

Randzio-Plath, Christa; Padoa-Schioppa, Tommaso

Working Paper

The European Central Bank: Independence and accountability

ZEI Working Paper, No. B 16-2000

Provided in Cooperation with:

ZEI - Center for European Integration Studies, University of Bonn

Suggested Citation: Randzio-Plath, Christa; Padoa-Schioppa, Tommaso (2000) : The European Central Bank: Independence and accountability, ZEI Working Paper, No. B 16-2000, Rheinische Friedrich-Wilhelms-Universität Bonn, Zentrum für Europäische Integrationsforschung (ZEI), Bonn

This Version is available at:

<https://hdl.handle.net/10419/39496>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn



Christa Randzio-Plath and Tomasso
Padoa-Schioppa

**The European Central Bank:
Independence and
Accountability**

Working Paper

**B 16
2000**

The European Central Bank: Independence and Accountability

1. Editor's Introduction

Jürgen von Hagen 1

2. A New Political Culture in the EU: Democratic Accountability of the ECB

Christa Randzio-Plath 2

3. An Institutional Glossary of the Eurosystem

Tomasso Padoa-Schioppa 22

Editor's Introduction

With the beginning of Stage III of Economic and Monetary Union in Europe (EMU), the new European Central Bank (ECB) has become responsible for the conduct of monetary policy in the Euro area. This is more than a mere technical responsibility. Monetary policy decisions affect output, employment, and price stability in the euro area and are, therefore, of great relevance for the lives of the people living in this area. This means that monetary policy has important political dimensions. On the one hand, monetary policy can be abused by short-sighted politicians to pursue political goals. To prevent this and the dire consequences for price stability, the member states of the European Monetary Union have vested their central banks with a large degree of independence from governments in the euro area. On the other hand, the importance of monetary policy raises the question of democratic control of the central bank. This is the issue of accountability, which has not received much attention in the process leading to EMU. The European Parliament is only beginning to develop its role as a counterpart of the ECB assuring its democratic accountability.

This policy paper presents two contributions to the European debate on these issues. Christa Randzio-Plath, chair of the Committee on Monetary and Economic Affairs explains her views on the democratic accountability of the ECB. Tommaso Padoa-Schioppa, Governor of the ECB, gives a perspective on the institutional framework of the Eurosystem from the point of view of the new central bank.

The two papers were presented at a public meeting on 8 March 2000 at Dresdner Bank, Frankfurt. We are grateful to the Bank for its organizational support of this meeting, and to Mrs. Randzio-Plath and Governor Padoa-Schioppa for their willingness to present their views at a meeting convened by the Center for European Integration Studies.

Bonn, September 2000

Jürgen von Hagen

A New Political Culture in the EU – Democratic Accountability of the ECB¹

By

CHRISTA RANDZIO-PLATH

Chair of the Committee on Monetary and Economic Affairs

Former Chair of the Subcommittee on Monetary Affairs

- I. The role of the European Central Bank in the Treaty on European Union and its relation to the European Parliament**
- II. The role of the ECB in Economic and Monetary Union**
- III. Monetary Policy of the ECB as seen by the European Parliament**
- IV. Monetary Dialogue – first experiences**
 1. The nomination procedure and the European Parliament
 2. Reporting and publishing
 3. Publication of the minutes
 4. Publication of the voting records
 5. The Monetary Dialogue with the European Parliament
 6. First conclusions about the monetary dialogue
- V. Perspectives**

¹ C:\DATA\WPDOC\Waehr Wirtsch\Berichte und Artikel\dem acc\Beitrag von Hagen Buch Juli 99.doc

II. The role of the European Central Bank in the Treaty on European Union and its relation to the European Parliament

As from 1 January 1999, when European Monetary Union was launched, the European Central Bank (ECB) has conducted a single monetary policy on behalf of all the countries participating in Monetary Union. The ECB is the first European federal authority and was established with unprecedented powers. Articles 105 et seq of the Treaty on European Union² state its institutional, functional, objective and staffing independence. Articles 2³ and 7⁴ of the Statute of the European System of Central Banks and of the European Central Bank stress the importance of this independence further. Article 108⁵ states very clearly that in the exercise of their powers and carrying out of their tasks and duties, neither the ECB nor a national central bank, nor any member of their decision-making bodies should seek or take instructions from Community institutions or bodies, any national government or any other body. Unlike any other central bank, the ECB is assigned the priority objective of price stability, which was left to the ECB to define. The independence of the ECB is very far reaching as it is established by the Treaty on

² Treaty on European Union, revised by the Treaty of Amsterdam, Chapter 2: Monetary Policy

³ Protocol on the Statute of the ESCB and the ECB, Article 2, Objectives: «In accordance with Article 105 (1) of this Treaty, the primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of this Treaty. (...) »

⁴ Protocol on the Statute of the ESCB and the ECB, Article 7, Independence : « In accordance with Article 108 of this Treaty, when exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and this Statute, neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of decision-making bodies of the ECB or of the national central banks in the performance of their tasks. »

⁵ Treaty on European Union, revised version, Article 108 : « When exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and the Statute of the ESCB, neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of decision-making bodies of the ECB or of the national central banks in performance of their tasks. »

European Union, an international treaty which can only be altered by means of a unanimous decision of the member states and ratification by national parliaments.

The unprecedentedly high degree of the ECB's independence calls for a correspondingly high level of democratic accountability, as real independence requires legitimacy and transparency in order to be credible and lastingly accepted. The purpose of central bank independence is to favour the long term over the short term in its monetary policy decisions. In order to carry out its task of maintaining price stability, the ECB has at its disposal a number of monetary instruments, in particular the power to determine short-term interest rates. These influence real economic aggregates such as economic growth, investment and employment. In addition, Article 105 (1) lays down that the primary objective of the ESCB is to maintain price stability. Without prejudice to the objective of price stability, however, „the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2⁶.“ In this framework, there is the risk that, in order to demonstrate independence, a central bank seeks to enhance its own reputation by breaking records for price stability, hence steering towards deflation. Thus, the ECB is very rightly accountable to the European public, and, as the sole democratically-legitimised institution, it is the European Parliament which has to hold the ECB to account. Accordingly, this necessity has been laid down as a Treaty obligation.

In sum, reconciling Central Bank independence with the requirements of democracy means that we need transparency in and justification of monetary decision making. The European Union needs it because democracy and transparency belong together. Competence was shifted to the EU level as national

⁶ Treaty on European Union, revised version, Article 2 : « The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing common policies or activities referred to in Articles 3 and 4, to promote throughout the Community a harmonious, balanced and sustainable development of economic activities, a high level of employment and of social protection, equality between men and women, sustainable and non-inflationary growth, a high degree of competitiveness and convergence of economic performance, a high level of protection and improvement of the quality of the environment, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States. »

Central Banks transferred their decision-making powers to the ECB. The ECB needs transparency in order to get credibility in monetary decisions, and the confidence which is needed for EMU. It is for this reason that the European Parliament has been paying special attention to the explanations for monetary decisions and actions as well as their background.

Article 113 (3) of the Treaty and Articles 15.1 and 15.3 of the ESCB Statute lay down the principle of transparency and the relation of the ECB to the European Parliament. Article 113 (3) and Article 15.3⁷ of the Statute require that the President of the ECB presents an annual report on the activities of the ESCB and on monetary policy to the European Parliament. In addition, the President and the other members of the Executive Board can be asked by the European Parliament to give evidence to the Committee on Economic and Monetary Affairs.⁸ Article 15.1⁹ of the Statute adds the requirement to publish reports at least on a quarterly basis.

Until the 1999-2004 legislature, the monetary dialogue between the European Parliament and the ECB took place within the Parliament's Subcommittee on Monetary Affairs. It is now the Committee on Economic and Monetary Affairs which is the relevant committee for this dialogue. The Subcommittee on Monetary Affairs was set up on 9 April 1992. Its activities reflected the European Parliament's new role in monetary affairs and they were geared towards building up a tradition

⁷ Protocol on the Statute of the ESCB and the ECB, Article 15.3 : « In Accordance with Article 113 (3) of this Treaty, the ECB shall address an annual report on the activities of the ESCB and on the monetary policy of both the previous and the current year to the European Parliament, the Council and the Commission, and also to the European Council. »

⁸ Treaty on European Union, revised version, Article 113 (3) : « The ECB shall address an annual report on the activities of the ESCB and on the monetary policy of both the previous and current year to the European Parliament, the Council and the Commission, and also to the European Council. The President of the ECB shall present this report to the Council and to the European Parliament, which may hold a general debate on that basis. The President of the ECB and the other members of the Executive and other members of the Executive Board may, at the request of the European Parliament or on their own initiative, be heard by the competent Committees of the European Parliament. »

⁹ Protocol on the Statute of the ESCB and the ECB, Article 15.1, Reporting commitments : « The ECB shall draw up and publish reports on the activities of the ESCB at least quarterly. »

by which the European Parliament, consisting as it does of representatives of the people of the European Union, becomes widely accepted as the appropriate institution in charge of the democratic accountability of the ECB. With the prospect of economic and monetary union, the European Parliament needed a forum in which all financial and monetary issues could be discussed with the necessary expertise. The aim was to organise a monetary dialogue with all actors already in the early phases of EMU, especially with the national central banks and the European Monetary Institute but also with other institutions and actors affected by monetary union, so that the views of financial and economic agents, consumers and citizens could be duly taken into account.

Particular attention was paid to regular meetings with the President of the Committee of Governors of the Central Banks and the national central banks who were responsible for monetary decisions until January 1999. In this dialogue, monetary policy questions, the convergence process and the contribution of monetary policies to solving the problem of unemployment were regularly discussed. Although employment has not been a formal criterion for the introduction of the single currency, the European Parliament strongly believed that it must be taken into account for the overall assessment of economic trends in the member countries. It still regards it as the greatest challenge facing Europe.

The European Parliament has also attached great importance to hearing the relevant central bank governors from outside the European Union: before the accession of Austria, Sweden and Finland with the EFTA countries, and now with the central bank governors of the Central and Eastern European Countries.

Throughout the years preceding the creation of EMU particular consideration was given to the annual examination of the nominal convergence processes of the member states. The Parliament was fully integrated in the preparations for the historical decision about the start of Monetary Union. In a solemn plenary session on May 2, 1998, the European Parliament voted in favour of the start of EMU with 11 member states which had fulfilled the five convergence criteria. The European Parliament found that considerable progress had been made by the member states of the European Union in terms of convergence with a view to the start of

the third stage of Economic and Monetary Union, which led to low inflation rates, low long-term interest rates, limited exchange rate fluctuations and sufficient consolidation of government budgets both in terms of deficit and debt levels. It judged that the introduction of the single currency was feasible by the 11 member states and that the degree of independence of the national central banks was in line with the Treaty.

A crucial topic for the monetary discussions at the European Parliament were the effects of monetary policy on investment, growth and employment. This took place in the framework of dialogues with national central banks and ministries of finance. The Subcommittee also began monitoring trends in monetary policies in the member states. The need for transparency was stressed. The European Parliament has repeatedly observed that the central banks had come to terms very thoroughly with the economic, employment, social and financial policy situations and decisions of the individual member states and that regular dialogue existed between the national central banks and national governments. Interestingly enough, neither the Danish nor the Dutch central bank governors could be heard at the European Parliament. Their independence was such that they did not even appear before their own national parliaments.

From the beginning of Stage Two, the principle of accountability that now applies to the ECB was applied to the European Monetary Institute. Under the Treaty, the EMI had a duty of co-operation with the European Parliament, which it fulfilled in plenary sessions and in the dialogue with the Subcommittee on Monetary Affairs in order to prepare for the establishment of the ECB and the beginning of EMU. The EMI reports on its activities and on economic and monetary convergence formed the basis of hearings in the Subcommittee, which also considered other topical issues and the secondary legislation on the preparations for EMU. Once a year, the President of the EMI presented his institution's annual report at the plenary session of the European Parliament as the ECB President does now.

II. Monetary Policy of the ECB as seen by the European Parliament

The primary objective of the ECB is to maintain price stability. By leaving it to the ECB to define price stability, the Treaty also gives it influence over economic policy. It is the ECB which decides whether to make central bank funds available and at what interest rates, and this in turn has implications for economic growth, investment and employment. As the Treaty does not give a precise definition of price stability, or establish by whom this concept is to be defined or by whom this definition is to be set, it is therefore clear that these tasks fell to the ECB according to Article 12¹⁰ of its Statute. It can be discussed whether the definition of price stability should have been determined by a political process, but given that it is the ECB's prerogative, the degree of its independence is shown very clearly. This fact, on the other hand, increases also the need for democratic accountability. As central banks have become increasingly independent, the trend toward legitimisation by means of the transparency of monetary decisions through monetary dialogue with parliaments has developed everywhere.

