

Policy Department
Economic and Scientific Policy

Accountability and Transparency in Central Banking

Study

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Authors: Prof. Paul de Grauwe
Mr. Daniel Gros, Ph.D.
Centre for European Policy Studies
Place du Congres 1
B-1000 Brussels
Tel: +32-2-229 3938
Fax: +32-2-219 4151

With contributions from: **Claudia Cicconi**

Administrator: **Christine Bahr**
Policy Department Economy and Science
DG Internal Policies
European Parliament
Rue Wiertz 60 - ATR 00L042
B-1047 Brussels
Tel: +32-2-2840722
Fax: +32-2-2849002
E-mail: christine.bahr@europarl.europa.eu

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E-mail: poldep-esc@europarl.europa.eu.

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Executive Summary

The current crisis shows that price stability alone is not sufficient for financial stability. Preserving financial stability should thus become a second primary objective for the European Central Bank (ECB), which should be given the appropriate tools to prevent the re-emergence of excessive credit creation and leverage. At present price stability is clearly not in danger and financial instability constitutes the biggest problem. But the ECB continues to concentrate exclusively on price stability (which is its formal mandate). It will not be possible to hold the ECB accountable for its action as long as this inconsistency between its mandate and the real problem persists.

Recommendations for the current situation

A clarification of the objective of the ECB should be required. The mantra that price stability is the best way to ensure financial stability can no longer be accepted after the outbreak of serious financial crisis which followed a period of price stability. Price stability has apparently not been enough to ensure financial stability. Going forward it is critical to understand whether the ECB accepts that absolute price stability (literally zero inflation, as in Japan) could prolong the problems relative to a situation where prices increase by 2 % per annum (the ECB's current upper limit) occur.

The ECB repeats incessantly that its definition of price stability is inflation below, but close to 2%, refusing to make explicit whether it considers 2% better than zero. Under current circumstances it would be important to clarify this point.

Moreover, the meetings with the European Parliament (EP) should not concentrate only on interest rate moves since other measures (for example quantitative easing) might now become more important than changes in the interest rate where the room for manoeuvre might soon be exhausted.

It is surprising that even after the acute phase of the financial crisis started in late summer of 2008 the ECB continues to motivate its policy moves exclusively with respect to price stability. In the introductory statement to the press conference of January 15, 2009, the ECB states: "Monetary expansion is moderating further, supporting the assessment that inflationary pressures and risks are diminishing." This 'moderation' of monetary expansion (in reality a very sharp deceleration) should have been taken as a signal that financial stability has not been re-established. But the ECB does not seem to be willing to acknowledge that the main danger at present is an excessive contraction of credit.

The EP should consider holding also special sessions (possible only with a delegation of the relevant Committee) with the President of the ECB at particularly critical times of the crises. Fuller attendance at the public hearings of the President of the ECB (or limiting attendance only to a smaller group of Members of the European Parliament (MEPs) interested specifically in monetary policy) would signal that the EP itself considers the process important.

Recommendations for the longer term

The key premise for accountability is a clear definition of the objective of the central bank. So far the only and overriding objective of the ECB has been price stability. Current events show clearly that financial stability can at times be even more important. Moreover, we argue that at times (of course not always) there can be a conflict between these two objectives (price and financial stability).

We thus propose that the responsibility of the ECB for financial stability should be made explicit and that it should also be given the necessary instrument(s) to be able to pursue these two objectives independently. These instruments are reserve requirements (an instrument the ECB already has) and macroprudential control. The ECB should thus be given the responsibility for financial supervision of the systemically important cross border banking institutions in the euro area. (We expect that about 20-25 banks would fall into this category.) An acceptable alternative would be to assign this responsibility to a separate, independent EU institution, which should, however, be mandated to work closely with the ECB in setting macroprudential control parameters.

We do not recommend full publication of the minutes of meetings of the ECB's Governing Council. We argue that a useful intermediate step would be to publish summary minutes containing, without attribution, the key arguments made during the meeting.

Governors/presidents of national central banks in the euro area serve as officials of an institution of the Union when they participate in meetings of the ECB's Governing Council. This should be reflected in their nomination procedure. The ultimate competence to nominate governors of national central banks belongs of course to Member States (and has to remain there). However, it would be useful to add an EU element to this, for example by requiring that the person in question appear before the relevant Committee of the EP before taking up his/her function.

1. The objectives (and instruments) of the central bank

A central bank can be held accountable only if it has a clear mandate, clear goals and the means to achieve what it is mandated to do. Therefore, a detailed discussion of the objectives of the central bank is a central part of the analysis of its accountability.

The ultimate objective of the central bank is to contribute to the welfare of the citizens of the country. The macroeconomic variables that influence welfare are output and employment. Thus the central bank should aim at creating conditions that ensure a high level of output and employment. In addition, people care about the stability of these variables. It follows that the central bank should also aim at keeping the variability of output and employment low.

There is now a strong consensus among economists that the central bank can contribute to a high and stable growth rate of output by maintaining price stability. It follows that the central banks should try to keep inflation low.

Note that this formulation of the objectives of the central bank treats price stability as an instrument to achieve the ultimate objective of high and stable output growth. Put differently, low inflation is not an end in itself; it is a way to reach another ultimate objective. This also means that if a particular inflation target stands in the way of achieving the ultimate objective (output and jobs), it should be adjusted.

The recent financial upheavals have reminded economists that what matters for achieving the ultimate objectives of high and stable output growth, is not only price stability but also financial stability, which at times might be of equal or even greater importance. The crash in financial markets and in the banking systems (following years of bubble-like developments) is now leading to a steep decline in economic activity that risks producing the most severe economic recession since the Great Depression of the 1930s. This leads to the conclusion that in order to achieve its ultimate objectives, a central bank should aim at ensuring both price stability and financial stability.

The statutes of the ECB imply that there is a lexicographic ordering¹ of its objectives: price stability is the primary objective of the central bank; the other objectives, including financial stability, can only be pursued provided this does not endanger the objective of price stability. The key argument used by the ECB in its own interpretation of its mandate has been that price stability fosters growth and thus the only way the ECB can promote growth is by maintaining price stability.

Our contention is that this lexicographic ordering cannot be maintained, and that price stability and financial stability should be given the same status. In fact we will argue that there are situations in which financial stability should have precedence over price stability.

As already mentioned, the ECB argues that price stability should maintain its special status of being the primary objective of the central bank because price stability ensures financial stability. In other words, by keeping inflation low the central bank always makes the best possible contribution to financial stability. In this view the central bank should not actively pursue financial stability. This view implies that there is no conflict between price stability and financial stability, so that the central bank is never confronted by the need to choose between the two.

¹ A lexicographic ordering is an ordering used in dictionaries. To find a word one first looks at the first letter (without bothering about the subsequent letters), then one looks at the second letter, etc.

Put differently, there is no trade-off between price stability and financial stability. In the next section we analyze this issue, and we argue that such a trade-off exists when certain shocks occur.

1.1 Is there a trade-off between price stability and financial stability?

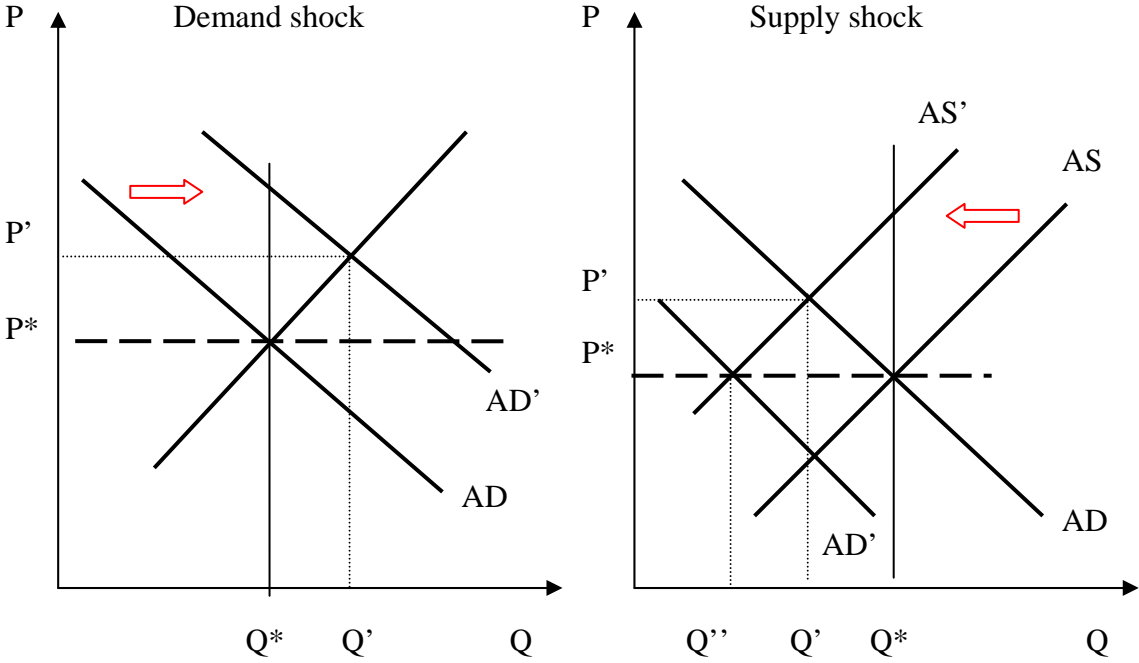
Much of central banking has to do with resolving trade-offs. The one that has occupied most of the attention both of practitioners and theoreticians is the trade-off between inflation and unemployment (output growth). There is now a consensus that can be described as follows:

The trade-off between inflation and unemployment is a temporary one. In the long run this trade-off tends to disappear. The fact that the trade-off is only temporary does not eliminate the problem for the central bank, however. The short run may be sufficiently long to create difficult choices. In particular, when confronted with an acceleration of inflation, the central bank that has as a primary objective to maintain price stability, still faces the difficult choice to decide how quickly it wants to reduce inflation.

A trade-off between inflation and unemployment appears when supply shocks occur. It typically does not appear when a demand shock occurs. We illustrate this in Figure 1.1. We assume that aggregate demand increases (e.g. because of a booming economy). This is shown by a shift of the aggregate demand curve from AD to AD'. Assume that the central bank has as its objective to stabilize the price level, say at P^* . The increase in aggregate demand will increase the price level to P' and the output level to Q' . To counter the price increase the central bank will raise the interest rate. This increase in the interest rate will negatively affect demand. As a result the aggregate demand curve is pushed back to its initial position, thereby reducing both the price and the output levels. Note that there is no trade-off here. The boom increases the price and output levels. The output level is too high because it exceeds the "natural" (full capacity level) Q^* . By raising the interest rate the central bank brings the price level back to the target and output back to its full capacity level. (Note that in practice the central bank targets inflation, but the argument could be phrased in terms of inflation).

When there is a supply shock, however, (see right panel of Figure 1.1) a trade-off will appear. The supply shock (which we assume to be temporary so that it does not affect the full capacity output level Q^*) shifts the aggregate supply curve upwards from AS to AS'. This has the effect of raising the price level to P' and to reduce the output level to Q' . The central bank which targets the price level at P^* will react by raising the interest rate. As a result, aggregate demand is shifted down (from AD to AD') leading to a further decline in the output level. Thus by raising the interest rate the central bank achieves its price target at the expense of a further reduction in the output level. A trade-off appears.

Figure 1.1: The effect of demand and supply shocks



Does there exist a similar trade-off between inflation and financial stability? At first sight, there does not seem to be a similar trade-off as the one between price stability and unemployment. Thus, the choice faced by the central bank does not seem to be comparable to the choice between inflation and unemployment.

Nevertheless, trade-offs between inflation and financial stability may appear in a different form. In order to analyze these different trade-offs it is useful to trace how bubbles work through demand and supply, and in so doing, create trade-offs between inflation and financial stability.

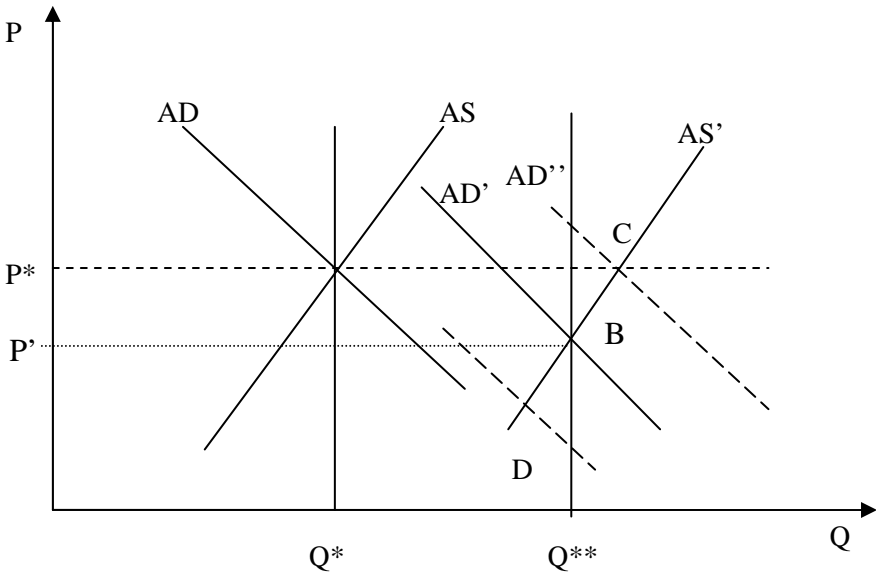
Let's take the case of the IT-driven asset bubble of the late 1990s as our prototype bubble (see Kindleberger (2000) for an analysis of similar technology-driven bubbles in history). A new technology leads to great optimism about the future potential of that technology. This leads to large increases in stock prices. These reduce the cost of attracting capital which in turn increases investment in these new technologies. The primary effect of such a shock is to increase productivity so that the aggregate supply curve shifts to the right.

The same shock, however, also increases aggregate demand. New technologies create new products and thus lead consumers to spend more. We will assume here that the supply effect is larger than the demand effect. We show this case in Figure 1.2. The new technology shifts demand and supply to the right (from AD to AD' and AS to AS'). However the supply effect is stronger than the demand effect. As a result, in the new equilibrium given by point B, the aggregate price level has declined to P' . Much of the subsequent dynamics now depends on the policy regime. Suppose the central bank targets the price level at the level P^* . We then immediately see that the central bank will respond by a policy of monetary stimulus (lower interest rate, higher money stock) so as to raise demand and the price level from P' to P^* . We show this by a shift of the demand curve from AD' to AD''. The economy settles in point C. The result of this monetary accommodation is to keep the price level at its pre-technological shock. Thus the central bank maintains price stability.

The monetary stimulus, however, also increases the level of the asset prices even further relative to the position that was attained when the price level was P' . This creates a risk that the asset price increase degenerates into a bubble. Since bubbles inevitably lead to crashes and since financial institutions are usually involved in asset price inflation financial stability is endangered.

Thus there seems to be a trade-off here between price stability and financial stability in the presence of a technology shock. The trade-off arises because the technology shock has the effect of reducing the aggregate price level. The central bank, however, targets a price level corresponding to the pre-technology shock level. As a result, it is forced to react to the shock by a monetary stimulus, creating an environment that makes a bubble more likely, while keeping the price level unchanged².

Figure 1.2: The trade-off between price stability and financial stability due to a technology-driven shock



This analysis comes close to what Kindleberger has identified to be the main sources of the development of a bubble. These are first a technological revolution, and second a monetary accommodation. The two together provide for the cocktail that in history most often leads to bubbles and later crashes³.

The equilibrium reached in point C is unsustainable (the long run equilibrium is in point B) and therefore can only be temporary. Output is beyond full capacity. It is sustained at that level by an interest rate that is too low and by the high level of asset prices that create a positive wealth effect on aggregate demand. Point C is unsustainable; a crash is inevitable. The crash leads to a decline in aggregate demand. It is likely to lead to an overreaction, as consumers and producers who have indebted themselves have to improve their balance sheets again. Thus the demand curve shifts to the left. A new (temporary) equilibrium is reached in point D.

² Borio (2003) argues that while low and stable inflation promotes financial stability, it also increases the likelihood that excess demand pressures show up first in credit aggregates and asset prices, rather than in goods and services prices.

³ It is also the dynamics underlying the IT bubble during the second half of the 1990s. The US monetary authorities identified this shock as a productivity shock that tended to lower prices and thus made a monetary expansion desirable. See Greenspan (2007).

The economy is in a recession, with output located below full capacity. It should be noted that once in point D, the trade-off for the central bank disappears. The latter, by targeting the price level, will stimulate aggregate demand thereby allowing the price level and the output level to increase. Whether this monetary stimulus is effective is another matter (not analyzed here). Experience has shown that during major busts monetary stimulus may become ineffective (as a result of a liquidity trap, as in Japan over the last decades).

