THE ECB'S MONETARY POLICY AND ITS RELATION TO FISCAL POLICY

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Introduction

It is an honour for me, to be invited to this conference to discuss the ECB's monetary policy and its relation to fiscal policy. In my speech today I should like to first elaborate on the particular approach chosen by the ECB regarding some key aspects and principles underlying the conduct of monetary policy. In the second part I will present our views regarding the relation of monetary and fiscal policy.

Before, let me briefly outline the main features of the macro-economic institutional framework in the euro area. These are designed to ensure stable prices, sound public finances and welfare improving structural policies, based on a clear allocation of responsibilities and instruments to different policy makers. The Treaty establishing the European Community has assigned the ECB the mandate to maintain price stability and guarantees a high degree of independence in pursuing that mandate. In addition, the Treaty supports the credibility of stable prices by prohibiting the monetary financing of public deficits and mandating that excessive deficits are to be avoided.

[1] The views expressed in this paper are those of the authors and do not necessarily reflect those of the European Central Bank. We received very helpful contributions from Paola Donati and Massimo Rostagno, and useful comments by J. Marin and L. Schuhknecht.

Principles and elements of the ECB's monetary policy

What monetary policy should do and what it cannot do

Against this background, I would like to discuss now the main principles and elements underlying the ECB's monetary policy strategy[2] in some detail.

First, by focusing on the *objective of price stability* the ECB provides the best contribution to the overall welfare of the society. We believe that beyond this task of credibly preserving price stability, there is nothing monetary policy can do to enhance long-term employment or the potential growth rate of the economy. While this is a very important contribution, the policy task of further improving long-term growth prospects falls under the responsibility of structural and fiscal policies, which should be aimed at reducing rigidities and enhancing the flexibility of labour and goods markets, via restraining tax wedges and maintaining proper incentives to create and accept new jobs, in a context of sound public finances.

Second, given the *lags and uncertainties in the transmission mechanism*, the central bank cannot control short-term price developments. Therefore, the ECB did not promise that it can keep inflation fully in line with its objective every month or quarter. Price stability can only be maintained over the medium term.

Third, monetary policy can only focus on price stability in the *currency area as a whole*. The single monetary policy cannot address problems in specific parts of the euro area. Of course, national or regional information can be important for the appropriate conduct of monetary policy aimed at area-wide price stability. This for example can be the case, if shocks in one region contain information about future developments in other areas of the currency union.

Fourth, the ECB, conducting monetary policy for a large economy, is well aware of its *international responsibilities.* It will best contribute to fulfilling these responsibilities by pursuing its mandate of maintaining price stability in the euro area. In order to achieve this, there is certainly a need to carefully analyse international repercussions of monetary policy and how external developments affect the euro area economy.

The ECB's quantitative definition of price stability

The above considerations also underlie the clear mandate given to the ECB in the Treaty and the ECB's quantitative definition of price stability which established a range of inflation outcomes

[2] ECB Monthly Bulletin, January 1999, *The stability-oriented monetary policy strategy of the ECB,* pp. 39-50 and ECB Monthly Bulletin, November 2000, *The two pillars of the ECB's monetary policy strategy,* pp. 13-24. ECB, 2001, *The Monetary Policy of the ECB.*

deemed compatible with price stability. To anchor expectations and to offer a yardstick against which the ECB can be held accountable, the Governing Council of the ECB provided a *numerical definition of price stability* as "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%". The Governing Council also emphasised that price stability has to be maintained over the *medium term*. The ECB's definition of price stability is not formulated in terms of a point inflation rate, nor does it specify an explicit lower bound, but it refers to "increases" in the HICP, implying that deflation is clearly not consistent with price stability. The ECB aims to *avoid both inflation and deflation.* The range honestly reflects the degree of uncertainty attached to the meaning and measurement of the concept of price stability. It allows uncertainty about the measurement bias in the HICP to be accommodated within the range. Moreover, the definition provides a safety margin in the face of economic shocks.

For decades economists have tried to answer the question what the optimal inflation rate would be. To start with, there are major methodological and practical problems in measuring developments in the purchasing power of money. In addition, there is no agreement in the profession about the so-called optimal rate of inflation.[3] In general, those who focus on distortions related to inflation tend to argue for zero inflation, while those who see major nominal downward rigidities and the risk of deflation and liquidity traps argue for somewhat higher inflation. There is awareness of the potential problems associated with hitting the zero lower bound on nominal interest rates and the attendant potential loss of effectiveness in the conduct of monetary policy under conditions of persistent price deflation. This is one important reason why there is a safety margin in the definition reflected by including small positive inflation rates, below 2%.

