Jean-Claude Trichet: Issues in monetary policy - views from the ECB

Speech by Mr Jean-Claude Trichet, President of the European Central Bank, at the luncheon organised by the Economic Club of New York, New York, 26 April 2004.

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Mrs President, Ladies and Gentlemen, dear Friends,

It is a great honour and a pleasure to be invited to speak to the Economic Club of New York on the eve of a defining moment in Europe's history.

Only five years ago we engaged in a grand enterprise of institutional design that irreversibly tied together the economic and monetary destiny of eleven, then twelve, nations. In five days from now, the European Union will complete its largest ever expansion. What was originally a Community of six countries in Western Europe will become a Union of 25, spanning a geographic area that used to be divided by an iron curtain. Today we can watch some 450 million Europeans dismantling the barbed wire of political hatred and economic seclusion that had split the continent for more than half a century. We can watch Europe, once again, engaging in a concerted effort to overcome differences and manage diversity.

Taking issue with this historical transition, I intend to focus my remarks on the challenges of executing monetary policy in such a rapidly changing world. A world in which high-speed structural change - whether spurred by spontaneous economic forces or institutional evolution - may put time-tested economic models at risk, and defy policy-makers' search for easy policy recipes.

I will describe the mechanisms that the ECB has set in place to protect itself against the risk of serious misperceptions and policy mistakes. My conjecture is that these mechanisms can explain a great deal of the reasons why the institutional transition in Europe has so far been accomplished in the smooth manner in which it proceeded. And I will argue that the same mechanisms are also appropriate to prepare Europe for the new challenges that lie ahead.

Central banks and uncertainty

The ECB, like all central banks, is faced with several dimensions of acute uncertainty. The economy is continuously hit by disturbances that are often difficult to identify in real time. Even when policy-makers are able to correctly assess the source and the nature of a disturbance affecting the economy, tracking its propagation profile and assessing its final impact on the key variables of interest to policymakers is a daunting task.

Econometric theory has spent decades devising sophisticated tools to isolate different types of shocks from the tangle that appears in the data. But inference is often non-robust across various identification schemes. And real-time identification remains central banks' Holy Grail. As a consequence, central bankers are given little guidance by theory in their daily endeavour to filter out noisy data.

The task of policy-makers is further complicated if they suspect that customary cyclical movements are compounded by an ongoing change in the deep structure of the economy. For one thing, structural change amplifies the identification problem. It is difficult to ascertain whether the dynamic force that we see appearing on the screen is going to be reversed and eventually vanish, or will become ingrained in the underlying economic mechanism for many years to come. But more importantly, in case a structural change is truly under way, macroeconomic relationships derived from empirical regularities and historical averages are bound to lose significance. A new set of relationships would need to be estimated and tested. But serious diagnostics for structural stability rarely give definitive answers. And re-estimation requires sufficiently extended spans of data that simply do not yet exist.

Structural change on a global scale

The past decade, on both sides of the Atlantic, has not been kind to policymakers' aspiration to a comfortably stable set of structural relations usable for policy analysis. At a minimum, the second half of the 1990s and the early years of this century have sent us stark reminders that the economic structure does not hold still for long. Our recent experience in coping with economic change has

provided more than one stress test of the macroeconomic models that are in use in our institutions. I shall mention three examples.

On this side of the Atlantic, the policy debate has primarily focused on technological innovation, the spread of information technology, and globalisation. Many distinguished analysts have identified in the combination of these three dynamic factors the main structural force behind the reduction in economic frictions and the narrowing of the ability of any single market player to influence prices and dictate market conditions domestically. This course of events has increased competition. Through a better allocation of resources, heightened competition has advanced the standards of living in more than one country, notably the US. However, the same phenomenon has also reduced policymakers' confidence in what seemed to be well-tested economic relations. For example, it has loosened the association between output growth and inflation, and between these two variables and employment. And many US observers were left wondering whether the intense capital deepening of the last few years - and the associated measured growth in productivity - may have shifted substantially the relationship between output and inflation. Of course, lasting shifts in productivity trends and their economic consequences, if real, will be clearly visible only in retrospect.