In reality a trade-off between price and financial stability (or rather the rapid recovery of financial stability) might reappear during the bust phase. A credit boom leads typically to an accumulation of excessive levels of leverage and many economic agents will be over-indebted when the boom ends. Falling prices would make the problem even worse.⁴ This is widely accepted. However, in such a situation it might make a material difference for the speed of the recovery whether prices just stay stable or are increasing at a moderate pace (e.g. 2 % per annum). In the present situation the practical issue for the ECB is whether it considers that it has achieved price stability when inflation stays as close as possible to 2% (as opposed to defining price stability even as an inflation rate of zero).

The analysis underlying Figure 1.2 stresses the importance of technological shocks. The latter were important for explaining the IT bubble of the late 1990s that crashed in 2001. Not all bubbles are technology-driven, however. The stock market bubble that started in 2003 and crashed in 2007/2008 does not appear to have been driven by a technology shock. It is not fully clear how this bubble was triggered. It appears though that it was mainly caused by a combination of “animal spirits”, i.e. optimistic beliefs of investors, and excessive credit creation.

We analyze this case in Figure 1.3 because we believe this is the type of bubble most relevant to understand the macroeconomic disequilibria in the euro zone during 2003-07. We start from the initial equilibrium in point C. A bubble is now set in motion as a result of “animal spirits”. This raises stock prices and lowers the cost of capital. The supply curve shifts down from AS to AS'. At the same time the bubble in asset markets raises aggregate demand due to wealth effects and to the increased availability of credit. The latter arises because the banks' balance sheets move upward with the bubble. The mechanism is that the higher price of assets increases the collateral value of these assets and thus the potential for bank credit⁵. The aggregate demand curve shifts to the right from AD to AD'. We assume that these two effects are of the same magnitude. It does not have to be, but we use this assumption because the external current account of the euro zone has remained in rough equilibrium over the last ten years, suggesting that supply and demand have moved in parallel⁶. The important point is that both demand and supply shift. As a result, the central bank which is targeting P at the level P* decides that there is nothing to worry about.

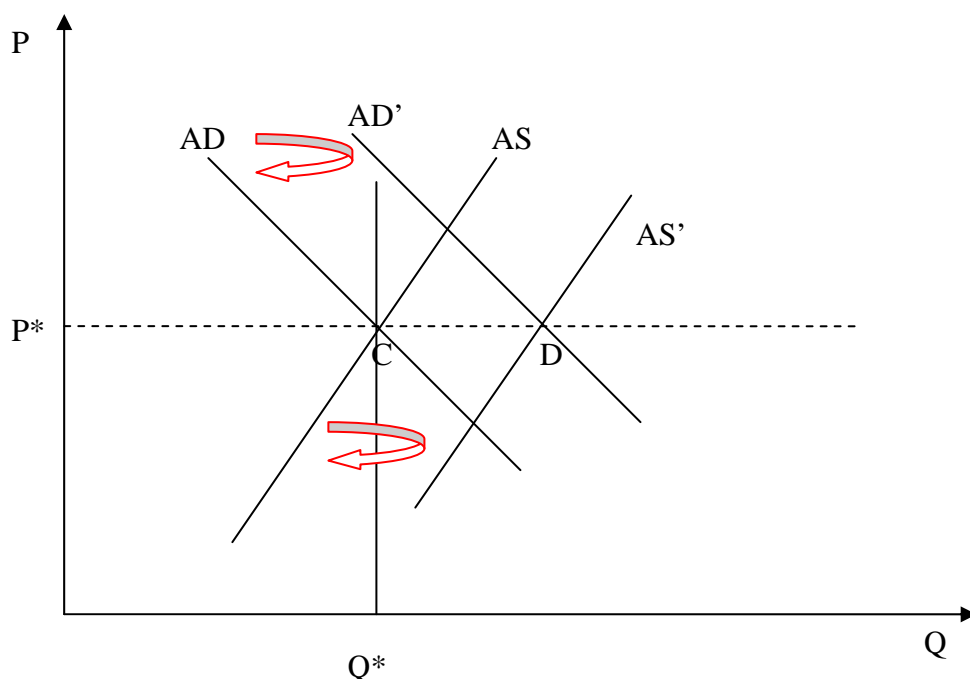
There is, however, a lot to worry about. The expansion of output is unsustainable because it is based on credit creation which is linked to artificially high asset valuations. In addition, in this process of excessive credit creation, households and firms accumulate excessive debt which will have to be scaled down. This happens when the bubble bursts. At that moment both demand and supply shift to the left. They will typically undershoot creating a recession. All this will lead to banking problems and a financial crisis.

⁴ It is widely agreed that during the Great Depression the fall in the price level of around 30% (not only in the US) aggravated the crisis.

⁵ Note that “mark-to-market” rules reinforce this effect.

⁶ The case of the US is obviously different. Its increasing current account deficit (until 2006 at least) shows that demand growth was higher than supply growth.

Figure 1.3: The trade-off between price stability and financial stability due to “animal spirits”



From the preceding analysis we conclude that important trade-offs between price stability and financial stability arise when technological developments trigger booms in asset markets or when “animal spirit” create a cycle of booms and busts. A central bank that uses a lexicographic ordering favouring price stability over other objectives is likely to fuel the boom inadvertently (in the case of a technology-driven bubble) or will decide to do nothing (in the case of an “animal spirit bubble”) allowing a process of excessive credit creation. This is what happened during the last ten years. Major central banks (including the ECB) focused mainly on price stability, and were quite successful in keeping inflation low. They failed, however, to see the bubbles in asset markets that were threatening financial stability, and that they fuelled inadvertently by allowing excessive credit creation to develop. In doing this they failed to achieve their ultimate objectives. These are situations in which central banks should have put their inflation target aside so as to guarantee financial stability.

We also conclude that the lexicographic ordering of the objectives of the ECB should be abandoned. Strict inflation targeting cannot be maintained because it can conflict with financial stability. Our contention is that when such a conflict arises, the central bank should allow its inflation target to be overridden by the objective of financial stability (see Borio and Lowe (2002) for a similar conclusion)⁷.

Promoting financial stability to a level at par with price stability creates a number of issues, however. We discuss two issues here. The first one has to do with the definition and the monitoring of financial stability; the second one with the instruments a central bank, including the ECB, can use to reach the objective of financial stability. We will not deal with possible legal issues that arise from the fact that the statutes of the ECB may have to be changed.

⁷ This is certainly not the mainstream view. The latter is represented by Svensson (2002) who argues that the central bank should focus on its objective of price stability with financial stability concerns only entering in an extreme scenario when a crisis is underway. This was also the Greenspan (2007) view and was very much influenced by Bernanke and Gertler (2000).

1.2 How to define and to monitor financial stability?

While the definition of price stability and thus its monitoring is relatively easy, this cannot be said of the objective of financial stability⁸. Defining financial stability is more difficult than defining price stability because the former has different dimensions that do not lend themselves to be captured by one index in the way this is done to describe price stability. As a result, the monitoring of financial stability is also inherently more difficult than the monitoring of price stability (through the use of the Consumer Price Index).

The literature offers few formal definitions of financial stability. For example, Ferguson (2002) defines financial stability through its contrary: financial instability. Financial instability is a situation in which: “a) some important set of financial asset prices seem to have diverged sharply from fundamentals; and/or b) market functioning and credit availability, domestically and perhaps internationally, have been significantly distorted; with the result that c) aggregate spending deviates (or is likely to deviate) significantly from the economy’s ability to produce.”

Borio and Lowe (2002) use a similar definition of financial instability. According to these authors, sustained rapid credit growth combined with large increases in asset prices increases the probability of an episode of financial instability (see also Borio (2003)). This view of the simultaneous occurrence of bubble-like developments in asset markets and excessive credit growth as twin indicators of threats to financial stability is also to be found in Kindleberger (2000) and formed the basis of our theoretical analysis⁹.

Thus by focusing on two types of variables, i.e. asset prices and credit growth, the monetary authorities can obtain important information about ongoing developments that can threaten financial stability. We show an example of a recent episode. In Figure 1.4 we present the Euro STOXX 50 price index and the US S&P 500 during 2003-08. We observe in both cases a bubble-like development from 2003 to the middle of 2007, followed by a steep crash. Note that the bubble appears to have been more pronounced in the euro area than in the US. The stock market bubble in the euro area appears to have coincided with a strong acceleration of bank credit from 2003 on. We show the evidence in Figure 1.5. We observe that the yearly growth rates of total bank loans in the euro area increased from less than 4% per year in 2003 to double-digit growth rates during 2006-07 (which was the period during which stock prices reached their peaks). Thus during the bubble in the euro stock markets from 2003 to 2007, during which stock prices almost doubled, bank credit in the euro zone increased by 60% (from 95% of euro area GDP to 115%).

Thus during the period 2003-07 statistical evidence was available to detect threats to financial stability¹⁰. The period 2003-08 showed the classical combination of asset bubbles fuelled by excessive bank credit, which ultimately leads to a crash and a financial crisis. (See also Borio (2003) on this issue with more empirical evidence of the importance of these twin variables to explain subsequent financial crisis).

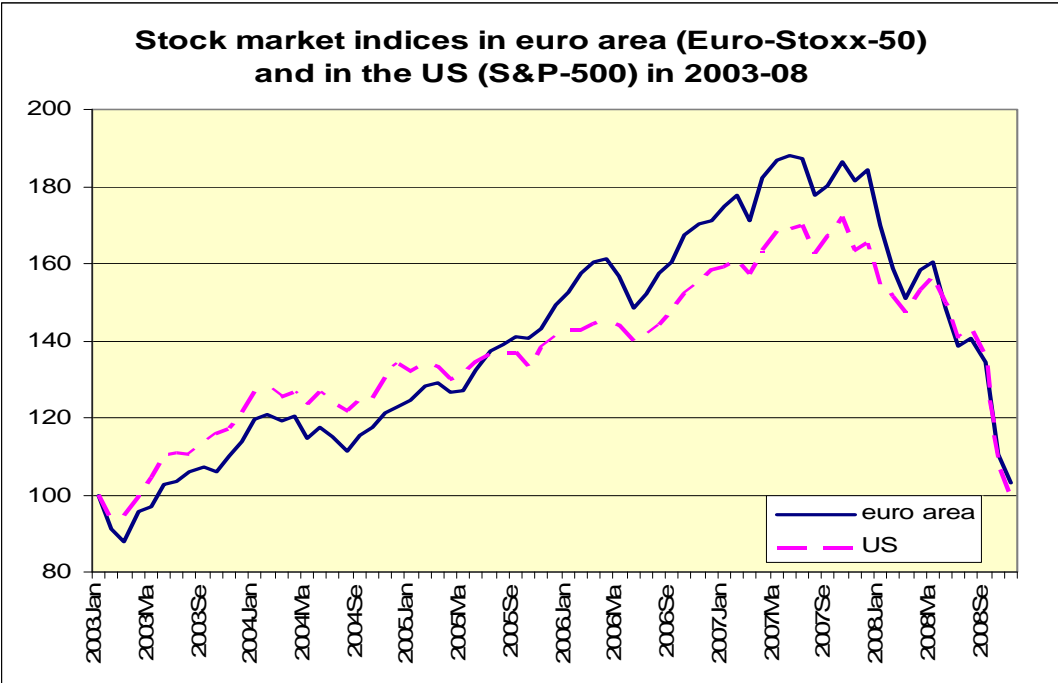
⁸ We are not implying that the definition of price stability does not create problems. See De Grauwe (2007) for a discussion.

⁹ The ECB’s definition of financial stability is too vague to be useful in tying down its responsibilities. According to the ECB “...financial stability is a condition in which the financial system – comprising financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unraveling of financial imbalances.” ECB (2008), p. 117.

¹⁰ There were also observers at the BIS and in academia who, based on similar evidence, warned of imminent financial crises.

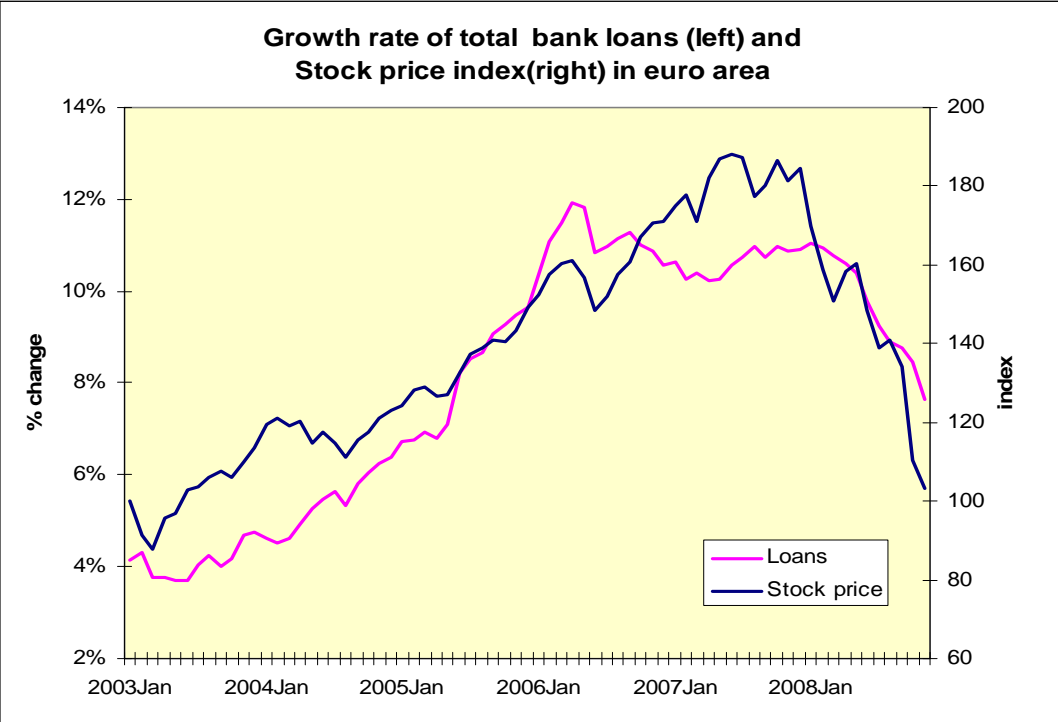
We conclude that it is possible for a central bank to monitor the risk of financial crisis by focusing on a limited number of indicators, i.e. on indices of stock prices and housing prices and on bank credit.

Figure 1.4: Stock market indexes in the euro area and in the US



Source: European Central Bank, Statistical Data Base, various issues.

Figure 1.5: Growth rate of total bank loans (left) and stock price index (right) in the euro area



Source: European Central Bank, Statistical Data Base, various issues.

One issue that arises here is why central bankers in Europe (the ECB, the Bank of England) and the US (the Federal Reserve) put so little weight on these indicators? There are probably many factors that have influenced the failure of central bankers to detect the threats to financial stability. There is one factor that we want to stress here. Central Bankers were “fed intellectually” by macroeconomic models developed in academia. These models were based on the assumption of perfectly informed and superbly rational agents who cannot make systematic errors, and who understand the great complexity of the world in which they live. In these “dynamic stochastic general equilibrium” models (DSGE models) that are now widely used in central banks, bubbles and crashes cannot occur. Prices always reflect underlying fundamentals. There is no need to do anything about asset prices.

These models tell the policy-makers to focus on price stability and all the rest – growth and stability – will be given to them by the efficient working of the markets¹¹. Such an intellectual framework can easily work as an intellectual device that prevents policy-makers from seeing emerging problems in the financial markets, because in the models these problems can simply not arise. And when they arise, they are just exogenous shocks that could not be seen in advance.

1.3 The instruments available for financial stability

Giving the responsibility for financial stability to central banks is one thing, providing the instruments to achieve the objective of financial stability is something else. Clearly, with just one instrument, the interest rate, the central bank will have great difficulties to achieve price stability and financial stability, let alone output stability. In fact, adding an objective without giving the central bank additional instruments to achieve that objective is not very sensible. In addition, without additional instruments it is difficult to make the central bank accountable for the additional objective.

Fortunately, there are instruments at the disposal of the central bank that can be used to maintain financial stability. These instruments are (1) legal reserve requirements, and (2) macroprudential control. We discuss these consecutively:

Legal reserve requirements

The ECB has the formal legal authority to impose the minimum reserve holdings by banks in the euro zone. It has, however, not used this instrument as an instrument of monetary policy, and has not changed the levels of minimum reserves since the start of its operations.

Required reserves work like a tax on bank deposits because it forces banks to hold funds equal to a certain percentage (at present 2) of their deposits with the central banks. In the euro zone reserve requirements are remunerated at close to market rates. This was done because it was feared that otherwise banking business would migrate outside the euro area. However, reserve requirements still work like a tax at the margin as can be seen from the fact that during normal times banks do not leave any excess reserves with the ECB.

¹¹ For a strong formulation of this view see Stark (2008) in a speech of 18/11/2008: “The mandate of the ECB is to maintain price stability over the medium term. This mandate must be adhered to both in normal times and in times of crisis. The monetary policy stance appropriate to fulfill our mandate depends exclusively on our assessment of the balance of risks to price stability, and nothing else. [...] There is no trade-off between price stability and financial stability”. For another skeptical note on the existence of a trade-off between financial stability and price stability, see Bini-Smaghi (2008).