For the ECB it was very important to firmly anchor price expectations in a new currency area composed of twelve countries that had different monetary traditions and experiences. From the start, the definition set out by the Governing Council of the ECB has served very well the purpose of anchoring medium-term inflation expectations. This is evident from inflation expectations derived from market surveys or from the analysis of yields on long-term bonds. The stability of inflation expectations is remarkable given that the Eurosystem had to face

[3] While Milton Friedman had argued that a nominal interest rate of zero would be optimal, as this would guarantee that agents hold the optimal level of real cash balances. (Given that the production costs of cash are rather low, agents should pay a price which is close to zero. With real interest rates positive, say at 3 per cent, this would imply that a constant deflation of 3 per cent is needed to ensure a zero rate of interest). Other theories emphasise the welfare costs of any negative or positive rate of inflation, if nominal prices (in levels) are sticky. Finally, if there are particular downward rigidities this would call for a small positive inflation rate, as this would reduce the likelihood that a zero increase in nominal wages implies too high real wages in the short-term, resulting in temporarily too high unemployment. Also the zero lower bound on nominal interest rates would point in the direction of favouring a inflation rate somewhat above zero.

substantial shocks to the price level in the euro area - mainly stemming from energy and food prices, and partly from the cash changeover - over the past almost four years. The definition of price stability has thus helped to reduce inflation uncertainty, thereby lowering the risk premia included in long-term interest rates.

The role of money

Over the longer run, inflation is a monetary phenomenon. If money supply exceeds what is demanded on the basis of current prices and the trend in output, this will finally be associated with inflation. In recognition of this long-term relationship between money and prices, the ECB assigns a prominent role to money. This constitutes the first pillar of the ECB's monetary policy strategy. It implies that monetary developments are thoroughly analysed regarding their information content for policy decisions aimed at price stability. To signal the prominent role of money, the Governing Council announced a reference value for monetary growth, which also reflects the medium-term orientation of monetary policy.

Since the beginning of 1999 it was emphasised that monetary policy would not react mechanistically to deviations of M3 growth from the reference value. A thorough analysis of monetary developments should seek to separate noise in the data and transitory shocks to liquidity preferences from persistent underlying monetary trends as only these trends are relevant in influencing policy measures. Of course, money is not the only determinant of policy decisions. The second pillar ensures that information from non-monetary indicators are systematically incorporated into the analysis underlying policy decisions. Together, the two pillars ensure a comprehensive robust assessment of the economic situation, allow a focus on analysing the nature of the shocks hitting the euro area and at the same time ensure that the overall policy approach takes the medium-term trends in money and related liquidity measures into due account.

Concerning the role of money in monetary policy there are a number of differences between other central banks and the ECB. However, these are often overdone. There are no fundamental differences regarding the view that price developments in the long run are a monetary phenomenon. Other currency areas are however dissimilar regarding the empirical properties of the relationship between monetary aggregates and prices. In the case of the euro area, these

relations have been remarkably stable over the last two decades.[4] Moreover, empirical studies also found good indicator properties of M3 and credit aggregates for future price developments in the euro area.[5]

Medium-term orientation

As just mentioned, the ECB aims at pursuing price stability over the medium term. In addition the reference value signals the medium-term orientation of monetary policy. The focus on the medium term acknowledges that monetary policy cannot steer price developments in the short term. At the same time it reflects the notion that gradual policy reactions to threats to price stability can prevent unnecessary volatility being introduced into the economy. The medium-term orientation thus has two main characteristics. *First*, related to the primary objective, it makes clear that there is no fixed horizon at which monetary policy would focus in an ex ante sense or be evaluated in an ex post sense. Monetary policy needs to be evaluated over a sufficiently extended period. The ECB's policy can be considered successful if price stability, according to the definition, has prevailed for most of the time and if variability of inflation has remained low. *Second*, the medium-term orientation can also be seen as signalling the need to systematically and consistently react to new information about the state of the economy. This requires a careful analysis of the nature of shocks hitting the economy and the need for time consistency instead of discretionary re-optimisation at each new decision. In responding to developments and economic shocks, the ECB's seeks to avoid inducing unnecessary output volatility and eschews attempts to fine tuning economic developments. Measured and gradual responses can induce some degree of inertia in policy rates over time. To the extent that the private sector understands this longer term interest rates will change in anticipation of expected systematic moves of policy rates so that a "steady hand" in pursing a central bank's mandate can

