Evaluating the institutional performance of the ECB before and after the enlargement

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Abstract

Unlike the de facto asymmetrical EMS, the ECB is expected to behave as a genuine euro-wide policymaker that makes decisions according to the whole eurozone’s interests. Yet, in the absence of published minutes and votes, it seems difficult to control that NCB governors do comply with the rule of non-nationalist voting. In addition, the ECB faces more traditional questions about the quality of its decisions: is the decision-making process too slow? Does it implement too restrictive a monetary policy? Last, how may accession countries alter monetary policy-making when they join the euro?

This paper presents a simple indirect method to evaluate the institutional performance of the EMU. Taylor rules are simulated for each country and, on the basis of these preferred interest rates, three decision-making procedures with different voting powers are implemented and compared: “one country, one vote” [current rule]; an intermediate rule similar to qualified majority voting [reformed rule]; and weights exactly proportional to the sizes of the countries [“ideal” rule].

The provisional conclusion is rather comforting: the ECB’s monetary policy has not been exaggeratedly slow or restrictive, there is no evidence of nationalist voting, and national preferences about the level of interest rates tend to converge.

Keywords: Taylor rule, European Monetary Union, European Central Bank

JEL Classification: E43, E52, E58

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Introduction

Contrary to the *de facto* asymmetric functioning of the European Monetary System (EMS) –in which Germany was the leader and decided on its own monetary policy while the other EMS countries had to conform to it–, the Governing Council of the European Central Bank [ECB] (comprising the Executive Board of the ECB and the governors of the participating national central banks [NCBs]) is expected to behave as a genuine euro-wide policymaker and to make decisions in accordance with the interests of the whole eurozone, and independently from national governments’ pressure. Yet, in the absence of published minutes and votes, it seems difficult to make sure that NCB governors do comply with the rule of non-nationalist voting. In addition to this suspicion of partisan votes, the ECB faces more traditional questions about the quality of its decisions: is the decision-making process too slow? Does it implement too restrictive a monetary policy?

Furthermore, the enlargement is expected to entail difficulties due to the specificities of the newcomers. The accession countries are numerous; most of them are small countries, if not by their population, at least in terms of per capita GDP; and in spite of their transition processes, they are still distinguished by their economic and institutional lag compared to the current EU member states. According to the worst case scenario, it is even alleged sometimes that the entry of these new member States could lead to such institutional disorder that it might trigger the collapse of the whole Union. Indeed, it may take some time for them to adapt to the EU framework since even the current member states sometimes find it difficult to comply with euro-wide rules. But while euro-enlargement-sceptics prophesy that the EU at large is doomed, this paper questions specifically the impact of the enlargement on monetary policy-making in the European Economic and Monetary Union (EMU). The accession countries will join the new Exchange Rate Mechanism (ERM II) as EMU members with a derogation, meaning that they have an obligation to adopt the euro when they fulfil the Maastricht convergence criteria. What will happen when the governors of their NCBs enter the Governing Council? To what extent may they interfere with efficient policy-making in the Governing Council once they have joined the euro? Are there any robust reasons to fear substantial changes in the outcome of the decision-making process?
The remaining of this paper is organized as follows. Section 1 presents a simple method based on simulations of Taylor rules and voting procedures to evaluate the institutional performance of monetary policy-making in the EMU. It makes assumptions on a theoretical Taylor rule for the ECB and for the governors of the participating national central banks and then simulates various decision-making processes. Section 2 presents the conclusions drawn from these simulations. Section 3 uses the same device to give some insight about the accession countries’ behaviour when they enter the Governing Council, and Section 4 concludes.

I. An indirect method to evaluate monetary policy in EMU

The Taylor rule and monetary policy in EMU

- The Taylor rule and its follow-ups

In his initial paper, Taylor [1993] presented a “straightforward” example of “what a representative policy rule might look like”:

\[ r = p + 0.5 \, y + 0.5 \, (p-2) + 2 \]

where \( r \) is the federal funds rate, \( p \) is the rate of inflation over the previous four quarters, and \( y \) is the percent deviation of real GDP (\( Y \)) from trend real GDP (\( Y^* \)):

\[ y = 100 \, (Y-Y^*)/Y^* \]

(with \( Y^* = 2.2\% \) per year in the USA from 1984:1 through 1992:3).