There is no reason why the ECB could not use this instrument in the context of its objective of preserving financial stability. We propose that 2% would be the normal percentage to be used in normal times. During periods of excessive credit growth, like during the period 2003-07, the ECB could raise the minimum reserves to be held by banks to a level of 4 to 6%, depending on the size of the credit growth. In so doing the ECB would increase the cost of extending bank credit and would discourage credit expansion in the banking system. Such an action would of course have been deeply unpopular with the banking system and might have led to some migration of deposits off shore. However, in light of recent events such a reaction might actually not have been contrary to the longer-term interests of the euro area.

Macro-prudential control

Macro-prudential control refers to the use of prudential control of the banks with the aim of achieving a macroeconomic outcome conducive to financial stability. The two instruments most often cited in this context are loan to value ratios and leverage ratios.

Some form of macroprudential control has been applied by a number of national central banks (NCBs), most prominently by the Bank of Spain. The latter has varied the loan/value ratio used in mortgage lending as a countercyclical tool, i.e. lowering the ratio during booms in the housing market and increasing it during slumps. There is a consensus today that while this policy has not prevented booms and busts in the Spanish housing market, it has shielded the Spanish banking sector from taking excessive risks, thereby limiting the impact of the financial crisis on the sector.

The issue that arises here is whether such a macroprudential control mechanism could be transferred to the ECB. Our opinion is that it can be done without having to change the statutes of the ECB. In our view a macroprudential control exerted by the ECB should be restricted to the systemic banks that have activities throughout the euro zone¹². The exact numbers of the banks that would fall under this category could be determined on the basis of objective criteria (mainly the size of cross-border, especially interbank operations).

Transferring the authority for banking supervision to the ECB would not require a change in the Treaty. A (unanimous) decision of the Council would be sufficient under Article 105 of the Treaty (Maastricht Treaty). This might be difficult to achieve, but an alternative route exists: the ECB could simply decide that it would deal only with banks whose solidity it can control itself. The ECB could then set simple criteria (e.g. overall leverage and liquidity ratios) and invite banks that wish to participate in its tenders to open their books to the appropriate department in the ECB. This would de facto create a group of 'clearing banks', which would have the explicit stamp of approval of the ECB. All financially strong banks would have an incentive to be part of this group so there would be no need to force them to open their books to the ECB, which would then, de facto, become a sort of supervisor for them (because it could take away access to its facilities if the bank does not fulfil its criteria)¹³.

¹² Several members of the Governing Council have recently proposed to give the ECB more authority in supervising the systemic banks. See Financial Times (2009). The ECB position on financial stability in the past and during the current financial crisis can be found in several sources: ECB press releases and publications (see for example ECB (2008), Trichet (2008), but also Cecchetti and Schoenholtz (2008).

¹³ We are indebted to Tommaso Padoa Schioppa for pointing this idea out to one of us. We realize that it would require a decision of the ECB's Governing Council to implement this change. Unfortunately the national central bank presidents have a large majority on the Governing Council and they face a conflict of interest: this change might be in the interest of the ECB (and the euro zone), but might not be in the interest of 'their' banks, many of which might no longer qualify for access to the ECB's financing facilities.

A two-tier system

The previous discussion allows us to propose a two-tier system for the ECB. This is a system in which the interest rate would continue to be used for achieving the inflation objective, while the other instruments (legal reserve requirements and macroprudential control) would be used to achieve financial stability. Thus we propose a separation of the two sets of instruments which is akin to what the ECB has been doing since the start of the liquidity crisis in the summer of 2007, when it used the interest rate to achieve its macroeconomic objectives and used quantitative liquidity provisions independently from the interest rate decisions. This allowed the Eurosystem to provide all the necessary liquidity independently from the interest rate.

A similar separation would be possible between the use of legal reserve requirements and macroprudential control on the one hand, and the use of the interest rate on the other hand. Such a separation would allow the ECB to reserve the interest rate as the privileged instrument to control inflation (which is the present situation) and the other instruments, legal reserve requirements and macroprudential controls, as the privileged instruments to maintain financial stability. The advantage of such a separation is that it would be easier for the ECB to handle the difficult trade-offs that can occur between financial stability and price stability.

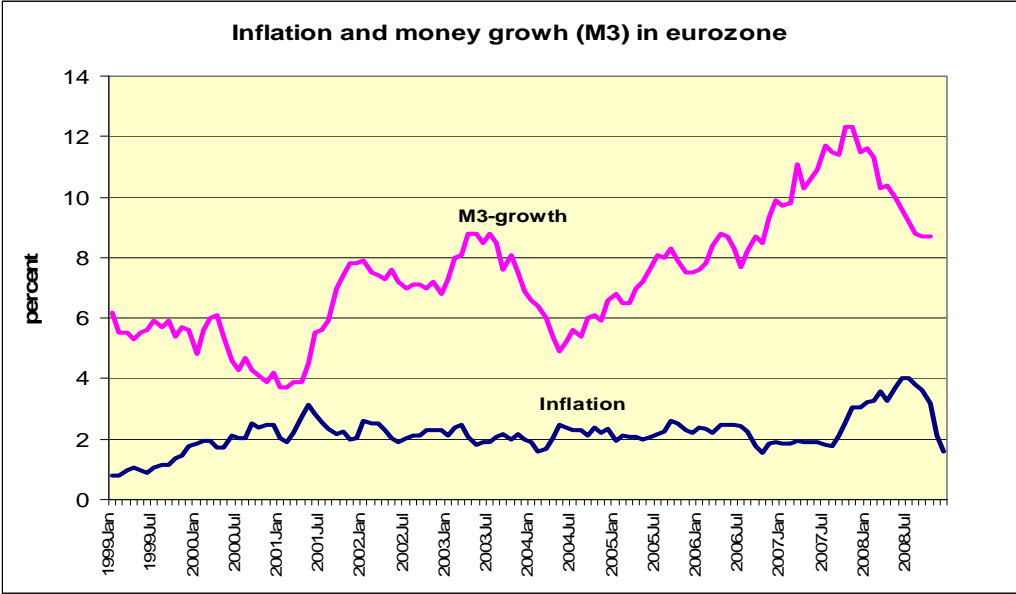
Thus the ECB could have applied such a separation during the period 2003-07. This would have allowed it to set the interest rate as its privileged instrument to keep inflation within the target zone. At the same time, observing that bank credit was increasing in an unsustainable way and that this coincided with several bubbles in asset markets, the ECB could have increased the minimum reserve requirements, lowered the loan-to-value ratio, and imposed lower leverage ratios on systemic banks. There is little doubt that this would have reduced the expansion of bank credit during that period. Since a large part of the expansion of bank credit was channelled into asset markets (including housing markets) this would also have reduced the bubbles in these asset markets. The attractive feature of this separation of instruments, is that the ECB could have achieved this without the need to raise the interest rate. This is an important advantage, because the use of the interest rate to counter asset bubbles encounters a lot of political opposition and criticism.

We conclude that financial stability can become an explicit objective of the central bank. In addition, the central bank has a number of instruments that can be geared towards this objective. There remains, of course, the distribution of responsibilities between the supervisors and the central bank. We have argued that part of the supervisory responsibility (macroprudential control) can be transferred to the ECB. The ECB would then have powerful instruments (including legal reserve requirements) that would allow it to control the growth rate of bank credit. By narrowing down the ECB's responsibility to bank credit, the ECB could also be made accountable for excessive growth in bank credit.

It will be remembered that in its initial monetary policy strategy, the ECB had set the growth rate of M3 as a reference value (intermediate target) for guiding the economy towards price stability. It is clear that this strategy has failed, as can be seen from Figure 1.6. We observe that the growth rate of M3 by far exceeded the reference value of 4.5% which was the number the ECB announced to be the maximum that should not be exceeded if the inflation target of 2% is to be achieved. The facts are that the ECB came very close to achieving its inflation objective during 1999-2008 (it was 2.2% on average per year) while the growth rate of M3 wildly exceeded the 4.5% benchmark (it was 7.4% on average per year).

The failure to control the growth rate of M3, while inflation was very close to the objective of 2%, is related to the phenomenon documented earlier, i.e. the excessive expansion of bank credit that was channelled mainly into asset markets, while leaving goods markets relatively unaffected. The two-tier strategy proposed here would have allowed to solve this problem and to keep the growth rate of M3 (and of bank credit) under control.

Figure 1.6: Inflation and money growth (M3) in the eurozone



Source: ECB, Monthly Bulletin.

1.4 Concluding remarks

We argue that the ECB should have as a second primary objective financial stability and that at times there might be conflict between price and financial stability. We do not argue that this is always the case, however, booms and busts in financial markets have had a major influence on the global economy over the last decade. Preventing them must thus be a major task of public policy.

The experience of the 1970s and 1980s showed that maintaining price stability in the face of unfavourable external shocks required never-ending vigilance and the courage to take at times unpopular decisions. The experience of the 1990s and the first decade of this century should remind us that maintaining financial stability also requires constant vigilance and even more political courage since measures to stop bubbles are also deeply unpopular and have to be taken when the danger to financial stability is least apparent. Moreover, it is never straightforward to diagnose a bubble. A central bank that has among its objectives also explicitly financial stability might thus at times be wrong. It could thus be seen as stifling the developments of financial markets without a good reason.

However, if one wants to reduce the likelihood of future major financial busts in the euro area one should accept that the ECB cannot only be responsible for price stability. Maintaining financial stability by preventing excesses in financial markets should be an equally important objective.

It is important to stress here that conflicts between these two objectives can be resolved by making it possible for the ECB to use two instruments. This is the separation principle we propose. The ECB could continue to use the interest rate to achieve its inflation target while using reserve requirements and macroprudential controls to maintain financial stability.

There is little reason to fear that this change would lead to higher inflationary expectations (or in general to an un-anchoring of expectations). On the contrary, markets would then know that the ECB would have an instrument to prevent asset bubbles from getting out of hand, which should stabilize expectations. At present inflation expectations seem to be stable, but in reality they represent an average of two scenarios: a prolonged period of deflation (like in Japan) or a spike in inflation because the ECB had to expand greatly its balance sheet (as documented below) and might not be able to find an 'exit strategy' once financial markets normalize and the economy recovers.

2. Accountability of central banks

2.1 *The meaning of accountability*

The definition of accountability on which there is wide agreement is that ‘to be held accountable’ means ‘to justify and explain its own actions and decisions, and also to be held responsible for them’.

Referred to central banks, the first component of accountability, ‘justify and explain’, has to do with the possibility of a democratically elected body (namely the European Parliament in the case of the ECB) of posing questions regarding actions and decisions to the delegated independent central bank and the possibility (and willingness) of the central bank to answer such questions.

This component is strictly related to the definition of central bank accountability considered in Bini-Smaghi and Gros (2000). According to their definition, in fact, central bank accountability depends on two factors: (i) *ex ante control*, i.e. the rules, standards and principles laid down in advance by a democratically elected body to be followed by the central bank in the exercise of its functions and (ii) *ex post control*, i.e. the central bank’s ‘act of listening to criticism and responding to questions about its past and future decisions that may be put forward by a democratically elected body’ (see Bini-Smaghi and Gros (2000)).

Ex ante control is, in a certain sense, a pre-condition of accountability: if it is not satisfactory, in the sense that the objectives and the rules followed by the central bank to take its decisions are not clear, accountability can only be exercised in a weak way since the counterpart (the democratically elected body) does not have the elements to evaluate the central bank’s actions and orientation¹⁴.

As argued above, the key problem at present is in this area in the sense that the key question to ask the ECB is whether it will give priority to price stability over financial stability.

Ex post control (ex post accountability in Bini-Smaghi and Gros (2000)) refers to the ‘instruments’ the democratically elected body is given to hold the central bank accountable (mainly, official occasions to ask questions to the central bank and the possibility of participating at the meeting of the decision-making body) and the extent to which the central bank reacts. It is the latter in the end the very measure of central bank accountability, which can only be based on a qualitative assessment of a central bank’s reaction to such control. To this end, it will be fundamental to evaluate whether the central bank is elusive on certain topics raised by the democratically elected body and the efficacy of the answers it provides when it is asked to clarify the reasoning behind its decisions, to explain which factors have determined a deviation from the targets or how and to what extent the decisions taken may affect other policy objectives possibly generating a trade-off.

¹⁴ This component of accountability is positively related to preferences transparency (prioritization of objectives) and goal transparency (explicit objective). Theoretical models also suggest that both goal transparency and preferences transparency can favor (but do not substitute) accountability (see for example Castellani (2002) and Hughes-Hallet and Libich (2006)). This component of accountability is not considered by Randzio-Plath and Padoa-Schioppa (2000) according to whom accountability is an ex post phenomenon, nor by Briault et al. (1996). De Haan and Eijffinger (2000) consider a more articulated criterion than Bini-Smaghi and Gros (2000) to take into account the way the central bank’s objectives are defined.

A broader definition of *ex post control* often found in the literature on central bank accountability (see, for example, De Haan et al. (1999), Bini-Smaghi and Gros (2000) and Bini-Smaghi and Gros (2001)) encompasses several other aspects of central bank transparency to which, indeed, accountability is strictly related. This broad definition of *ex post control*, while well-suited to analyze central bank accountability towards the general public, is less appropriate when the focus is on central bank accountability towards the democratically elected body by which it has been delegated to pursue its policy mandate. Of course, certain aspects of transparency can contribute to enhance accountability as they facilitate the control over the central bank and make it more effective but they cannot be confused with accountability (the relationship between transparency and accountability will be extensively analyzed in the next section).

As noted above, according to the definition of central bank accountability prevailing in the literature, a central bank in order to be held accountable not only has to ‘justify and explain’ its policy but it also has to be held responsible for it (see Randzio-Plath and Padoa-Schioppa (2000); Castellani (2002); Geraats (2002); Hughes-Hallet and Libich (2006) to cite only a few).

Hence, while the ‘justify and explain’ component of accountability is strictly related with central bank transparency, this ‘final responsibility’ component is mostly related with central bank independence. However, the relationship between the two is not clear since the existing literature has not come to any clear cut conclusions.

It is thus not possible to discuss accountability without looking also at independence and transparency¹⁵.

2.2 Measures of central bank accountability in the existing literature

A screening of the relevant literature since 1996 brought us to select five measures of central bank accountability. The detailed definition of the subindices and the single criteria taken into account by the different measures proposed is given in the Annex to this Chapter.

The first measure, proposed by Briault et al. (1996), is based on four criteria: a) whether the central bank is subject to external monitoring by Parliament; b) whether the minutes are published of the meetings in which monetary policy is decided; c) whether the central bank publishes an inflation or monetary policy report of some kind, in addition to the standard central bank bulletins and d) whether there is a clause that allows the government to override a decision of the central bank.

A second, more complex index to measure accountability has been proposed by De Haan et al. (1999) and then also used by De Haan and Eijffinger (2000), Sousa (2002), Eijffinger and Hoerberichts (2002). As shown in Table 2.1, their index takes into account three features of accountability: a) the definition and ranking of the objectives of monetary policy for which the central bank has to be accountable; b) the transparency of monetary policy and c) who bears final responsibility with respect to monetary policy.

¹⁵ The relationships between independence and accountability and between transparency and accountability are extensively discussed in Chapter 3.

Table 2.1: De Haan et al. (1999)'s measure of central bank accountability

<i>Monetary policy objective(s)</i>	
1	CB objective defined by CB law
2	Clear prioritization
3	Clear definition
4	Quantification by CB law (or based on documents based on law)
<i>Transparency of monetary policy</i>	
5	Must publish inflation or monetary reports in addition to standard CB bulletins/reports
6	Are the minutes of the monetary policy meetings published within a reasonable time after the meeting
7	Must explain publicly to which extent it has reached its objective(s)
<i>Final responsibility of monetary policy</i>	
8	Monitoring by the Parliament (besides annual report)
9	Has the government right to give instructions?
10	Is there some kind of procedure for the implementation of an override mechanism?
11	Has the CB possibility of an appeal in case of an instruction?
12	Can the CB law be changed by a simple majority in the Parliament?
13	Is past performance a ground for the dismissal of a CB governor?

Indeed, as Issing (1999) puts it: ‘The more clearly and precisely this mandate is defined, the easier it will also be in a democracy to monitor the performance of the central bank’. Moreover, the choice of a single objective also simplifies the monitoring of central bank performance. The announcement of a single goal (or a primary goal), rather than several unranked goals, enables authorities and public opinion to control performance more effectively. Another important aspect is whether the monetary policy objective is given a quantification, an operational expression, to serve as a yardstick for the evaluation of the performance of the central bank.

As far as the second feature of accountability is concerned – transparency – the authors do not share Issing’s view that accountability and transparency have to be logically separated from one another. Instead, they argue that it is a fundamental component of accountability, especially where the objectives of the central bank are not clearly defined.