[4] Three major studies of the demand for the broad monetary aggregate M3 in the euro area are published by ECB staff (Coenen, G. and J.-L.Vega, 2001; "The demand for M3 in the euro area", Journal of Applied Econometrics, Vol. 16, pp. 727-748. Brand, C. and N. Cassola, 2000; "A money demand system for euro area M3", ECB Working Paper, No. 39, Calza, A., D. Gerdesmeier, and J. Levy, 2001, "Euroa area money demand: measuring the opportunity costs appropriately", IMF Working Paper, No.01/179.). While the approaches vary in detail, all three studies find a stable long-run demand for euro area M3, i.e. a cointegrating relationship involving money, the price level, national income and some opportunity cost variables is obtained.

[5] Several studies by the staff of the ECB have investigated the leading indicator properties of monetary developments in the euro area. For example, Trecroci, C. and J.-L. Vega, 2000, "The information content of M3 for future inflation in the euro area", ECB Working Paper, No. 33 extend the Coenen / Vega money demand framework and also find that money helps predict future inflation. Broadly speaking, these results are consistent with those reported by Gerlach and Svensson (2002) for euro area M3. In the context of a P* model (Hallman, J.J., et al., 1991, "Is the price level tied to the M2 monetary aggregate in the long run?", American Economic Review, 81(4), pp. 841-858), Gerlach, S. and L. Svensson, 2002, "Money and inflation in the euro area - a case for monetary indicators", mimeo, Princeton University, show that the so-called real money gap – a measure of the monetary disequilibrium relative to a stable long-run money demand equation – helps to predict future price developments.

support the effectiveness of monetary policy. To be fully effective in this respect requires transparency and time consistency.

When assessing the ECB's policy one should be aware of this medium-term orientation. Of course, different economic structures - e.g. regarding the flexibility of labour markets - and differences in the cyclical positions may require different responses to similar economic shocks and this also has to be kept in mind when comparing monetary policy reactions across currency areas.

Forward looking conduct of monetary policy and responding to the nature and size of shocks

One important aspect of the ECB's policy approach is the need for a *forward-looking orientation*. Given the long and variable time lags from monetary policy actions to price developments, it is generally accepted that policy needs to be conducted in a forward-looking manner. This implies that a thorough understanding of the structure of the economy, the nature of shocks, and the impact of these shocks and of monetary policy on the economy and future price developments is needed. Given the current economic situation, and the assessment of the economic disturbances, the current policy rate together with the expectations about the future policy path, has to ensure that price stability is maintained in the future, i.e. over the medium and long term. As we will discuss below, forward looking policy does not imply that monetary policy should more or less mechanistically respond to forecasts numbers.

Systematic and rule based, but not rule bound policy

Against the above, the ECB’s monetary policy can be regarded as *systematic and rule-based*, but not as rule-bound. Such a rule-based policy should be understood as a procedural framework that will usually involve a definition of the central bank’s monetary policy objective. It will however not strictly predetermine ex ante the “reaction function” of the central bank, i.e. a detailed outline of the specific policy actions required to reach that objective conditional on all possible states of the world. The world is simply too complex and uncertain for such an attempt to be feasible. The procedural framework allows greater emphasis on the interpretation of economic developments, origins and type of economic disturbances affecting the central bank’s objectives: ultimately, the economic “story” underlying its monetary policy decisions.

Given the complexity of the monetary policy transmission mechanism and the uncertainty we face in this respect, the ECB has explicitly *eschewed any mechanistic monetary policy response* to a few, or even a single, indicators or forecasts. For good reasons there is a great deal of scepticism regarding the usefulness of putting a high weight on indications stemming from simple policy rules, irrespective of whether these are based on currently available data or on

explicit forecasts[6]. Such rules do not take all relevant information into account, they do not allow to distinguish between various types of shocks and do not provide a sufficient anchor for price expectations. Moreover, they suffer from the high degree of uncertainty related to estimates of the key variables entering standard policy rules or medium-term forecasts, such as the equilibrium interest rate or the output gap. Finally, as regards forecast based rules, there is the general problem that the same inflation forecast figure, say for one or two years ahead, can be associated with quite different states of the world, commanding quite different reactions on the part of the central bank. For example, inflation may be expected to rise in the future because either of a supply or a demand shock. A high short-term inflation forecast due to an expected one off rise in commodity prices stemming from a negative supply shock would normally be less of a concern for monetary policy focused at medium-term price stability than a similar future change in headline inflation expected to result from a sustained increase in aggregate demand or wages coupled with rising general inflation expectations.

