, but also of independent experts who hold themselves far enough from the Executive Board.

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[20] Recently, AEGON also applied for $ 1 billion from the US Troubled Asset Relief Program because the more favourable conditions compared with the Dutch bail-out. This is *bail-out arbitrage or competition.*

[21] Fellgett, Robin (2003), *Comments on* Freixas, Xavier (2003), "Crisis Management in Europe", Chapter 4 in J. Kremers, D. Schoenmaker and P. Wierts (Eds.), Financial Supervision in Europe, Edward Elgar, Cheltenham

This may lead to difficult discussions in the short term for executives, but it creates broader support for a financial institution's long-term strategy.

Secondly, the risk management models based on Basel II have not passed the stress test of the credit crisis. This was to be expected, as *ex post* risk (certainly in times of crisis) is not a good proxy for *ex ante* uncertainty. Furthermore, during this the *fat tails* and the *skewness* of the return distribution have proven to be more important than the mean and the variance.[22] The devil was in the tail! Hopefully this failure of the financial econometricians and risk managers in mapping the uncertainties results in a revaluation for the intuition of 'old-fashioned' bankers, insurers and financial economists. We should acknowledge that monitoring the return distributions give a false and incomplete picture of the fundamental uncertainty in an environment of innovation and long-term risks.

The Basel Committee itself has already indicated, through its Chairman Nout Wellink, that a thorough revision of the risk management and capital adequacy regulations is needed[23]. The Basel committee already proposed raising capital requirements for complex structured credit products, liquidity facilities to support asset-backed commercial paper conduits and credit exposures held due to trading. Additionally, the committee said that standards for liquidity management needed to be strengthened. Another problem is the *pro-cyclicality* of the capital requirements, which has to be addressed by the Basel Committee. It is evident that the capital requirements should become more *anti-cyclical*.

Several researchers have additionally proposed improvements for risk management and capital planning, to make banks more resilient to crises. Alexander and Sheedy (2008), among others, propose a new method for stress testing to incorporate heavy tails and thus to take into account extreme events, something which the current methods did not do. Their method also incorporates abnormal market characteristics during crises, such as an increased probability of further large movements (besides the initial crisis), increased correlation between markets, a greater implied volatility and reduced liquidity (in interbank markets). Blum (2008) additionally proposes a restriction on the leverage ratio of banks to induce truthful reporting of risks. This makes it also easier for supervisors to sanction dishonest banks.

These measures should make banks more prepared for crises with the scale and nature of this one by creating strong capital cushions, robust liquidity buffers, strong risk management and supervision and better market discipline.

Thirdly, it has become clear that national central banks and financial supervisors have to be much more involved with risk management in financial institutions. We have seen that CEOs do not understand the risk management models and aim for higher yields and the risks connected to those yields. Regulators have to provide incentives for banks to take into account risks better when searching for higher yields. This does not necessarily have to come from more strict supervision. Because of their strategic interaction with financial institutions, supervisors should use modern game-theoretic concepts like *constructive ambiguity* and *incentive compatibility* to realize smarter and more efficient supervision.

However, clear-cut rules also need to be set. Following Freixas (2003), we can set some conditions for (cross-border) financial supervision. It has to be made clear to banks that the probability of a bailout is lower than they currently expect. As a consequence, banks face tighter capital regulation, and more collateral has to be held in transactions. This guards the system against contagion of bank failures. Additionally, the discipline on honesty in disclosure of risk in loans should be tougher, as it already is in New Zealand.

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[22] De Grauwe, Paul (2008), *Return to narrow banking*, in "What the G20 should do on November 15th to fix the financial system", Barry Eichengreen and Richard Baldwin (Eds.), VoxEU.org, CEPR
[23] Business Insurance, *Subprime crisis triggers effort to strengthen banking system*, June 9, 2008

Moreover, some ambiguity about bailouts may be necessary, but not too much: it should become clear to financial institutions under what conditions they can get emergency funding and what the availability of this funding will be (Fellgett, 2003). When this is clear, governments should not teem too long with regulatory forbearance and (unconstructive) liquidity support in the hope insolvent institutions will recover[24]. This only increases the strain on the system and increases the probability of a crisis. However, policymakers should also take into account the trade-off between helping banks at the taxpayer's expense, creating moral hazard, and rescuing the financial system.

It is also important to note that these methods of regulation may alleviate the problem that bankers and traders are always one step ahead of regulators. By creating the proper incentives, activist regulation may not be as necessary anymore and liberalization can do its much needed work[25].

Finally, the credit crisis has showed us that the American system of financial supervision has failed and that the European supervision of banks and insurers also needs significant improvement. The economists of the Bank for International Settlements (BIS) blame lax monetary policy mainly in the US and the supervisory practices of the Federal Reserve[26]. US policymakers have learned their tough and expensive lessons, and will have to streamline their supervisory practices drastically. This will certainly involve a larger role for the Federal Reserve as supervisor and/or the creation of a new overall supervisor.

European politicians will have to agree on a European federal supervisor, either a *European Financial Services Authority* (EFSA) or a *European System of Financial Supervisors* (ESFS). This European supervisor has to serve as an umbrella organization for the national central banks and supervisors and should be responsible for the complete financial supervision in the European Union, mainly dealing with the cross-border effects of individual supervisor's actions (see: my Briefing Paper of June 2007 and Schoenmaker and Oosterloo, 2007). It should be independent from the ECB to guarantee monetary stability, but the two bodies must cooperate and inform each other. National supervisors remain to exist, as they have insights in local financial institutions and markets. For cross-border banking and finance, however, uniform EU-wide rules should be adhered to. While the reform of US supervision will imply a larger role for the Federal Reserve, the Maastricht Treaty does not provide for the ECB to have a responsibility for prudential supervision in Europe. The ECB is only responsible for financial stability in the EU.

Before this can be realized, it is not a good idea to set up a European emergency fund. Without uniform supervision, such a fund can provide the wrong incentives (moral hazard), and induce free-riding behaviour and regulatory competition between member states that may lead to a 'race to the bottom' (Garcia and Nieto, 2007). Moral hazard is caused by the asymmetric risk that bankers have in joining the fund: they can take new risks without having to worry about adverse developments, since government pays for cleaning up the mess that may occur. The free-riding behaviour stems from some countries having more strict regulation than others. Countries with weak banking systems and regulation profit from countries with strong banking systems, as the former are more prone to financial crises. Additionally, countries that do not sign up for the fund profit from it anyway, as financial stability is a public good. This also leads to regulatory competition between member states, to lure big banks and financial institutions to their country.