The ECB's monetary strategy consist of three main elements: a quantitative definition of price stability and a two-pillar strategy used to achieve this objective: a broadly based assessment of the outlook for price developments and a quantitative reference value for the annual growth rate of M3. The ECB defined price stability as a rate of year-on-year change in the consumer price level of below 2%¹¹. The monetary reference value is defined as a 4.5% growth in the

¹⁰ Protocol on the Statute of the ESCB and the ECB, Article 12.1, Responsibility of decision-making bodies : « The Governing Council shall adopt the guidelines and make the decisions necessary to ensure the performance of the tasks entrusted to the ESCB under this Treaty and this Statute. The Governing Council shall formulate the monetary policy of the Community including, as appropriate, decisions relating to intermediate monetary objectives, key interest rates and the supply of reserves in the ESCB, and shall establish the necessary guidelines for their implementation. The Executive Board shall implement monetary policy in accordance with the guidelines and decisions laid down by the Governing Council. In doing so the Executive Board shall give the necessary instructions to national banks. In addition the Executive Board may have certain powers delegated to it where the Governing Council so decides. (...) »

¹¹ Press Release of the meeting of the Governing Council on October 13, 1998 : « Price stability shall be defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2% . Price stability is to be maintained over the medium term. (...) The precise definition of the reference aggregate and the specific value

money supply.¹² The mix of inflationary and monetary reference values, however, leads more to confusion than to clarification. Consequently, the precise definition of price stability, how it is to be monitored as well as the precise role of the M3 reference value in determining monetary policy have given rise to much discussion well beyond the Parliament.

The ECB assigns a prominent role to money supply, but at the same time, they claim that the euro area monetary aggregate does not need to be controllable in the short run. Obviously, there are reasons for this lack of controllability. First, the demand for money is not stable in the short run. This problem increases with low inflation rates as they reduce the opportunity cost of holding money. What is more, doubts have been raised about whether M3 can even be an indication of inflationary development in the longer run, as the new euro zone is expected to give rise to erratic movements in this aggregate at least over a seven-year transition period. Secondly, the demand for M3 depends on interest rate variables that cannot be directly controlled by the ECB. But if the operating targets of the ECB lack a systematic influence on the growth rates of M3, then the whole approach becomes questionable. The ECB is aware of this control problem. In reality, by focussing on inflation rates rather than M3, the ECB appears rather to be pursuing a one-pillar strategy. Thus it avoids using the term „intermediate target“ and speaks of a „reference value“ instead. The question is, however, what the function of such a reference value is, compared with the role of an intermediate target. The German example of the Bundesbank pursuing a monetary target shows that the control problem exists not only in the short run but also in the medium and long run. Even over long periods, the Bundesbank was often unable, or unwilling, to meet the target. This, in turn, questions the

for monetary growth will be announced by the Governing Council of the ECB in December 1998.»

¹² Press Release of the meeting of the Governing Council on December 1, 1998 : « The reference value will refer to the broad monetary aggregate M3. M3 will consist of currency in circulation plus certain liabilities of Monetary Financial Institutions (MFIs) resident in the euro area and, in the case of deposits, the liabilities of some institutions that are part of central government (such as Post Offices and Treasuries). (...) the Governing Council decided to set the first reference value at 4 ½%. In December 1999, the Governing Council of the ECB will review the reference value for monetary growth.»

predictability of monetary decisions. Market actors have to be able to rely on the ECB, and they have to be able to anticipate their decisions to some extent. The current overshooting of M3 over the reference value makes the ECB's future behaviour uncertain. And uncertainty about the basis of future judgement gives rise to market speculation. Concentrating on specific inflation targets, together with inflation forecasts, evaluations of inflation trends, and intermediate money-supply targets, as well as the underlying forecasts for GDP growth, would be better. This would lead to more transparency in the ECB's monetary strategy and would make it easier to hold it to account.

Another area of concern is the definition of price stability by the ECB as such. In the Parliament's view, the ECB did not choose this definition carefully enough, in particular its narrowness. Not only inflationary risks have to be taken into account: deflation is detrimental to the economy as well. In addition, if the band is too narrow, problems with statistical data come to the fore. A hearing in the Monetary Subcommittee on statistical data on February 17, 1999 revealed that in terms of form, quality and timeliness the statistical data for the euro zone leave much to be desired. Euro-11-data rely on national data produced by the national central banks. Their quality, however, is the key for monetary strategies and reliability. Another complicating factor has been that research by Fed economists have shown that inflation rates might misinterpret the true rate of price increases. Official data for inflation are assumed to be overstated by around 1% on an annual basis. As mentioned above, the problem of inaccurate statistical measurement of price changes might be even more pronounced in the EU. Thus, the risk of undershooting the lower bound of the target zone without noticing immediately is real. Therefore, the European Parliament underlines that it is crucial for the ECB to have more room for manoeuvre by re-defining the range.

III. The role of the ECB in Economic and Monetary Union

In addition to maintaining price stability, the ECB has other duties to perform. Article 105 of the Treaty recognises the capacity of monetary policy to contribute to

the achievement of the objectives of the Community of Articles 2 and 3 concerning economic growth and a high level of employment. Without prejudice to the objective of price stability, the ECB has to take into account the need to support the economic policies of the European Union, which are to lead to economic and social cohesion. With a single monetary policy, Europe must gain a more appropriate and better balanced policy mix, which is badly needed to stimulate investment, growth and employment. Thus, the European Parliament welcomed the first rate move of the ECB when it cut its key refinancing rate by 50 basis points on April 8, 1999, as this showed that the ECB was concerned about the deteriorating economic prospects of the euro area. Already the coordinated interest rate cut of the European central banks in December 1998 indicated the right direction.

The ECB has always claimed that the only contribution it could make to foster economic growth and job creation would be to maintain price stability. It is certainly true that price stability is of crucial importance to economic growth and thus job creation. Unfortunately, however, when explaining the background of its monetary policy to the European Parliament, the ECB refrains from giving an overall picture of the economic impact of their monetary decisions. It was only when reducing interest rates in April 1999, that the ECB recognised that at that time, there were much greater risks for an economic downturn than for price stability. However, there has to be transparency about the ECB's definition of the achievement of the objectives of the Community as laid down in Article 2: for instance, how would the ECB define a „harmonious, balanced and sustainable development of economic activities“, or a „high level of employment and of social protection“? As a first step, it would be very helpful if the ECB published an independent analysis of the economic development of the Euro-11-zone.

Clearly, monetary policy must be supported in its task of ensuring price stability by commensurate budget measures, wage developments and efficient product and capital markets. In addition to this, however, an intensive European dialogue between economic actors and social partners in the framework of the Community institutions and Community consultation procedures is essential in order better to

define and achieve the Community's economic, social and environmental objectives. The European Parliament stresses the importance of an appropriate and balanced policy mix that fosters stability and sustainable growth. This implies, on the one hand, sound macroeconomic policies conducive to sustained non-inflationary growth and employment, and, on the other hand, greater co-ordination of economic and structural policies to maximise the growth and employment potential of the EU. At its meeting in Cologne on June 3 and 4, 1999, the European Council decided on a European Employment Pact aimed at a sustainable reduction of unemployment, based on three main pillars, one of which is the so-called Cologne process: a macro-economic dialogue aimed at improving interaction between wage developments and monetary, budgetary and fiscal policy.¹³ The ECB has to contribute to the macro-economic dialogue.

The procedures by which these general policies come into existence are still in the process of development although, enshrined already in the Treaty on European Union, they should have been put into practice since Stage Two of EMU. Key elements are the Annual Economic Report and the broad economic guidelines by the Commission, on which Parliament holds an annual debate and produces political proposals and recommendations for the Council of Ministers and the Commission. The European Parliament insists on participating officially on these procedures beyond what is already provided in Articles 128¹⁴ and 130¹⁵ and in current practice. To act against the democratic deficit in these procedures, the European Parliament calls for an inter-institutional agreement between the

¹³ The second pillar is a further development and better implementation of the co-ordinated employment strategy (Luxembourg process), the third pillar consists in a comprehensive structural reform and modernisation to improve the innovative capacity and efficiency of goods, services and capital markets (Cardiff process).

¹⁴ Treaty on European Union, revised version, Article 128: « (1) The European Council shall each year consider the employment situation in the Community and adopt conclusions thereon, on the basis of a joint annual report by the Council and the Commission. (2) On the basis of the conclusions of the European Council, the Council, (...) after consulting the European Parliament, (...) shall each year draw up guidelines which the Member States shall take into account in their employment policies. (...) »

¹⁵ Treaty on European Union, revised version, Article 130 : « The Council, after consulting the European Parliament, shall establish an Employment Committee with advisory status to promote co-ordination between Member States on employment and labour market policies. (...)»

European Parliament, the Commission and the Council, including the procedure of the broad economic guidelines and the excessive deficit procedure. In the meantime, the European Parliament calls for the ECB's own Annual Reports to contain judgements of the extent to which monetary policy has in fact supported the general economic policies. Once a year, an ECB position on the economic situation in the euro-11 zone is asked for on the occasion of the presentation of the Annual Economic Report.

IV. Monetary dialogue – first experiences

1. The nomination procedure and the European Parliament

The European Parliament had to be consulted on the appointment of the six members of the Executive Board by the governments of the member states (Article 112(2)b¹⁶). This was also the case for the nominations of the Presidents of the EMI in Stage Two. These hearings - held in public along the lines of those in the US Senate - allowed for a judgement to be formed of the candidates' personal integrity, professional competence and views on monetary and economic policy. Unlike in the United States, however, the nomination process does not comprise a confirmation procedure. The European Parliament has no power to enforce its decision or legally to prevent a nomination. This means that the European Parliament has only a political power to assess nominees, and, through its hearing procedure, helps to guide public opinion. In view of the importance of their position and their impact on economic, financial, employment and social policy, the requirements applicable to members of the Executive Board must be very stringent. A candidate who fails to convince the European Parliament should not be acceptable. Therefore, the current procedure for appointing members of the

¹⁶ Treaty on European Union, revised version, Article 112(2)b : « The President, the Vice-President and the other members of the Executive Board shall be appointed from among persons of recognised standing and professional experience in monetary or banking matters by common accord of the governments of the Member States at the level of Heads of State or Government, on a recommendation from the Council, after it has consulted the European Parliament and the Governing Council of the ECB. Their term of office shall be eight years and shall not be renewable. Only nationals of Member States may be members of the Executive Board. »

ECB's Executive Board is important but can only be a first step. The ECB gains in credibility and legitimacy if members of the Executive Board give a convincing performance in public.

2. Reporting and publishing: the ECB's annual report and monthly bulletins

The principle of transparency is described in the Treaty and the Statute of the ESCB and the ECB. Article 113(3) of the Treaty on European Union and Articles 5¹⁷ and 15 of the Statute require ECB reports to be published. The reports in question are annual reports, which facilitate the dialogue with the European Parliament on the monetary policy pursued in the past and current years and the ECB's plans for the future, as well as reports on the activities of the ESCB which should be drawn up and published at least quarterly. This publication requirement makes the ECB democratically accountable. A reading of Article 15 in conjunction with Article 12 shows that reporting is expected to cover monetary policy definitions, approaches, objectives and instruments. The ECB has to explain its past monetary policy decisions in the light of recent inflation trends and how they comply with price stability. In addition, the ECB has to explain its inflation forecasts, its comments on other institutions' forecasts and comparisons of these with the price stability target set, as well as the forecasts for real GDP growth upon which its broad assessment is based.

The European Parliament also calls on the ECB to include a description of how the ECB intends to support the general economic policies in the Community with their monetary policy, as well as their appraisal of the extent to which monetary policy has in fact supported these general economic policies. In the interest of transparency and credibility the ECB should make it clear how monetary policy is intended, over and above the objective of price stability, to contribute to a

¹⁷ Protocol on the Statute of the ESCB and ECB, Article 5.1, Collection of statistical information: « In order to undertake the tasks of the ESCB, the ECB, assisted by the national central banks, shall collect the necessary statistical information either from the competent national authorities or directly from economic agents. (...) »

balanced and appropriate policy mix in order to promote growth and employment.