Simple rules tend to give wrong guidance exactly when monetary policy faces very difficult challenges. For example, in a period of major productivity improvements, inflationary pressures and standard inflation forecasts may be rather low. In a policy framework setting interest rates in response to deviations of an inflation forecast from target, say, two years out, this may call for lower policy rates. However, such accommodative policy might become a primary source of instability as it may itself fuel already overly optimistic expectations of private agents and thus contribute to the build-up of an asset price bubble. Such a bubble may not have any significant impact on inflation forecasts for one or two years ahead, as it is difficult to identify in real time and / or may be linked with a temporary, but persistent increase in labour supply and the capital stock. It may take more than three or four years until over-investment and overly optimistic long-term expectations are recognised. However, once expectations adjust and the bubble bursts it could make it difficult for the central bank to maintain price stability. In this context, a focus on monetary aggregates may be particularly helpful, as major asset price bubbles are often associated with strong money and credit growth. Thus, while a strict inflation forecast targeting approach might have difficulties dealing with a situation of asset price inflation[7], the strategy of the ECB would provide more flexibility for responding to such an environment. This is due both to the ECB explicit focus on monetary and credit developments under the first pillar and to its medium-term orientation.

[6] See ECB Monthly Bulletin, October 2001, "*Issues related to monetary policy rules*".

[7] See Srejber, E., 2002, Inflation targeting and bubbles, Speech delivered at the Adam Smith seminar, Paris, 9 July 2002.

The aforementioned elements are reflected in our approach to the presentation of monetary policy decisions to the public. *Transparency* requires that the communication closely reflects the internal decision-making process. Adopting "too simple" a form of presentation would not honestly convey the complexity of the analysis one has to conduct underlying monetary policy decisions.

The role of forecasts/projections

While the need to be forward-looking is acknowledged by all central banks, there are some fine distinctions regarding the practical implementation of this principle. In the European debate, the ECB is sometimes asked why it did not adopt an "inflation targeting framework" like some other central banks. Let me dwell a bit longer on this issue.

One rather broad characterisation of an inflation targeting strategy is the prescription that monetary authorities should pursue a credible policy of low and stable inflation. If this broad definition were adopted, virtually all stability-oriented central banks including the ECB would be regarded as following an inflation targeting policy framework. However, in many discussions, inflation targeting is often narrowed down to a framework that promotes macroeconomic forecasts to the main, or even unique and all-encompassing, tool of the policy-making process and the external communication of policy decisions. In fact, some observers understand inflation targeting to imply a simple policy rule whereby changes in interest rates should feedback from the deviation between a conditional inflation forecast (often based on interest rates remaining unchanged at their current level) and the inflation objective at a specific time horizon.

The ECB chose not to adopt a strategy of assigning forecasts an all-encompassing role. Let me therefore explain what role forecasts and projections play in our approach. *First*, as explained above, inflation forecasts, while useful ingredients of monetary policy strategies, do not include all information on the state of the economy which is needed for monetary policy decisions. *Second*, the horizon over which policy-makers try to (re-) establish price stability should not be fixed ex ante. A fixed, e.g. two-year horizon is somewhat arbitrary, as the transmission process evolves over time with variable and uncertain lags. Monetary policy needs to be conducted such that price stability is maintained over the medium-term, given current information. In other words, monetary policy should focus on the period covering the whole transmission process, bearing in mind that this may span an uncertain and protracted period of time. Moreover, setting policy rates every month or quarter such that the inflation forecast at a certain horizon is in line with the objective or target can be shown to result in problems of time inconsistency and

transparency[8]. *Third*, inflation forecasts themselves may be subject to a number of problems. Econometric models underlying the projections, like any model of the economy, are subject to uncertainty and cannot provide a complete description of the economy. Forecasts are produced on the basis of expert assessments and a variety of econometric models using a broad range of data. It is difficult to make the way the various data, opinions and model analyses are combined transparent to users of the forecast. Inflation forecasts (especially at horizons as long as two years) are surrounded by considerable uncertainty. The simple characterisation of inflation targeting does not offer guidance to policy-makers as to the nature of this uncertainty and how to treat it. Last but not least, inflation targeting rules do not usually give an important role to monetary developments. In the euro area evidence tells us that money should be an essential piece of information for the conduct of monetary policy. It seems that proponents and practitioners of inflation targeting have come to increasingly recognise the problems associated with such simple, text-book versions of inflation targeting prescriptions and adjusted their approaches accordingly.