Financial markets have also been a very important source of structural discontinuity with the past, in Europe and the US alike. We all have witnessed the frantic rise and the subsequent shake-up of equity valuations. In addition, we have seen an unprecedented wave of mergers and acquisitions, facilitated by deeper and more liquid financial markets. This wave not only has affected domestic markets, but also very much has brought about tighter global linkages in the corporate sector. These tighter linkages, in turn, may have affected the extent and pace of the transmission of economic developments across the globe.

Structural change in Europe

Thirdly, let me mention some sources of structural change that are specific to Europe. I would like to emphasise three dimensions. One is related to the institutional switch that the creation of the single currency has represented for the nations that have adopted the Euro. It was not clear at the outset to what extent the introduction of the single currency would affect financial markets and price and wage-setting behaviour. Indeed, times of institutional change are arguably times in which private expectations may fail to co-ordinate on a focal point. The widely-held presumption then was that the statistical patterns emerging from past data might not be informative of the structure of the new economic entity, and inference drawn on its basis might even be misleading. Those were times in which the measure of uncertainty was closer to a 'Knightian concept' wherein probability distributions for model coefficients could not even be known or existant.

The money market, for one, underwent a historical transformation on the eve of the launch of the Euro in January 1999. Eleven national markets, so diverse in terms of participants, operating conventions, settlement structures, credit facilities, had to merge into a unified trading area almost overnight. New payments systems for large-value transactions were implemented. Capital markets traditionally protected by currency fragmentation and national regulations were opened up to arbitrage and straight competition. It could not be taken for granted that private agents could immediately form expectations consistent with the new regime, and thus instability in behaviour could not be ruled out.

Let me also mention, en passant, that, although the process of preparing for the adoption of the single currency had been carefully crafted, much remained to be accomplished on the side of constructing homogenous statistics across the countries participating to the Euro area and the elaboration of tools and models for the analysis of economic data.

The second dimension relates to ongoing efforts of the Euro area to implement structural reforms in the labour and good markets. These reforms aim to make these markets more flexible, strengthening the Euro area's competitiveness and its resilience to shocks. Several such reforms have been already implemented and many more are to come. This is a factor that adds uncertainty to the stability of economic relationships in the Euro area, a factor that the central bank has to take into account when taking policy decisions.

The third dimension of structural change in Europe is that associated with enlargement. The integration of these new countries will affect the European economy through a change in trade patterns, capital and labour flows and a higher level of competition.

The enlargement will no doubt provide new opportunities for trade and investment flows. Some effects are already visible in a high degree of economic integration between the current Member States and the acceding countries. Lower trade costs and an increase in competition associated with the enlargement of the Single Market can have a significantly positive impact on growth in the European economy as a whole. But the side effect might be, again, a somewhat diminished ability to extrapolate statistical patterns seen in the past to forecast the future, at least for some time.

One notable source of dynamics in structural relationships, looking forward, will be the convergence across income and productivity levels. For acceding countries as a whole, per capita income today is less than half of the average of the Euro area, so the potential for trade creation and redirection of existing trade and production specialisation patterns is enormous. In the end, increasing prosperity and living standards will be forthcoming for the whole Union. And along the way the drive towards reallocation of production and re-specialisation will call for changes.

The ECB's monetary policy concept

Europe's transition to the single currency, no doubt, marked a time in which the signal extraction problem in understanding economic developments was most acute. Yet, the transition was smooth and the abrupt switch in the process by which agents form their expectations, that many observers had predicted, did not materialise after all. So, amidst the challenges that loom in our future, we are reassured that we did make it and that it bears testimony to our capacity to weather difficulty.

On the eve of the Euro changeover, markets immediately recognised the new rules of the game. They adjusted swiftly to the new monetary policy environment. Money market developments indicated that monetary policy was reasonably predictable from the start. Euro area medium and long-term inflation expectations, as measured by survey data, have remained around 1.8%-1.9%, consistently pointing to a high degree of credibility of the ECB's official announcement that it would aim to maintain inflation below 2% over the medium term. In this respect, long-term inflation expectations aligned themselves with the low levels of the best performing economies that were merged into the Euro. This is all the more remarkable given that the ECB started without a track record of its own and was faced with a number of sizeable, mainly upward, price shocks hitting the Euro area economy.