Finally, in de Haan et al. (1999)’s index, also whether and to what extent the central bank bears final responsibility for the conduct of monetary policy is an important component of accountability. In assessing this point the authors look at three issues: the relationship with Parliament, the existence of some kind of override mechanism and the dismissal procedure for the central bank governor.

A third measure of accountability (and transparency) is proposed by Bini-Smaghi and Gros (2000). They do not create a numerical index, but rather provide a qualitative assessment of 15 criteria of central bank accountability divided in three groups: a) ex ante accountability; b) ex post accountability and c) procedures (see Table 2.2).

Ex ante accountability has to do with the definition of the objective(s) of the central bank, the announcement of intermediate and international targets and the extent to which the central bank makes public its view on how monetary policy targets affect other policies.

Ex post accountability refers to aspects of central bank communication strategy that may enhance its ex post accountability, like the publication of data of key indicators, the publication of inflation forecasts and the explanation of deviation from target, the explanation of the reasoning behind a policy decision and how it can affect other policies.

The ‘procedures’ component relates to aspects of central bank transparency among which the relation with Parliament and the possibility for government representatives to participate at meetings of the decision-making body of the central bank.

Table 2.2: Bini-Smaghi and Gros (2000)’s measure of central bank accountability

<i>Ex ante accountability</i>	
1	Clear definition of the objective of price stability
2	Announcement of the operational target
3	Announcement of the intermediate target
4	Announcement of indicators for assessing monetary policy
5	Explanation of how monetary policy targets affect other policies and objectives
<i>Ex post accountability</i>	
6	Publication of data on intermediate target (or explanation of possible deviation)
7	Publication of inflation forecast and deviation from target
8	Explanation of main policy measures (or absence thereof) and underlying reasons
9	Explanation of how these measures affect other policies
<i>Procedures of accountability</i>	
10	Regular public reports covering issues 1-8 above
11	Hearings in Parliament with Q&A
12	Participation of government representative at meetings of the decision-making bodies (as observers)
13	Publication of summary minutes
14	Publication of detailed minutes
15	Publication of the votes of the members of the decision-making bodies

In a successive study, Bini-Smaghi and Gros (2001) propose a slightly different measure of accountability based on 15 criteria divided in 4 groups: a) the precision of the objective; b) the strategy to reach it; c) the data/forecasts published and d) the communication strategy.

Table 2.3: Bini-Smaghi and Gros (2001)'s measure of central bank accountability

<i>Monetary policy objective(s)</i>			
1	Definition of the ultimate objective	2	If price stability is clearly the main objective of the CB
		1	If the priority of price stability is not clearly stated
		0	If no priority
2	Quantification of the objective	2	If the a numerical target is set in the statute
		1	If the numerical target is set by the CB itself
		0	If no numerical target is specified
<i>Monetary policy strategy</i>			
3	Announcement of the strategy (operational target)	2	If the strategy is openly announced
		0	otherwise
4	Announcement of the intermediate target	2	If an intermediate target is announced
		0	Otherwise
5	Announcement of indicators for assessing the appropriateness of monetary policy	2	If the CB announces the level of a set of 'prominent' indicators
		1	If announcements are more generic
		0	If no indicators are announced
<i>Publication of data/model/forecasts</i>			
6	Macro models used	2	If the model is explicitly made public
		1	If the model can be inferred from an informal discussion
		0	Otherwise
7	Data on targets and indicators	2	If data on intermediate targets and indicators are published
		0	Otherwise
8	Inflation forecasts	2	If inflation forecasts used by the CB to take its decisions are published
		1	If inflation projections not 'underwritten' by the CB decision-making body are made public
		0	If no inflation forecast is published
<i>Communication strategy</i>			
9	Parliamentary hearings	2	If hearings in front of the Parliament take place
		0	otherwise
10	Frequency of reports	2	Monthly
		1	Quarterly
		0	Annual
11	Press conferences	2	Monthly
		1	Quarterly
		0	Otherwise
12	Publication of press releases	2	If regularly
		1	If occasionally
		0	Otherwise
13	Statement of future moves	2	If regularly
		1	if occasionally
		0	Otherwise
14	Publication of minutes	2	If minutes, at least in summary form, are published within a short time (weeks) after the meeting of the decision-making body
		0	Otherwise
15	Publication of individual votes	2	If votes are released
		0	Otherwise

Finally, a fifth measure of accountability has been proposed by Hughes-Hallet and Libich (2006). In their effort of separating accountability from transparency they propose to measure the latter by using the ‘final responsibility’ component of the measure proposed by De Haan et al. (1999).

Table 2.4: Hughes-Hallet and Libich (2006)’s measure of central bank accountability

1	Monitoring by the Parliament (besides annual report)
2	Has the government right to give instructions?
3	Is there some kind of procedure for the implementation of an override mechanism?
4	Has the CB possibility of an appeal in case of an instruction?
5	Can the CB law be changed by a simple majority in the Parliament?
6	Is past performance a ground for the dismissal of a CB governor?

‘Final responsibility’ has to do with three issues: the relationship with Parliament, the existence of some kind of override mechanism and the dismissal procedure for the central bank governor. While the first is genuinely related to central bank accountability, the other two are not as they are more closely related to central bank independence than to central bank accountability. Bini-Smaghi and Gros (2000), for example, exclude override mechanisms from accountability criteria because they are considered among central bank independence criteria by Cukierman (1992). Indeed several other indexes of final responsibility overlap with central bank independence criteria: ‘ultimate responsibility and authority on monetary policy decision’ is explicitly considered as an index of central bank independence by Sousa (2002) and Hughes-Hallet and Libich (2006); both whether the central bank law can be changed by a simple majority in Parliament and whether the government (or Parliament) has the right to give instruction, which are mentioned as final responsibility criteria, are in a certain sense central bank independence criteria.

The above-mentioned measures of accountability differ in the number of aspects considered and the weights attached to them, but have often common elements.

In particular, common to the existing literature is that all contributions assume that price stability is the key objective of the central bank and that accountability has to be based on the degree to which this objective is reached. As argued in the main text of the report this is an aspect that needs to be reconsidered.

Another common feature of these measures, reflecting the difficulty in defining and isolating the concept of accountability, is the partial overlapping of the proposed accountability measures with measures of transparency and measures of independence. This constitutes a serious limitation to the possibility of analyzing the relationship among these three aspects of central banking on the basis of the empirical evidence.

2.2.1 Accountability in international comparison

An international comparison of accountability is only possible by taking into account a number of factors determined by the context in which the central bank operates.

The measures of accountability proposed in the literature, though offering only a limited view on such a complex phenomenon and suffering from a number of limitations, may serve as a first step of a more in-depth international comparison of accountability.

Table 2.5 below shows the level of accountability of four central banks – the ECB, the Federal Reserve (FED), the Bank of England (BoE) and the Bank of Japan (BoJ) – as measured by the indexes described above: Briault et al. (1996), De Haan et al (1999), Bini-Smaghi and Gros (2000), Bini-Smaghi and Gros (2001) and Hughes-Hallet and Libich (2006).

The results in the table are based on information collected in January 2009 by looking at the current central bank laws and at their websites. The quantification of the single criteria on which the global measures presented in the table are based is shown in an Annex to this Chapter.

Averaging out the rankings of the central banks as they result from the five measures considered here (see the last row in Table 2.5), in order to have a more robust measure of accountability, suggests that according to the literature the two extremes are the BoE, as the most transparent/accountable, and the BoJ relatively at the opposite extreme. The FED comes in second, but is not far from the position of the ECB.

Table 2.5: Measures of accountability of four major central banks

	ECB	FED	BoE	BoJ
Briault et al. (1996)	1	3	4	3
De Haan et al. (1999)	4	7	11	6
Bini-Smaghi and Gros (2000)	7.5	10.5	11.5	7
Bini-Smaghi and Gros (2001)	20	18	25	12
Hughes-Hallet and Libich (2006)	1	3	4	4
Average rank	2.8	2.6	1.6	3.0

It is interesting to note that the UK had initially the greatest technical difficulties in dealing with the financial crisis. We regard it as an open issue whether or not this could in any way be related to the institutional set up of the BoE and its ‘modern’ emphasis exclusively on price stability.

Moreover, the experience with the financial crisis also shows that a central bank which is responsible for a major international reserve currency (such as the ECB or the FED) faces a very different set of constraints and a certain responsibility for its neighbours than a central bank which is responsible for a currency which does not play an important role in the global monetary system.

By a comparison with the same indexes measured a few years ago, it emerges that the indexes do not show any significant change in accountability¹⁶. Indeed, no major changes have intervened in the legislation, and only minor ones in the actual behaviour of the central banks (for example the BoJ has reduced the time lag and made more regular the publication of the minutes). There might have been some other changes in the contents of the information released by the central banks considered or in some other aspects of accountability that, not captured by these very simple measures, can only emerge from a more in-depth analysis.

2.3 Accountability during financial turbulences

It is clear that in reality de facto accountability depends not only on the legal provisions for accountability; but also, maybe even more, on the willingness of the central bank to be held accountable and that of the delegating body to hold the central bank accountable.

¹⁶ However, by looking at the detailed tables in the Annex to Chapter 2, it can be seen that some aspects of accountability have changed over time.

This makes it very difficult to measure. While the first can be assessed by looking at the institutional framework in which the central bank operates, the latter two can only be evaluated through a qualitative analysis of the central bank responsiveness to the issues raised by the Parliament and of the action of the Parliament itself.

In this respect, the proper framework for accountability becomes all the more important in times of financial upheavals. During these times the transmission mechanisms of monetary policy change (if they work at all) and many decisions have to be taken much more quickly. This implies immediately that the standard procedures for accountability before Parliament, with their widely spaced consultations, become inadequate. During times of crisis more frequent meetings, perhaps even informal ones, between the ECB and Parliament become necessary. It seems that this has happened to some extent, but as some of these meetings might not have received much publicity little is known about the intensity of the communication between the EP and the ECB during this crisis. It might be useful to publish a summary of this process, concentrating on the issues Parliament raised and the reaction it obtained from the ECB.

The ECB is in the particular situation that so far its objective has only been price stability (and only to 'contribute' to financial stability). Hence it can claim that it cannot be held accountable for the crisis, but should be credited with anything it can do to alleviate the severity of the crisis itself.

It is not inconceivable in fact that the ECB takes wrong decisions because it sets wrong priorities that could intensify the financial crisis if price stability keeps on being its primary objective. We have illustrated in Chapter 1 above how an exclusive focus on price stability may under certain circumstances (of course not always) induce the central bank to allow the build up of bubbles in asset prices or credit. At present, the euro area is undeniably in a bust phase. It is widely recognised that the previous bubble led to an unsustainable build up of leverage, especially in the financial sector. The bursting of the bubble can lead to a sharp slowdown in activity because new credit becomes scarce when all banks try to deleverage at the same time as their cost of capital has increased (or, which is the same, their share prices fallen). The process of deleveraging will be prolonged, and its cost increased, if prices are allowed to fall (or just to stay absolutely stable).

The previous discussion has an important implication for the formulation of the inflation target by the ECB. As is well-known, the ECB has chosen to use an asymmetric inflation target, i.e. inflation should be close but below 2%. This asymmetric target makes it clear that when the inflation rate exceeds 2%, the ECB will take steps to bring it back to 2%. However, when the inflation rate is below 2% it is unclear what the future action of the ECB will be. Thus when the inflation rate drops below 2% economic agents are left in the dark about the ECB's intentions. A symmetric inflation target would resolve this, because it would make it clear to economic agents that when inflation drops below 2%, the ECB will take action to increase the rate of inflation. Such a signal is important during a process of deflation. In order to stop the deflationary dynamics agents have to be confident that the ECB will do everything it can to raise the rate of inflation to its target level. Hence, under these circumstances it becomes important whether the ECB recognises this and acknowledges that its 'inflation target' (close to, but below 2%) is symmetric. Clarifying this aspect will be a key to understand the ECB's strategy during these turbulent times.

Another aspect that comes up only during financial crisis is that the accounts of the central bank suddenly start to matter. During a financial crisis a central bank might make losses when a bank fails, the central bank buys bad assets or the collateral posted by banks turns out to be insufficient.

The Federal Reserve is running all these risks and thus had to obtain a back-up line of credit from the US Treasury. In financial terms the Federal Reserve is thus no longer independent.

The ECB does not seem to run the same risks as it does not buy up assets on the market, but instead gives credit only to banks, against good collaterals. Since EU governments have now effectively guaranteed that no major bank will be allowed to go bankrupt, the ECB's balance sheet seems well protected against large losses.

However, the ECB is not fully protected against losses since any subsidiary of a foreign bank that is fully incorporated (with separate capital) in the euro area can participate in the deposit and lending facilities of the ECB. If the foreign parent of such bank fails, the euro area subsidiary will typically also fail. Indeed it seems that during 2008 the ECB might have made a significant loss on lending to euro area subsidiaries of Lehman Brothers and of Icelandic banks (which all became insolvent in October of 2008). The ECB is rumoured to have had an exposure of about 1 billion euro towards these banks (via the Frankfurt and other euro area offices), but little is known about this episode as the ECB has so far not been willing to disclose its full exposure and the value of the collateral.

The general rule for the distribution of profits and losses within the Eurosystem is the following: the profits (and losses) on normal monetary policy operations are distributed according to the general provisions, i.e. in general according to the capital key (whose weights are 50% GDP shares and 50% populations shares)¹⁷.

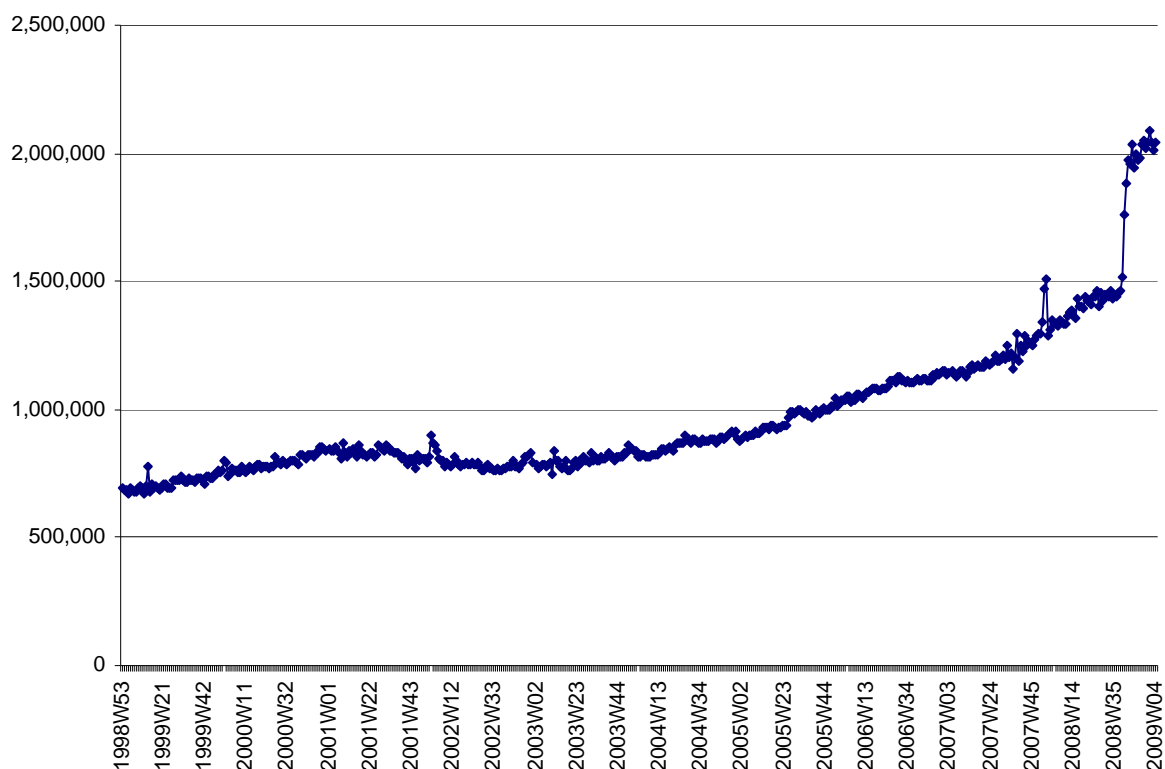
However, during a liquidity crisis NCBs may provide emergency liquidity assistance (ELA) to illiquid but solvent credit institutions. The provision of ELA is undertaken at the discretion of the competent NCB, subject to the conditions set out in the Treaty and only in exceptional circumstances. The potential losses on emergency liquidity assistance (for example the loan provided by the National Bank of Belgium to Fortis and the one provided by the Bundesbank to Eurohypo) are however, borne only by the NCB in question. Losses are not unlikely in both the case of Fortis and Eurohypo, but this should not lead to losses for the ECB.