All in all, the first monthly reports provide the key data and broad reasoning behind monetary policy decisions. They have proven, however, not to be sufficiently detailed, as they concentrate almost exclusively on past developments. It is surprising that the ECB does not publish its own projections or predictions for price developments and some key variables, just as projections on the basis of the current policy stance would be particularly helpful. The ECB claims that the forecasts might have an adverse effect on financial markets and wage and price setting, and that the credibility of the ESCB could be damaged in the medium-term if the conditional nature of the forecasts is not well understood. In addition, the ECB argues that their estimates and models are still in a preliminary phase and that they have not tested them enough to be sure of their quality. These justifications are not convincing. Producing an inflation forecast is certainly difficult, especially at the start of EMU, in view of the wide uncertainties concerning the reliability of past relationships between money and prices. But whatever these difficulties, the ECB has to make its own forecasts on the basis of which it takes the relevant policy decisions. Therefore, the European Parliament calls on the ECB to publish forecasts on a six-monthly basis which set out the prospects and the risks attached to those prospects, for domestic demand and its principal components; net exports, nominal and gross domestic product, consumer price inflation, unemployment and the current account balance, together with relevant data and research on which such forecasts are based, in order to permit a reliable assessment of monetary decisions, avoid market misinformation, ensure market transparency and hence counter speculation. In this context, the ECB should explain the weight and importance of indicators other than its two pillars of monetary reference values and inflation forecasts. Not revealing to the public the background analysis for its policy decisions could give rise to the suspicion that the ECB wants to hide information from the public. This appears unjustified from any relevant point of view. Therefore, the European Parliament welcomes the announcement of the ECB President made on October 26, 1999 during the

plenary session that the ECB decided to go farther in terms of transparency and publish inflation forecasts¹⁸ and its econometric models.

3. Publication of the minutes

The Statute of the ESCB and the ECB states in Article 10.4 that the proceedings of the meetings of the Governing Council „shall be confidential. The Governing Council may decide to make the outcome of its deliberations public“. The European Parliament calls for a summary of the minutes of the ECB Council meetings to be published. These should include the decisions taken, the reasoning behind them and, most importantly, the arguments for and against these decisions. In addition, the summaries should explain how the decisions are linked to and affect other policies to prepare a sound basis for financial market decisions. The minutes should be published at the latest by the day after the ECB's next meeting. The Federal Reserve believes that the volatility of financial markets can be restrained by a transparent decision-making process. Studies are being undertaken in order to find out how the Federal Reserve can improve its transparency. The ECB has refused to publish the minutes arguing that publishing minutes would create financial market disturbances. It can be argued, however, that publishing minutes might be useful to prevent central bank presidents from putting national interests over EMU interests. The Bank of England goes farther in terms of transparency and accountability than the ECB by publishing their minutes and including details of voting behaviour. The US Federal Reserve has adopted a practice which reconciles the need for the bank to be independent with the need for openness of decision-making. The fact that minutes recording decisions are published has never once caused any turbulence on the markets or concern among investors. Nor has the independence of the Federal Reserve been called into question by the markets because of the minutes being published.

¹⁸ Verbatim report of proceedings, October 26, 1999 : « Duisenberg, President of the European Central Bank : (...) There will come a time when we will publish forecasts, either bi-annually or tri-annually. »

4. Publication of the voting records

The question of whether or not the ECB should publish their voting records is still a matter of discussion in the European Parliament. The European Parliament decided not to require this during this first phase of the ECB's existence. It is true that the publication of votes could ensure that each Council member becomes particularly attentive to the need to be able to justify his or her own position in terms of their mandate to scrutinise developments in the euro area as a whole rather than developments in their own member state. Given that they will want to maximise respect for their own professional judgement and integrity, publication could even be the best means to ensure both high quality independent judgements and independence for the ECB as a whole. This is also the view which has now been taken by other leading central banks, including the US Federal Reserve Board and most recently by the Bank of Japan. Consequently, the pressure on the ECB to publish voting records after ECB Council meetings is growing.

The European Parliament, however, has so far taken the view that the ECB is a new institution and has to increase the European dimension of the decision-making process while the other economic actors are on the national level of the member states. To formulate and implement a uniform monetary policy for the entire Euro-zone, the Europeanization process should not be disturbed by speculation about voting. In particular, it is feared that the publication of the names of council members in votes would encourage pressure on individual members by political leaders and national public opinion. At the beginning, a new institution needs some time for preparation. But the argument put forward by members of the Federal Reserve is also valid that publication of voting records makes them feel more independent. After all, what is essential in the Parliament's view is that the Council does not agree tacitly, but that individual views are made known.

5. Reporting to the European Parliament – the monetary dialogue

In addition to the presentation of the ECB's Annual Report, quarterly meetings on recent monetary and economic developments with the President and/or other members of the Executive Board take place. In this way, greater certainty concerning monetary policy can be attained than would be possible purely by publishing reports, as the substance of the reports would be determined solely by the ECB. The monetary dialogue between the European Parliament and the ECB has been established on a regular basis in order to increase the transparency and credibility of the ECB as well as to avoid any misunderstandings which might have an adverse effect on the markets, and invite speculation. There are four issues to be discussed: firstly, monetary policy concepts and strategies; secondly, the ECB's contribution to growth and employment; thirdly, the international dimension of the euro and fourthly, transparency and other issues. In addition, more practical questions with an impact for citizens and economic actors are dealt with, such as the changeover scenario, the introduction of banknotes, European payment systems and banking fees for the exchange of currencies. Reporting takes place at regular meetings lasting 2 – 3 hours which start with a short introductory statement by the President and continue with comments and questions from the Members of Parliament and answers by the President.

Past experience of the dialogues between the European Parliament, the Presidents of the EMI and national central banks and the Subcommittee on Monetary Affairs has shown that democratic accountability is perfectly feasible in the form of reporting and dialogue. In addition, the European Parliament invites the ECB President to take part in the general debate on monetary and economic developments over the previous and the current year, on the basis of the Annual Report of the ECB and the European Commission's Annual Economic Report as well as the broad economic guidelines which are proposed by the Commission and later on decided by the Council of Ministers. The dialogue between the European Parliament and the ECB concentrates on price stability, and the monetary targets and instruments used in pursuing price stability and it may at any time be initiated at the request of the President of the ECB or the European

Parliament. An issue of special importance is the role of the ECB in contributing to a balanced and appropriate policy mix, especially with a view to the secondary objective of the ECB, always without impairing the objective of price stability.

6. First conclusions on the monetary dialogue

In the regular meetings of the quarterly monetary dialogue, increasingly well-prepared Members of the European Parliament question the President of the ECB on the monetary decisions of the ECB and his view on the economic situation, thereby holding him to account. The minutes of these meetings, as well as a verbatim transcript, can be found on the web site of the European Parliament¹⁹. Experience has shown that talking to the media, as the ECB does immediately after council meetings, is insufficient as the media are more interested in the news as such than in the consistency of decisions with a more medium-term orientation of monetary policy. In contrast to that, the Members of the European Parliament, who represent the citizens of the European Union, can insist on specific issues by means of detailed questions. Examples of topics of concern that were raised in the monetary dialogue on January 19 and April 19, 1999 with Mr Duisenberg and on September 27, 1999 with Mr Noyer were the two-pillar-strategy of the ECB, inflation forecasts and monetary definitions. Earlier this year, the European Parliament raised the question of the existence of deflationary pressures rather than inflationary risks. Members also attached particular importance to the external value of the euro and the upper bounder of the inflation rate. The ECB conceded that it was „entirely possible“ to exceed the lower or the upper limit of 2% of inflation on a short-term basis, claiming that this would not be a matter of concern for the ECB. The role of the ECB in a broader macro-economic environment and its interpretation of Article 105 of the Treaty was another crucial issue. The ECB pointed out that at the time of the reduction in interest rates, there were much greater risks for a decrease in inflation and at the same time for a

¹⁹ <http://www.europarl.eu.int>

downturn. As the President of the ECB emphasised during the monetary dialogue on April 19, 1999: „But the major risk is that we see the down-turn in expectations regarding real economic developments. (...) the weighing of all these risks with regard to both pillars of our monetary strategy means that it is possible for us to pay due attention to the secondary objective of monetary policy of the ECB, namely to support without risk to price stability, the general economic policies in the Community.“²⁰ On September 27, 1999, the Vice-President of the ECB Christian Noyer pointed out that: „Certainly the ECB does want to give an economic upturn a chance in the coming period. (...) We have fully taken on board the need to provide the best possible economic environment.“²¹ It was very surprising to hear, on October 26, 1999 during the presentation of the ECB's annual report, that „By maintaining price stability, it is our firm belief monetary policy makes the best contribution it can to achieving a high level of output and employment in the medium-term. (...)“. In addition, he made allusion to a possible rise in interest rates.²²

Judging from the first meetings of the monetary dialogue, the ECB has made use of the opportunity to explain its conduct of monetary policy and, by making the background to its monetary policy decision transparent, has increased public confidence in and the credibility of European monetary policy through its monetary dialogue with the European Parliament.

VI. Perspectives

The first year of the euro was very successful indeed. Monetary policy, now that it has become the responsibility of the European Central Bank, has gained in profile. With the start of EMU, transparency has increased. The ECB has proved to be more than a copy of the Bundesbank as a new European type of central banking

²⁰ Minutes of the monetary dialogue on April 19, 1999

²¹ Minutes of the monetary dialogue on September 27, 1999

²² Verbatim report of proceedings, October 26, 1999 : « Raising interest rates in a certain situation might be more akin or related to lifting your foot from the peddle as opposed to braking the momentum of the economy and in that way going slower. We all want to go forward.»

has evolved. Important international and European meetings in which the ECB participates, have demonstrated this new role of European monetary policy very clearly. But a new type has also developed as far as the communication of monetary decisions is concerned. The European Parliament, as the representative of the European citizens, is seen to be the appropriate interlocutor of the ECB. However, much remains to be done to implement real accountability. Simply providing the European Parliament with information is not sufficient – the information given has to be clear and complete.

Interest rate movements have to be explained thoroughly and underlying data and forecasts have to be provided, but unfortunately, this did not happen either for the cut in interest rates in April 1999 or for the rise in November 1999. The explanations given were far from convincing, especially that for the rise in interest rates. Only clear information avoids misleading the markets and giving rise to speculation. Especially with a view to Article 105, the ESCB has to make clearer how monetary policy is intended to contribute to a balanced and appropriate policy mix in order to promote sustainable growth and employment, without prejudice to the objective of price stability. The explanation given for the reduction of interest rates by 50 basis points was understood as a clear commitment of the ECB to recognise its obligation to support general economic policies. Its second monetary decision, however, where interest rates were increased by 50 basis points, apparently failed to take into account this secondary target. It remains absolutely unclear why, given the different economic developments in the euro-11 zone, a decision which constitutes asymmetric monetary policy was taken in November 1999. It would have been quite possible to decide for a symmetric monetary policy in spring 2000. Transparency means that all relevant information underlying the decision-making process has to be disclosed. Obviously, the ECB is still a young institution which lacks staff and experience. Forecasts and models still have to be developed, examined and proved before being made public. But the ECB has to increase transparency in order to gain credibility.

The transparency of the ECB will help the economic actors better to understand monetary policies. Openness will make European monetary union more successful. Democratic accountability, however, is not only an *ex post* exercise, as the work of the ECB is future-oriented. Discussions and explanations at an early point in time, f.ex. on international monetary stability, future member states of EMU, or the ECB's role in contributing to economic growth are important in order to understand the ECB's decision-making process. It is crucial to note, therefore, that the concept of the meetings of the European Central Bank and the European Parliament is not to hold hearings but to conduct a regular monetary dialogue where the representatives of the European citizens debate with the president of the ECB.

The European Union needs an appropriate and balanced policy mix where all components – the single monetary policy, 15 national fiscal policies and decentralised wage policies – contribute to economic growth and employment. Thus, the ECB is an important partner in the macro-economic dialogue which was launched at the Cologne summit on June 3 and 4, 1999 and organised for the first time on November 8, 1999 in Brussels. The macro-economic dialogue creates a platform from which the three different policy actors enter into a direct exchange of views. Its impact, however, is still very limited because binding commitments are not foreseen. But the macro-economic dialogue might help the independent European Central Bank to make a contribution to policy co-ordination and thus to growth and employment. Transparency is the first step for understanding the field and type of action of this particular participant.

An Institutional Glossary of the Eurosystem

By

**Tommaso Padoa-Schioppa
Member of the Executive Board
European Central Bank**

TABLE OF CONTENTS

I. INTRODUCTION	24
II. MISSION	24
III. INDEPENDENCE	26
IV. ACCOUNTABILITY	28
V. TRANSPARENCY	31
VI. PREDICTABILITY	34
VII. COMMUNICATION	35
VIII. CONCLUSION	37

I. INTRODUCTION²³

Since 1 January 1999, the euro has been a reality. The management of this new currency has been entrusted to the Eurosystem – comprising the European Central Bank (ECB) and the eleven National Central Banks of the participating Member States. This new institution²⁴ has assumed the tasks and competencies attributed to it under the Treaty establishing the European Community (the “Treaty”), most notably the conduct of a single monetary policy for the whole euro area, or, as it is often called, Euroland. This historic step has fundamentally changed the economic constitution under which both European and national economic policies are conducted. It is against this distinctive political and economic background that the institutional profile of the Eurosystem should be discerned.