Faced by an environment characterized by an exceptional measure of uncertainty, the ECB identified three principles for an efficient monetary governance. These three principles, stability, comprehensiveness, and transparency have been incorporated in the monetary policy concept that has guided our course since 1999.

Stability

There is, today, a general recognition that price stability is highly desirable from an economic standpoint. It preserves an environment conducive to the optimization of resource allocation and therefore permits to foster sustainable growth and job creation. There are several other reasons why price stability is a public good of great value: In particular, preserving the purchasing power of the citizens, including the most vulnerable, and preserving the correct functioning of the democratic institutions.

In a world of accelerated changes, the concept of stability is even more of the essence. The central bank has responsibility to be an anchor of stability, price stability being the ultimate goal and one of the preconditions for financial stability.

This stability principle has two major corollaries: First, being as clear as possible as regards not only the goal, but also the arithmetic definition of price stability. The Treaty establishing the Economic and Monetary Union wrote in stone that the objective assigned to the European Central Bank was price stability. In 1998, upon taking up its monetary policy tasks, the Governing Council of the ECB sharpened the focus by defining price stability in quantitative terms as the year-on-year increase in the Harmonised Index of Consumer Prices of below 2%. We further facilitated the coordination of private expectations by clarifying that in the pursuit of price stability the ECB aims at inflation rates below but close to 2%, thereby preserving a sufficient safety margin against the risk of deflation. This precise definition had not only the advantage of permitting to anchor inflation expectations and to enhance transparency and accountability of the European Central Bank. It was also absolutely instrumental in preserving continuity in the moment of transition from the previous national currencies to the Euro: the Euro was given the very same definition of price stability as the one attributed to the most credible

national currencies benefiting from the lowest market interest rates. That has contributed to one of the most remarkable - and unduly discrete - process of the setting up of the Euro: From day one the Euro was given the best yield curve available in the economies of the Euro area.

Second, immunizing monetary policy against short-termism by solidly anchoring it on a medium-term perspective. Constantly bombarded by economic news, a central bank risks being swamped by the latest indicator and by its conjectures concerning markets' likely reaction to the latest indicator. This mechanism can lead monetary policy gradually astray from its foremost role of providing a firm medium-term anchor for the economy. The ECB has built into its strategy a mechanism against short-termism by adopting a "keeping its composure" approach to countering shocks.

Instrumental in this steady-hand framework is our notion that the appropriate horizon for monetary policy is the "medium term". In this respect, the time horizon over which price stability has to be re-established needs to be tailored to the circumstances prevailing in the economy. Sometimes, notably if there is suspicion that asset prices are moving substantially up or down, it pays to look even very far ahead, beyond the average lag of monetary transmission. In other cases, the economy can be expected to return to price stability within a shorter horizon. Such horizon would depend on whether the shocks are temporary or permanent, whether they emerged on the supply or the demand side, on their domestic or external origin, their potential for becoming entrenched in pricing decisions and on their implications for the fragility of the financial system. In all events, the central bank has to preserve its credibility, ensuring that expectations remain consistent with its declared policy objective.

Comprehensiveness of the analytical framework

A central bank, in its daily operations, has to filter an enormous amount of information. It routinely seeks to define the state of the economy as new circumstances arise and evaluate their implications for the risks to price stability. As I tried to argue above, this is a highly demanding exercise, because shocks do not come about with labels and the economy is potentially always subjected to structural changes. As a consequence, it is clear for all central banks that no simple rules linking policy to one or two privileged indicators can substitute for an accurate examination of economic developments in all their decisions and forecasts.

From the beginning, the ECB felt the need to endow itself with a conceptual framework that could help it sort through a wealth of conflicting statistics, and organize the various pieces into a reliable road map for internal analysis and communication with the public. This called for the adoption of a framework that concentrated more on picturing the economy as a large, complex and permanently evolving system, rather than trying to condense this complexity into too simple summary statistics and models.