The financial aspects have certainly become more important as the balance sheet of the ECB has tripled from below 700 billion euros at the start of EMU to around 2100 billion in early 2009 as illustrated in Figure 2.1. While there has been a consistent growth trend during the boom years (2003-2007) there has also been recently a jump upwards, as the ECB has allowed its balance sheet to increase, mostly due to the large deposits of banks with the ECB which exceed the required reserves by several hundred billions and due to lending to non-euro area residents (presumably mostly UK banks), see Table 2.6 below.

At over 2000 billion, the balance sheet of the ECB amounts now to more than 20% of the GDP of the euro area, which is quite unusual for modern central banks. As shown in Bini-Smaghi (2000), modern central banks tended (at least until the outbreak of this crisis) to have rather small balance sheets in which the monetary base was only slightly larger than cash in circulation. Holdings of cash amount usually to something around 5% of GDP. Central bank balance sheets were thus until recently worth usually much less than 10% of GDP. However, with the current value of above 20% of GDP even small gains or losses on its assets/liabilities could now have considerable financial implications. If the ECB were to switch to a policy of quantitative easing, its balance sheet could expand even further.

¹⁷ The proportional distribution of the paid-up capital is exactly the same as the capital key.

Figure 2.1: Total assets/liabilities of the Eurosystem



Source: ECB

Table 2.6: The balance sheet of the ECB

Major items of the balance sheet of the Eurosystem, liability side only, in billions of euro	January 2009	January 1999
Banknotes in circulation	764	336
Current accounts (covering the minimum reserves system)	213	103
Deposit facility	282	3
Liabilities to non-euro area residents denominated in euro	287	12

Source: ECB

The large literature on accountability is of limited usefulness given the exceptional circumstances at present. The problem arises from the fact that, while defining accountability of a central bank whose primary objective is price stability is relatively simple because the success rate can be easily inferred from the observed rate of inflation (which tends to move slowly), the accountability of a central bank in terms of financial stability is much more difficult to define.

First of all there is the question: What is financial stability? There is no single measure of financial stability because the latter is very difficult to detect ex ante. As Borio (2003) puts it:

“Indicators of risk perceptions tend to decline during the upswing and, in some cases, to be lowest close to the peak of the financial cycle. But this is precisely the point where, with hindsight at least, we can tell that risk was greatest. During the upswing, asset prices are buoyant, risk spreads narrow and provisions decline. They clearly behave as if risk fell in booms and rose in recessions. And yet, there is a sense in which risk rises in booms, as imbalances build up, and materializes in recessions, as they unwind” (Borio (2003), p. 12). This is the key problem in maintaining financial stability: there simply is no single unambiguous measure of financial stability. Judging dangers to financial stability, such as for example excessive leverage and asset price bubbles, requires qualitative judgment.

Second, is financial stability an objective of the central bank? Does it have some priority over price stability? Are there any trade-offs between price stability and financial stability? As we have documented above, opinions are divided on this account. We have argued above that an excessive focus on price stability can lead to policy mistakes which allow bubbles to develop. Representatives of the ECB dispute this, of course.

Third, it is clear that even when it is one of its explicit objectives any central bank (and in particular the ECB) can only influence financial stability at the margin. The question here is not only whether the ECB has done all it could to limit financial distress but also whether the ECB should be held accountable for letting the credit boom in the euro area go on for too long, thus allowing the build up of larger financial imbalances which now exacerbate the downturn.

The best way to enhance the ex post accountability at present would thus be, in our view, to induce the ECB to better explain its view on the relationship between price stability and financial stability. This should then clarify how the ECB can contribute to financial stability both under the present special circumstances and how it could prevent future crises.

Once a bubble bursts in a big way and leads to a widespread dysfunctioning of the financial system the question arises whether monetary policy loses its effectiveness. The simple question is then what the ECB could be held accountable for if, due to the emergence of a liquidity trap, its policy becomes ineffective.

3. The role of transparency and independence in accountability

The poor definition of accountability in the euro zone is at least partly due to the absence of a federal fiscal policy and political centralisation in general, which makes it more difficult to apply the lessons from nation states concerning the link between the three concepts of accountability, transparency and independence. Here we discuss the relationship between accountability and transparency as well as the link between accountability and independence. In both cases the question is whether there is a relationship of complementarity or whether the two are substitutes.

3.1 Transparency and accountability

Transparency can be defined literally as ‘being transparent’ meaning (in the terms of a dictionary) ‘that you can see through’. Hence, central bank transparency can be intended as a situation in which other agents can see through, or rather behind the policy actions of the central bank. The interesting information is, of course, the set of arguments, discussion and other elements that lead to decisions. In other words, transparency describes the extent to which the central bank discloses information that is related to the different stages of its decision-making process.

Transparency could facilitate accountability of monetary policy in several ways. Political transparency in the form of formal objectives, quantitative targets and clarity about the institutional structure is probably the most important as it provides a criterion for evaluation and helps identifying who is responsible; economic, procedural and policy transparency enables scrutiny of the motivation for policy actions and thereby ex ante accountability of policy; operational transparency about transmission disturbances contributes to ex post accountability based on policy outcomes (see Geraats (2002)). Walsh (2008) makes the point that the role transparency plays in supporting accountability can differ depending on whether the ultimate objectives of monetary policy are observable or unobservable. We have argued above that one objective of the ECB should be financial stability and that dangers to financial stability might often be difficult to detect. Hence this point might be important.

The need for more accountability is indeed seen as one of the main factors behind central banks' tendency towards greater transparency during the last ten-fifteen years, though it has been found only a weak cross-country relation between accountability and (other aspects of) transparency (see Fry et al. (2000)).

Improving legal accountability could be more difficult because it may require a Treaty change or other changes in legal acts; while improving transparency can be realized easily by the ECB on its own, if the will to do so is present.

However, before dealing with the relationship between transparency and accountability in more detail it is fundamental to distinguish the two concepts. In our analytical framework we adopt the prevailing view according to which transparency refers to mere information disclosure, while accountability also involves bearing responsibility for monetary policy actions and possibly facing repercussions when policy appears deficient (see Chapter 2 on the definition of central bank accountability and of accountability measures).

In this chapter we describe the way transparency has been measured in the literature and the link between transparency and accountability.

3.1.1 Transparency in the existing literature

Since Geraats (2000) the literature has agreed on distinguishing five aspects of central bank transparency: (i) Political transparency, (ii) Economic transparency, (iii) Procedural transparency, (iv) Policy transparency and (v) Operational transparency.

Political transparency has to do with openness about the objectives of the central bank. A central bank is politically transparent if its objective is clearly and precisely defined and, in case of multiple objectives, if there is a prioritization of the objectives. (We have discussed this issue extensively in Chapter 1.)

Economic transparency refers to the information (data and implicit or explicit models) that is used for monetary policy decisions. This includes, then, transparency about economic data taken into consideration, about the economic (and econometric) models used and also transparency about the internal forecasts the central bank relies on.

Procedural transparency focuses on the way monetary policy decisions are taken. It requires an explicit monetary policy rule or strategy that describes the monetary policy framework, an account of the actual policy deliberations and of how the policy decision was reached, which is achieved by the release of minutes and voting records.

Policy transparency is the prompt announcement of policy decisions. In addition, it includes an explanation of the decision and an indication of likely future policy actions.

Operational transparency concerns the implementation of the central bank's policy actions. It involves a discussion of control errors in achieving the operating targets of monetary policy and (unanticipated) macroeconomic disturbances that affect the transmission of monetary policy.

A number of papers have attempted to measure central bank transparency¹⁸.

Eijffinger and Geraats (2002) compute an index of transparency for nine central banks (the Reserve Bank of Australia, Bank of Canada, ECB, Bank of Japan, Reserve Bank of New Zealand, Swedish Riksbank, Swiss National Bank, Bank of England, and Federal Reserve). Their index fully reflects the definition of transparency given above: it is the sum of the subindices for the five dimensions of transparency. The results indicate sharp differences between more and less transparent central banks with the Reserve Bank of New Zealand, the Bank of England and the Swedish Riksbank at the top and the Reserve Bank of Australia, Bank of Japan and the Swiss National Bank at the bottom.

Bini-Smaghi and Gros (2001) define an index of transparency (and accountability) considering fifteen aspects of transparency grouped into four categories: transparency in the definition of the objectives of the central bank, transparency of its strategy, publication of models, data and forecasts and the communication strategy. They compute the index for five central banks: the ECB, the Federal Reserve Bank, the Bank of Japan, the Bank of England and the Bundesbank. Similar indices are defined by De Haan, Amtenbrink and Waller (2004), who develop a similar index for six countries; by De Haan and Amtenbrink (2002) for fifteen countries instead of six; by Siklos (2002), who expands the coverage to twenty central banks, all from advanced industrial countries.

¹⁸ Other papers have focused their attention on a more qualitative analysis of the information disclosed by the central bank. Fry et al. (2000) define an index of policy explanations; Poole (2005) analyzes transparency of the FOMC; Ehrmann and Fratzscher have written a couple of papers on central banks communication strategy; Eijffinger and Mujadic (2004) and Randzio-Plath and Padoa-Schioppa (2000), provide mainly a descriptive analysis of the Monetary Dialogue.

The most comprehensive study is that by Fry et al. (2000) who analyze transparency in 94 countries, but the concept of transparency they use is a limited one. In fact, their index is based on three aspects of transparency only: whether the central bank provides prompt public explanations of its policy decisions, the frequency and form of forward-looking analysis provided to the public, and the frequency of bulletins, speeches and research papers.

All these studies measure transparency at one point in time and most of them for a few central banks. Most recently, Dincer and Eichengreen (2007) have overcome these two limitations. Using the same index as Eijffinger and Geraats (2002) they measure transparency of 100 central banks and for each of them track the development of the index between 1998 and 2005 finding little change, but still an overall increase in transparency.

From all these contributions it emerges that the ECB is a very transparent central bank. For example, according to Dincer and Eichengreen (2007)'s results, who provide the most up-to-date and extensive study both in terms of time period and number of countries, the ECB is the fifth most transparent central bank over more than eighty countries. The most transparent central bank is that of New Zealand, while three other European central banks are more transparent than the ECB: the Swedish Riksbank, the Bank of England and the Czech National Bank.

3.1.2 Accountability and transparency in economic models

The relationship between central bank transparency and central bank accountability has been also analyzed extensively in economic models.

Eijffinger and Hoerberichts (2002) develop a model of central bank transparency and final responsibility, two components of accountability, and investigate their effects on the level of inflation and on the stabilization of supply shocks. Transparency is introduced under the form of a central bank's private information on its preferences (political transparency) and final responsibility under the form of an override mechanism. In this framework, the central bank is partially independent: both the possibility of overriding and greater transparency reduce the independence region of the central bank. The higher the cost of overriding (the weaker the override mechanism, i.e. the lower the accountability) the larger the independence region of the central bank; greater transparency reduces the independence region of the central bank. Transparency and final responsibility both concur to enhance central bank accountability. The choice between the two should rest on their effects on the inflation level and on output stabilization: greater transparency reduces the equilibrium inflation rate and limits the expected stabilization of supply shocks; on the other hand, a lower cost of overriding shifting final responsibility of monetary policy towards the government (lower central bank accountability) implies a higher inflation rate and more stabilization of supply shocks.

This model, however, does not investigate explicitly on the relationship between transparency and accountability: transparency here is a component of accountability. It studies the relationship between two forms of accountability, transparency and final responsibility, and their macroeconomic effects.

In Castellani (2002), the accountability problem stems from the individual and social costs associated with the delegation of a policy instrument to an unelected institution, whose preferences over macroeconomic objectives do not reflect society's (fiscal authorities, wage setters, private sectors, etc.). The perception of these costs by society and individuals (e.g. the suboptimal stabilization policy of conservative central bankers in the sense of Rogoff (1985)) motivates the request for formal accountability mechanisms.

While it is evident that transparency has a role to play in accountability, Castellani (2002) finds the traditional “accountability through transparency” approach, like that by Eijffinger and Hoeberichts (2002), to some extent incomplete as it fails to clearly discriminate between accountability and transparency.

In her paper, she sheds some light on the distinction between accountability, intended as responsibility for policy-making (deeds), and transparency, intended as the communication strategy adopted by the central bank, and attempts to formally characterize the former. Her viewpoint is that the need for accountability arises because of the potential divergence between what is expected from the central bank (deliver the socially optimal policy) and what the central bank actually delivers.

Castellani (2002) uses a one-period credibility model where the fact that both government and economic agents ignore the preferences of the monetary authority determines a “democratic deficit”. Accountability, necessary to counterbalance the “democratic deficit”, is exercised through the ex post evaluation of monetary policies made by the government.

The question is then to study policymaking by an independent central bank, once it takes into account the fact that its decisions are going to be scrutinized, i.e. that it has to be held accountable for what it does. The loss function of the central bank is augmented with a term that reflects both the central bank’s expectation of the evaluation by the political authority and the impact of legal accountability on the preferences of the central bank (notice that since the evaluation by the political authority enters the central bank’s loss function, accountability is clearly a limitation of central bank independence).

The following results emerge from the model: a) there exists an optimal level of legal accountability. In particular, when the variability of the central bank’s preferences is zero (full transparency), no formal accountability requirements should be imposed on the central bank since they would produce no benefits, whereas a deterministic inflation bias would remain as a result of the ex post political intervention; b) greater preferences variability increases the optimal level of formal accountability needed to counterbalance its negative effect on social welfare; however, there is also an upper bound beyond which formal accountability becomes detrimental: beneficial effects of mitigating the impact of preference shocks (reduction in the variability of inflation and output) would be insufficient to cancel out the rise in the inflation bias.

Castellani also notices that if, as it is common in the literature, greater preference transparency is defined in its strong sense as lower variability of preferences shocks, accountability is no longer needed as far as there is no such variability. However, it seems more reasonable to apply a weaker definition of preference transparency: in the presence of a preferences shock, the central bank can be transparent by truthfully revealing the shock to the public. Castellani (2002) shows that in this case full preference transparency might not remove the need for a formal accountability mechanism.

This highlights the fact that, while accountability and strong transparency are substitutes in the sense that a strongly transparent central bank is by itself accountable (it delivers the socially optimal policy), a regime of weak transparency might need to be paired with a formal mechanism to hold monetary authorities accountable.

Hughes-Hallet and Libich (2006) consider the relationship between goal independence and transparency and between goal independence and accountability but their model does not help us to shed light on the relationship between transparency and accountability since they treat them as a single object:

“With regard to achievability of accountability, the literature argues that it can be best (and perhaps only) secured through goal-transparency: e.g. Debelle (1997), Eijffinger, Hoeberichts and Schaling (2000), Eijffinger and Geraats (2002). This is because the optimal incentive contract punishment for deviating can only be put in place if policy-makers' targets are clearly specified. Therefore, we assume that accountability is an increasing function of goal-transparency” (Hughes Hallet and Libich (2006) p. 15).

The existing literature does not come to firm conclusions regarding the relationship between transparency and accountability, but it has a general presumption that more transparency helps accountability.

3.1.3 How can transparency improve accountability?

There has been considerable debate on what forms of transparency can be made stronger in order to improve accountability.

One of the most debated issues is whether publishing the minutes of board meetings is likely to improve accountability¹⁹, and if so, what forms should this publications take (e.g. *nominatim* or not).

It is widely accepted that the publication of verbatim minutes with attribution will lead participants in the Governing Council to be less candid in their views. The US experience is instructive in this sense as the minutes undergo a lengthy editing process.

It is also widely feared that the publication of the minutes could increase the political pressure exerted on national central bankers. However, it seems that this problem could be addressed by only publishing summary minutes without any attribution.

Another extensively debated issue is whether publishing the voting record of the meetings of the monetary policy-making body or not. This assumes a particular relevance for the ECB where, beside all the *pros* and *cons* of such a procedure in a monetary without political union a more primitive issue arises. In fact, little is known at present of the actual functioning of the Governing Council. For example, it is not known with certainty whether voting (even informal voting) does take place in the Governing Council votes. The only certainty is that the outcome is always presented, and strongly defended, as a unanimous decision.

The details of the decision-making procedures will become even more important as the size of the euro zone increases and rotation has to be applied. The ECB has not yet communicated how the rotation system will be "filled with life", i.e. details such as rotation frequency, time period of holding the voting right etc.

According to the Statute, the rotation system should have been introduced on January 1st 2009 as the adoption of the euro by Slovakia brought to 22 the number of Governing Council members of the ECB. However, on December 18th 2008, the Governing Council of the ECB has invoked the sixth indent of Article 10.2 and, acting by a two-thirds majority of all its members, with and without a voting right, has decided that “the start of the rotation system provided for in Article 10.2 of the ESCB Statute shall be postponed until the date on which the number of governors in the Governing Council of the ECB exceeds 18.” (art.1 ECB/2008/29).

¹⁹ Naurin (2006) argues that minutes are a form of non-subjective transparency and for that may facilitate accountability more than other forms of subjective transparency like the publication of bulletins or reports.