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[24] Laeven, Luc, *The cost of resolving a financial crisis,* October 31, 2008, http://www.voxeu.org/index.php?q=node/2505
[25] The Economist, *Link by link: a short history of modern finance*, October 18, 2008
[26] The Economist, "A *monetary malaise*", October 11, 2008.

Goodhart and Schoenmaker (2008) come up with a mechanism for the European Union to be able to coordinate crisis management. Member states have to agree *ex ante* on a specific burden sharing mechanism. In this system, member states contribute to the fund according to the geographical spread of bank business. This guarantees long-term coordination better than *ex post*, improvised coordination.

We see that we cannot yet set up a *European emergency fund* without having European-wide supervision and policy coordination in guarding financial stability. A complete European safety net and regulation mechanism that goes beyond the current Memoranda of Understanding must be guided by the principles of constructive ambiguity and incentive compatibility (Freixas, 2003). Supervisors have to be able to agree ex ante upon the payments they make to the safety net, as to alleviate the problems with improvised cooperation that stem from its public good nature. Such a coordination mechanism also allows for more efficient information collection by national supervisors, better information provision to the central supervisory authority and lower social costs for using public money to rescue banks. Europe has also needed a crisis to make a leap forward. If this credit crisis is the 'wake-up call' for Europe, then it has had its use after all. A quote by Freixas and Parigi (2008) sketches how the new supervisory practice should look like: *"…the issue is less to understand what rules the LOLR* [Lender of Last Resort] *should follow but what architecture of prudential regulation, risk supervision, monetary policy, deposit insurance and ELA is best to guarantee financial stability by providing liquidity to banks."*

5. Benchmarks for a new financial system: sustainability, integrity and transparency

As an analogy to a country after a major war, we can state that the bigger the financial crisis, the bigger the reorganization. This holds for the whole financial system, and especially for big financial institutions that have always been deemed 'too big to fail'. As Joseph Stiglitz puts it: "[While they] may be too big to fail, they're not too big to be reorganized"[27]. The benchmarks for the new financial system that will emerge must be: (1) sustainability, (2) integrity and (3) transparency.

Sustainability consists of a long-term view on the architecture of the financial system. This includes the trade-off that banks face, between holding collateral and increasing the risk of systemic crisis (Freixas 2003). This can be obtained by giving the proper incentives to banks, among others by agreeing on European-wide regulation and coordination of crisis management. Executive compensation structures, for instance, have to be revised to give managers a long-term view and avoid excessive risk-taking without incurring any losses.

Integrity deals with incomplete information about complicated investment products, both for consumers and for corporate investors. An example of this are the Lehman notes, despite the high leveraging considered by consumers as 'safe bonds', and the 'Woekerpolis-affaire' in the Netherlands, indicating the problems around investment insurance products for consumers. These have led to media attention and even law suits. A similar issue played in 2001, when consumers that had leased stocks (i.e. bought them with borrowed money) incurred a huge amount of interest. These problems are examples dealing with financial institutions that provide too little information about complicated products. Additionally, rating agencies need stricter regulation to be able to properly assess the risk of (complicated) financial products[28]. This can for instance be achieved by making the regulator select the appropriate agency to rate a certain issuer.

[27] Stiglitz, Joseph E., *Reversal of Fortune*, November 1, 2008, http://www.truthout.org/103108R
[28] Buiter, Willem H. (2008), *Some suggestions for the G20 on November 15th*, in "What the G20 should do on November 15th to fix the financial system", Barry Eichengreen and Richard Baldwin (Eds.), VoxEU.org, CEPR

Rating agencies also have to provide more information about the models they use to rate several types of products, including complicated securitization products[29]. Together with standardized reporting and originator principles in the US and Europe this has to restore the confidence in derivative markets.

Transparency, which is the cornerstone of any system that relies on confidence. As Freixas and Parigi (2008) have put it, the lack of transparency is what has lead to significant adverse selection in the interbank market and prohibitively high interest rates. An intervention by government can only be a partial substitute for well-functioning interbank markets. Therefore, transparency of complicated products should increase so that appropriate risk premia can be assigned. Regulators have already identified transparency and standardization as two key areas to improve upon in 2007[30], but the crisis has prompted them even more to do this. However, risk distribution should not be wiped out completely, as it is important to protect the banking system and financial stability, given that it is transparent enough. Additionally, note that financial regulators and supervisors cannot foresee and counteract every step that the market takes. As stated in The Economist (April 3, 2008): “The experience of the past year is an object lesson in the limited power of regulators.” Financial engineering and innovation has a price, which is that financial crises do occur every now and then. Regulators and supervisors have to let markets develop in order to achieve economic growth. They should learn the lessons of the past crises, but they can never prevent the next financial crisis, which will show itself in a different shape.

[29] Kiff, John, Paul Mills and Carolyne Spackman, *European securitisation and the possible revival of financial innovation,* John October 28, 2008, http://www.voxeu.org/index.php?q=node/2494

[30] The Financial Times, *Watchdogs look for more transparency on securitisations,* October 10, 2007.

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Crisis Management in the EU

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Jean-Pierre Patat

Executive Summary

The original factor of the turmoil has been the securitization crisis. But the market reversal provoked a liquidity squeeze which rapidly affected a large part of the banking sector, as the complex securitized products including subprimes had been vaporised on a world wide scale. Then, intensifying worries about counterparties created a near lock up of the global interbank market. When agencies pulled down their rating with an unusual rapidity and brutality, the crisis turned into a solvency crisis with massive assets depreciations exceeding the capital of a lot of institutions, and sudden and surprising failures. This negative spiral has shown that liquidity and solvency problems can be strongly interdependent with a causality coming from the first, and that bank self-regulation is not a solution for liquidity management because liquidity is a binary notion: it exists or it does not exist. The Basel Committee is in the process of integrating the liquidity problematic in the three “pillars“ of Basel 2.

According to the need of assuring rapid responses for early detection of strains and reinforcing coordination for the supervision of cross border entities, a Memorandum of Understanding (MoU) was signed last spring by the European authorities. The MoU describes a detailed framework of common principles, cooperative arrangements and procedures. It is difficult to be sure whether these existed and functioned when two of the major cross border European institutions, Dexia and Fortis needed a rapid and massive rescue. The MoU is somewhat discrete on the problem of the prevention and superficially evokes the existence of the Groups Supervision (which are very important structures) without recommendations for improving their functioning.

The crisis highlighted the “moral hazard“ question. But it seems to have been definitely resolved, especially in the US crisis context. In giving up Lehman Brothers, the US authorities could be considered to have cleverly dealt with this problematic. However, it was not the judgement of the markets and this decision has been almost unanimously considered an enormous error. So, it is now obvious that all big, and even less big, banks will be rescued whatever the circumstances and the management errors could be.