In the debate about the institutional profile of the Eurosystem, a number of important notions regularly recur such as independence, accountability, transparency or predictability. In particular the dialogue between the European Central Bank and the European Parliament has provided a privileged setting for their use. Although these terms interrelate and even overlap, they cannot and should not be used interchangeably. Due care should be taken to identify their conceptual distinctiveness, to avoid blurring the indispensable debate about the central bank with confusion and misperceptions.

The objective of this article is to contribute to the debate about the institutional profile of the Eurosystem by clarifying some of these notions. The article is structured in the style of a glossary. It starts with a brief outline of the Eurosystem’s mission (Section II), and a short treatment of its independence prerogative (Section III). It then attempts to define and discuss each of the following terms: accountability (Section IV); transparency (Section V); predictability (Section VI). Communication, which is to be seen as a means to an end, is discussed in Section VII. As could be expected in a glossary, each section will start with a dictionary-based definition, after which the meaning of the concept will be explored with reference to the Eurosystem’s institutional profile. A short conclusion closes the article (Section VIII).

II. MISSION

The New Oxford Dictionary of English defines a mission as a “*strongly felt aim, ambition or calling*”, or as “*important assignment*”²⁵. The Eurosystem’s mission is more than a “*important assignment*”, it is a legal mandate stipulated in the Treaty. At its heart is the primary objective to “*maintain price stability*”²⁶ in the

²³The author is grateful to G. Glöckler for his helpful assistance in the preparation of this article.

²⁴Even though the Eurosystem is not an institution in a strict legal sense, it is one from an economic and functional point of view.

²⁵ The New Oxford Dictionary of English

²⁶ Article 105 of the Treaty establishing the European Community: “*The primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2. The ESCB shall act*

euro area. In my view, the Treaty language is only one way of expressing the concept of a public good that is very broad and comprehensive in its meaning. The traditions of the national central banks supply a wide range of formulations for such a broad concept, be it “die Währung zu sichern”²⁷ as in Germany, or “la difesa del risparmio”²⁸ as in Italy.

The fact that the maintenance of stable prices has been made the centrepiece of the Eurosystem’s mission derives from the history and experience of Europe’s economies. Throughout the 20th century, but especially during the 1970s and 1980s, many European economies suffered from high inflation and its accompanying consequences, i.e. the distortion of price signals in the economy, the erosion of savings and the arbitrary redistribution of wealth. While these experiences have fostered the emergence of a political consensus on the desirability of stable prices and responsible macroeconomic policies, advances in economic research have provided the analytical framework for stability-oriented monetary policies. The recognition that – in the long run – money is neutral, meaning that monetary policy cannot permanently influence growth, investment and employment, provides a cogent argument to steer monetary policy towards the goal of maintaining stable prices.

In order to make the pursuit of the mission possible, the Treaty assigns to the Eurosystem a number of tasks and competencies, with the formulation and implementation of monetary policy at the core. Beyond that, the Eurosystem is mandated to conduct foreign exchange operations, to hold and manage official reserves, to promote the smooth operation of payment systems, to contribute to the conduct of national policies in the fields of prudential supervision and financial stability, and to authorise the issuing of euro banknotes. Furthermore, it is called upon to give advice on a number of policies related to its competencies.

When preparing the Treaty, the Member States sought to provide an optimal framework to allow the Eurosystem to fulfil its mission. In so doing, two requirements had to be satisfied: democratic control and policy effectiveness. In a society based on democratic and market principles, both these requirements are crucial. However, as they are partially conflicting, clear definitions and an appropriate balance in their implementation need to be found. Let me explain.

The policy decisions of the Governing Council of the ECB affect the lives and welfare of the almost 300 million people living in Euroland²⁹. This is why the transfer of such substantial power into the hands of independent, non-elected central bankers can only be legitimate if effective democratic control and accountability are in place. Meanwhile, the Eurosystem has to be in a position to effectively carry out its mission, i.e. to actually “safeguard the currency” and deliver price stability. This may set conditions, and even a limit, to the way in which democratic control is exercised. The forward-looking character of monetary policy, the long time lags with which monetary policy works, the sensitivity of relevant

in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 4.”

²⁷ Gesetz über die Deutsche Bundesbank, § 3, in the version of 22 October 1992 (valid until 31 December 1998) published in Bundesgesetzblatt I S. 1782

²⁸ Art. 47 of the Constitution of the Italian Republic

²⁹ The latest figure (Eurostat, 1999) puts the population of the euro area at 291,4 million.

information and the powerful market reactions to policy announcements all have to be taken into account in designing the methods of democratic control that are appropriate for the central bank.

It should be borne in mind that monetary policy and central banking are by no means the only fields in which the institutional framework for the exercise of a public policy function has to combine effectiveness and democratic control. While the classic example is the military field, other areas can also be cited such as scientific research or internal security.

In recognition of the specific requirements of a successful policy, the Treaty removes monetary policy-making from the realm of executive actions directly conducted by governments, and hence from the pressures of the day-to-day political debate, and endows the Eurosystem with substantial independence. It is precisely the need to ensure an effective and successful pursuit of its mission that requires, and at the same time justifies, the independence prerogative in the Eurosystem's institutional profile.

III. INDEPENDENCE

A dictionary definition of independence refers, *inter alia*, to the "freedom from outside control", the "absence of influence by others" and the "capability of thinking and acting for oneself"³⁰. In the institutional profile of the Eurosystem, the concept of independence is translated into the prohibition for the ECB and National Central Banks to take or seek instructions from any external body. The Community's public authorities, for their part, commit themselves not to seek to exert influence on the Eurosystem.³¹ Through its inclusion into the Treaty, the Eurosystem's independence prerogative has been given a solid constitutional basis.

Independence manifests itself also in a number of concrete institutional features of the Eurosystem. First, *collegiality*. The Eurosystem's main decision-making bodies (the Executive Board and the Governing Council) are both collegiate, as it is the case with most modern central banks today. Collegiality reinforces independent decision-making for the simple reason that a group can defend itself better than a single person from various kinds of pressures and influences, be they economic, psychological, political or intellectual. Second, the *majority principle*. Only superficial thinking would suggest that unanimity ensures a better recognition of all views. On the contrary, unanimity is conducive to non-decisions or to biased decisions, two evils that an independent central bank must avoid. This is why the Statute of the European System of Central Banks and the

³⁰ The New Oxford Dictionary of English

³¹ Art. 108 of the Treaty establishing the European Community: "When exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and the Statute of the ESCB, neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the ECB or of the national central banks in the performance of their tasks."

European Central Bank lay down that decisions be made by adopting the majority principle.³² Due to this stipulation the Governing Council cannot be held hostage by a single member who might have misguided motivations. Third, the *one person – one vote* rule.³³ This fundamental institutional feature relates to the Eurosystem's independence insofar as it is essential to gear the decisions of the Governing Council towards the fulfilment of the Treaty mandate. The members of the Governing Council of the ECB are represented in a personal capacity, i.e. precisely *not* as representatives of their home countries and central banks. Since they explicitly do not represent a particular country it would be illogical to assign weights to their votes. By attending in a personal capacity, the members of the Governing Council do not stand for a particular national interest, but rather for their expertise and experience. Therefore, the Governing Council should not be perceived as a body that balances competing interests. On the contrary, solely on the basis of its "accumulated expertise" is the Governing Council in a position to act in full independence with the aim to fulfil its mission.

Independence is not an absolute notion, rather it should be understood as goal-related. It is relative to the fulfilment of the task for which it has been granted. The Eurosystem is independent to fulfil its mission to safeguard the currency. Consequently, any abuse of the independence prerogative, e.g. for activities which go beyond the boundaries of the clearly defined mission are inappropriate and even counterproductive, because they are likely to lead sooner or later – and understandably so – to calls to restrict independence. In order to protect their independence central banks have to "know how to behave".

In more detail, the relationship between the independence of the ECB and National Central Banks and the successful pursuit of their mission should be framed in terms of a functional *requirement*. The complete severance of any link between paper currencies and gold has brought about a situation in which the total quantity of money is entirely at the discretion of human decisions. Therefore, independence ultimately means to remove the decision to create money from those who have an interest in spending it, be they the business community, the banks or the State. Efforts to gain this independence pervade the history of central banking.

Originally, central banks sought gain independence from other banks and from the business community, as a means to bolster their role and credibility as the issuers of fiduciary money. One way of achieving such independence was to transfer ownership of the central bank into the hands of the state.³⁴ However, in the second half of the 20th century, expanding welfare states took on a more substantive role in the national economies, using the public purse to actively direct and intervene in line with the government's political objectives. The hitherto balanced budgets disappeared, and substantial and prolonged deficit spending

³² Art. 10.2 second paragraph of the ESCB/ECB Statute: "[...] *the Governing Council shall act by simple majority.*"

³³ Art. 10.2 second paragraph of the ESCB/ECB Statute: "[...] *each member of the Governing Council shall have one vote.*"

³⁴ It should be noted, though, that even today there are central banks – such as the South African Reserve Bank – which are owned by private shareholders. However, in such cases, the rights and obligations of the shareholdings are tightly circumscribed.

exposed central banks to new pressures. Central banks were obliged to grant governments privileged access to credit and came under pressure to “inflate away” the governments’ debt burdens. The well-known results, high inflation and low credibility, led to increased calls to remove central banks also from the direct influence of the State. On the “long march” towards independence from economic and political interests, the creation of the Eurosystem represents a further step, taking central banking and money creation throughout Euroland out of the sphere of the State.

Historical experiences have thus borne out the validity of the vital link between independence and the successful pursuit of the mission to safeguard the currency. This is furthermore underpinned by extensive theoretical analysis and empirical evidence which reveals a strong correlation between central bank independence and a successful record of maintaining price stability.

At the same time, the clear-cut description and delimitation of the Eurosystem’s tasks and competencies in the Treaty also provides a *justification* for the independence prerogative. This is because all individual decision pertaining to the actual policy implementation can be considered as merely instrumental to the effective attainment of the assigned objective, an objective that has been previously agreed upon in a constitutional process such as the stipulation and ratification of the Treaty. Interpreting the Eurosystem’s role as a primarily technical one, the role of accomplishing a commonly agreed objective is based on the fundamental proposition that – in the medium and long run – there is no trade-off between inflation and output. It follows from this proposition that the central bank ultimately has no fundamental influence over the level of output and employment in the economy.

A recognition of this insight is particularly relevant with respect to repeated demands – voiced, *inter alia*, in the dialogue between the European Central Bank and the European Parliament – for monetary policy “to do more” to support growth and employment. However, the independent Eurosystem with its clearly assigned price stability mandate is not in a position “to do more”. If it were to follow the misguided demands to actively promote short-term growth, e.g. through an expansionary monetary policy, the Eurosystem would be compelled to take an essentially *political* decision. Any such erroneous politicisation of the decisions of the central bank would in fact weaken the very basis of its independence. If a stability-oriented monetary policy really were to imply *political* choices – which I believe it does not – it should be subject to the normal political process of democratic societies, and not be put into the hands of independent central bankers. It is in this sense that the fundamental long-term orientation and objective of stable prices justifies the central bank’s independence.

Independence as both a *required* and *justified* precondition of a successful pursuit of the given mission thus shields the Eurosystem from the short-term political considerations of various interests in society. However, this is by no means the same as the absence of democratic control. Independence and accountability are two sides of the same coin.

IV. ACCOUNTABILITY

In its dictionary definition “to be accountable” means not only to be held responsible for one’s actions, but also to be required to “*justify and explain actions and decisions*”.³⁵ Accountability is an essential and constituent element of a democratic political order. In such an order, institutions and bodies with the power to affect the lives and welfare of the community must be subject to the scrutiny of the citizens or of their elected representatives. This is particularly relevant for those policy fields – such as central banking³⁶ – where decisions are consciously removed from the day-to-day influences of the political arena. Thus, accountability pertains to a civic and moral obligation inherent in the political order, and is not directly related to what could be termed the “economic order”.

As explained in Section III, independence implies the absence of direct influence of external actors on the policy-making process, i.e. the impossibility to interfere in the policy-making in a way that would make it deviate from the statutory mission. It is precisely because the Eurosystem has a statutory mission and has been granted independence to fulfil it, that it has to be held accountable, and that it is obliged to *ex post* explain and justify its decisions. Accountability is the counterweight of independence, but the latter sets a limit to the role of the institutions to which the central bank is accountable. If, say, the European Parliament were to be in a position to exercise a direct influence on the Eurosystem’s decisions, this would necessarily imply a shared responsibility and the Eurosystem’s obligation to explain and justify its decisions to the European Parliament would appear absurd and devoid of any meaning.