This decision was motivated by the fact that introducing the rotation system when the number of central bank Governors just exceeds 15 by one would have required the adoption of exceptional and complicated arrangements to avoid that the first group would have a lower voting frequency than the second²⁰.

Another debated issue is whether the ECB should reveal its interest rate projections. However, this issue makes little sense in the current environment of fast changing economic circumstances.

This summary discussion of the issues related to transparency applies mainly during normal times (i.e. a regime of financial stability). Clearly when financial distress occurs, these rules should be changed. During a period of financial crisis the decision-making model of the ECB (and any other central bank) has to change drastically, as decisions have to be made under time pressure. This often precludes the use of normal and lengthy procedures of consultation. Put differently, crisis management is quite different from normal management. The rules governing transparency of crisis management are necessarily going to be different from those applying during normal times.

The key for transparency under crisis conditions seems to be a clear communication of the reasons for the decisions taken. This should of course include a clear statement of the objective. As argued above, it does not make sense under the current conditions to motivate interest rate decisions exactly as in the past, i.e. only with reference to the need to preserve price stability. Instead, the ECB should admit that its main goal at present is mainly to restore financial stability (or at least orderly financial markets).

3.2 Accountability and independence

It is usually thought that there should be a positive relationship between accountability and independence (see for example Bini-Smaghi and Gros (2000) and Hughes-Hallet and Libich (2006)) to reduce the scope of a potential democratic deficit arising from delegation of monetary policy to an independent central bank. In this perspective, accountability has to counterbalance independence so higher independence would require higher accountability.

There is thus a general presumption in the literature that accountability and independence should be positively related. However, this does not seem to be the case in reality.

Hughes-Hallet and Libich (2006) give some evidence of a negative relationship between independence and accountability measuring the latter by final responsibility, a criterion that is included in the independence index too. Moreover, in general accountability enters economic models as a limitation of independence (mainly override mechanism)²¹.

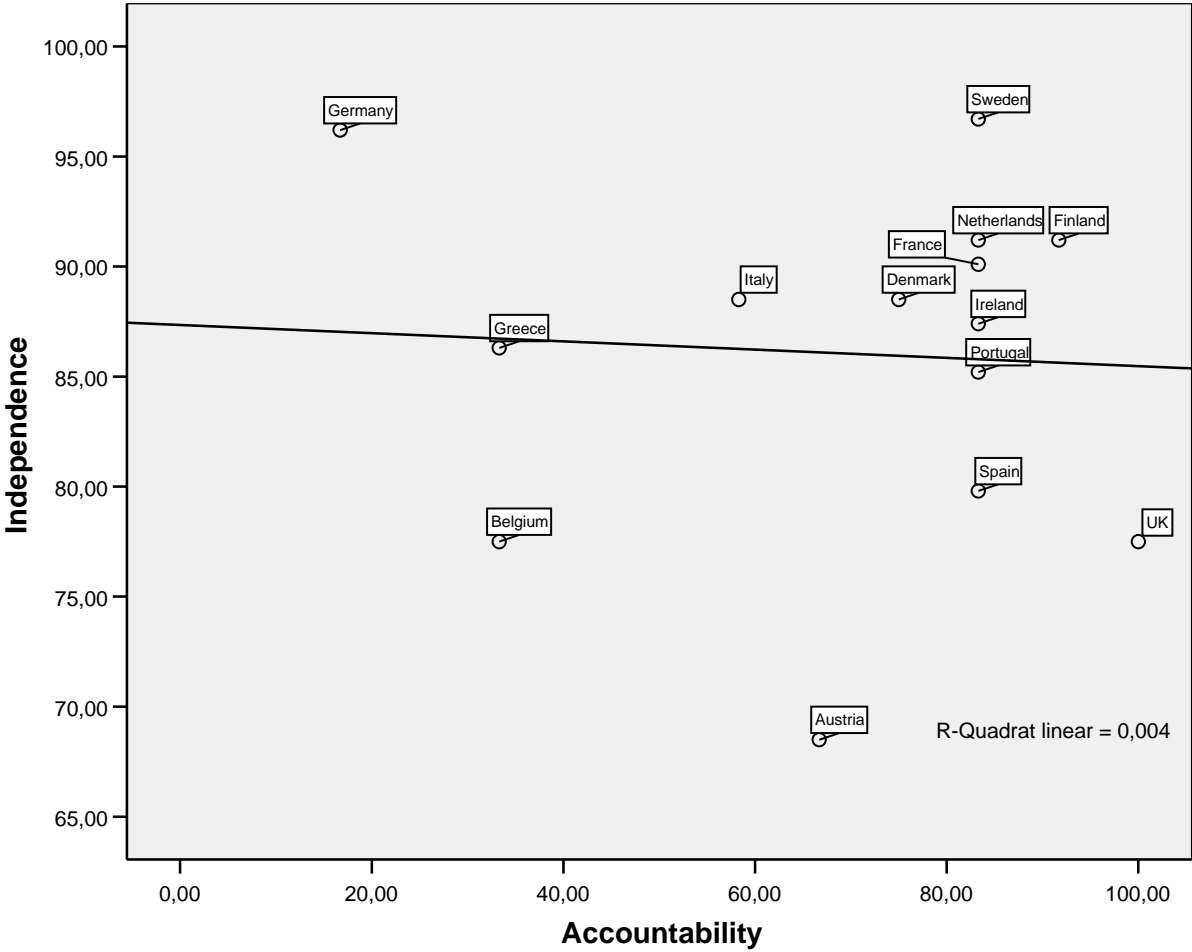
On the other hand, Fry et al. (2000) do not find a significant correlation between their indices of transparency and accountability using a sample of over 90 countries.

Using their data, Figure 3.1 below shows that this lack of relationship also holds among the EU15 (pre-EMU). As is indicated by the low value of R^2 no significant relationship between accountability and independence does exist.

²⁰ These problems were known when the rotation system was designed. Hence it is a bit surprising that the ECB now uses the argument that its own system is too complicated to be used. One explanation might be that the ECB expected enlargement of the euro zone to happen in groups (or with Poland joining earlier) or that the majority opinion in the Governing Council has shifted in the meantime.

²¹ See Eijffinger, Hoerberichts and Schaling (2000), Eijffinger and Hoerberichts (2002), Hughes-Hallet and Libich (2006), Castellani (2002), Ullrich (2007) for a survey. Another way of introducing accountability that has been analyzed in economic models is through central bank contracts (Walsh (1995)).

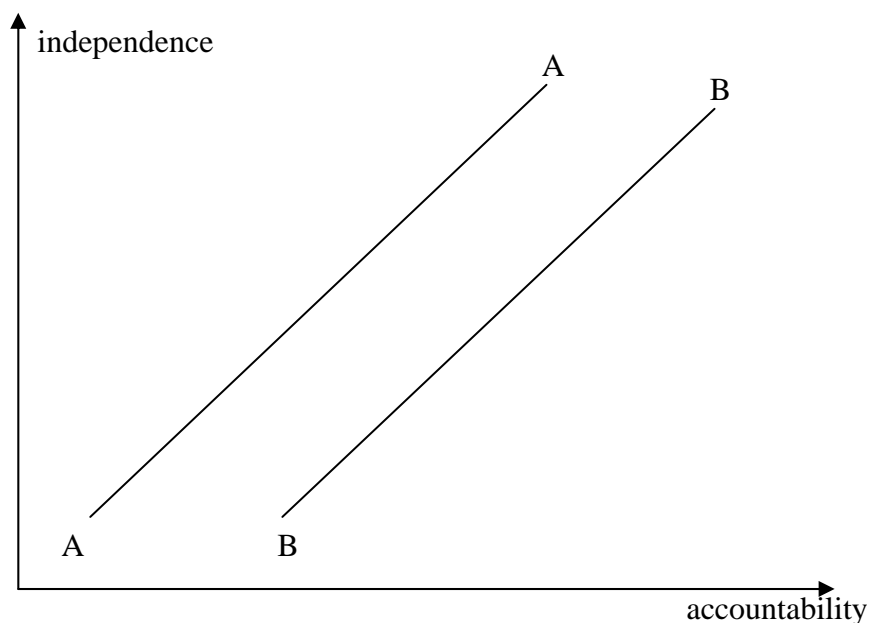
Figure 3.1: Scatter plot between accountability and independence in the EU15, pre-EMU



Source: European Values Study Group and World Values Survey Association 2004

This lack of relationship between accountability and independence across countries may be due to the fact that the relation between accountability and independence may be influenced by social and political factors. We show this graphically in Figure 3.2 which shows the link between accountability and independence under different social and political conditions. The AA-line represents the optimal relation between accountability and independence in a country with a strong social consensus about the need to maintain price stability. In such a country, say Germany, a given degree of independence granted to the central bank requires a lower level of accountability than in a country, say France, with a weaker social consensus about the need to maintain price stability. In such a country, giving a certain level of independence requires stronger procedures of accountability to create the necessary level of trust in a politically independent institution.

Figure 3.2: accountability and independence in countries with strong and weak social consensus about price stability



This framework can be used to deal in a somewhat different way with the link between accountability and independence since it does not necessarily imply a simple positive correlation between the two²². Our framework can also be recast in a somewhat different way taking into account that delegation to an independent institution is more likely the higher the level of trust in a given country. If the general attitude in the population is that ‘nobody can be trusted’ it will be more difficult to win acceptance for the idea that the central bank should be made independent, and, if the central bank is independent a higher measure of accountability will be required if there is little trust in public institutions.

These considerations suggest that there might be a link between the level of trust (or coherence) and the trade-off between independence and accountability, but not necessarily a simple link between these two latter variables. In terms of Figure 3.2 one would thus expect that in a country with a high level of trust a higher degree of independence would be accepted for any given level of accountability (country A compared to country B).

Some very preliminary results obtained by looking at the data from the EU15 countries are compatible with this view. Some simple regression results suggest that there is indeed a link between the level of trust (which we take to be related to the coherence of views in society) and independence. Figure 3.3 below shows on the horizontal axis a measure of trust in the form of an aggregated measure of interpersonal trust taken from the fourth wave of the World Value Survey (1999-2002)²³. The t value of 2.1 is significant by the usual standards²⁴.

²² We discuss in Chapter 4 how much interdependence there is between these two concepts and the numerical indicators used to measure them.

²³ As agreed upon in the various scientific fields, the interpersonal trust variable is constructed by aggregating the answer, ‘Most people can be trusted.’ to the item, ‘Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?’. The interpersonal trust measure can be used as a good proxy to capture the overall level of social cohesion within a society. One has to mention that in the fourth wave of the WVS interpersonal trust and systemic trust, here in particular confidence in the parliament, are highly correlated in an EU15 country sample. This correlation can be replicated for the EU15 when constructing an interpersonal and systemic trust index taking data from the European Social Survey.

Figure 3.3: Trust and independence (in the pre-EMU EU15)



Source: European Values Study Group and World Values Survey Association 2004

What does this imply for the ECB? There is a great variability in the level of trust among EU member countries, as well as the level of trust in EU institutions (relative to national ones). Given this heterogeneity one should thus be careful to make the argument that for Europe greater accountability should go along with greater independence.

It is interesting to note in this context that the Eurobarometer surveys suggest that trust in the European Parliament is somewhat higher (at around 50%) than in the ECB (slightly below 50%). Moreover, it appears that the onset of the financial crisis has somewhat diminished the trust in the ECB (the proportion of negative views increased from 26 to 30%).

The interesting new issue that arises now is how this approach might have to be modified when financial stability becomes the main concern. The situation in the euro zone is different from that of the US because financial market integration is incomplete in the EU (and even the euro area). Different national banking systems still conserve important differences and operate under formally the same rules (EU directives) but they are implemented in quite different ways. For the time being, all national banking systems are under stress and thus the agreement around the need to relax collateral rules and to cut interest rates to save the banking system might differ greatly from country to country. The question remains what happens when the situation improves in an uneven way. Will this leads to more disagreement about the stance of monetary policy? Will this make it more difficult to hold the ECB accountable at the level of the euro area?

²⁴ An overview of the simple and preliminary regression analysis is given in the Annex to this Chapter.

4. Role and scope of parliamentary scrutiny

The role of European Parliament in the process of holding the ECB accountable is both central and relatively weak.

It is central because in the EU the European Parliament is the only supranational institution elected by popular vote and there is no executive which directly draws its legitimacy from parliamentary representation at the European level.

It is relatively weak both in the sense that the Treaty does not provide the EP with a strong mandate and powerful instruments to accomplish its duty and in the sense that the EP does not seem to fully exploit the Treaty provisions.

Given the Treaty and the ECB Statute, the de facto accountability of the ECB is certainly increased by its willingness of facilitating the EP in exercising its role of control (transparency) but it also depends on the consciousness of the EP of its role in accountability and on its use of the available instruments.

4.1 The Monetary Dialogue

The ECB has undertaken a number of initiatives to make its policy more transparent and increased from one to four per year the number of appearances before the Committee for Economic and Monetary Affairs (ECON) of the EP, but the latter does not yet seem to fully exploit these occasions (the so-called Monetary Dialogues) to hold it accountable. Despite important improvement since 2005 (following Wyplosz (2005)) the Monetary Dialogues still look more like an exchange of views with the ECB President than an exercise of accountability.

This was the conclusion reached by Wyplosz (2005): “the Committee has not yet seriously challenged the ECB in a way that would enhance accountability”. See Wyplosz (2005), p. 1.

In his analysis of the Monetary Dialogue, Wyplosz (2005) detects five main reasons why the exercise of accountability is not fully effective: a) a lack of consensus among the members of the Committee on whether the ECB should be held accountable or not. This inevitably makes the action of the Committee weaker; b) too many members of the Committee are entitled to participate to the Monetary Dialogue, thereby making coordination more difficult; c) the members of the Committee are not economists and therefore do not have the necessary expertise to ask the President challenging questions. The Committee makes use of a panel of experts, of which Wyplosz himself is a member, but according to Wyplosz the potential contribution of the panel is not properly exploited by the Committee; d) the questions asked are very often not related to monetary policy, repetitive or too general to challenge the President and not bunched together, thus preventing a progressive deepening of the discussion and allowing the President to make general statements without having to get into details; e) the structure of the Monetary Dialogue, which gives too much time to the ECB President to present the viewpoint of the central bank and too little opportunity to the members to challenge it. In fact, the Monetary Dialogue usually lasts two hours: the President is usually given half an hour for his presentation, while in the Q&A members have one minute and a half each to ask questions and are not allowed to ask for more than one follow up question. This considerably reduces the possibility for the members to challenge the numerous assertions of the ECB President that are controversial and therefore debatable.

By looking at more recent Monetary Dialogues, it seems that although there has been some improvement, little has fundamentally changed since the analysis by Wyplosz (2005).

Suggestion e) mentioned above seems to have been adopted: the President is now given less time than usual for its introductory speech, namely ten minutes (December 2008 might have been special due to the delay of the plane from Frankfurt)²⁵.

Moreover, differently from previous years, the presentation by the President was not completely free in its content as he was asked in advance by the Committee members to cover one or two specific issues of interest²⁶. However, the President devotes just a little bit more time to the issue suggested by the Chairwoman²⁷ and, most importantly, the two issues are neglected by the members during the rest of the Monetary Dialogue. For example, during the September 2008 hearing, the two issues introduced by the Chairwoman and addressed by the President in his introductory speech were touched on only once during the rest of the Monetary Dialogue and not for challenging the President's position.

Still, as Wyplosz noticed in the past, very often the questions have little to do with monetary policy. During the September 2008 dialogue, for example, the members posed 17 questions but only 9 of them concerned past or future policy decisions of the ECB. The other questions were more like invitations to the President to explain or to express its opinion on general economic facts.

Another point raised by Wyplosz is that the members are only given a limited possibility to challenge the President. Yet, by looking at the most recent Monetary Dialogues it seems that not even the limited potential is exploited: during the September 2008 hearing, for example, only one member countered the President with a follow-up question²⁸. This happens even if, very often, the answers of the President are elusive or not complete. This lack of effective challenge is surprising in view of the fact that the ECON contains respected economists and even former central bankers.

During the last Monetary Dialogues, one of the recurrent issues on which the President of the ECB has been more elusive is financial stability. The questions on financial stability draw the President in as representative of an institution that is responsible of, or at least is supposed to play a major role in, ensuring financial stability: he is mainly asked whether the current supervisory setting is sufficient and whether he thinks the ECB will be called to bear greater responsibility on that but also how financial stability and price stability interact, whether there is a trade-off between price stability and financial stability and how the ECB deals with that. Yet, in a way or another Trichet's answer to these questions is always elusive: no position is taken on whether the ECB will (or should) take a major role on financial stability; maintaining price stability in the medium run and anchoring inflation expectations is the only objective of the ECB and all the rest, including (sustainable growth and) financial stability, goes with it.

²⁵ The Monetary Dialogue of December 2008, however, lasted only one hour instead of the usual two.