Concerning the ability of the European authorities to save big banks with existing instruments, it appears that even without the asset that could be a federal government and a federal budget, the EU is not so badly armed, as the rescue of Dexia and Fortis showed. But it is true that trans-European banks are still very few. If a substantial increase of cross-country entities would occur, which is not certain, a common structure for recapitalisation could be welcome.

Crisis management has been different in the US and in the EU, with a wide and diversified extension of the role of the FED which acted in many circumstances as a government agency, while the ECB intervened massively on the interbank market, as the FED did, but remained in the field of a “classic” central bank action. Very different were also, initially, the solutions for strengthening the banking system and avoiding the credit crunch. But the Paulson plan has been reoriented with a new approach which is now very similar to the EU.

Regarding the institutional framework in the US and the euro area, it seems crucial for the Europeans to preserve their banking business, regulation and supervision models. Of course, improvements must be provided, at least in three areas: a better coherence and convergence in national supervision practices; a strengthening of the links between banks and insurance company supervisions; the integration of the financial stability problematic in the supervision process.

1) How liquidity problems turned into solvency problems

This crisis initially appeared as a liquidity crisis.

Of course, the original factor has admittedly been a securitization crisis, as this technique of housing – but also consumption – loans refinancing has been used, in more questionable conditions, for financing at short term maturities, complex products with very poor liquidity and uncertain value. Abundance of money and the action of some intermediate institutions, mainly the rating agencies and monoline insurance companies have, during a long time, concealed the basic fragility of these operations. With the rise in interest rates and the first defaults on the subprimes, all these artificial protections collapsed, and liquidity disappeared. But the liquidity squeeze did not affect only institutions mainly involved in hazardous securitization operations. As these instruments had been "vaporised " on a world wide scale, a suspicious climate has rapidly affected the big interbank market's functioning, on which banks have become more and more reluctant to lend to each other. This intensifying worry about counterparty risks has created a near lock up of the global money market.

With the liquidity squeeze and resulting fragility risks for a lot of institutions, the agencies pulled down their rating with unusual and unpredictable rapidity and brutality, causing a lot of collapses of stock market value of financial institutions, mainly the investment banks, and consequently, and according to the accounting rules, strong assets depreciations, affecting directly the solvability of many firms, with recurrent sequences of liquidity squeeze and assets depreciations. Let's add that it appeared at the same time that the own funds of monoline insurers were dramatically insufficient for facing the situation, which, according to the strong interdependence existing in the sector, affected adversely other institutions' solvency.

The securitization crisis revealed that financial innovation had been largely used not for a better management of risks but for increasing asset amounts by capital units. For a long time, the US real estate bubble had got important investment returns; but when the market turned around, massive depreciations, exceeding the capital, affected the assets of a lot of institutions.

A result of these events has been sudden and surprising failures of institutions as markets have been unable or unwilling to provide capital and funding, or absorb assets.

This negative spiral, which has perhaps not ended, has shown firstly that liquidity and solvency problems can be strongly interdependent, with a causality coming from the first, and secondly that liquidity is a binary notion – it exists or not, and can totally melt away when anticipations turn around.

One must observe that, if the Basel Committee worked on solvency and liquidity, Basel 1, as did Basel 2, strongly enhanced the solvency problems but did not succeed in a coordinated approach to the liquidity problem. So, this question is treated on national levels with most solutions – ratios, designed with a "classic" vision of the banks, before the booming of markets and securitisation activities.

The present circumstances clearly show that banks' self-regulation is not a solution for liquidity management, as history and models are less easy to build than for credit risks.

The Basel Committee is in the process of integrating into Basel 2 the liquidity problematic, which in fact concerns the 3 pillars of the device: the first pillar with ratios requirements, the pillar 2 with the supervision aspect, and the third pillar with market discipline as the banks must be more transparent on their liquidity situation.

2) In this context, is there a sufficient framework in the European Union in case of solvency problems of banks or insurance companies?

Restoring financial stability, and confidence in this stability, requires a lot of orientations and actions, among which one of the most important is to be in the situation of ensuring rapid responses for early detection of strains.

On a word wide level, but also on the EU level, this exigency requires a high degree of coordination within each country and in many cases across borders, and a framework that allows for decisive actions by potentially different sets of authorities.

On the occasion of this problematic, a Memorandum of Understanding (MoU) on cross border financial stability was signed last spring between the Financial Supervision Authorities, the Central Banks and the Finance Ministries of the European Union.

The MoU describes a detailed framework of common principles, cooperative arrangements and procedures. It particularly recommends the establishment of structures of cooperation and mutual information: at the national level, Domestic Standing Groups which gather supervisory bodies and Finance Ministries, with a national Coordinator; at the European level, Cross Border stability Groups shared by Cross Border Coordinators.

It is difficult to criticise this document which, however, has no force of law. Such recommendations are resulting from a heuristic intention of remedying for the absence of unified supervision in the EU, which is considered to be a lack (cf supra), and of the fact that the national ability is not the worst level for an effective supervision.

Is this MoU sufficient in the case of a solvency problem of banks or insurance companies in the EU?

Honestly, it is difficult for me to believe that all procedures and structures described in the MoU were existing and functioning when it appeared that two major European cross border institutions, Dexia and Fortis, needed a rapid and massive rescue. In any case, it seems that the problems were correctly resolved in a few hours and that coordination between three state authorities and three supervision bodies has correctly worked.

But, prevention of a banking crisis is perhaps more important than this solution. The MoU is somewhat discrete about this subject. Especially, the role of the Groups Supervision is barely brought up and there is no recommendation for improving its functioning.

Even if the existence of Groups Supervision were anterior to the MoU, they are probably one of the most concrete and operational structures for early detection of strains. Groups Supervision gather representatives of supervision bodies of countries in which the head-quarter and agencies of the cross-border entity are based. They are chaired by the home country supervision body and they must be in the situation to examine the global situation of the entity. One of the first experiences of Group Supervision was recently done at BNP Paribas. This action has revealed the usefulness of the structure but also that the procedure could be improved.

The Group Supervision should function like a board, assuming information sharing between the members, optimising the expertise and knowledge of each national supervisor, and, very importantly, getting a common reporting reflecting the global situation of the institution. In such circumstances, the home supervisor representative should be in a situation not only to try to arrive at a consensus for decisions, but also, if needed, to have the final word, like the chairman of a board.

A European regulation would be necessary for implementing these changes in the procedures.

3) Have the biggest European banks possibly become both too big to fail and too big to save with existing instruments?