Having established the *ex post* character of accountability³⁷, two further questions need to be addressed in order to render this concept operational for our purposes: accountable for what? accountable to whom?

First: accountable for what? The simple answer is that the Eurosystem should be held accountable for the fulfilment of its mandate. In this context, the maintenance of price stability, and hence the formulation and implementation of the single monetary policy, is at the centre of attention. The Treaty itself provides a yardstick, the maintenance of price stability, against which the Eurosystem’s actions should be measured. However, in order to further clarify this mandate, and also to facilitate the external evaluation of the Eurosystem’s performance, the ECB has adopted a quantitative definition of price stability: a year-on-year increase of the Harmonised Index of Consumer Prices of below 2%, to be achieved over the medium term. Beyond being accountable with reference to its success in fulfilling its primary objective, the Eurosystem is held accountable also in relation to its other tasks. Not least in the dialogue with the European Parliament, the ECB was called upon to explain its actions and decision, *inter alia*, relating to payment systems, euro banknote design and production, etc.

Second: accountable to whom? As the currency is one of the most

³⁵ The New Oxford Dictionary of English

³⁶ There are other policy fields in which the goal of effectiveness has to be reconciled with the need for accountability, e.g. national defence where it would be impossible to conduct a full public debate on the precise tactics and targets of military missions.

³⁷ The *ex post* understanding of the term accountability becomes more lucid when considering also foreign language translations of the term, e.g. in German “accountable” translates into “*rechenschaftspflichtig*”.

pervasive components of the social system, and given that price stability is a public good *par excellence*, it should be clear that the Eurosystem is, in the broadest sense, accountable to the European citizens at large. The fact that the European citizens place their trust in the Eurosystem to “safeguard the currency” and to “defend their savings” makes them the ultimate addressee of the Eurosystem’s accountability.

In the political order of the European Union, the only institution that directly derives its role and legitimacy from the citizens is the European Parliament. Irrespective of the county and constituency where he or she was voted, each member of the European Parliament has been elected to pursue the *European* public interest, just as parliamentarians of Member States are entrusted with the *national* interest. The European Parliament is the institution of Europe’s democratically elected representatives, which represents the interests of the peoples of Europe. This is why accountability quite appropriately relates, first and foremost, to the European Parliament and the dialogue between the ECB and the European Parliament represents the principal means to exercise accountability. Beyond that, the ECB is engaged in a dialogue with all the bodies that play a role in the European political process: the Council of Ministers and the European Commission in the first place, but also the Economic and Social Committee. The ECB participates in meetings of the Euro-11 Group, the ECOFIN Council and the Council President and a member of the European Commission are invited to attend the meetings of the ECB Governing Council. The Eurosystem also reaches out to other relevant groups in society, such as the social partners, by joining, for example, the discussions of the Macroeconomic Dialogue. These contacts allow the ECB to explain its decisions, to share its analysis and to receive political feedback and thus be connected to the European political process. At the national level, the National Central Banks relate to their national parliaments and entertain links of communication with their national governments.

The Eurosystem thus fulfils its accountability obligation, *inter alia*, by way of a comprehensive dialogue with political bodies³⁸. Since Eurosystem officials take to explaining and justifying decisions *in persona*, the Eurosystem follows a path which differs from other central banks that have chosen to publish the minutes (and in some cases also the voting record) of the meetings of their decision-making bodies. There are a number of good reasons for the Eurosystem’s choice. As I shall explain below (in Section V.), we consider the extended statements and press conferences given by the ECB President in the immediate aftermath of Governing Council meetings a more appropriate means to explain and justify the policy decisions. This is because the Eurosystem conveys its message in real-time and is thus in a position to send a timely signal to the markets and the media as well as to the public at large. The *ex post* justification and explanation of decisions as contained in published minutes usually become available after a number of weeks, i.e. at a time when the relevant “action” in the markets is already matter of the past. As for the publication of the voting record, the Eurosystem is opposed to this proposition, not least in order to shield the members

³⁸ In this context, it should be added that the Eurosystem’s extensive reporting activity provides another important means to hold the Eurosystem accountable.

of the Governing Council from undue influence from the Member States. In my view, a publication of votes harbours the danger of encouraging an interpretation of the Governing Council as a collection of “national factions”. It is encouraging to observe a growing recognition and appreciation for the Eurosystem’s distinct method of accountability, which derives not only from the specificity of the Eurosystem’s institutional profile but also from the environment in which it is embedded.

It should be clear from the above that the Eurosystem neither operates in an institutional vacuum, nor does it wish to do so. Being held accountable is not a burden for the Eurosystem, on the very contrary it is a safeguard. It is through discharging its accountability tasks, through exchanges of views and opinions within the European public sphere, including open criticism and controversy, that the Eurosystem can earn its independence every day, and grow in stature. By explaining and justifying its decisions the Eurosystem will be called to face up to challenges and master difficulties. I am confident that in this way, Europe’s new and still young central bank will further build the credibility it needs to carry out its complex tasks with success.

V. TRANSPARENCY

The next notion in the glossary is transparency, which to many observers and critics is the foremost aspect of the institutional profile of a central bank today. A meaningful discussion of transparency should start by clearly distinguishing this notion from that of accountability. Obviously, if the two notions coincided no separate discussion of transparency would be called for. Admittedly, accountability and transparency to a large extent share the same “object”, i.e. the Eurosystem’s tasks and actions. However, related as they may be, they should by no means be used interchangeably, as it is often done in public discourse. In particular, certain quite legitimate criticisms of the ECB’s transparency record should not be mixed up with claims of insufficient accountability.

For our purposes, I shall adopt a conceptual classification, which, albeit subjective, appears to me rather helpful in clarifying the distinction between transparency and accountability. As set out above, accountability refers to a *political* duty, based on the need for democratic control over the exercise of power. It also refers to an *ex post* explanation and justification of decisions taken independently. Transparency, on the other hand, could be conceived as an *economic* requirement. It should be seen as a means to a successful implementation of the Eurosystem’s mission, as an essential ingredient of policy-making in a complex environment.

The view of the Eurosystem can be summarised as follows. The price formation mechanism, and hence price stability, is influenced by many economic actors, such as businesses, trade unions, governments, financial institutions and households. The price decisions of millions of economic agents in the economy can support or hinder the Eurosystem’s efforts to effectively “safeguard the currency”. Such decisions are based, *inter alia*, on the perceived and expected attitude of the central bank. By being transparent, i.e. by communicating its policy decisions *in real-time*, or even by making its intentions known beforehand, the

central bank can promote a better understanding of its policy decisions, which, in turn, enhances the effectiveness of its policy. Therefore, I regard transparency as a notion that belongs to the economic order rather to the realm of the political order, i.e. as aimed at increasing the effectiveness of policy rather than fulfilling a democratic obligation.

Relating transparency to the effectiveness of policy is consistent with the dictionary, which defines it, in its figurative sense, as “*ease of assessment of information*”³⁹. In line with this reading of the term, transparency clearly cannot consist of a constant stream of information releases and policy announcements. Since financial markets react highly sensitively to messages sent out by the Eurosystem and its officials, overburdening them with information would in fact lead to *less* transparency, since the key policy messages would become difficult to discern among the flood of releases. Even worse, it could lead to confusion and disorder in the markets with severe consequences for stability itself.

In practical terms, the Eurosystem’s transparency record could be considered outstanding, not least by international standards. In its attempts to be as transparent as possible, the Eurosystem has established – and continues to develop – a novel framework to provide information to markets and observers (see also section VII.). The ECB holds extended press conferences once a month after a Governing Council meeting, at which the ECB President delivers a comprehensive introductory statement which explains the monetary policy decisions taken, and outlines in detail the reasoning and the main arguments which have led to the decision. A question and answer session allows the media and the public to gain further insights into the deliberations of the Governing Council. Both are made available on the ECB web-site before the end of the day. In so doing, the Eurosystem provides *real-time information*; the markets, the media and the public are not left guessing as to what have been the main reasons for any particular decision. By way of this immediate and substantive communication, the Eurosystem provides a high degree of transparency, and fosters the effectiveness of its policy.

By contrast, other central banks follow a different practice, whereby a brief statement regarding the monetary policy decisions taken is immediately released to the public.⁴⁰ The underlying reasoning and the arguments that have led to the decision can be found in the minutes, which are made public six to nine weeks after the actual decision. Thus, the actual decision is transmitted to the markets in real-time, while any substantive explanation of reasons behind the decision – and precisely this is the information which the markets call for in order to find out how the central bank ‘ticks’ – will become available some weeks later.

Conceptualising transparency (i.e. providing *real-time* information) and accountability (explaining and justifying decisions *ex post*) as two ends of a continuum, the Eurosystem’s has positioned itself more towards the ends of transparency, not least for reasons of policy effectiveness. The Eurosystem has

³⁹ The New Oxford English Dictionary of English

⁴⁰ This applies, for instance, to the Bank of Japan Policy Board and the Monetary Policy Committee of the Bank of England. The Federal Open Market Committee of the Federal Reserve System also issues a statement with the actual policy decision taken, but also adds very brief indications as to which factors/indicators contributed to the decision.

chosen to reveal to the markets and the public at large a comprehensive explanation of its policy decisions immediately after they have been taken, but does not publish minutes of the meeting. In other countries the decision was to provide less information in *real-time* (i.e. to be less transparent), but to explain and justify decisions by making public deliberations in their entirety within several weeks.

Another criticism with which the Eurosystem has been confronted relates to its monetary policy strategy. Most recently, for example, a widely quoted report⁴¹ observed that the "Eurosystem's monetary policy framework, with its emphasis on two pillars, seems better designed to conceal strategy than to help the public understand it." Aware as it is that being independent does not mean to be infallible, the ECB certainly takes such criticism seriously. At the same time, I do not agree with the criticism and – for the sake of transparency itself – I would like to explain why. My disagreement is rooted in the way the very concept of a monetary policy strategy should be understood. The contention of opaqueness, or lack of transparency, is based on an understanding of the notion of a strategy with which I do not concur.

It should be borne in mind that a strategy is, in the first place, an instrument to prepare and take policy decisions. We regard it as a useful instrument, although we have to recognise that highly successful and reputed central banks have not felt the need to adopt a frame of reference as explicitly formulated as ours. To our mind, such frame of reference helps to structure discussions and to guide and orient policy decisions.

A monetary policy strategy should *not* be seen as a machine that automatically delivers decisions. It is not a substitute for judgement nor for the act of will that constitutes the essence of any decision, and that makes decision fundamentally different from analysis. Any policy-making process can be seen as a process in which the degrees of freedom are gradually "used up" until they are reduced to zero at the moment of the "final" decision. In the case of the Eurosystem's this process starts in the Treaty (with the assignment of price stability as the primary policy objective) and ends in each of the periodic meetings of the Governing Council where interest rates are set. Of the numerous stages that lie between these two extremes, one is the definition of price stability. Another one has been the adoption of a strategy, which the dictionary defines a "*plan of [...] policy designed to achieve an overall aim*"⁴². A strategy aims at providing an orderly framework for the deliberations of the Governing Council. It is no rigid screenplay in which any room for discretion has been suppressed. Members of the Executive Board or the Governing Council of the ECB may, as they do, fully agree on the strategy and yet disagree on what should be done today or next week. Within the strategy there must be, and there is, scope for a diversity of views, for deliberation and judgement. Why would collegiate decision-making bodies otherwise be needed?

As such, a strategy does not need to be disclosed. By making public and explicit its monetary policy strategy, the Eurosystem set itself apart from a number

⁴¹ Favero, C. et al: *One Money, Many Countries – monitoring the European Central Bank 2*, Centre of Economic Policy Research (London, 2000)

⁴² The New Oxford Dictionary of English

of central banks around the world. As a matter of fact, the central banks of the other major world currencies do not have a publicly disclosed strategy. Even within Europe, the Bundesbank's openly communicated policy framework of monetary targeting was more an exception than the rule. The Eurosystem has decided to make public and explain its strategy because it believes, as explained above, that that the effectiveness of monetary policy is enhanced if it is understood by the markets, the media and the public at large. In this respect, the Eurosystem's transparent mode of monetary policy-making indeed represents a "new European type of central banking."⁴³

Why does our disclosed strategy draw criticism and at times even appears to be the very cause of an alleged lack of transparency? My answer to this intriguing question is twofold. Firstly, our strategy is not a single variable (we would say single pillar) strategy. Unlike all those strategies previously promulgated by other central banks, our strategy does not select just the money stock, or the inflation rate, or the exchange rate (these are the three options that dominate the camp today) as its exclusive reference. Somewhat surprisingly, even some sophisticated observers find it difficult to grasp this difference. Secondly, although it represents a contribution to the transparency, and hence the effectiveness, of monetary policy, a disclosed strategy is not a substitute for a "track record" of successful policy-making.