In the event, we opted for a 'binocular' perspective over the economy, organised in an "economic analysis" and a "monetary analysis". This policy framework, which came to be known as the 'two pillar approach', permits to convey the notion of a diversified analysis and, in our view, ensures that no information is lost in the assessment of risks to price stability.

An important rationale for the two-pillar approach relates to the difference in the time perspectives relevant for analysis of price developments and for the formation of private inflation expectations. Empirical analysis has shown that the inflation process can be broadly decomposed into two components. One is associated with the interplay between demand and cost factors at a high frequency. The other is connected to more drawn-out and persistent trends. The latter component demonstrates an empirical association with the trend growth of money on a long-term basis.

The short to medium-term "economic analysis" - with its focus on real activity and financial conditions - is well equipped to study shorter-run deviations of inflation from its long-term trend. However, it often fails to track the mechanisms by which monetary factors act over extended horizons to nail down such trends. As a consequence, a monetary policy framework exclusively centred on such analysis would leave a 'loose end' in the expectations formation process, to the extent that it would offer no anchor to anticipations of price developments as the horizon - over which these are formed - lengthens.

There are, therefore, merits in cross-checking the indications for the monetary stance that emanate from the shorter-term "economic analysis" with those stemming from the monetary analysis. Monetary analysis constantly reminds the central bank of the fundamental principle that, while responding to economic developments as they unfold, it must never lose sight of the fact that, over sufficiently extended horizons, the rate of money growth must be consistent with its price stability objective. This

cross-check ensures that monetary policy has a nominal anchor beyond - and even well beyond - the conventional projection horizon. It also induces and reinforces a firm sense of direction, discouraging policy agitation.

Let me also observe that the success of the transition to the Euro was also very much depending on the lasting anchoring of long-term and even very long-term inflation expectations. As a matter of fact, to benefit at the very start of the Euro from the best yield curve available in the Euro area, to be able to extend immediately the very low market interest rates that existed only in a small number of economies to the full body of the Euro area, one needed to be very credible. And this credibility in the delivery of price stability had to be intact not only in a two-year or five-year perspective, but also on a ten-year and thirty-year basis.

Despite the fact that the ECB had a precise definition of price stability which the Federal Reserve System had not, like the Fed the ECB deliberately chose not to mould its own monetary policy strategy as one of "inflation targeting." To be sure, the concept of "inflation targeting" is not always a clearly defined concept. However, if it is understood as a framework that makes macroeconomic forecasts the principal, if not the sole, statistical input feeding the policy-making process, then we would consider it too narrow a description of what monetary policy should look at.

Indeed, attempts to characterise the state of an economy in terms only of inflation forecasts would neither do justice to the intrinsic complexity of the decision-making process, nor would it provide a robust and safe approach to policy. This is particularly true in a world of accelerated structural change in which central banks face a high degree of uncertainty about the future.

A central bank needs to maintain appropriate flexibility in the way it responds to shocks, taking decisions which are robust across a set of different plausible scenarios for the future. In this respect, it has been increasingly recognised that a central bank that focuses on inflation forecasts at one or two-year horizon would not be able to appropriately take into account the formation of financial imbalances, as they generally exert effects on price developments at longer horizons. Especially in the face of substantial uncertainty about the sustainability of asset-price developments, it may instead be advisable to set interest rates with a view to a time frame extending well beyond conventional forecast horizons.

More generally, the existence of uncertainty requires central banks to put strong emphasis on the robustness of their decisions, which implies that a good monetary policy strategy needs to perform as well as possible across a variety of empirically plausible models and scenarios. And it is in particular our view that the complexity with which monetary policy-makers are faced with should be presented to the public in a transparent manner.

Transparency

Indeed, the third principle that we have adhered to since the inception the ECB is the importance of open and transparent communication with investors, savers, market participants and the public at large. This is a prerequisite for appropriate accountability and enhances the understanding among the markets of how the central bank conducts its monetary policy, thereby enhancing substantially policy effectiveness.