All in all, the ECB's approach has addressed the problems mentioned above and we believe we found a balanced response to many of them. In fact, a thorough assessment and cross-checking of the information coming from various indicators and different analytical frameworks are essential features of the ECB's strategy. This approach helps the Governing Council to take robust decisions in assessing the importance of the various indicators and identifying the nature of the threat to price stability.[9]

Eurosystem staff uses macroeconomic projections as one important analytical tool to organise a large amount of information and to create a consistent picture of possible future developments. However, the ECB does not make them the sole, or even the main, conduit for analysis. Moreover, it is deemed important, within our framework, to clearly separate the production of forecasts, as carried out under the responsibility of the staff, from the monetary policy decisions taken under the responsibility of the Governing Council. In addition to the projections produced by the staff, survey data and forecasts of other institutions are assessed.

[8] See Woodford, 2000, *Pitfalls of Forward-Looking Monetary Policy*, American Economic Review, No.90 (2), pp. 100-104.

[9] See also Duisenberg, W., 2001, "The ECB's quantitative definition of price stability and its comparison with such definitions or inflation targets applied in other large economic areas". Letter of the President of the ECB to the Chairperson of the Committee on Economic and Monetary Affairs, Mrs. Christa Randzio-Plath, 16 October 2001;

and Duisenberg, W., 2001, "The ECB's monetary policy strategy and the quantitative definition of price stability", Letter of the President of the ECB to the Chairperson of the Committee on Economic and Monetary Affairs, Mrs. Christa Randzio-Plath, 13 December 2001.

Finally, ECB staff thoroughly analyses asset prices and a broad range of financial indicators for their information content regarding the implicit forecasts of financial markets. These expectations may deviate from those which the staff would find consistent with its view of the structure of the euro area economy and their prevailing situation. As private expectations impact on consumption decisions and price developments, monetary policy may need to pay due attention to them, also and especially if they are not consistent with the internal assessment. It is thus crucial to analyse financial market expectations separately from the internal staff forecast and to understand any differences to the latter.

The Fiscal policy framework

Let me now turn to the relation between monetary and fiscal policy. The Treaty reflects the experience that fiscal rules may be needed as an additional safeguard for protecting the central bank against the risks resulting from unsound fiscal policies. This recognises the fact that, in case of a major fiscal crisis with high and increasing debt ratios, monetary policy may become increasingly difficult**.** In such a situation a central bank focussing on stable prices may have to increase the real interest rate substantially. Even though the cause of the problem lies elsewhere, the general public, due to high information costs, may not realise the primary source of the problem. This, in turn, could impact on expectations and complicate the conduct and communication of monetary policy.

Of course, this is not the only reason for sound public finances. Governments often face incentive structures which can induce a *deficit bias*, e.g. because they are driven by the short-term desire to be re-elected assuming that many voters are not well informed, or because they do not fully internalise the social costs associated with deficit spending (e.g. as future generation cannot vote on the current budget).[10] This would tend to result in trend increases of government debt including implicit liabilities from pension and health care systems. Such a deficit bias might be more severe in the context of a monetary union, if national policymakers for some reason might expect that market interest rates on their debt cannot include higher risk premia than those paid on the liabilities of other governments which are denominated in the same common currency, irrespectively of the size of debt. Therefore, individual countries may

[10] A literature overview on this topic is provided in A. Alesina and R. Perotti (1995) The Political Economy of Budget Deficits. *IMF Staff Papers* 42 (March): 1-31.

be tempted to 'exploit' a common currency on the presumption that the cost of higher debt will be borne by all fellow participants in the currency union.[11]

A number of observers however argue that the market mechanisms may be effective in preventing free-riding behaviours by national issuers. Indeed, markets have improved their ability to assess the default risk of major borrowers. This should result in higher risk premia for those authorities, which depart from a sound fiscal policy course. Nevertheless, it is very difficult for external observers to accurately assess the situation of government budgets in real time, not least due to the fact that governments are not publishing all the relevant information. Moreover, fiscal sustainability depends to a large degree on the behaviour of future governments, which is extremely difficult to anticipate with any precision. Thus, it is unlikely that the market, via default risk premia alone, can exert a sufficient discipline on fiscal authorities.