For the sake of greater transparency, the ECB has also been called upon, *inter alia*, by the European Parliament, to publish its internal forecasts and projections. While the ECB certainly takes an open-minded approach to this issue, it should be recognised that the explanatory or even predictive power of such forecasts is limited. Forecasts are a synthetic and necessarily simplified representation of a complex economic reality. They also contain a static element, in that they assume that the current policy stance remains unchanged. However, as new information becomes available everyday, the appropriateness of the current policy stance will have to be continuously reappraised. In view of these limitations of forecasts and projections, which have an impact on their usefulness for the actual formulation of monetary policy and its outside evaluation, the Eurosystem has so far taken a rather cautious approach.

When dealing with a new phenomenon such as the single currency and single monetary policy in Euroland, not only the Eurosystem, its monetary policy strategy and forecasting exercises, but also the financial markets and the public at large are necessarily moving along a learning curve.

VI. PREDICTABILITY

The criticism related to the Eurosystem's transparency record could also be fuelled from a further misperception of the concept of transparency. Even a very transparent central bank that, like the Eurosystem, communicates its policy decisions in real-time and explains in detail why certain decisions have been made, cannot be entirely predictable.

⁴³ Randzio-Plath, C.: *A new political culture in the EU – democratic accountability of the ECB*, forthcoming

Predictability implies that it can be *"estimate[d] that (a specified thing) will happen in the future or will be a consequence of something"* ⁴⁴. In the case of monetary policy, any such precise estimation of future decisions is not only impossible, it is also undesirable, for the following reasons.

First, demands to pursue an exclusively rules-based – and thus entirely predictable – approach to policy, voiced in the name of transparency or predictability, reflect a misperception of what I would discern as the "art" of monetary policy-making. It is an overly simplistic view to conceive monetary policy as a mechanistic process whereby certain pressures on one side, say, aggregate demand, always generate quasi-automatic and fully predictable responses on the other side, say, in the form of interest rate moves. The "art" of monetary policy will continue to entail a large degree of judgement and as such necessarily contains an element of surprise.

Secondly, I believe that full predictability would imply a "waste of information". If the Governing Council of the ECB announced today what monetary policy decision it intends to take in two weeks' time (at, say, the next Governing Council meeting), this would imply wasting the information that might become available in the meantime (the inter-meeting period). If the members of the Governing Council were absolutely sure what they would have to decide in two weeks' time, then they should not postpone the respective decision and wait for the next Governing Council meeting.

Thirdly, since the Governing Council is a collective body, it is impossible to know in advance what information the members of the Governing Council bring to the table, and how the discussion will proceed. Any prediction as to the outcome would imply a pre-empting of the eventual decision, which is, in itself, the result of the discussion.

It follows that monetary policy, although as transparent as possible, cannot – and in my view, should not – be fully predictable. The "art" of monetary policy-making continues to include a degree of judgement which cannot be foreseen, and at times might generate surprises – though it should be restated at this point that it is not a policy of the Eurosystem to surprise the markets with its interest rate decisions.

Greater predictability – even if it were possible – does not generate credibility. The Eurosystem's credibility should not be conceived as a simple function of its predictability. In fact, if the Eurosystem's monetary policy decision were entirely predictable to the markets, the media and the citizens, there would be no need for credibility. Establishing and fostering credibility is a continuous task which relates to the Eurosystem's capacity to deal with the uncertainty which monetary policy faces in a complex economic environment. In this process, communication plays a vital role.

VII. COMMUNICATION

The dictionary defines communication as the *"imparting or exchanging of information by speaking, writing or by using some other medium"*, with the clear

⁴⁴ The New Oxford Dictionary of English

aim of a “successful conveying of ideas”.⁴⁵ Thus, communication should be conceived as a vehicle, a means to an end. As such communication is extremely important because it aids the Eurosystem to be transparent and to satisfy the need to effectively explain policy decisions.

Communication is the third and last phase in the policy process; it follows after *decision* and *implementation*. For the Eurosystem, it is also the most difficult of these phases. This can be explained with reference to the specific set-up and history of the Eurosystem.

When defining its mode of decision-making and implementation, the Eurosystem was able draw on the experience and examples of existing central banks, even though the chosen model of a consequent decentralisation of implementation tasks could be considered rather novel.

However, in terms of communication, none of the existing models could simply be adopted. Due to its set-up and functioning, the Eurosystem is faced with a number of challenges that can help to understand some of the difficulties we have experienced and to explain the criticisms voiced in this important part of the policy process. First, the Eurosystem operates with a *plurality of languages*⁴⁶, which clearly differs from the context of the communication experience of all other existing central banks. Secondly, the Eurosystem is faced with a *plurality of communication conventions*. One and the same message, even if perfectly translated, carries different meanings and is differently perceived in the various national contexts, stemming from the differing traditions and conventions. Thirdly, the Eurosystem addresses the market and the public with a *plurality of communicators*. Against the background of the inherited traditions of the National Central Banks within the Eurosystem, and not least due to the Eurosystem’s institutional set-up, the tasks of communicating to markets and the public cannot – and should not – be confined to, say, the ECB President alone. A diversity of communicators need not necessarily be perceived as a disadvantage. The examples of the Federal Open Market Committee or the Bank of England’s Monetary Policy Committee reveal that a free expression of multiple – and sometimes even diverging – views regarding the monetary policy stance and the decisions taken is being perceived by the markets and the media as a “healthy” reflection of the wide spectre of relevant opinions. In these cases, such breadth of views is seen as a guarantee for thorough and comprehensive deliberations of the decision-making bodies. With respect to the Eurosystem’s task to conduct a single monetary policy for a currency area which is still rather heterogeneous, a similar richness of views of the members of the Governing Council certainly represents an essential advantage. It is somewhat surprising to see this point being well-recognised by critics for other central banks, and sometimes overlooked in the case of the Eurosystem. I am confident that this valuable “asset” will over time find the recognition of the markets, the media and the public at large.

Moreover, in all communication there is a sending and a receiving end. The Eurosystem is a novel monetary policy arrangement, a true change of regime. This novelty also requires some understanding and some adaptations by those to

⁴⁵ The New Oxford Dictionary of English

⁴⁶ For its publications, the Eurosystem uses the 11 official languages of the European Community.

whom the Eurosystem's communicates: the markets, the media, the public at large. It would be underestimating the significance of this change in the monetary environment, if previously held standards and conventions were simply transferred and applied to the conditions of this rather unique set-up. A process of adaptation is currently underway. However, the Eurosystem is likely to face some criticisms of its communication policy also in the future, not least because the new institutional and policy framework will sometimes be seen entirely from a national perspective.

VIII. CONCLUSION

The advent of the euro and the Eurosystem has opened an entirely new chapter for Europe's economic policy constitution as well as for the evolution of central banking. It would be a fallacy to believe this regime shift – fundamental as it was – represents a "one off" event. On the contrary, the current process of adaptation to this new set-up implies a dynamic, though certainly not uncontroversial, evolution. While the institutional profile of the Eurosystem, its mission and independence, should be considered as a given in this process, Europe's new central bank is also "embedded" in the wider process of European integration.

The Eurosystem has achieved an advanced stage of integration, not only in terms of policy action, but also in terms of attitude, outlook and identification of its constituent units. However, the achievement of a similar capacity for coherent action and a unified collective vision is still underway on the part of economic policy-makers. Since the strength of a currency – and the public's confidence in it – is closely related to the political structure that supports it, the current imbalance and the Eurosystem's "institutional loneliness" will need to be addressed. As the European Union proceeds towards its objective of an "ever closer union"⁴⁷, the Eurosystem's interrelations with economic actors, political institutions, the media and the public at large will evolve, too.

This discussion of the Eurosystem's institutional profile, its accountability and transparency intended to provide a assessment of the *status quo*. However, as could be expected from a central banker, a forward-looking perspective necessarily implies making use of information that will become available in this process. As the European Union, its institutions and its common currency evolve, certain aspects of the terms defined and discussed in this glossary might well become subject to a justified re-interpretation.

⁴⁷ Preamble to the Treaty establishing the European Community

2008		
B01-08	Euro-Diplomatie durch gemeinsame „Wirtschaftsregierung“	<i>Martin Seidel</i>
2007		
B03-07	Löhne und Steuern im Systemwettbewerb der Mitgliedstaaten der Europäischen Union	<i>Martin Seidel</i>
B02-07	Konsolidierung und Reform der Europäischen Union	<i>Martin Seidel</i>
B01-07	The Ratification of European Treaties - Legal and Constitutional Basis of a European Referendum.	<i>Martin Seidel</i>
2006		
B03-06	Financial Frictions, Capital Reallocation, and Aggregate Fluctuations	<i>Jürgen von Hagen, Haiping Zhang</i>
B02-06	Financial Openness and Macroeconomic Volatility	<i>Jürgen von Hagen, Haiping Zhang</i>
B01-06	A Welfare Analysis of Capital Account Liberalization	<i>Jürgen von Hagen, Haiping Zhang</i>
2005		
B11-05	Das Kompetenz- und Entscheidungssystem des Vertrages von Rom im Wandel seiner Funktion und Verfassung	<i>Martin Seidel</i>
B10-05	Die Schutzklauseln der Beitrittsverträge	<i>Martin Seidel</i>
B09-05	Measuring Tax Burdens in Europe	<i>Guntram B. Wolff</i>
B08-05	Remittances as Investment in the Absence of Altruism	<i>Gabriel González-König</i>
B07-05	Economic Integration in a Multicore World?	<i>Christian Volpe Martincus, Jennifer Pédussel Wu</i>
B06-05	Banking Sector (Under?)Development in Central and Eastern Europe	<i>Jürgen von Hagen, Valeriya Dinger</i>
B05-05	Regulatory Standards Can Lead to Predation	<i>Stefan Lutz</i>
B04-05	Währungspolitik als Sozialpolitik	<i>Martin Seidel</i>
B03-05	Public Education in an Integrated Europe: Studying to Migrate and Teaching to Stay?	<i>Panu Poutvaara</i>
B02-05	Voice of the Diaspora: An Analysis of Migrant Voting Behavior	<i>Jan Fidrmuc, Orla Doyle</i>
B01-05	Macroeconomic Adjustment in the New EU Member States	<i>Jürgen von Hagen, Iulia Traistaru</i>
2004		
B33-04	The Effects of Transition and Political Instability On Foreign Direct Investment Inflows: Central Europe and the Balkans	<i>Josef C. Brada, Ali M. Kutan, Tanner M. Yigit</i>
B32-04	The Choice of Exchange Rate Regimes in Developing Countries: A Multinomial Panel Analysis	<i>Jürgen von Hagen, Jizhong Zhou</i>
B31-04	Fear of Floating and Fear of Pegging: An Empirical Analysis of De Facto Exchange Rate Regimes in Developing Countries	<i>Jürgen von Hagen, Jizhong Zhou</i>
B30-04	Der Vollzug von Gemeinschaftsrecht über die Mitgliedstaaten und seine Rolle für die EU und den Beitrittsprozess	<i>Martin Seidel</i>
B29-04	Deutschlands Wirtschaft, seine Schulden und die Unzulänglichkeiten der einheitlichen Geldpolitik im Eurosystem	<i>Dieter Spethmann, Otto Steiger</i>
B28-04	Fiscal Crises in U.S. Cities: Structural and Non-structural Causes	<i>Guntram B. Wolff</i>
B27-04	Firm Performance and Privatization in Ukraine	<i>Galyna Grygorenko, Stefan Lutz</i>
B26-04	Analyzing Trade Opening in Ukraine: Effects of a Customs Union with the EU	<i>Oksana Harbuzyuk, Stefan Lutz</i>
B25-04	Exchange Rate Risk and Convergence to the Euro	<i>Lucjan T. Orłowski</i>
B24-04	The Endogeneity of Money and the Eurosystem	<i>Otto Steiger</i>
B23-04	Which Lender of Last Resort for the Eurosystem?	<i>Otto Steiger</i>
B22-04	Non-Discretionary Monetary Policy: The Answer for Transition Economies?	<i>Elham-Mafi Kreft, Steven F. Kreft</i>
B21-04	The Effectiveness of Subsidies Revisited: Accounting for Wage and Employment Effects in Business R+D	<i>Volker Reintaler, Guntram B. Wolff</i>
B20-04	Money Market Pressure and the Determinants of Banking Crises	<i>Jürgen von Hagen, Tai-kuang Ho</i>
B19-04	Die Stellung der Europäischen Zentralbank nach dem Verfassungsvertrag	<i>Martin Seidel</i>