This was especially important for a new institution such as the ECB which was lacking a track record. The announcement of our monetary policy strategy in October 1998, before the ECB actually started to be in charge of conducting the single monetary policy in the Euro area, was a key element in our striving for transparency. It clearly stated the rules of the game and helped to reduce the uncertainty faced by market participants.

Communication with the public and the markets has also being facilitated by the fact that our assessment of the economic situation and the risks to price stability is regularly published and that monetary policy decisions are explained in the press conference that we give after each monthly meeting in which monetary policy is discussed. The ECB produces on a monthly basis a bulletin that provides a detailed economic assessment to the public.

We have been told from time to time that we were not sufficiently transparent. I think this is not justified. As a matter of fact, we have been very imaginative and creative in this respect at the very beginning of the Euro. In 1999 the state of the art of central banking was to display the diagnosis of the Central Bank 5 or 6 weeks after the decision was taken in publishing the minutes. No explanation at all was given in real time. We have been the first Central Bank to publish a full, detailed, real time

public display of our analysis and of the reasons why we had taken our decision. And we have also been the first to embark on a press conference organised by the President and the Vice President to explain the decision of the Governing Council.

In that sense, we are one of the most transparent Central Banks in the world. And we have contributed substantially to modify the state of the art of Central Banking: Today it would not be possible for a Central Bank to take a decision without displaying a real time explanation of the decision.

Monetary policy and asset prices

I have already alluded to some of the challenges that monetary policy must face in relation to asset-price movements. Let me, therefore, at this stage pose on this issue that has recently attracted a great deal of attention in the debate among policy-makers, academics and the public at large.

There are many challenges that central bankers face in relation to the links between monetary policy and asset prices. To name a few: Should central banks react to asset-price movements? How to identify the insurgence of dis-equilibrium in asset prices when the equilibrium level is unknown? How to avoid a moral hazard problem? How to communicate with the public in case of asset-price bubbles?

Unfortunately, there is no clear-cut answer to any of these questions. Instead, faced by starkly competing models and conflicting explanations of virtually all financial phenomena, central banks are constantly reminded of the great value of robustness and pragmatism in monetary policy. In this respect, I shall contend that the strategy adopted by the ECB involves some features which help to see through and tackle these challenges.

First of all, the overriding objective of price stability, which monetary policy should be geared to, makes clear that asset prices cannot be a target for a central bank. This follows from the notion that in the long run, asset prices - such as stock or real estate prices - are fundamentally determined by real factors such as productivity, the inter-temporal preferences of society, and demographic developments. A central bank cannot control these factors and therefore it cannot aim at bringing about any asset price configuration that is not rooted in such fundamental forces.

In addition, it is widely recognised that the central bank's focus on the overriding objective of price stability helps to reduce investors' misperceptions about future return possibilities and alleviates the problem of asymmetric information between borrowers and lenders. At the very least, even though price stability cannot guarantee financial stability in all circumstances, it is clear that the absence of price stability would only exacerbate the problems associated with asset-price misalignments. Incidentally, as I have already mentioned, adopting a flexible medium-term orientation in the pursuit of price stability has the effect of lengthening the monetary policy horizon beyond the two years within which meaningful inflation forecasts are usually constructed, depending on the prevailing economic circumstances. This lengthening of the policy horizon helps to trace out the likely macroeconomic impact of a putative financial misalignment.

Although asset prices cannot be a target for monetary policy, they no doubt reveal very useful information about future risks to price stability that a central bank should take in due consideration. It is important to recognise, however, that a rise in asset prices does not always signal increased inflationary pressure. Whether or not this is the case very much depends on the underlying shock to the economy. There is thus no easy way to shortcut the signal extraction problem faced by a central bank in the financial markets and the design of an appropriate monetary policy reaction to a given movement in asset prices. Instead, a careful identification of the shocks driving the markets to best evaluate their implications for the risks to future price stability is needed.

Movements in asset prices that astray from their fundamental value, so-called asset-price bubbles, pose specific and additional challenges for monetary policy. The first - and already very big - challenge is to detect in real time whether a bubble is developing. Asset prices are inherently forward looking and it is very difficult to assess ex ante whether the expectations underlying an ascending or descending trend are realistic or are just validating themselves. In this respect, the central bank typically has no better knowledge about future fundamentals than the market itself.