The above considerations provide the foundation of the fiscal framework of the Treaty and the Stability and Growth Pact. The Treaty states that countries should avoid excessive deficits (Article 104). In the Stability and Growth Pact countries have committed themselves to respect the medium term objective of a position of close to balance or in surplus for the general government budget. Moreover an elaborate surveillance mechanism has been created to ensure the implementation and compliance with the EU's fiscal framework via transparency, peer pressure and, in the case of excessive deficits, the possibility of sanctions.[12]

The Treaty framework ensures monetary dominance over the price level

In recent years the fiscal theory of the price level (FTPL), which argues that under certain circumstances fiscal policy would determine the price level, gained some prominence in the literature. However, the stipulations of the FTPL may in many respects be regarded as specific to the simplified analytical environment in which they are often derived. Moreover, even if one were to accept the implications of this theory, the Treaty provides a solid safeguard against fiscal authorities becoming trapped in the sort of irresponsible fiscal behavior that is indicated

[11] For an overview of the literature and an application to the Stability and Growth Pact see R. Beetsma (2001), Does EMU Need a Stability Pact? in A. Brunila, M. Buti and D. Franco (eds.) *The Stability and Growth Pact – The Architecture of Fiscal Policy in EMU*. New York: Palgrave, pp. 23-52.

[12] For more details, see: ECB Monthly Bulletin, May 1999, *The implementation of the Stability and Growth Pact*, pp. 45-72, and ECB Monthly Bulletin, April 2002, *The operation of automatic fiscal stabilisers in the euro area*, pp. 33-46.

as being the source of problems in FTPL discussions.[13] In other words, in the euro area there is 'monetary dominance' in the sense that primary surpluses are *forced* to respond to the state of the economy in a way to make the government solvency condition satisfied at the given price level chosen by the monetary authority in line with its mandate.

Moreover, even in the case the commitment for fiscal discipline and sound public finances is not adhered to by one participating country, there is no commitment for any authority to bail out the respective governments. In such an extreme and unlikely case, regarding the theoretical option of inflating away high government debt, the Treaty is clear. The ECB is responsible for maintaining price stability and this objective also binds fiscal authorities. Furthermore, the fiscal no bail out clause ensures that government which do not stick to the rules cannot rely on fiscal transfer from other governments. Moreover, there is always the possibility to cut expenditures. In any case, the Treaty ensures that individual countries cannot engage in a non-sustainable fiscal expansion and shift part of the burden via inflation to other countries in euro area. [14]

To sum up, the Treaty sends a clear message concerning the relation between monetary and fiscal authorities. An independent central bank like the ECB which is prohibited from monetary financing of the government deficits can lastingly ensure that private agents and markets do not coordinate on the expectation that high inflation will finally be resorted to with the aim of solving fiscal imbalances. And as governments know this, they will have an additional incentive for fiscal discipline, even in cases where the market is not sufficiently efficient in detecting fiscal problems in a timely manner.

The relation between monetary and fiscal policy

[13] The FTPL stipulates that the government solvency condition – expressed as the equality between the current *real* value of government's outstanding liabilities (on the left-hand side of the condition) and the infinite discounted stream of the expected real primary surpluses looking forward (on the right-hand side) – has to be satisfied under all possible circumstances. Therefore, if a shock occurs to the way the private sector anticipates government's future fiscal policy, for a given predetermined level of government's outstanding *nominal* liabilities, the price level has to adjust in the denominator of the left-hand side of that condition to make the condition satisfied. From this simple analytical result, advocates of the FTPL often conclude that, even if the monetary authority is entirely committed to the maintenance of price stability, an irresponsible fiscal authority can make the price level jump in sympathy with its fiscal policy announcements. For an enlightening presentation of the FTPL, see M. Woodford ,2000, "Fiscal Requirements for Price Stability", *Money, Credit and Banking Lecture* presented at Ohio State University (May).

[14] It should be noticed that, if there are more than one fiscal authorities like in the euro area, the results of the FTPL would inter alia require the assumption that the *relative* price of their debt instruments can not adjust in response to innovations to the expected future stream of primary surpluses of any of them. But there is no reason within the euro area to believe that if one single government should come to be perceived as likely to loosen its fiscal stance in an unsustainable manner, that should have no impact on the yield paid by that particular government in relation to the yield paid by all the others. There is no reason to believe, in other words, that doubts about the fiscal sustainability of any participant governments should have a repercussion on the union's general price level. Put it another way, perceived risks to the fiscal sustainability of any national governments will likely show up as risk premia required of these governments for their borrowing requirements.