B18-04	Transmission Channels of Business Cycles Synchronization in an Enlarged EMU	<i>Iulia Traistaru</i>
B17-04	Foreign Exchange Regime, the Real Exchange Rate and Current Account Sustainability: The Case of Turkey	<i>Sübüdey Togan, Hasan Ersel</i>
B16-04	Does It Matter Where Immigrants Work? Traded Goods, Non-traded Goods, and Sector Specific Employment	<i>Harry P. Bowen, Jennifer Pédussel Wu</i>
B15-04	Do Economic Integration and Fiscal Competition Help to Explain Local Patterns?	<i>Christian Volpe Martincus</i>
B14-04	Euro Adoption and Maastricht Criteria: Rules or Discretion?	<i>Jiri Jonas</i>
B13-04	The Role of Electoral and Party Systems in the Development of Fiscal Institutions in the Central and Eastern European Countries	<i>Sami Yläoutinen</i>
B12-04	Measuring and Explaining Levels of Regional Economic Integration	<i>Jennifer Pédussel Wu</i>
B11-04	Economic Integration and Location of Manufacturing Activities: Evidence from MERCOSUR	<i>Pablo Sanguinetti, Iulia Traistaru, Christian Volpe Martincus</i>
B10-04	Economic Integration and Industry Location in Transition Countries	<i>Laura Resmini</i>
B09-04	Testing Creditor Moral Hazard in Sovereign Bond Markets: A Unified Theoretical Approach and Empirical Evidence	<i>Ayse Y. Evrensel, Ali M. Kutan</i>
B08-04	European Integration, Productivity Growth and Real Convergence	<i>Taner M. Yigit, Ali M. Kutan</i>
B07-04	The Contribution of Income, Social Capital, and Institutions to Human Well-being in Africa	<i>Mina Balamoune-Lutz, Stefan H. Lutz</i>
B06-04	Rural Urban Inequality in Africa: A Panel Study of the Effects of Trade Liberalization and Financial Deepening	<i>Mina Balamoune-Lutz, Stefan H. Lutz</i>
B05-04	Money Rules for the Eurozone Candidate Countries	<i>Lucjan T. Orłowski</i>
B04-04	Who is in Favor of Enlargement? Determinants of Support for EU Membership in the Candidate Countries' Referenda	<i>Orla Doyle, Jan Fidrmuc</i>
B03-04	Over- and Underbidding in Central Bank Open Market Operations Conducted as Fixed Rate Tender	<i>Ulrich Bindseil</i>
B02-04	Total Factor Productivity and Economic Freedom Implications for EU Enlargement	<i>Ronald L. Moomaw, Euy Seok Yang</i>
B01-04	Die neuen Schutzklauseln der Artikel 38 und 39 des Beitrittsvertrages: Schutz der alten Mitgliedstaaten vor Störungen durch die neuen Mitgliedstaaten	<i>Martin Seidel</i>
2003		
B29-03	Macroeconomic Implications of Low Inflation in the Euro Area	<i>Jürgen von Hagen, Boris Hofmann</i>
B28-03	The Effects of Transition and Political Instability on Foreign Direct Investment: Central Europe and the Balkans	<i>Josef C. Brada, Ali M. Kutan, Taner M. Yigit</i>
B27-03	The Performance of the Euribor Futures Market: Efficiency and the Impact of ECB Policy Announcements (Electronic Version of International Finance)	<i>Kerstin Bernoth, Juergen von Hagen</i>
B26-03	Sovereign Risk Premia in the European Government Bond Market (überarbeitete Version zum Herunterladen)	<i>Kerstin Bernoth, Juergen von Hagen, Ludger Schulknecht</i>
B25-03	How Flexible are Wages in EU Accession Countries?	<i>Anna Iara, Iulia Traistaru</i>
B24-03	Monetary Policy Reaction Functions: ECB versus Bundesbank	<i>Bernd Hayo, Boris Hofmann</i>
B23-03	Economic Integration and Manufacturing Concentration Patterns: Evidence from Mercosur	<i>Iulia Traistaru, Christian Volpe Martincus</i>
B22-03	Reformzwänge innerhalb der EU angesichts der Osterweiterung	<i>Martin Seidel</i>
B21-03	Reputation Flows: Contractual Disputes and the Channels for Inter-Firm Communication	<i>William Pyle</i>
B20-03	Urban Primacy, Gigantism, and International Trade: Evidence from Asia and the Americas	<i>Ronald L. Moomaw, Mohammed A. Alwosabi</i>
B19-03	An Empirical Analysis of Competing Explanations of Urban Primacy Evidence from Asia and the Americas	<i>Ronald L. Moomaw, Mohammed A. Alwosabi</i>

B18-03	The Effects of Regional and Industry-Wide FDI Spillovers on Export of Ukrainian Firms	<i>Stefan H. Lutz, Oleksandr Talavera, Sang-Min Park</i>
B17-03	Determinants of Inter-Regional Migration in the Baltic States	<i>Mihails Hazans</i>
B16-03	South-East Europe: Economic Performance, Perspectives, and Policy Challenges	<i>Iulia Traistaru, Jürgen von Hagen</i>
B15-03	Employed and Unemployed Search: The Marginal Willingness to Pay for Attributes in Lithuania, the US and the Netherlands	<i>Jos van Ommeren, Mihails Hazans</i>
B14-03	FCIs and Economic Activity: Some International Evidence	<i>Charles Goodhart, Boris Hofmann</i>
B13-03	The IS Curve and the Transmission of Monetary Policy: Is there a Puzzle?	<i>Charles Goodhart, Boris Hofmann</i>
B12-03	What Makes Regions in Eastern Europe Catching Up? The Role of Foreign Investment, Human Resources, and Geography	<i>Gabriele Tondl, Goran Vuksic</i>
B11-03	Die Weisungs- und Herrschaftsmacht der Europäischen Zentralbank im europäischen System der Zentralbanken - eine rechtliche Analyse	<i>Martin Seidel</i>
B10-03	Foreign Direct Investment and Perceptions of Vulnerability to Foreign Exchange Crises: Evidence from Transition Economies	<i>Josef C. Brada, Vladimír Tomsík</i>
B09-03	The European Central Bank and the Eurosystem: An Analysis of the Missing Central Monetary Institution in European Monetary Union	<i>Gunnar Heinsohn, Otto Steiger</i>
B08-03	The Determination of Capital Controls: Which Role Do Exchange Rate Regimes Play?	<i>Jürgen von Hagen, Jizhong Zhou</i>
B07-03	Nach Nizza und Stockholm: Stand des Binnenmarktes und Prioritäten für die Zukunft	<i>Martin Seidel</i>
B06-03	Fiscal Discipline and Growth in Euroland. Experiences with the Stability and Growth Pact	<i>Jürgen von Hagen</i>
B05-03	Reconsidering the Evidence: Are Eurozone Business Cycles Converging?	<i>Michael Massmann, James Mitchell</i>
B04-03	Do Ukrainian Firms Benefit from FDI?	<i>Stefan H. Lutz, Oleksandr Talavera</i>
B03-03	Europäische Steuerkoordination und die Schweiz	<i>Stefan H. Lutz</i>
B02-03	Commuting in the Baltic States: Patterns, Determinants, and Gains	<i>Mihails Hazans</i>
B01-03	Die Wirtschafts- und Währungsunion im rechtlichen und politischen Gefüge der Europäischen Union	<i>Martin Seidel</i>
2002		
B30-02	An Adverse Selection Model of Optimal Unemployment Assurance	<i>Marcus Hagedorn, Ashok Kaul, Tim Mennel</i>
B29B-02	Trade Agreements as Self-protection	<i>Jennifer Pédussel Wu</i>
B29A-02	Growth and Business Cycles with Imperfect Credit Markets	<i>Debajyoti Chakrabarty</i>
B28-02	Inequality, Politics and Economic Growth	<i>Debajyoti Chakrabarty</i>
B27-02	Poverty Traps and Growth in a Model of Endogenous Time Preference	<i>Debajyoti Chakrabarty</i>
B26-02	Monetary Convergence and Risk Premiums in the EU Candidate Countries	<i>Lucjan T. Orlowski</i>
B25-02	Trade Policy: Institutional Vs. Economic Factors	<i>Stefan Lutz</i>
B24-02	The Effects of Quotas on Vertical Intra-industry Trade	<i>Stefan Lutz</i>
B23-02	Legal Aspects of European Economic and Monetary Union	<i>Martin Seidel</i>
B22-02	Der Staat als Lender of Last Resort - oder: Die Achillesverse des Eurosystems	<i>Otto Steiger</i>
B21-02	Nominal and Real Stochastic Convergence Within the Transition Economies and to the European Union: Evidence from Panel Data	<i>Ali M. Kutan, Taner M. Yigit</i>
B20-02	The Impact of News, Oil Prices, and International Spillovers on Russian Financial Markets	<i>Bernd Hayo, Ali M. Kutan</i>

B19-02	East Germany: Transition with Unification, Experiments and Experiences	<i>Jürgen von Hagen, Rolf R. Strauch, Guntram B. Wolff</i>
B18-02	Regional Specialization and Employment Dynamics in Transition Countries	<i>Iulia Traistaru, Guntram B. Wolff</i>
B17-02	Specialization and Growth Patterns in Border Regions of Accession Countries	<i>Laura Resmini</i>
B16-02	Regional Specialization and Concentration of Industrial Activity in Accession Countries	<i>Iulia Traistaru, Peter Nijkamp, Simonetta Longhi</i>
B15-02	Does Broad Money Matter for Interest Rate Policy?	<i>Matthias Brückner, Andreas Schaber</i>
B14-02	The Long and Short of It: Global Liberalization, Poverty and Inequality	<i>Christian E. Weller, Adam Hersch</i>
B13-02	De Facto and Official Exchange Rate Regimes in Transition Economies	<i>Jürgen von Hagen, Jizhong Zhou</i>
B12-02	Argentina: The Anatomy of A Crisis	<i>Jiri Jonas</i>
B11-02	The Eurosystem and the Art of Central Banking	<i>Gunnar Heinsohn, Otto Steiger</i>
B10-02	National Origins of European Law: Towards an Autonomous System of European Law?	<i>Martin Seidel</i>
B09-02	Monetary Policy in the Euro Area - Lessons from the First Years	<i>Volker Clausen, Bernd Hayo</i>
B08-02	Has the Link Between the Spot and Forward Exchange Rates Broken Down? Evidence From Rolling Cointegration Tests	<i>Ali M. Kutan, Su Zhou</i>
B07-02	Perspektiven der Erweiterung der Europäischen Union	<i>Martin Seidel</i>
B06-02	Is There Asymmetry in Forward Exchange Rate Bias? Multi-Country Evidence	<i>Su Zhou, Ali M. Kutan</i>
B05-02	Real and Monetary Convergence Within the European Union and Between the European Union and Candidate Countries: A Rolling Cointegration Approach	<i>Josef C. Brada, Ali M. Kutan, Su Zhou</i>
B04-02	Asymmetric Monetary Policy Effects in EMU	<i>Volker Clausen, Bernd Hayo</i>
B03-02	The Choice of Exchange Rate Regimes: An Empirical Analysis for Transition Economies	<i>Jürgen von Hagen, Jizhong Zhou</i>
B02-02	The Euro System and the Federal Reserve System Compared: Facts and Challenges	<i>Karlheinz Ruckriegel, Franz Seitz</i>
B01-02	Does Inflation Targeting Matter?	<i>Manfred J. M. Neumann, Jürgen von Hagen</i>
2001		
B29-01	Is Kazakhstan Vulnerable to the Dutch Disease?	<i>Karlygash Kuralbayeva, Ali M. Kutan, Michael L. Wyzan</i>
B28-01	Political Economy of the Nice Treaty: Rebalancing the EU Council. The Future of European Agricultural Policies	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B27-01	Investor Panic, IMF Actions, and Emerging Stock Market Returns and Volatility: A Panel Investigation	<i>Bernd Hayo, Ali M. Kutan</i>
B26-01	Regional Effects of Terrorism on Tourism: Evidence from Three Mediterranean Countries	<i>Konstantinos Drakos, Ali M. Kutan</i>
B25-01	Monetary Convergence of the EU Candidates to the Euro: A Theoretical Framework and Policy Implications	<i>Lucjan T. Orłowski</i>
B24-01	Disintegration and Trade	<i>Jarko and Jan Fidrmuc</i>
B23-01	Migration and Adjustment to Shocks in Transition Economies	<i>Jan Fidrmuc</i>
B22-01	Strategic Delegation and International Capital Taxation	<i>Matthias Brückner</i>
B21-01	Balkan and Mediterranean Candidates for European Union Membership: The Convergence of Their Monetary Policy With That of the European Central Bank	<i>Josef C. Brada, Ali M. Kutan</i>
B20-01	An Empirical Inquiry of the Efficiency of Intergovernmental Transfers for Water Projects Based on the WRDA Data	<i>Anna Rubinchik-Pessach</i>
B19-01	Detrending and the Money-Output Link: International Evidence	<i>R.W. Hafer, Ali M. Kutan</i>