The sequence of events we observe since a few months has shown that the question of "moral hazard" which had been a preferred subject for economists studying the problematic of lender of last resort, seems to have been definitely resolved, especially in the US crisis context.

The three major US financial shocks and the manner the US financial authorities had dealt with them, offered, in a first analysis, a relevant empirical lesson for these questions.

- The quasi collapse of Fanny Mae and Freddy Mac was largely the consequence of bad management and even scandalous uses, in questionable operations, of a supposed state guarantee. Nevertheless, as the financial situation of dozens of millions households is concerned, there was no hesitation for the decision of rescue, with a de facto nationalisation which could be costly for the tax payer. An immoral (nationalisation of losses after a long time of benefits' privatisation) but inevitable operation.
- When AIG is on the verge of bankruptcy, there is similarity with the case of the two mortgage agencies. It particularly appears that fabulous past benefits were largely resulting from dubious off-shore operations which were very difficult to isolate resulting from the great opacity of the institution reporting practices. But, once again, 80 million savers and customers would be dramatically affected if the insurance company disappeared. But the tax payer's position must be preserved, as it is a private institution (Fanny Mae and Freddy Mac were also, but they originally were public entities and they never should have been privatised). So, a complex set up is designed with a costly two-year credit of 80billions dollars (at libor + 850 basis points) granted by the FED, while the US Treasury is getting a large part of the company assets as a guarantee. Notice that the tax payer could be ultimately affected if the loan is not repaid.
- But in the case of Lehman Brothers, the solution seemed objectively to be different. A private institution, without individual customers, which had excessively developed market operations and investments in "toxic" products was trapped with its own errors. It could reasonably appear as immoral to rescue this bank. In giving up Lehman Brothers, the US financial authorities could have been considered to have cleverly deal with the moral hazard problematic.

This judgement apparently has not been validated by the markets. In view of the heavy and ongoing turbulences observed, to let Lehman Brother fail has been almost unanimously judged as an enormous error.

So, to ask if the biggest European banks are too big to fail seems now a very artificial question, whatever the quality of the reference census may be. It is now obvious that all big banks, and even less big banks (Northern Rock is not a major) will be rescued, whatever the circumstances and the management errors may be.

The lonely damper to this radical response to the question of moral hazard is an implicit consensus for dismissing the rescued institutions managers.

Concerning the ability of the European authorities to save big banks with existing instruments, the experience of Fortis and Dexia, which rank among the twenty first financial EU institutions shows that the response is yes. These operations, but also the debates about the opportunity of implementing a Paulson Plan at the EU scale and also the rescuing of the German Hypo Real Estate, and the quasi nationalisation of British banks, clearly demonstrated that if an interstate agreement could be reached for sharing burdens when the bank or the company is multinational, other problems would be exclusively treated at a national level. The EU is not a national state and it is difficult to imagine a government or a European country to accept to increase its public debt for rescuing a bank of another country.

Finally, it appears that even without the asset that could be a federal government and a federal budget, the EU is not so badly armed for facing a banking crisis. Two short mornings were necessary for three countries agreeing on a rescue plan of two major institutions. We can compare this reactivity with the Paulson Plan serial: weeks of arduous negotiations, changes in strategy and targets…

But it is true that trans-European banks are still very few, which limits the problems. In taking the control of Fortis, BNP Paribas is in fact creating the first major European banking and financial entity.

If a substantial increase of such cross countries entities would occur, which is not certain, a common structure for recapitalisation could be welcome in line with the recommendation of the MoU for sharing fiscal burdens. Concerning problems at the national level, such a structure could, as I have suggested, play the role of a second ranking entity with a sort of stand-by mechanism for eventually buying for national states, not systematically but if needed, parts of the capital shares they have acquired in bank recapitalisation operations.

4) What could be learned from the crisis management in the US and in the EU?

A crucial area in which the crisis management has been very different is the role and the interventions of the central bank, which have been widely and diversely extended in the US, while in the euro area, the ECB strongly increased its operations but remained in the field of the "classic" central bank action.

The FED and the ECB have both massively intervened on the interbank market for providing relief and easing interest rates conditions, and they have been forced to largely extend their collaterals range in order to guarantee these enormous operations.

The FED and the ECB have granted eachother reciprocal loans in their own respective currency in order to provide their domestic banks with foreign currencies they needed. Such operations have already been implemented in the past (swaps), but they were used for interventions on exchange rate markets and not for treasury problems.

But the FED has also considerably enlarged the field and the nature of its operations:

The FED has created a special loan for banks that the latter must exclusively devote to purchases of commercial papers issued by non-financial firms, which don't find subscribers on the market due to the general climate of suspicion.

The American central bank has granted credit to non-financial agents, which is a spectacular innovation as the banks are traditionally the exclusive customers of central banks. The FED granted an 80 billion dollar credit to the insurance company AIG.

It turned out afterwards that this loan was not sufficient and the FED directly bought securities for 37 billion dollars from AIG subsidiaries.

Finally, the FED has been authorized to directly buy commercial paper issued by non-financial firms.

As a consequence, the total assets of the American central bank surged from 900 to 1550 billion dollars between August 2007 and September 2008. During the same period, the total assets of the ECB "only" increased from 1200 billion euros to 1800 billion.

Even if, in most operations, the FED acted as a government agency, these evolutions create problems. Problems of definition of the central bank mission, of course, but also concrete monetary consequences. With "traditional" operations the central bank issues "central bank" money which is not used on the goods and services market but in the exclusive interbank relationships; credits to non-financial agents create central bank money, of course, but also money that economic agents can use for buying goods and services. Everything being the same, there is an excess of central bank money on the interbank market and an excess of money on the commercial market which must be managed in order to preserve the stance of monetary policy. Moreover, in the case of the AIG loan, a complex mechanism has been designed with the Treasury for "sterilising " the issued money.

For the US administration, this massive use of central bank operations was a way of dealing with problems which would have required long and difficult procedures if the "normal" (that is to say a government action) process had been respected.

Problems did not reach the same gravity in the EU, and in no circumstances the question of giving such responsibilities to the ECB was raised. But, regardless of the opportunity, the effectiveness and the future incidences of the US approach, one must admit that such innovations have been possible in a unified country, but would not have been in a multi-national space like the euro area, in spite of the fact that the ECB is a federal entity. Indeed, the changes in the FED activities needed to modify the field of its missions which was very rapidly acted. Such a reactivity would have been impossible in the euro area because the ECB has a multinational statute, and a modification of the Treaty would have been necessary.

- Very different has been, at least initially, the solutions for strengthening the banking system and avoiding the credit crunch.