This does not mean that a central bank is left all by itself in the face of major asset price movements. For example, some simple measures for identifying overly optimistic expectations in the valuation of stocks seem to have been reliable indicators on quite a few occasions in the past.

Moreover, apart from significant deviations of asset prices from past trends or from model-based predictions, it appears that it is also useful to look at developments in credit and monetary variables in order to identify bubble phenomena in real time. In this respect, we have gathered some evidence that growth rates of money and credit which are persistently in excess of those needed to sustain economic growth at non-inflationary levels may, under certain circumstances, provide early information on emerging financial imbalances. Incidentally, this is another important argument for devoting systematic attention in our analysis to the monitoring of money and credit developments in our monetary policy strategy. Finally, careful analysis of the balance sheets of the different sectors of the economy may also be able to provide early signals regarding the formation of bubble phenomena and financial imbalances in real time.

But despite all this, it is clear that the difficulties involved in identifying asset-price misalignments in real time are enormous. Central banks need to be very cautious in forming their assessments and keep the caveats underlying their analyses always in mind.

And the challenges faced by central banks in the face of sustained market movements are not exhausted by the identification problem that I just described. Even in the rare cases in which the central bank can confidently claim to be facing an unusual and possibly destabilising asset price movement, the design of its reaction is all but automatic.

It is often argued that a central bank in such circumstances should carefully tighten its monetary policy at an early stage in order to suppress the bubble process before it escalates to disproportionate dimensions. If a bubble exists, a somewhat tighter policy along the build-up phase - so the argument goes - may help to avoid that even larger imbalances may develop down the road.

However, a bold opposite view has also found some supporters among economists. This alternative policy option would tend to suggest that, due to the rather long lags in the operation of monetary policy impulses, the central bank should consider loosening - rather than tightening - its policy in anticipation of the bubble collapse. This would cushion the negative effects of the expected economic downturn in a forward-looking manner. There is a very strong argument against this policy option because, when a bubble process emerges, it is then almost impossible for the central bank to predict the timing of the turnaround in asset prices. And if the central bank cannot be sure that the bubble will burst of its own accord, a loosening of policy will further strengthen the bubble process.

But the dilemma - where not only the measure of misalignments, but also the sign of the monetary policy response to it is somewhat controversial - exemplifies the amplitude of the policy dilemma.

If and when the bubble bursts, there is a dimension of strategic interaction that a prudent policymaker cannot ignore. This offers a rather strong argument in favour of symmetry in the central bank's behaviour in boom and bust periods. If a central bank were to react in an asymmetric manner, namely only with looser policy at times of asset price busts but not with tighter policy when asset price bubbles emerge, the central bank may create through its own behaviour a moral hazard problem among market participants. It is crucial for a central bank to avoid this, since a perception that it insures investors against the risk of large losses could easily contribute to the formation of new bubbles in the future.

All these considerations underscore how delicate is the issue of how to best communicate with the public during episodes of sustained asset-price movements. The principle of transparency in the conduct of monetary policy would demand that if the central bank's view about the bubble enters into its monetary policy considerations it should make its views known to the market.

Two central banks in comparison

In conclusion, let me wrap up my remarks in a comparative mode. Let me explain how I see our European monetary policy concept in comparison with the US Federal Reserve monetary policy concept. I will not dwell on what is from time to time presented as the major difference, namely the legal objective assigned to the central bank. I already said that in my analysis this difference is one of presentation more than of substance, and should not be overdone. Instead, I would stress that I see two major similarities and two significant differences between the ECB and the Federal Reserve concept.

Two similarities:

First, both the ECB and the Fed are putting a strong emphasis on transparency of the decision making process, on transparency of the analysis that is worked out by the responsible decision-making college, on explanations of the economic diagnosis to the public opinion and market participants, and on accountability vis-à-vis the Parliament of the Union. We both explain in real time why we took our decision (I recall, en passant, that the ECB organises a press conference immediately after the meeting of the Governing Council, which demonstrates clearly a strong will to be transparent). We both go frequently before the Parliament of the Union to explain our policy and to respond to all questions of members of Parliament.