Some observers have argued that the institutional framework could be improved by focusing, in a co-ordinated manner, on a macroeconomic policy mix at the euro area level that is conducive to higher growth and employment. Such calls are based on the argument that individual policies, whose outcomes have an impact on the outcome of other policies– the so-called externalities or spillover effects –should be designed in a way to fully internalise the other policies' objectives and actions. It is argued that policy-makers could improve overall welfare through an agreement on a joint setting of their instruments.[15]

The ECB has repeatedly made it clear that it does not accept attempts to co-ordinate fiscal and monetary policies ex ante. [16] This position is also supported by a careful view at the literature that has investigated this issue. In order to enhance employment and growth, monetary and fiscal authorities should rather independently follow appropriate and prudent policies with a medium-term orientation.

The traditional, old-style line advocating a need for fiscal / monetary policies co-ordination used to appeal to the notion that "deficit spending" policies can take care of aggregate demand shortfalls. In this context, an accommodative monetary policy is supposed to be needed to provide the most favourable financing conditions for the budget to discharge one of its main tasks, namely enhancing the growth potential of a market economy and avoid severe economic hardships. However, this view has already been challenged in the 1960s when it first became clear that, in response to an increase in government expenditure, the interest rates would rise enough in the medium term to choke off an amount of private spending more or less equivalent to the increased public expenditure ('crowding out'). In this case there is no sense in which government expenditure may be permanently *expansionary*, as it will be offset – sooner or later – by a decline in private expenditure. The conventional wisdom about the expansionary effects

[15] For a critical review of the arguments, *see*: A. Alesina, O. Blanchard, J. Galí, F. Giavazzi and H. Uhlig, 2001, *Defining a macroeconomic framework for the euro area (Monitoring the European Central Bank 3)*, CEPR.

[16] See Duisenberg, W., 2002, "Challenges to the ECB's monetary policy", speech presented upon receiving the European Banker of the Year Award on behalf of the Governing Council of the ECB, Frankfurt, 16 May 2002:" The institutional balance upon which this [policy] dialogue rests, while adequate and balanced, is delicate and at times fragile. We thus take note with increasing alarm that the voices calling for co-ordinated action by the monetary and fiscal authorities have become louder and more authoritative recently. According to these voices, the 'policy mix' should be improved, and the monetary and fiscal authorities should agree on 'common standards that define general principles' guiding policy conduct over time. We note these ideas with concern. If such steps were taken, they would undermine the independence granted to the ECB in pursuing its mandate. They would alter the incentives of economic actors to discharge their respective duties to the best of their ability. They would blur policy responsibilities and instil the perception that monetary policy may have become subservient to the needs and logic of the political cycle. Not least, they would, by implication, severely damage central bank credibility, which in turn would cause painful costs, in terms of higher interest rates. "

of 'deficit spending' policies has furthermore been challenged in a number of recent studies.[17] Let us nevertheless accept for the moment that there are negative effects stemming *on impact* from fiscal consolidation policies. One would then expect that fiscal consolidation would require a temporary accommodative monetary policy response in order to ensure that the transition to a sounder fiscal structure is not conducive to deflationary pressures. But, is an *ex ante* co-ordination or discussion of the policy mix necessary for this purpose?

Recent research[18] providing an affirmative answer to this question focuses on two policy making authorities "targeting" different levels of potential output and inflation at least in the short term. Many studies show that the non-co-operative solution to the game that results, whereby monetary and fiscal authorities try to achieve their own conflicting targets independently of each other, normally leads to dynamics of output and inflation that are by far different from what either authority would consider ideal. By contrast, co-ordination would improve the outcome of the interaction significantly. But it is also clear what causes the final result. It is apparent that, if there were no discrepancies in the authorities' objectives, then there would be no gains from co-ordination as the conflict between the authorities would simply disappear. Now, is this really a proof that more co-ordination is needed? Or is it rather a signal that there should be no discrepancies between objectives? If the implicit output objective of the fiscal authorities is incompatible with the inflation objective of the central bank, would this not call for strengthening the independence and the price stability mandate of the central bank in order to ensure that the government sees no chance to get monetary support/accommodation for myopic policies?