But one must admit that, in these circumstances the multinational model, without a unified government was not less imaginative and less efficient than a single government.

The adoption by the European governments of a global and coordinated plan for funding banks and releasing the interbank market by a guarantees system for interbank loans, had no equivalent in the US. The Paulson Plan, consisting in a first stage of buying bad assets to financial institutions was rapidly considered a wrong response to the problems and it has been reoriented to the banks recapitalisation. But, to this day, there is no specific plan for the interbank market. On this question, the US authorities let the central bank face the problem. The latter has been very active, creating new procedures for lengthening the maturities of its loans (which the ECB did not need to do due to the great diversity of its refinancing procedures).

Whatever may be the methods for improving the situation, the interbank market stance is one of the crucial issues of this crisis. The interbank market is the heart of the banking system and its paralysis affects all bank activity and reinforces reluctance for lending to the private sector.

One of the regional FED Presidents asked himself what could be the impact of a drop in central bank rates if the interbank interest rates evolutions remain disconnected of the central bank rates movements.

5) Regarding the institutional framework in the US and in the euro area it seems crucial that the Europeans preserve their banking business, regulation and supervision models, even if improvements must be provided.

Of course, the European banks are not sheltered from the crisis. A lot of them have direct or indirect exposures to toxic products (more particularly via the US monolines). They have recorded asset depreciations, and some of them have suffered serious problems.

But these events don't contradict the fact that banks with diversified risks and funding sources, or universal banks, which represent the continental European model are in a much better situation than banks specialized in market activities. It is useful to recall concrete evidence of this superiority:

- Most of the continental banks have high capital ratios. It is sure that these ratios could be temporarily deteriorated with the great volatility of stock markets. But they remain basically solid.
- Most of them continue to make profits, even if of course the profits have noticeably decreased.
- Most of them remain very active and don't neglect operations for diversifying their funding sources, as it is attested by the partial purchase of Postbank by Deutsche Bank, and the one of Fortis by BNP Paribas.
- Concerning the banking regulation, the crisis did not reveal major deficiencies (if one abstracts from universal deficiencies like the application of international standards in accounting rules or the need to reinforce some aspect of the Basel 2 framework on the liquidity problems). But it appeared that harmonisation was needed in some fields which can be sources of damageable embezzlements, like the ceiling of the deposit insurance systems. It is difficult to have the same conditions for savers and customers in the area (for example interest rates on sight deposits are different without causing undesirable flows of funds), but in some cases (and the amount of the deposit insurance guarantee is one) harmonisation is a necessity.
- As regard the banking supervision, the crisis has shown that a national supervision, with different supervisors using different methods, with action fields overlapping or inversely letting off important and risky parts of the banking system, is less performing that a decentralized supervision, with local authorities, but using broadly the same methods and concerning all the financial and banking entities.

Is it necessary to go further away and create a unified European supervision body?

If one admits that the present decentralized structure seems to function relatively well, one can be reluctant to the temptation of a new structure which would be in fact very difficult to implement.

Indeed, the crisis has also revealed that supervisions directly or indirectly assumed by central banks are more performing than the others bodies: Lehman Brothers was not supervised by the FED but by the SEC; the British FSA did not detect the Northern Rock difficulties; the problems of Fortis were not detected by the Belgium Commission.

Supervision is indeed assumed by various bodies in the EU countries: central banks, bodies closely linked with central banks, public entities, or global public supervision structures in charge of banks, insurance and markets supervisions.

It would be difficult to give to the ECB the responsibility of a European supervision, even if this solution could be theoretically the best, as all European countries are not euro area members. So, the risk could be to succumb to the false good idea represented by the FSA, with a European FSA which would have too much and diluted responsibilities, with central banks off direct contact with the job, and finally has shown that its efficiency could be limited.

The fact remains that supervision could be improved in at least three fields. (I already brought up (cf supra) desirable evolutions in the functioning of the Group Supervision colleges.)

- Improving coherence and convergence in supervision practices. The European Banking Supervision Committee must be given a decision-making power in order to have a coherent implementation of the common European banking directives. Different national appreciations of these directives by national authorities presently create competition distortions and risks for the European banking system security.

- Reinforcing the links between banking and insurance supervision.

- Integrating the financial stability problematic in the supervision process. Regulation and supervision can no more limit their approach to the savers' and customers' protection and neglect the "system effects". Macro prudential analysis should accompany supervision. For example, it is necessary to make sure that accounting rules don't reinforce the asset price increases in a period of booming business cycles, and inversely, don't stress a violent reversing in a weak conjuncture period. In addition, provisioning rules should allow, or facilitate the setting up of anti-cyclic provisions, while the present rules can encourage pro-cyclic behaviour. Two examples of a crucial problematic which is a worldwide challenge.

Crisis Management in the EU

Briefing Paper for the Monetary Dialogue of December 2008 by the Committee on Economic and Monetary Affairs of the European Parliament with the President of the European Central Bank

Leon Podkaminer

Executive Summary

Given the unspecific content of the *Memorandum of Understanding on Cross-Border Financial Stability*, the document cannot play any role under crisis conditions. Moreover, being non-binding, the Memorandum would be of little practical importance (unless voluntarily accepted by the relevant authorities). Thus the Memorandum is actually irrelevant.

One specific suggestion advanced by Messrs. Gros and Micossi (on setting up a European Stability Fund issuing 'European Bonds') deserves serious consideration. The prevention of 'non-cooperative' games played by the authorities of individual countries, and the regulation of other cross-country issues, though potentially useful, appear rather difficult.

There is no reason to panic over European banks becoming too big to be saved. It is quite misleading to relate the size of a bank's liabilities to the GDP of the country in which the bank is domiciled. This is the Benelux lesson: the salvaging of Fortis (leverage ratio of 33) went smoothly (and cheaply) despite its liabilities approaching in value the combined GDP of the Benelux countries.

Our understanding of liquidity vs. solvency crises (which apparently started in September) has not been really changed by the recent events. It is well understood that both constitute mutually reinforcing processes that threaten to provoke a *deflationary slump* which would constitute the *real* crisis. While the actions currently taken to contain the financial crisis (such as guaranteeing unsecured inter-bank lending and recapitalization of banks) are surely necessary, they may appear insufficient. Internationally concerted fiscal stimuli may be necessary. Low policy interest rates may be needed if the real economy's demand for credit appears too weak. Besides, even low interest rates do not guarantee the revival of actual lending because households and firms burdened by too much of the old debt would not be in a position to ask for more loans. A measure of high(er) inflation may be needed to restore the real economy's ability to service their outstanding debt out of rising nominal incomes.