Second, both the ECB and the Fed are clear on being as comprehensive as possible in their analysis. The ECB and the Fed incorporate in their analysis all possible pertinent information, all relevant forecasts and modelling exercises, including private sector views, whether economic or monetary. Neither the Fed nor the ECB are dependent for their decisions on the mechanical result of an equation, or of a system of equations, or on an algorithm. In a very complex world, where the complexity of reality cannot be adequately captured by any single modelling and where uncertainty - including what I referred to as 'Knightian uncertainty', that is a type of uncertainty without having the possibility to refer to a probability distribution - is an important element to take into account in any decision, we both trust we need all pertinent information, modelling and forecasts and judgement enlightened by the collegial wisdom and experience of a Council.

We have also two significant differences that should also be stressed and explain why, despite our strong similarities, observers are very often underlining that we are illustrating different concepts of monetary policy.

First, we made public our precise quantitative definition of price stability whereas the Fed does not. The Fed probably has good reasons not to do it. Perhaps it implicitly refers to what the public opinion at large would regard as price stability in the US. I do not judge. Let me only point out the advantages of the ECB position. It is good for transparency: everybody knows precisely what we are aiming at. It is good for accountability: the public opinion can judge whether or how we are achieving our own goals in comparison with the yardstick we made public. It is good for medium and long-term credibility: inflationary expectations can be more easily anchored.

Let me also recall that the success of the transition to the Euro five years ago demanded as much clarity as possible as regards our definition of price stability in comparison with previous national definitions of price stability. We had promised that the new currency would be at least as good as the previous national currencies. This promise meant that the new currency would be at least as credible as the most credible of the previous national currencies. It also meant that the market interest rates associated with the new currency would be as low as the interest rates associated with the most credible currencies and the definition of price stability would not be looser. Had this not been the case, then markets would have demanded a risk premium to take into account the looser definition of price stability. And the transition could not have been organised in such a way as for the Euro to reap the full legacy of the lowest yield curve available.

So it is not only for strong theoretical reasons but also due to practical considerations of an extremely important nature that the ECB has chosen to give a quantitative definition of price stability.

Second difference with the US. As I tried to explain previously, we have assessed that it was useful to incorporate visibly in our monetary policy concept a monetary analysis complementing the economic analysis and permitting a cross-check of the latter from a medium to long-term perspective.

We have seen three advantages in setting up our twofold approach. Firstly, to reflect that inflation, as a last resort, and in a medium to long-term basis, is a monetary phenomenon; this notion is, by the way, very widely recognised by central bankers and academics. Secondly, to help taking some account in our monetary policy of the issue of avoiding abnormal boom-bust episodes in asset prices, which could be fed by abnormal abundance or drying up of liquidity. And thirdly, perhaps the most important reason by far, to contribute to better anchoring medium to long-term inflationary expectations, which is important for all central banks of the world and all the more important for the ECB which cannot rely, for that purpose, on long-term past records.

Also for this second difference with the Fed concept, there are, in my eyes, both solid theoretical reasons and practical considerations associated with the transition to the Euro.

All taken into account, it seems to me that what is uniting us, our similarities, are more important than our differences. And we have solid explanations for our differences. I understand, in particular, that trends in money demand have not been as stable in the US as they have been in the Euro area. This

may partly explains the differences in our approach. Overall, there is no simple escape for a central bank from a rigorous analysis of the shocks hitting the economy and the underlying changes affecting the economic structure. A central bank can never simply steer monetary policy as the result of a calculation, the final stage of an algorithm or the functioning of a mechanism. Similarly to the Federal Reserve System, we believe that in the assessment of a financial and economic environment that is on an accelerated rapid course, the central bank needs realism and pragmatism.

Policy decisions must be based, ultimately, on a judgement and must be clearly explained to the public in a transparent manner. From its inception the ECB has striven to score highly on each of these dimensions and will continue to do so in face of the challenges that are waiting us ahead.

Thank you very much for your attention.