²⁶ The panel of experts helps the Committee preparing briefing notes on these specific issues, to be used by the members during the Monetary Dialogue. See for example <http://www.europarl.europa.eu/activities/committees/editoDisplay.do?language=EN&menuId=2037&id=1&body=ECON>.

²⁷ "Chairwoman: [...] I know that you are keen to take advantage of this exchange with representatives of Parliament to send out a more general message. However, we of course also expect an answer from you to these two questions that we have prepared". See Committee on Economic and Monetary Affairs (2008), p. 1.

²⁸ However, during the same hearing the President has been interrupted by the Chairwoman while speaking about the Lamfalussy framework: "Chairwoman: Please allow me to interrupt you there because you said this a year ago" (See Committee on Economic and Monetary Affairs (2008), p. 12). Nonetheless, when he restarted to talk after the interruption, he elusively addressed the point raised by the Chairwoman and kept on answering the question he was originally asked by one of the members of the Committee.

Financial stability is also the issue most frequently raised by the members of the Committee in their written submissions to the ECB President during the last year: five out of seven²⁹. Some of the questions are posed in a more challenging way than during the Monetary Dialogues. Among the most interesting questions on financial stability there is one on the potential inflationary effects of the ECB's liquidity operations in December 2007. Trichet once again explained that the ECB has set its key interest rates at the level that best assures the fulfillment of the objective of the ECB – price stability – and that, due to the acute instability of liquidity demand of the banking system, the ECB supplied liquidity but without increasing the amount of liquidity supplied over a full reserve maintenance period.

Wyplosz (2005) also observes that there seems to be some disagreement among the members of the Committee on whether the ECB should or not be held accountable; which of course diminishes the value of the entire exercise.³⁰

4.1.1 A comparison with the US

The institutional relationship between the Federal Reserve system and the Congress is different from that between the ECB and the European Parliament. One reason is of course, that Congress could change the law determining the structure and the powers of the Federal Reserve (by simple majority). Another reason is the difference in the appointment procedures.

But the differences also reflect the fact that the two central banks operate in two different contexts with different mandates. In particular, while the ECB is highly independent and has price stability as its sole primary objective, the US Federal Reserve (FED) has a much broader objective and it knows that the context for its monetary policy decisions is determined by Congress in terms of fiscal policy, banking supervision and many other variables.

As a consequence, on the occasion of his hearings before the Congress, the President of the FED is called to cover a much broader set of economic issues than those strictly related to monetary policy. On the occasion of the presentation of the first monetary report of 2007 before the Senate (the most recent available among those before the Senate³¹), for example, many members raised questions concerning inflationary pressures, economic growth and the subprime mortgages market but also concerning the issue of income inequality in the US, education policy, on healthcare and their impact on long-run sustainability of growth.

It is interesting to note that the attendance records of the Congress members on the occasion of FED hearings are much higher than those of the European Parliament members on the occasion of the ECB hearings. In fact, Tables 4.1 and 4.2 with the attendance record of the relevant committees show important differences. In the US almost all of the 20 senators of the relevant committee are present when the Chairman of the Federal Reserve testifies. The House Committee on Financial Services is much larger (70 members), but even in this case attendance is usually above two thirds (the average since 2001 is very close to 70%). By contrast, only a little more than one half (about 25 MEPs) of the members of the Economic and Monetary Affairs Committee appear on average for the hearings of the President of the ECB (and only 20% of the alternate members).

²⁹ The members of the Committee also have the possibility of asking written questions to the President of the ECB (under Rule 111 of the Rules of Procedure²⁹). Those formulated during the last year and the corresponding answers are available on the EP webpage (see <http://www.europarl.europa.eu/activities/committees/publicationsCom.do?language=EN&body=ECON>).

³⁰ The Monetary Dialogue of September 2008 contains the following passage: “Benoît Hamon: [...] You are not obliged to answer this question as you are independent and therefore not accountable either to me or to the European citizens” (See Committee on Economic and Monetary Affairs (2008), p. 10). It seems that this was meant to be sarcastic, but this is not obvious from the transcript.

³¹ See <http://frwebgate1.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=048984317885+0+1+0&WAISaction=retrieve>.

Table 4.1: Attendance record for the European Parliament

ECB before the Economic and Monetary Affairs Committee of the European Parliament (members: 51, substitutes: 49)				
	Period	Attendance (percent values)		
		Members	Substitutes	Total
Duisenberg	December 2001	49.0	8.2	29.0
	January 2002	58.8	26.5	43.0
	December 2002	60.8	12.2	37.0
	February 2003	21.6	16.3	19.0
	June 2003	41.2	4.1	23.0
	September 2003	47.1	22.4	35.0
Trichet	September 2004	62.7	38.8	51.0
	November 2004	68.6	36.7	53.0
	March 2005	23.5	10.2	17.0
	May 2005	47.1	12.2	30.0
	June 2006	58.8	16.3	38.0
	October 2006	70.6	24.5	48.0
	June 2007	49.0	10.2	30.0
	October 2007	72.5	18.4	46.0
	March 2008	66.7	32.7	50.0
	September 2008	52.9	18.4	36.0

Source: EP website

Table 4.2: Attendance record in the US

Federal Reserve Chairman in front of the Congress			
		Attendance (percent values)	
		House Committee on Financial Services (70 members)	Senate Committee on Banking, Housing and Urban Affairs (21 members)
Greenspan	February 2001	85.7	Na
	July 2001	62.9	Na
	February 2002	Na	Na
	July 2002	Na	Na
	February 2003	75.7	100.0
	July 2003	78.6	Na
	February 2004	74.3	100.0
	July 2004	60.0	Na
	February 2005	91.4	95.2
	July 2005	62.9	95.2
Bernanke	February 2006	62.9	95.2
	July 2006	57.1	95.2
	February 2007	71.4	100.0
	July 2007	55.7	Na
	February 2008	68.6	Na
	July 2008	70.0	Na

Source: <http://www.gpoaccess.gov/congress/index.html#committees>

It is clear that the causality attendance vs. importance runs both ways. There might thus be self reinforcing tendencies: a higher importance would lead to higher attendance, which in turn would increase the importance of the Monetary Dialogue for everybody. It is not clear how the present bad equilibrium of low attendance and low importance might be overcome.

The ECB appears before the Parliament at least four times a year but it is legally required to do so only once a year, while the FED twice a year³² though it is less independent than the ECB in setting monetary policy.

The hearing before the two branches of the Congress have roughly the same structure: an introductory statement by the Chairman and by selected members of the Committee with the aim of raising the most important points on which the attention of the President should turn during the debate. This introductory part is followed by the President's presentation of the monetary report, called 'testimony' or 'witness' to underline the accountability purpose of the hearing, and then by a Q&A session.

The main differences with the Monetary Dialogue regard the following characteristics:

- the power given to the President of the central bank to shape the debate, i.e. of choosing whether and how much to talk about one issue or the other: much higher for the ECB than for the Congress;
- the time given to the members to ask questions: 7 minutes each for the Congress members, 1 minute and a half each for the Parliament members;
- the possibility of follow-up to the President's answers: very limited for the members of the Parliament, much wider, and fully exploited, for the members of the Congress.

4.2 Beyond the Monetary Dialogue. The appointment procedures

Another important element of parliamentary scrutiny concerns the appointment procedures of the ECB President.

Although in the US the President proposes, it is Congress that disposes. In the euro zone, this is not the case, especially in the appointment procedure of the President and the members of the Executive Board of the ECB. A case can be made for strengthening the role of the European Parliament in the appointment procedure since the EP is the forum for the expression of EU-wide interests. There is no reason for privileging the Council in the appointment procedure given that the Council is in the first instance the forum for the expression of national interests.

However, perhaps even more important than the appointment procedures (and their practice) of the 6 members of the Executive Board, are the procedures leading to the appointment of the governors and presidents of national central banks, which constitute a large majority in the Governing Council. At present it seems that in most euro area member countries the presidents of national central banks are appointed in a purely national logic, often following party political considerations. The residual role of central banks in the economies of members of the euro area varies greatly from country to country. For example, only in some countries are central banks involved in banking supervision. Governors of national central banks are thus often not chosen for their expertise in monetary policy matters, but on the basis of a host of other, mostly purely national, considerations.

³² Usually, in the US the hearings take place in February and July, first before the Senate (Committee on Banking, Housing and Urban Affairs) and then before the House of Representatives (Committee on Financial Services).

A simple way to improve the nomination process of the members of the Governing Council of the ECB is to require that national central bank governors, which after all perform an office of the Union when they serve on the Governing Council of the ECB, should also be confirmed by the European Parliament.

4.3 Recommendations for improving the Monetary Dialogue

To the extent possible the Monetary Dialogue should become more interactive. It might be useful to create a somewhat smaller sub-committee for this occasion to ensure a fuller presence and there should be more agreement among the MEPs on the key issues they want to discuss.

It would be useful to allow the members of the Committee more than one follow-up question whenever they feel the answer of the President is not complete or not sufficiently clear.

As envisaged by Wyplosz (2005) a more efficient and focused use of the panel of experts could improve the effectiveness of the Monetary Dialogue helping the members to identifying the most relevant issues to discuss in relation to the central bank's policy. The panel of experts should work with the sub-committee mentioned above, rather than the full committee many of whose members cannot be expected to be interested in the necessarily more technical issues raised by the experts.

The EP should consider holding also special sessions (possible only with a delegation of the Committee) with the President of the ECB at particularly critical times of crises.

Of course, it always 'takes two to tango'. Improvements of the Monetary Dialogue by the European Parliament will have only a limited impact as long as the ECB is not willing to participate in a more open dialogue.

5. Conclusions

The financial crisis is changing the nature of the debate about accountability and transparency of the ECB. While in an environment of financial stability the accountability of the central bank could be defined in a relatively straightforward manner, this is made much more difficult in the present environment of financial turmoil. The fundamental reason why this has become more difficult is that the financial crisis is changing the responsibilities of the central bank. We argued that the objectives of the ECB should be redefined in a fundamental way. This will have the effect of changing the nature of the accountability of the ECB.

So far the overriding objective of the ECB has been price stability. We argue that trade-offs between price stability and financial stability occur and in fact were quite important during the last decade. Thus, while the ECB scrupulously and successfully pursued its objective of price stability, it failed to act to contain the explosion of bank credit within the euro area. This excessive expansion of bank credit coincided with bubbles in the asset markets and exposed the banking system to unsustainable risks. The ECB did very little to counter these developments, focused as it was on price stability.

This episode teaches us that the lexicographic ordering of the objectives of the central bank should not be maintained and that financial stability should be upgraded as an objective at par with price stability. This implies that there could be occasions on which the ECB sets aside its inflation target so as to maintain financial stability. These occasions should of course be rare, essentially when financial instability threatens a systemic collapse. The Treaty would be no obstacle to doing this as it also has a list of other issues the ECB should take into account.

In order for the ECB to be able to achieve both financial stability and price stability it should be given additional instruments. We argue that this can be done. First, the ECB could use the legal reserve requirements as an instrument aiming at keeping bank credit under control, raising them during a boom in bank credit and lowering them during a bust. Second the ECB should be given the authority to apply macroprudential control of the banking system. Changes in loan/value ratios and of leverage ratios could also be used to control total bank credit. As a result, the ECB would have a set of instruments allowing it to control bank credit, while at the same time using the interest rate as its privileged instrument to control inflation. This separation between the instruments aimed at maintaining financial stability and the interest rate which is geared to keeping inflation low makes it possible to minimize the potential for conflict between financial and price stability.

The enlargement of the responsibilities of the ECB to include financial stability implies that the accountability of the ECB should also be enlarged. And this can be done provided the financial stability objective can be made sufficiently precise. We argued that this can be achieved by focusing on bank credit as the central indicator of financial stability.

Special problems of accountability arise during periods of crisis. Rules governing accountability will have to be adjusted to make crisis management effective. In addition, special problems might arise with the balance sheet of the ECB when the ECB becomes involved in bank rescue operations.

We do not recommend full publication of the minutes of meetings of the ECB's Governing Council. We argue that a useful intermediate step would be to publish summary minutes containing, without attribution, the key arguments made during the meeting.

Governors/presidents of national central banks in the euro area serve as officials of an institution of the Union when they participate in meetings of the ECB's Governing Council. This should be reflected in their nomination procedure. The ultimate competence to nominate governors of national central banks belongs of course to Member States (and has to remain there). However, it would be useful to add an EU element to this, for example by requiring that the person in question appear before the relevant Committee of the EP before taking up his/her function.

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ANNEX to CHAPTER 1

A1.1 Three key contributions on financial stability from the literature

Ferguson (2002)

Ferguson (2002) observes that “financial stability has been and always will be a fundamental objective of central banks.”

The definition of financial stability is through its contrary: financial instability. Financial instability is a situation in which: “a) some important set of financial asset prices seem to have diverged sharply from fundamentals; and/or b) market functioning and credit availability, domestically and perhaps internationally, have been significantly distorted; with the result that c) aggregate spending deviates (or is likely to deviate) significantly from the economy’s ability to produce”.

Notice that this definition should not be applied only to the acute phase of a bust, but also during the apparently positive period of the bubble when asset prices are increasing, growth is strong and inflation low.

In general central banks have an interest in fostering financial stability but usually they focus on the bust phase because financial instability is then a danger for macroeconomic stability and hinders the implementation and smooth transmission of monetary policy itself.

Central banks like to argue that they naturally contribute to financial stability ensuring low inflation and stable growth and the smooth functioning of the payment system.

“...Financial stability to some degree is already an important objective for central banks around the world, even for those that are sometimes viewed as solely concerned with price stability. The real question then is [...] how policy-makers should weigh that objective in reaching policy decisions”.

Two examples from the literature can illustrate the two extremes of how central banks can deal with financial stability:

- Svensson (2002): central bank is focused on an objective such as price stability with financial stability concerns only entering in an extreme scenario when a crisis is underway;
- Borio and Lowe (2002): central bank takes pre-emptive policy actions to address potential instabilities even when such steps might not be warranted solely by reference to the near-term outlook for price stability and economic activity.

In general, three basic issues arise in contemplating the degree of activism that central banks should adopt in pursuing a financial stability objective: a) interactions with other objectives; b) how a financial stability objective is perceived by the public and by investors; c) too much activism may end up in higher volatility of economic variables.

As far as the first point, which we deal with more extensively in Chapter 1, is concerned:

In some cases financial stability represents an auxiliary objective with respect to macroeconomic ones and there is no conflict: a sudden seizing-up in financial markets is likely to be associated with a weakening in aggregate demand. In this case, the pursuit of monetary policy objectives and a financial stability objective would be largely in accord and both would be served by additional monetary policy stimulus.

However, there might be situations in which financial stability conflicts with other central bank objectives: a central bank may be concerned about the fact that financial market reactions to a tightening of the monetary policy stance may reveal financial vulnerabilities in some sectors; conflicts may emerge also in case of a monetary easing if it could provoke an asset prices bubble. In both these cases, giving a too high weight to the financial stability objective may prevent the central bank from securing price stability and stable growth.

Another important issue discussed by Ferguson (2002) is how to incorporate financial stability in the central bank's decision-making framework. The FED, for example, prefers to focus on its broad macro policy objectives, which encompasses financial stability, but in reality it has exclusively focused on the bust phase as successive FED presidents have argued that it is not possible to recognize booms *ex ante* and that all one can do is 'to clean up after'.

Hence the FED has tended to push rates lower and keep them there longer than could be justified solely by the forecasts for output and inflation (as exemplified e.g. by a standard Taylor rule). In times of extreme uncertainty policy might depend also on the probability attached to the realization of some extreme scenario and on the estimate of potential costs in terms of output and inflation volatility attached to it.

Borio and Lowe (2002)

Though identifying financial imbalances *ex ante* can be difficult, Borio and Lowe (2002) present empirical evidence showing that it is not impossible. In particular, sustained rapid credit growth combined with large increases in asset prices appears to increase the probability of an episode of financial instability (see above Borio (2003)). Their paper also argues that while low and stable inflation promotes financial stability, it also increases the likelihood that excess demand pressures show up first in credit aggregates and asset prices, rather than in goods and services prices. Accordingly, in some situations, a monetary response to credit and asset markets may be appropriate to preserve both financial and monetary stability.

Borio (2004)

Borio (2004) addresses the issue of what is the relationship between monetary and financial stability, being the policy question how to achieve the two simultaneously.

"...changes in the financial and monetary regimes worldwide have been subtly altering the dynamics of the economy. On the one hand, financial liberalization may have made it more likely that financial factors in general, and booms and busts in credit and asset prices in particular, act as drivers of economic fluctuations. On the other hand, the establishment of a regime yielding low and stable inflation, underpinned by central bank credibility, may have made it less likely that signs of unsustainable expansion show up first in rising inflation and more likely that they emerge first as excessive increases in credit and asset prices. The bottom line is that the current environment may be more vulnerable to the occasional build-up of financial imbalances, by which I mean overextensions in (private sector) balance sheets that herald economic weakness and disinflation down the road, as they unwind. This unwinding can in turn raise the risk of financial strains and possibly broader financial instability. [...] The main policy implication of this analysis is the need for closer co-operation between prudential and monetary authorities. For prudential authorities, the task would be to strengthen the macroprudential orientation of current arrangements [...] recognising explicitly in the calibration of their policy instruments the endogenous interaction between the financial system and real economy. [...] For monetary authorities, the task would be to lengthen the policy horizon beyond the one-to-two years typical of some inflation targeting regimes while at the same time paying more attention to the balance of risks.