The first US crisis management lesson is that, in the current circumstances, banks cannot be allowed to go bankrupt (letting the Lehman Brothers fail had devastating effects). The second (negative) lesson is that a piecemeal approach is likely to be both costly and ineffective in stabilizing the crisis: speed and decisiveness are essential – as well as comprehensiveness.

The US and EU approaches to crisis management differ on three counts: (1) In the USA there is a *single* fiscal authority behind a *single* policy, but there is no European crisis management policy as there is no single fiscal authority that could formulate and implement a single policy for all European countries. Moreover 'non-cooperative games' are played even among the euro area countries. (2) The US fiscal authorities seem ready to make much bolder decisions on expanding the public sector deficit and the debt level than is likely in any euro area country. The policy makers in the EU countries seem to be hostages to the Growth and Stability Pact. (3) The FED has been much more active in its response to the first signs of the approaching crisis than the ECB. The FED started to lower its rates already in August 2007 – the ECB *raised* its as recently as in July 2008. The FED rate stands now at 1% – vs. the ECB's 3.25%. Thus the crisis resolution is likely to be faster and less costly in the USA than in EU.

Memorandum of Understanding on Cross-Border Financial Stability: unspecific, non-binding – and irrelevant

'Do you see the Memorandum of Understanding[31] *as sufficient in case of solvency problems of banks or insurance companies in the EU…?'*

It may be useful to start with a succinct account of the nature of the said Memorandum. Thus, it is made clear from the very beginning that *'This Memorandum does not create any legal commitment for any of the Parties to intervene in favour of anyone affected by a financial crisis'* (p. 2). Instead, '*Those Parties* [to the Memorandum] *that have specific common financial stability concerns are encouraged to develop Voluntary Specific Cooperation Agreements (VSCA) with a view to provide for more specific and detailed procedures and arrangements of crisis management and resolution for their respective countries and in relevant contexts'* (p. 2).

The Memorandum turns out to be rather unspecific on the desirable content of the VSCA. While it defines some new (?) institutions (Domestic Standing Groups, Cross-Border Stability Groups, etc.) it leaves the real, non-trivial, content of the duties of the parties to the Memorandum and of the institutions brought to life undefined – and that despite the lavishness of the wording[32].

Finally, one learns that the provisions of the Memorandum, unspecific as they are, '*are not legally binding and may not give rise to any legal claim on behalf of the Party or third parties in the course of their practical implementation*', and that they '*do not prejudge or assume any particular decisions or remedies to be taken in crisis situations'* (p. 10).

Given the unspecific content of the Memorandum, the document cannot play any role – positive or otherwise – in case of emerging solvency problems. Moreover, even if the Memorandum were precisely specific on any concrete cross-country crisis issue, being non-binding it would be of little practical importance (unless voluntarily accepted by the relevant authorities). Concluding, in my opinion the Memorandum is actually irrelevant. I am not aware of any reference to that Memorandum being made while commenting on any steps already taken in response to the crisis developments in Europe.[33] Nor am I aware of any reference made to the Memorandum in the (quite abundant) literature concerned with the cross-border aspects of the current financial crisis.

[31] The full title is: *Memorandum of Understanding On Cooperation Between the Financial Supervisory Authorities, Central Banks and Financial Ministers of the European Union On Cross-Border Financial Stability* (ECFIN/CEFCPE(2008)REP/53106 REV), dated 1 June 2008.

[32] This is well exemplified by Points 26-28 which constitute Section 5 (on Crisis Management, p. 20) in the ANNEX ('Common Practical Guidelines for Crisis Management') to the Memorandum:

'26. All *Relevant Parties* should assess the use of possible remedial measures and take part in the implementation of the agreed actions. Depending on the crisis situation, the *Cross-Border Coordinator* can be changed between the *Parties* of the *home country*, yet continued close coordination between the *Parties* will be required.

27. In the design of actions, the first priority is given to private sector solutions. The *Cross-Border Coordinator* is establishing contacts with the private sector [sic!] and the coordination of subsequent policy actions that follow the initial assessment, unless otherwise agreed.

28. All Relevant Parties shall cooperate actively and closely in order to identify possible solutions to manage and resolve the crisis, either private or public, or a mix of them, and they shall assess the cost of various options to the extent possible.'

[33] The Presidency conclusions to the European Council held in Brussels on 15-16 October actually ignore the Memorandum. Instead they postulate the establishment of '*an informal warning, information-exchange and evaluation mechanism (the financial crisis cell)'* and suggest that the national supervisors *'meet at least once a month to exchange information'* (which is what they do anyway).

A proposal by Messrs. Gros & Micossi deserves discussion. And we would still need some specific EU arrangements

'… would we need a more structured EU framework (see e.g. "Crisis management tools for the euro-area" by Daniel Gros and Stefano Micossi from 30 September 2008) for handling … systematic risks … of … non-cooperative games, such as in the case of the Irish comprehensive guarantees on all bank deposits…?'

A. The Gros-Micossi proposals

The 30 September text by Daniel Gros and Stefano Micossi[34] looks into the rescue of Fortis, the Belgian-Dutch banking and insurance group (with extensive activities also in other countries). Following mounting 'problems', Fortis was partly taken over by the governments of Belgium, the Netherlands and Luxembourg. The authors observe that there was no European solution to the Fortis crisis because the ECB can only provide[35] liquidity against a collateral – to support the functioning of the money market. The ECB is not in a position (legally but also because of its own modest resources) to prevent a collapse of any insolvent financial institution. In absence of a European Treasury, only the national authorities can resolve a solvency crisis. In case of Fortis it proved relatively easy to cut the group into three pieces, and to share the cost among the three governments. This – according to the authors – need not be the case should other large EU financial groups active in many countries approach a failure: *'when failure comes and governments step in, burden-sharing among national treasuries and issues of equal treatment of creditors and depositors in different countries are bound to be controversial, delaying decisions.'*

Apparently it is this consideration that prompted Gros and Micossi to propose two urgent actions. The first one introduces *'a new European statute of EU-chartered banks … for banks with significant operations in more than one member state'*. These banks would have access to the ECB liquidity support and would be supervised by a new authority closely associated with the ECB. The second action stipulates that *'a contingency fund for organizing rescue operations at the EU level should be created at the European Investment Bank'*.