B18-01	Monetary Policy in Unknown Territory. The European Central Bank in the Early Years	<i>Jürgen von Hagen, Matthias Brückner</i>
B17-01	Executive Authority, the Personal Vote, and Budget Discipline in Latin American and Caribbean Countries	<i>Mark Hallerberg, Patrick Marier</i>
B16-01	Sources of Inflation and Output Fluctuations in Poland and Hungary: Implications for Full Membership in the European Union	<i>Selahattin Dibooglu, Ali M. Kutan</i>
B15-01	Programs Without Alternative: Public Pensions in the OECD	<i>Christian E. Weller</i>
B14-01	Formal Fiscal Restraints and Budget Processes As Solutions to a Deficit and Spending Bias in Public Finances - U.S. Experience and Possible Lessons for EMU	<i>Rolf R. Strauch, Jürgen von Hagen</i>
B13-01	German Public Finances: Recent Experiences and Future Challenges	<i>Jürgen von Hagen, Rolf R. Strauch</i>
B12-01	The Impact of Eastern Enlargement On EU-Labour Markets. Pensions Reform Between Economic and Political Problems	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B11-01	Inflationary Performance in a Monetary Union With Large Wage Setters	<i>Lilia Cavallar</i>
B10-01	Integration of the Baltic States into the EU and Institutions of Fiscal Convergence: A Critical Evaluation of Key Issues and Empirical Evidence	<i>Ali M. Kutan, Niina Pautola-Mol</i>
B09-01	Democracy in Transition Economies: Grease or Sand in the Wheels of Growth?	<i>Jan Fidrmuc</i>
B08-01	The Functioning of Economic Policy Coordination	<i>Jürgen von Hagen, Susanne Mundschenk</i>
B07-01	The Convergence of Monetary Policy Between Candidate Countries and the European Union	<i>Josef C. Brada, Ali M. Kutan</i>
B06-01	Opposites Attract: The Case of Greek and Turkish Financial Markets	<i>Konstantinos Drakos, Ali M. Kutan</i>
B05-01	Trade Rules and Global Governance: A Long Term Agenda. The Future of Banking.	<i>Deutsch-Französisches Wirtschaftspolitisches Forum</i>
B04-01	The Determination of Unemployment Benefits	<i>Rafael di Tella, Robert J. McCulloch</i>
B03-01	Preferences Over Inflation and Unemployment: Evidence from Surveys of Happiness	<i>Rafael di Tella, Robert J. McCulloch, Andrew J. Oswald</i>
B02-01	The Konstanz Seminar on Monetary Theory and Policy at Thirty	<i>Michele Fratianni, Jürgen von Hagen</i>
B01-01	Divided Boards: Partisanship Through Delegated Monetary Policy	<i>Etienne Farvaque, Gael Lagadec</i>
2000		
B20-00	Breakin-up a Nation, From the Inside	<i>Etienne Farvaque</i>
B19-00	Income Dynamics and Stability in the Transition Process, general Reflections applied to the Czech Republic	<i>Jens Hölscher</i>
B18-00	Budget Processes: Theory and Experimental Evidence	<i>Karl-Martin Ehrhart, Roy Gardner, Jürgen von Hagen, Claudia Keser</i>
B17-00	Rückführung der Landwirtschaftspolitik in die Verantwortung der Mitgliedsstaaten? - Rechts- und Verfassungsfragen des Gemeinschaftsrechts	<i>Martin Seidel</i>
B16-00	The European Central Bank: Independence and Accountability	<i>Christa Randzio-Plath, Tomasso Padoa-Schioppa</i>
B15-00	Regional Risk Sharing and Redistribution in the German Federation	<i>Jürgen von Hagen, Ralf Hepp</i>
B14-00	Sources of Real Exchange Rate Fluctuations in Transition Economies: The Case of Poland and Hungary	<i>Selahattin Dibooglu, Ali M. Kutan</i>
B13-00	Back to the Future: The Growth Prospects of Transition Economies Reconsidered	<i>Nauro F. Campos</i>

B12-00	Rechtsetzung und Rechtsangleichung als Folge der Einheitlichen Europäischen Wahrung	<i>Martin Seidel</i>
B11-00	A Dynamic Approach to Inflation Targeting in Transition Economies	<i>Lucjan T. Orłowski</i>
B10-00	The Importance of Domestic Political Institutions: Why and How Belgium Qualified for EMU	<i>Marc Hallerberg</i>
B09-00	Rational Institutions Yield Hysteresis	<i>Rafael Di Tella, Robert McCulloch</i>
B08-00	The Effectiveness of Self-Protection Policies for Safeguarding Emerging Market Economies from Crises	<i>Kenneth Kletzer</i>
B07-00	Financial Supervision and Policy Coordination in The EMU	<i>Deutsch-Franzosisches Wirtschaftspolitisches Forum</i>
B06-00	The Demand for Money in Austria	<i>Bernd Hayo</i>
B05-00	Liberalization, Democracy and Economic Performance during Transition	<i>Jan Fidrmuc</i>
B04-00	A New Political Culture in The EU - Democratic Accountability of the ECB	<i>Christa Randzio-Plath</i>
B03-00	Integration, Disintegration and Trade in Europe: Evolution of Trade Relations during the 1990's	<i>Jarko Fidrmuc, Jan Fidrmuc</i>
B02-00	Inflation Bias and Productivity Shocks in Transition Economies: The Case of the Czech Republic	<i>Josef C. Brada, Arthur E. King, Ali M. Kutan</i>
B01-00	Monetary Union and Fiscal Federalism	<i>Kenneth Kletzer, Jurgen von Hagen</i>
1999		
B26-99	Skills, Labour Costs, and Vertically Differentiated Industries: A General Equilibrium Analysis	<i>Stefan Lutz, Alessandro Turrini</i>
B25-99	Micro and Macro Determinants of Public Support for Market Reforms in Eastern Europe	<i>Bernd Hayo</i>
B24-99	What Makes a Revolution?	<i>Robert McCulloch</i>
B23-99	Informal Family Insurance and the Design of the Welfare State	<i>Rafael Di Tella, Robert McCulloch</i>
B22-99	Partisan Social Happiness	<i>Rafael Di Tella, Robert McCulloch</i>
B21-99	The End of Moderate Inflation in Three Transition Economies?	<i>Josef C. Brada, Ali M. Kutan</i>
B20-99	Subnational Government Bailouts in Germany	<i>Helmut Seitz</i>
B19-99	The Evolution of Monetary Policy in Transition Economies	<i>Ali M. Kutan, Josef C. Brada</i>
B18-99	Why are Eastern Europe's Banks not failing when everybody else's are?	<i>Christian E. Weller, Bernard Morzuch</i>
B17-99	Stability of Monetary Unions: Lessons from the Break-Up of Czechoslovakia	<i>Jan Fidrmuc, Julius Horvath and Jarko Fidrmuc</i>
B16-99	Multinational Banks and Development Finance	<i>Christian E. Weller and Mark J. Scher</i>
B15-99	Financial Crises after Financial Liberalization: Exceptional Circumstances or Structural Weakness?	<i>Christian E. Weller</i>
B14-99	Industry Effects of Monetary Policy in Germany	<i>Bernd Hayo and Birgit Uhlenbrock</i>
B13-99	Financial Fragility or What Went Right and What Could Go Wrong in Central European Banking?	<i>Christian E. Weller and Jurgen von Hagen</i>
B12-99	Size Distortions of Tests of the Null Hypothesis of Stationarity: Evidence and Implications for Applied Work	<i>Mehmet Caner and Lutz Kilian</i>
B11-99	Financial Supervision and Policy Coordination in the EMU	<i>Deutsch-Franzosisches Wirtschaftspolitisches Forum</i>
B10-99	Financial Liberalization, Multinational Banks and Credit Supply: The Case of Poland	<i>Christian Weller</i>
B09-99	Monetary Policy, Parameter Uncertainty and Optimal Learning	<i>Volker Wieland</i>
B08-99	The Connection between more Multinational Banks and less Real Credit in Transition Economies	<i>Christian Weller</i>

- B07-99 **Comovement and Catch-up in Productivity across Sectors: Evidence from the OECD** *Christopher M. Cornwell and Jens-Uwe Wächter*
- B06-99 **Productivity Convergence and Economic Growth: A Frontier Production Function Approach** *Christopher M. Cornwell and Jens-Uwe Wächter*
- B05-99 **Tumbling Giant: Germany's Experience with the Maastricht Fiscal Criteria** *Jürgen von Hagen and Rolf Strauch*
- B04-99 **The Finance-Investment Link in a Transition Economy: Evidence for Poland from Panel Data** *Christian Weller*
- B03-99 **The Macroeconomics of Happiness** *Rafael Di Tella, Robert McCulloch and Andrew J. Oswald*
- B02-99 **The Consequences of Labour Market Flexibility: Panel Evidence Based on Survey Data** *Rafael Di Tella and Robert McCulloch*
- B01-99 **The Excess Volatility of Foreign Exchange Rates: Statistical Puzzle or Theoretical Artifact?** *Robert B.H. Hauswald*
- 1998**
- B16-98 **Labour Market + Tax Policy in the EMU** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B15-98 **Can Taxing Foreign Competition Harm the Domestic Industry?** *Stefan Lutz*
- B14-98 **Free Trade and Arms Races: Some Thoughts Regarding EU-Russian Trade** *Rafael Reuveny and John Maxwell*
- B13-98 **Fiscal Policy and Intranational Risk-Sharing** *Jürgen von Hagen*
- B12-98 **Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero** *Athanasios Orphanides and Volker Wieland*
- B11A-98 **Die Bewertung der "dauerhaft tragbaren öffentlichen Finanzlage" der EU Mitgliedstaaten beim Übergang zur dritten Stufe der EWWU** *Rolf Strauch*
- B11-98 **Exchange Rate Regimes in the Transition Economies: Case Study of the Czech Republic: 1990-1997** *Julius Horvath and Jiri Jonas*
- B10-98 **Der Wettbewerb der Rechts- und politischen Systeme in der Europäischen Union** *Martin Seidel*
- B09-98 **U.S. Monetary Policy and Monetary Policy and the ESCB** *Robert L. Hetzel*
- B08-98 **Money-Output Granger Causality Revisited: An Empirical Analysis of EU Countries (überarbeitete Version zum Herunterladen)** *Bernd Hayo*
- B07-98 **Designing Voluntary Environmental Agreements in Europe: Some Lessons from the U.S. EPA's 33/50 Program** *John W. Maxwell*
- B06-98 **Monetary Union, Asymmetric Productivity Shocks and Fiscal Insurance: an Analytical Discussion of Welfare Issues** *Kenneth Kletzer*
- B05-98 **Estimating a European Demand for Money (überarbeitete Version zum Herunterladen)** *Bernd Hayo*
- B04-98 **The EMU's Exchange Rate Policy** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B03-98 **Central Bank Policy in a More Perfect Financial System** *Jürgen von Hagen / Ingo Fender*
- B02-98 **Trade with Low-Wage Countries and Wage Inequality** *Jaleel Ahmad*
- B01-98 **Budgeting Institutions for Aggregate Fiscal Discipline** *Jürgen von Hagen*
- 1997**
- B04-97 **Macroeconomic Stabilization with a Common Currency: Does European Monetary Unification Create a Need for Fiscal Insurance or Federalism?** *Kenneth Kletzer*
- B-03-97 **Liberalising European Markets for Energy and Telecommunications: Some Lessons from the US Electric Utility Industry** *Tom Lyon / John Mayo*
- B02-97 **Employment and EMU** *Deutsch-Französisches Wirtschaftspolitisches Forum*
- B01-97 **A Stability Pact for Europe** *(a Forum organized by ZEI)*

ISSN 1436 - 6053

Zentrum für Europäische Integrationsforschung
Center for European Integration Studies
Rheinische Friedrich-Wilhelms-Universität Bonn

Walter-Flex-Strasse 3
D-53113 Bonn
Germany

Tel.: +49-228-73-1732
Fax: +49-228-73-1809
www.zei.de