These modifications would set the technical basis for using monetary policy as a kind of insurance device, leaning against the financial imbalances as they build up even if near-term inflationary pressures remain benign. Through these mutually reinforcing policies, the two sets of authorities could limit the unwelcome consequences of the subsequent unwinding of the imbalances on financial stability, output and inflation, with each authority still focusing on its main objective. This could contribute to the achievement of monetary and financial stability on a lasting basis.” p. 6.

A1.2 The position of the ECB on financial stability in the past and during the current financial crisis:

1) Stark (2008)

“The mandate of the ECB is to maintain price stability over the medium term. This mandate must be adhered to both in normal times and in times of crisis. The monetary policy stance appropriate to fulfil our mandate depends exclusively on our assessment of the balance of risks to price stability, and nothing else. There is absolutely no reason to deviate from this approach during times of crisis. This being said, the ECB, in cooperation with other central banks, has shown remarkable flexibility in terms of liquidity provision. This flexibility was necessary in order to avoid the breakdown of the interbank market, which is a very important transmission channel for monetary policy. Let me finally mention that our recent interest rate cuts were fully in line with our monetary policy strategy. With the intensification and broadening of the financial crisis it became increasingly clear that the upside risks to price stability were diminishing when the downside risks to economic growth in the euro area and elsewhere were materialising. This created room for cuts in interest rates, based on and fully in line with our monetary policy strategy.[...] There is no trade-off between price stability and financial stability”

2) Bini-Smaghi (2008)

“Some literature has recently been published that considers a potential trade-off between price stability and financial stability. [...] monetary policy can itself produce negative effects on financial stability. [...] Given these considerations, how can central bankers best conduct monetary policy in a period of financial turmoil? I believe that the available literature and recent experience suggest three main principles and seven recommendations [...]. The three principles are as follows: First: effectiveness. Monetary policy should aim to achieve what it can do most effectively with its main tool, the interest rate, and avoid taking on tasks that can be better performed by others. Second: consistency. In addressing any problem, [...] the central bank has to take into account the future consequences of its actions, particularly with regard to agents’ incentives. Third: predictability. In a period of high uncertainty, monetary policy should avoid creating additional uncertainty and contribute to restoring confidence. The implementation of these three principles affects [...] the way the central bank [...] communicates with financial markets and the public at large. In this respect the following recommendations can be made: First, since the central bank has only one instrument [...], it should have one priority, which is price stability. Having one objective avoids confusion about multiple – shifting – targets, helps anchor expectations and makes accountability easier. [...] Second, the central bank should not target asset prices but should take asset prices into account in forecasting inflation [...]. In the ECB’s strategy, these indicators are an integral part of the monetary pillar, which complements the economic pillar used to forecast inflation. [...] Third, the central bank should conduct its monetary policy with a medium-term horizon. [...] Fourth, the central bank should have a high degree of independence to achieve its primary objective.

[...] Fifth, whenever problems concerning financial stability emerge, the central bank should explicitly identify the limits and confines of its responsibilities. The biggest risk for a central bank in case of turmoil is that it is pressed to take over responsibilities that are typically not its own, particularly to address solvency problems. The central bank should instead be responsible for ensuring an adequate functioning of the money market and for stabilising its key operational target. [...] Sixth, the central bank should [...] be put in the best conditions in order to conduct effectively operations that aim to foster liquidity in the money market. This requires, in particular, the central bank to have access to any necessary information concerning the liquidity and solvency problems of the markets and individual institutions. [...] Seventh, in addressing problems of financial stability, the central bank should use instruments that are clearly distinguished from the instrument used for monetary policy.”

3) *Cecchetti and Schoenholtz (2008)*

Cecchetti and Schoenholtz (2008) propose a reading of the history of the first decade of ECB policy and a discussion of key challenges for the next decade based on extensive interviews with current and former ECB leaders and with other policy-makers and scholars who viewed the evolution of the ECB from privileged vantage points.

Their interviews make emerge that one of the two main challenges of ECB policy for the next decade, together with enlargement, is safeguarding financial stability.

Questions on financial stability posed to the interviewees:

- (a) Does the euro area face any unusual challenges in promoting financial stability?
- (b) Does the lack of direct responsibility for regulatory and supervisory matters create any obstacles for the ECB in pursuing its financial stability objective?
- (c) What is the biggest challenge for policy coordination in a crisis? What legal, regulatory or behavioural obstacles remain for effective coordination?

On this issue they report the opinions of Jaime Caruana, Christian Noyer, Axel Weber and Jean-Claude Trichet and discuss issues related to regulation and supervision of financial markets in the euro area and the role of the ECB in safeguarding financial stability (liquidity/solvency crises).

4) *ECB (2008)*

“Contributing to financial stability is one of the core responsibilities of the Eurosystem for several reasons: (a) given their role as issuers of money, central banks need to monitor the quality of the financial institutions that are their monetary policy counterparties; (b) a stable financial system is needed for the effective transmission of monetary policy; (c) furthermore, central banks act as ultimate providers of a safe medium for the settlement of financial transactions and of liquidity in the financial system; (d) finally, financial stability also supports economic performance. Over the last ten years the Eurosystem has made an important contribution to safeguarding financial stability in the euro area by pursuing its primary objective of maintaining price stability. [...]” p.117

ECB’s definition of financial stability: “...financial stability is a condition in which the financial system – comprising financial intermediaries, markets and market infrastructures – is capable of withstanding shocks and the unravelling of financial imbalances.” p.117

“Achieving and maintaining financial stability is first and foremost the responsibility of market participants...” (p.117). However, since they may not properly take into account systemic risk, a public framework to prevent and manage potential financial crises is in place.

One of the most important contributions of the Eurosystem in safeguarding financial stability pertains the area of monitoring and assessment:

“... safeguarding financial stability has an important forward-looking dimension: potential sources of financial risks [...] should be identified [...] before they lead to unsustainable and potentially damaging imbalances within the financial system.” (p.121)

Monitoring and assessment activities of the Eurosystem have three pillars: (i) the semiannual Financial Stability Review (FSR) that, also relying on input from the Banking Supervision Committee (BSC), provides an overview of sources of risk and vulnerabilities that could potentially affect financial stability; (ii) macroprudential and structural analyses of the EU banking system. The results of the macroprudential analysis are contained in the annual EU Banking Sector Stability Report while those of the structural analysis in the annual EU Banking Structures Report; (iii) contribution to the work of other European and non European institutions and bodies that monitor financial stability.

The Eurosystem’s framework for monitoring and assessing financial stability requires further improvements. An important challenge in this regard is the development of enhanced quantitative approaches to identifying financial stability risks and to assessing the potential impact of the materialization of these risks. In this context significant progress has been made in recent years, introducing in the FSR: methods for quantifying the exposure of large and complex banking groups to corporate sector credit risk, various indicators of other risks faced by banks, hedge funds and insurance companies, indicators of financial market activities that aim to depict potential financial imbalances, macro stress-tests (very important and particular attention must be given to the cross-border dimension of stress-testing).

ANNEX to CHAPTER 2

This Annex provides an updated and detailed quantification of alternative measures of accountability proposed in the literature based on central banks' (CB) laws³³ and websites.

A2.1 Measures of accountability in the literature. Detailed quantification

Table A2.1 Briault et al. (1996)'s measure of accountability

		ECB	FED	BoE	BoJ
1	Monitoring by the Parliament	1	1	1	1
2	Publication of the minutes of the decision-making bodies' meetings	0	1	1	1
3	Publication of monetary or inflation reports	0	0	1	0
4	Existence of some kind of override mechanism	0	1	1	1
Total on accountability		1	3	4	3

Table A2.2 De Haan et al. (1999)'s measure of accountability

		ECB ³⁴	FED	BoE	BoJ
<i>Monetary policy objective(s)</i>					
1	CB objective defined by CB law	1	1	1	1
2	Clear prioritization	1	0	1	0
3	Clear definition *	0	0	1	0
4	Quantification by CB law (or based on documents based on law) *	0	0	1	0
Total on Monetary policy objective(s)		2	1	4	1
<i>Transparency of monetary policy</i>					
5	Must publish inflation or monetary reports in addition to standard CB bulletins/reports *	0	1	1	0
6	Are the minutes of the monetary policy meetings published within a reasonable time after the meeting	0	1	1	0
7	Must explain publicly to which extent it has reached its objective(s) ³⁵	1	1	1	1
Total on Transparency of monetary policy		1	3	3	1

³³ ECB: The Treaty and the Statute, FED: Federal Reserve Act, BoJ: Bank of Japan Act. BoE: The Charter Of The Corporation Of The Governor And Company Of The Bank Of England (1998) and the 1886 Act. The English translation of the Bank of Japan Act is that available on the Bank of Japan website. It has been prepared (up to the revisions of Act No. 102 of 2007 (Effective December 1, 2008)) in compliance with the Standard Bilingual Dictionary March 2007 edition. This is an unofficial translation. Only the original Japanese texts of laws and regulations have legal effect, and translations are to be used solely as reference material to aid in the understanding of Japanese laws and regulations.

³⁴ De Haan et al. (1999) report a double score of some criteria for the ECB to take account of its spontaneous efforts to improve its accountability, one score reflects the law, the other reflects the actual CB behaviour. I report the former. An asterisk in correspondence of a criterion will indicate that a score of 1 would be assigned according to the actual ECB behaviour.

³⁵ The index gives the same score to all the CBs but the Bank of England should have a higher one since it is the only one that must give written and detailed motivations in case of failure to meet the objective set by HM Treasury.

<i>Final responsibility of monetary policy</i>					
8	Monitoring by the Parliament (besides annual report)	1	1	1	1
9	Has the government right to give instructions?	0	0	1	1
10	Is there some kind of procedure for the implementation of an override mechanism?	0	1	1	1
11	Has the CB possibility of an appeal in case of an instruction?	0	0	0	0
12	Can the CB law be changed by a simple majority in the Parliament?	0	1	1	1
13	Is past performance a ground for the dismissal of a CB governor?	0	0	0	0
Total on <i>Final responsibility of monetary policy</i>		1	3	4	4
Total on accountability		4	7	11	6

Table A2.3 Bini-Smaghi and Gros (2000)'s measure of accountability

		ECB	FED	BoE	BoJ
<i>Ex ante accountability</i>					
1	Clear definition of the objective of price stability ³⁶	1	0	1	0
2	Announcement of the operational target	1	1	1	1
3	Announcement of the intermediate target	0	0	1	0
4	Announcement of indicators for assessing monetary policy	1	1	0	0
5	Explanation of how monetary policy targets affect other policies and objectives ³⁷	0.5	0.5	0.5	0.5
Total on <i>Ex ante accountability</i>		3.5	2.5	3.5	1.5
<i>Ex post accountability</i>					
6	Publication of data on intermediate target (or explanation of possible deviation)	0	1	1	0
7	Publication of inflation forecast and deviation from target	0	1	1	0
8	Explanation of main policy measures (or absence thereof) and underlying reasons	1	1	1	1
9	Explanation of how these measures affect other policies	0	0	0	0
Total on <i>Ex post accountability</i>		1	3	3	1
<i>Procedures of accountability</i>					
10	Regular public reports covering issues 1-8 above	1	1	1	1
11	Hearings in Parliament with Q&A	1	1	1	1
12	Participation of government representative at meetings of the decision-making bodies (as observers)	1	0	1	1
13	Publication of summary minutes	0	1	1	1
14	Publication of detailed minutes	0	1	0	0
15	Publication of the votes of the members of the decision-making bodies	0	1	1	1
Total on <i>Procedures of accountability</i>		3	5	5	4.5
Total on Accountability		7.5	10.5	11.5	7

³⁶ According to this criterion, the BoE and the ECB have the same score even if they show substantial differences on this point. In fact, while the precise objective of price stability of the Bank of England is set by the Treasury each year, the European Central Bank has self-defined the quantification of its price stability objective. This makes a difference in terms of accountability, in the sense that since the European Central Bank can change its objective on its own it cannot be held accountable *ex ante* for that, while the Bank of England can, since it is given an objective by a third party before which it has to be accountable.

³⁷ 0.5 assigned instead of 1 because the explanation is only implicit (source: Bini-Smaghi and Gros (2000)).

Table A2.4 Bini-Smaghi and Gros (2001)'s measure of accountability

		ECB	FED	BoE	BoJ
<i>Monetary policy objective(s)</i>					
1	Definition of the ultimate objective	2	1	2	2
2	Quantification of the objective	1	0	2	0
Total on Monetary policy objective(s)		3	1	4	2
<i>Monetary policy strategy</i>					
3	Announcement of the strategy (operational target) ³⁸	2 (1)	2 (0)	2	2 (0)
4	Announcement of the intermediate target	0	0	2	0
5	Announcement of indicators	2	1	0	0
Total on Monetary policy strategy		4	3 (1)	4	2 (0)
<i>Publication of data/model/forecasts</i>					
6	Macro model used	1	2	2	0
7	Data on intermediate targets	2	1	2	0
8	Inflation forecasts	1	2	2	0
Total on Publication of data/model/forecasts		4	5	6	0
<i>Communication strategy</i>					
9	Parliamentary hearings	2	2	2	2
10	Frequency of reports	2	0 (2) ³⁹	1	2
11	Press conferences	2	0	2	2
12	Publication of press releases	2	2	2 (1) ⁴⁰	0 (2) ⁴¹
13	Statement on future moves	1	1	0	0
14	Publication of minutes	0	2	2	0 (2) ⁴²
15	Publication of individual votes	0	2	2	2
Total on Communication strategy		9	9 (11)	11 (10)	8 (12)
Total on accountability		20 (19)	18 (18)⁴³	25 (24)	12 (14)

³⁸ In parenthesis the score assigned in Bini-Smaghi and Gros (2001): it is in contrast with Bini-Smaghi and Gros (2000) given that no change intervened in the meanwhile. The right score is 2 for all the CBs.

³⁹ In parenthesis the score reported in Bini-Smaghi and Gros (2001) corresponding to monthly reports. However, the only monthly report published by the FED is the Beige Book (website) but it has little to do with monetary policy. Reports related to monetary policy are those prepared for the appearance before the Congress, twice a year. A score equal to 0 is thus assigned.

⁴⁰ In parenthesis the score as reported in Bini-Smaghi and Gros (2001). Indeed, from the website it seems that News Releases are regular, so a score equal to 2 is assigned.

⁴¹ In parenthesis the score as in Bini-Smaghi and Gros (2000). Differently, a 0 is assigned because there is no trace of press releases on the Bank of Japan website (at least in its English version).

⁴² In parenthesis the score in Bini-Smaghi and Gros (2001). We gave a lower score because the minutes of the meeting are published after the successive meeting, if approved so. So, normally, more than one month later than the decision is taken (BoJ website).

⁴³ The number in parenthesis differs from Bini-Smaghi and Gros (2001) – 16 – because there the last two criteria were given a score equal to 1 instead of 2, as would be correct according the description in their text.

Table A2.5 Hughes-Hallet and Libich (2006)'s measure of accountability

		ECB	FED	BoE	BoJ
1	Monitoring by the Parliament (besides annual report)	1	1	1	1
2	Has the government right to give instructions?	0	0	1	1
3	Is there some kind of procedure for the implementation of an override mechanism?	0	1	1	1
4	Has the CB possibility of an appeal in case of an instruction?	0	0	0	0
5	Can the CB law be changed by a simple majority in the Parliament?	0	1	1	1
6	Is past performance a ground for the dismissal of a CB governor?	0	0	0	0
Total on accountability		1	3	4	4

ANNEX to CHAPTER 3

This annex describes the simple and preliminary regression analysis which is used as a base for Figure 3.3.

A3.1 Accountability and independence

The model underlying Figure 3.3 can be described as:

$$Independence_i = \beta_0 + \beta_1 Accountability_i + \beta_2 Trust_i + u_i$$

where i represents each country; β_0 is the intercept and u_i is the error term.

The preliminary estimation results are the following:

Table A3.1: Accountability and independence – A cross-section analysis for the EU15

Dependent Variable	Independence 1999
Estimation Method	OLS, robust
<i>Accountability</i>	-0.052 (0.61)
<i>Trust</i>	0.20* (2.10)
<i>Constant</i>	82.01*** (11.91)
<i>R Squared</i>	0.19
<i>Countries</i>	14

* Significance at the 90-percent level (one-tailed test)

*** Significance at the 99-percent level (one-tailed test)

Note: Numbers in parentheses are heteroskedasticity-adjusted t-ratios. Due to data availability Luxembourg has not been included in the country sample.