While the latter action looks quite uncontroversial and seems possible to carry out (though of course it would take some time and effort to agree on the principles governing the financing of that EIB-managed fund and of its eventual interventions), one may have some doubts about the former. The creation of a separate Union authority regulating and supervising a class of banks – that would cease (?) to be subjected to regulation and supervision at the national levels – would be bound to be a very, very long process. Even if successfully completed, that process would probably require further time-and effort-consuming institutional changes. First of all, there would have to be a deep-pocketed Union fiscal authority capable of salvaging a 'stateless' bank in case of its impending *insolvency*. (Liquidity provision in case of a liquidity problem would not be a real issue.) Further open questions remain. Would the *national* fiscal authorities be prohibited from e.g. supporting their *national* chunks of a stateless bank? Which authority (or authorities) would decide on the fate of a failing stateless bank? Finally, would this arrangement really prevent conflicts and controversies over the treatment of creditors and depositors in different countries?

[34] Available at www.ceps.eu.

[35] Actually only authorize provision of liquidity by National Central Banks of the euro area.

In a later (and quite recent) text[36], Daniel Gros and Stefano Micossi do not make any reference to the idea of separate arrangements for supervision of banks with significant operations in more than one state. This could suggest that this idea has been shelved, even by its originators. However, they stick to – and develop further – their original idea of a contingency EU rescue fund. The novelty of this new version is that the fund *'… would issue bonds on the international market with the explicit guarantee of the EU member states … The resources* [thus collected] *would be used mainly for bank recapitalization, especially for those banks that "gamble for resurrection" rather than accept the heavy-handed interference of national governments. The fund could also beef up the funding of existing EU instruments for balance-of-payments assistance to countries on the EU periphery …'*

In my opinion this idea deserves serious consideration.

B. On some other specific arrangements concerning the cross-border issues

No doubt the Irish comprehensive guarantee on bank deposits (and other liabilities) has strengthened (at least temporarily) the position of the Irish banks vis-à-vis the ones incorporated in other countries. This was an instance of a *beggar-thy-neighbour* tactics that could have been prevented by binding agreements harmonizing the public guarantee policies across the EU. Given the fact that such agreements do not exist – and that the voluntary cooperation does not appear to be working – it is hard to blame any country for the moves they considered proper. Other countries are free to follow suit. In fact the Irish tactics has had a limited following. Apparently that decision is not universally considered proper – even in countries that face 'unfair' competitive advantages now enjoyed by banks domiciled in countries that guarantee all deposits. This fact suggests that coming to a binding agreement harmonizing the national policies on the matter considered[37] would not have been easy (or possible).

There are other specific cross-country issues that would deserve to be usefully regulated at the Union level. The first is about provision of guarantees for unsecured cross-country intra-bank lending. It has been proposed that such lending be guaranteed by the fiscal authority of the country in which the lending bank is domiciled. I would rather suggest it is the fiscal authority of the country housing the borrowing bank which should issue the guarantee. In any case, the binding framework on the provision of guarantees on unsecured intra-bank cross-border lending must wait until binding regulations are in place in ALL individual countries, regulating public guarantees for unsecured intra-*domestic*-bank lending. There is yet another issue that is not officially discussed – but which is worrying some observers as having possibly harmful effects. This relates to the eventuality that the large parent banks (as a rule domiciled in the 'old' EU) would find it expedient to raid the vaults of the daughter banks in the New Member States. Although such events do not seem likely[38], one may perhaps appreciate some explicit formal framework that would help regulate eventual conflicts – should the need arise. No doubt, having such a framework might strengthen confidence in the existing arrangements.

[36] 'A call for a European Financial Stability Fund', dated 30 October (www.voxeu.com).

[37] Quite similarly, 'non-cooperative games' are in fact played when it comes to the recapitalization of domestic banks with the public treasury resources of individual countries.

[38] As a rule, the NMS daughter banks of the 'old' EU parent banks generate profits even if their parents make losses. It is quite hard to imagine the circumstances in which a parent bank would want to terminate its financially successful offspring – especially if it had guaranteed access to liquidity and capital support in the home country. A better (and 'honest') alternative to raiding its own daughter would be just to sell it. (Fortis is currently in the process of selling its Polish subsidiary.)

Do not panic over the European banks becoming too big to be saved: the Benelux lesson

'Have the biggest European banks possibly become too big to fail and too big to save with the existing instruments?

What may we learn, in this context, from the most recent events in the EU, such as in the Benelux and Irish cases?'

Messrs. Gros and Micossi seem to have also originated the idea that the largest European banks have become not only too big to fail but also too big to be saved[39]. They justify the idea with the following verbal exercise:

'For example, the total liabilities of Deutsche Bank (leverage ratio over 50!) amount to around 2,000 billion euro … or over 80% of the GDP of Germany. This is simply too much for the Bundesbank or even the German state to contemplate, given that the German budget is bound by the rules of the Stability Pact and the German government cannot order (unlike the US Treasury) to issue more currency. The total liabilities of Barclays of around 1,300 billion pounds (leverage ratio over 60!) surpasses Britain's GDP. Fortis bank, which has been in the news recently, has the leverage ratio of 'only' 33, but its liabilities are several times larger than the GDP of its home county (Belgium).'

The first problem with this passage is that it unnecessarily dramatizes the size of the leverage (assets/equity) ratios. The ratios currently observed are indeed high by historical standards. But the real issue now is the *quality* of the assets in relation to the bank's capital, not its sheer quantity. Having a leverage ratio of, say, 10 is not a guarantee of bank solvency – just as having a ratio of 50 is not a sure sign of impending failure. Secondly, I do not see any point in relating a bank's liabilities to the GDP of its home country. Such a relating would make some sense should ALL banks' assets turn worthless. As far as one knows, this is NOT something that characterizes – even remotely – the present situation in Europe or elsewhere (excepting perhaps Iceland).

The Fortis case convincingly demonstrates that neither excessively-looking leverage ratios, nor a bank's liabilities that are *'several times larger than the GDP of its home country'* make a bank too big to save. Moreover, it may be added that the resources needed for saving Fortis were actually quite low – especially in relation to the GDP. The Benelux governments spent 11.2 billion euro on the initial bailout package. This was complemented by a further 16.8 billion euro spent by the Dutch government purchasing the local operations of Fortis. Let us agree that the total of 27 billion euro spent[40] is dwarfed by the combined GDP of the Benelux in 2007 (which amounted to over 938 billion euro). Notice too the bailout went smoothly despite the fact that the consolidated liabilities of Fortis stood at **89% (!)** of the Benelux GDP.

Seen in the light of the Fortis case, the 'bold' decision to guarantee all deposits and most other liabilities of the domestic banks, taken first by the Irish government (to be emulated instantly by the Greek), looks less bold. The eventual fiscal outlay sufficient for guaranteeing all bank deposits cannot be all that large in proportion to the GDP – even if the sum of these deposits exceeds the GDP many times over.

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[39] 'The beginning of the end game', dated 20 September (www.voxeu.org).