Furthermore, commitments to *ex ante* co-ordination may blur the responsibilities of monetary and fiscal authorities and reduce the general degree of accountability of the institutional setting as a whole. This argument has progressively gained prominence in the most recent literature.[19]

Similar concerns also emerge from practical considerations about the implementation of policy co-ordination. Consider the case of a common decision on the policy mix in which the fiscal authorities sincerely promise fiscal consolidation and structural reforms which would increase

[17] F. Giavazzi and M. Pagano, 1990, Can Severe Fiscal Contractions Be Expansionary? Tales of Two Small European Countries, *NBER Macroeconomics Annual*, pp. 75-122. and F. Giavazzi. and M. Pagano, 1996, Non-Keynesian Effects of Fiscal Policy: More International Evidence and the Swedish Experience, *Swedish Economic Policy Review*, 3(1), pp. 75-111.) Indeed, the case of a number of countries that have achieved great progresses in terms of fiscal consolidation and yet maintained or strengthened their underlying fiscal situation – most notably, perhaps, the U.S. – challenges the conventional wisdom of the effects of "deficit spending". Such policies can turn out to be counterproductive as they give rise to expectations of future tax increases and thus curb private expenditures. On the contrary, fiscal consolidation may have expansionary effects, as a credible commitment to balance the fiscal position, and to reduce expenditures, will allow for tax cuts.

[18] See, e.g. Dixit, A. and L. Lambertini, 2001, European Economic Review, 45(4-6), pp. 977-987.

[19] Buti, M. W. Roeger, and J. in't Veld, 2001, Stabilizing Output and Inflation in EMU: Policy Conflicts and Co-operation under a Stability Pact, *Journal of Common Market Studies*, 39(5), pp. 801-821.

productivity and reduce short-term inflation pressures. Indeed, if the promised reforms were to be really implemented, a temporary decrease in policy rates may be appropriate to maintain price stability. However, if the central bank was urged to move immediately, a change in the political objectives, or normal complications in the parliamentary process might easily lead the government to abandon the fiscal manoeuvre envisaged in the previous policy mix discussion. The resulting policy mix would then imply too high inflation. Monetary policy would have sacrificed the fulfilment of its mandate and there would be a great deal of confusion as to who was to be held responsible for the policy failure. One might argue that once monetary policy has "delivered", the incentive of the government to implement its part of the agreement may be substantially reduced. This would be the case, if the reforms by themselves were to be considered to lead to lower chances at the next election. Anticipating such an outcome, the markets may immediately increase their inflation expectations, should they perceive that such a process of common decisions on the policy mix is set in place.

This clearly highlights that attempts that extend beyond the informal exchange of views and information give rise to risks of confusing mandates and responsibilities. It would also reduce the ability of the public to hold policy makers accountable for their actions and the fulfilment of their promises. In the worst case scenario, if everyone is regarded as being responsible for everything, no one will take responsibility for anything.[20]

It is thus for good reasons that the Treaty does not foresee *ex-ante* co-ordination of the policy mix, but designed an efficient initial assignment of objectives and instruments, together with a clear division of responsibilities. This rule-based framework ensures implicitly co-ordinated outcomes and thereby avoids any potential need for explicitly co-ordinated policies. In this context, a transparent and open exchange of views and information between individual policy actors will assist the overall outcome, if this enhances an understanding of the respective strategy. Such a dialogue, however, should clearly be distinguished from an attempt to co-ordinate macroeconomic policy in a discretionary manner *ex ante* or to put pressure on monetary policy in political discussions about the policy mix. This would give rise to the information, incentive and enforcement problems which I have discussed above.

Conclusion

To conclude, I have outlined the main strategic elements and principles of the monetary policy of the ECB. Of course, other major central banks oriented to price stability share a number of

[20] See also Issing, O., 2002, "On macroeconomic policy co-ordination in EMU", Journal of Common Market Studies, 40(2), pp. 345-358.

key elements that guide the conduct of monetary policy. However, the experience of central banks in the world has also shown that there is no unique way for a successful conduct of monetary policy. In this respect it seems crucial to understand that the appropriate monetary policy strategy for a very large currency area may differ from what is optimal for a smaller area.

The Treaty provides for an efficient assignment of objectives with a sound and clear allocation of responsibilities to individual policy makers, thus making the need for a discretionary *ex ante* policy co-ordination of monetary and fiscal policy redundant. This assignment clearly defines the role of the ECB and provides rules for the other policy-makers' contributions to economic stability. The institutional construct of the Treaty has paved the way for a single monetary policy in Europe to be a lasting success. The ECB – through its strategy – has successfully implemented the framework within which it pursues its mandate.

Fiscal authorities in the euro area have all the information about monetary policy they need to conduct their policies in an informed and efficient manner. As discussed in the first part of this speech, the ECB has quantified its prominent objective of price stability and has announced a strategy to guide its action in the actual execution of policy. It has explained at length the principles which should guide its policy in its response to economic variables and shocks. Consequently, fiscal authorities are well informed about the systematic reaction of the ECB to economic, including fiscal, developments, they can take this into account when deciding about their policies.