[40] This sum does not represent a cost – or a burden somehow decreasing the size of GDP – but rather an investment outlay that may even produce a tangible financial return to governments in the future. Of course, for the time being the sum in question must be reflected in higher public debt levels. In so far as higher public debt can contribute to higher costs of its financing (via e.g. possibly rising yields on government bonds) investing public money in banks is not yet entirely costless.

Liquidity & Solvency crises intimately related

How and at which moment did/does, in the present case, a liquidity crisis turn into a solvency crisis? Has the present crisis shaken our conceptual understanding of liquidity vs. solvency in the financial industry in general?

The liquidity and solvency problems have been with us for about a year before assuming crisis proportions. An exact dating of the crises' starts is of course problematic. The unsecured money market rates jumped rather sharply in September 2008. This may pass for the starting date of the liquidity crisis. The start of the solvency crisis may perhaps be dated more precisely at the 15 September when Lehman Bros was allowed to fail.

Our conceptual understanding of liquidity vs. solvency is not affected by the present crisis. Liquidity and solvency problems – which are quite distinct in 'normal' circumstances – become intimately related in 'abnormal' circumstances. The mutually-reinforcing dynamics of the joint liquidity-cum-solvency crisis is quite simple. The basic underlying process runs more or less like this: (1) The perception of rising risks of insolvencies in the banking sector immobilizes much of the short-term inter-bank lending (banks, unable to discriminate between solvent and risky partners, cease to trust each other). Thus we have a liquidity crisis: some banks (short of liquidity) are unable to meet current obligations while others, having liquidity surpluses, rather sit on idle cash balances (or prefer investing in safe government paper, or deposit reserves with the national banks). (2) The illiquid banks (even if eventually solvent provided the short-term loans were available) unable to meet their short-term obligations are then pushed into bankruptcy. This involves forced sales ('fire-sales') of their (possibly valuable) assets. This depresses these assets' prices. In effect, the value of other banks that may have had the same assets on their books (e.g. accepted as collateral) is depreciating. Such banks may suddenly become de facto insolvent. But that reduces the overall confidence in banks generally even further. Moreover, the enhanced liquidity preference tends to be reflected in higher interest rates on loans to the real economy (households and non-financial firms) and (possibly) insufficient volume of lending to the real economy. This, in turn, is not only affecting negatively the real economy, but also tends to hit back the banking sector (e.g. by forcing into default many of the banks' own clients).

A measure of higher inflation is needed

The policy actions aiming at increasing banks' capital (and solvency) as well as at reviving inter-market lending (via e.g. guaranteeing such lending) are now commonly considered necessary. However, these actions need not be sufficient to end the crisis. First, high official interest rates as administered by (some) central banks may prevent the recovery of lending to the real economy. Second, even low interest rates need not revive lending. Firms and households which have accumulated excessive debts are unlikely to ask for more loans while the banks (even the recapitalized ones) are unlikely to return to their recent indiscriminate-lending practices anytime soon. One must count with the possibility of recession and deflation, i.e. with a *deflationary slump*. And, as history teaches, that would constitute the *real* crisis. To counter the eventuality of the current financial crisis turning into something much worse one would need to (1) postulate decisive, concerted, fiscal impulses around the world (already announced in China); and (2) allow a measure of higher inflation which could help restore the households' and firms' ability to service their outstanding debts out of higher (nominal) incomes.

Too early to draw lessons from the US experience

What may we learn from the crisis management and resolution … in the USA?

It is still too early to talk about the resolution of the crisis – in the USA or elsewhere. We are still witnessing desperate efforts to contain it. At best we can learn something about the lessons from the crisis management so far. One basic lesson seems to be that, in the current circumstances, banks cannot be allowed to go bankrupt: letting the Lehman Brothers fail appears to have had devastating effects worldwide. The second (negative) lesson is that a piecemeal approach is likely to be both costly and ineffective in stabilizing the crisis: speed and decisiveness are essential, as well as comprehensiveness. The jury is out on more specific measures taken – it will take some time for these measures to have observable effects. At this moment the controversy still rages (in the USA) on the merits of e.g. the Paulson plan[41]. Moreover, the plan's implementation appears to involve significant modifications (for instance, more resources than initially planned are to go for the acquisition of equity in the troubled financial firms).

Fragmented fiscal responses in the EU vs. single action in the USA. Active FED vs. passive ECB

What are the main differences between the institutional set-ups with regard to crisis management and resolution in the EU and the USA?

The first main difference is this: in the USA there is a *single* fiscal authority behind a *single* crisis management policy. By contrast, there is no European crisis management policy as there is no single fiscal authority that could formulate and implement a single policy for all European countries. The voluntary cooperation framework does not seem to be really operating. Moreover, the crisis management approaches of the authorities of individual EU countries not only differ from one another. Apparently, 'non-cooperative games' are played in the EU (even among the euro area countries) whereby actions taken by the authorities of one country can aggravate the situation in the partner countries.

The second important difference is that the US fiscal authorities seem ready to make much bolder decisions on expanding the public sector deficit and the debt level than is likely in any euro are country. The policy makers in the EU countries seem to be hostages to the Growth and Stability Pact – and that despite the fact that the GSP has done little to support growth and has done nothing to secure financial stability in the euro area.

Last, but not least, the US Federal Reserve and the European Central Bank differ radically as far as their institutional set-ups are concerned. Their mandates and responsibilities are different, and so are their operational strategies. The important point is that the FED, being constitutionally less 'independent' than the ECB, has been much more active in its response to the first signs of the approaching crisis. The FED policy interest rates have been subject to consecutive strong reductions starting already more than a year ago (in August 2007). But that was not the ECB's approach, which kept its interest rates unchanged all along. The folly culminated in July 2008, when the ECB *raised* its interest rates. Until 8 October the spread between the ECB main policy rate and its FED equivalent stood at 225 basis points. When, on 8 October, amidst the signs of a panic overwhelming the global financial markets, the major central banks worldwide lowered their interest rates, the ECB joined in rather reluctantly – leaving the spread vs. the FED rate unchanged. The FED rate stands now at 1%, vs. the ECB's 3.25%. The passivity of the ECB vs. the activity of the FED indicates that the crisis will be easier to contain in the US than in the euro area. Higher interest rates in Europe cannot contribute positively to the resolution of the liquidity crisis – while they can certainly help to choke the real activity.

[41] This plan stipulated (among other things) the absorption of 'toxic assets' held by banks and (innovatively) also by non-banks. One aim was to infuse more liquidity into the financial system. Perhaps more importantly, it was to prevent massive 'fire-sale' of troubled assets which could push many more agents into insolvency.