This rule uses an inflation target of 2% and gives equal weights to the real GDP target and the inflation target. Taylor indicates that when both the inflation rate and the real GDP are on target, the real interest rate \( r-p \) equals 2 (this equilibrium real rate being close to the assumed steady-state growth rate \( Y^* \)), meaning that the lagged inflation rate \( p \) serves as a proxy for expected inflation in order to calculate the real interest rate.

Since 1993, this initial rule has been widely discussed and an abundant literature has given rise to a large variety of ‘Taylor-like’ rules. The Taylor rule owes much of its success to its simplicity and its efficiency: this very simple reaction function is easy to implement and it accounts fairly well for the Federal Reserve’s past monetary policy.
But beyond this apparent simplicity, the Taylor rule is a reduced form that synthesises complex macroeconomic relations, such as the underlying macroeconomic model used by the central bank, the central bank’s preferences about the trade-off between inflation and unemployment, and its inflation target. Furthermore, estimations of Taylor rules are sensitive to the selection of variables included in the model and the choices in data processing—for instance the way the output gap is measured—, and to specification details and the estimation method. As a consequence, estimations of Taylor rules for different countries and periods are hardly comparable because although they look similar, they cover up a variety of underlying models and macroeconomic contexts.

This paper focuses on monetary policy-making in the EMU, which raises another issue: to what extent do the twelve participating countries decide on a single monetary policy without bringing their own domestic interests to the fore?

- **Empirical literature about the Taylor rule and the ECB**

As far as the ECB’s monetary policy rule is concerned, empirical papers usually face two major traps. On the one hand, during the early years of the EMU, time series are too short to allow significant econometric analysis. On the other hand, the ECB is too young to have a long established policy-making reputation. Because of these two limits, one could be tempted to behave as if the EMU were the plain continuation of the EMS. Thus, Sibi [2001] considers a fictitious ECB before 1999 and estimates its behaviour (actually a weighted average of the monetary rules implemented by the various NCBs of the EMS) on one sample period covering the late EMS years and the early EMU years. Although this approach is convenient, its main shortcoming is that it overlooks the radical change of 1999: there was no reason for the Bundesbank to behave like an EMS-wide central bank whereas the ECB is supposed to make decisions in conformity with euro-wide interests.

Another approach [Alesina et al. (2001), Faust, Rogers, and Wright (2001), Mihov (2001), Smant (2002), Clausen and Hayo (2002)] considers the ECB as the heir of the Bundesbank and tests whether it does follow the same monetary rule. The authors estimate a reaction function for the Bundesbank before 1999, apply this rule to European data as from 1999, and compare it with the ECB’s interest rate. As they find that the ECB’s interest rate is lower than the one that the Bundesbank would have implemented, their main contribution is to reveal a break in monetary policy-making before and after the euro. Unfortunately, they fail to bring solid explanation for the gap between the Bundesbank’s behaviour and that of the ECB.
The limits of econometric analysis stress the need for a deeper study of decision-making processes within the ECB.

**Institutional description of the ECB**

- **Policy objectives**
  The Treaty on the European Union defines the objectives for the European System of Central Banks (ESCB) in Article 105: its main objective is clearly price stability, and the concern for growth and employment is only secondary and subordinate to compliance with the primary inflation objective.

  Article 105 – “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.”

  Article 2 – “The Community shall have as its task, by establishing a common market and an economic and monetary union and by implementing the common policies or activities referred to in Articles 3 and 3a, to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment, a high degree of convergence of economic performance, a high level of employment and of social protection, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among Member States.”

  Although the inflation target has never been made totally explicit, the ECB’s 2% inflation target is usually understood as an upper limit for core inflation (excluding energy and unprocessed food products) over the medium term, in accordance with the ECB’s definition of price stability:

  “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”.

- **Independence and non-partisan voting**
  The independence of the ECB implies two conditions. First, monetary policy decisions should be independent from national governments, as Art. 108 prevents pressure from national governments on the ECB and on the NCBs:
Article 108 (former Article 107) – “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.”

Second, the Governing Council is intended to be neutral: partisan voting by NCB governors or members of the Executive Board is not allowed, as stated in *The Monetary Policy of the ECB* (2004):

“Monetary policy decisions in the euro area must be based on a euro area perspective. (…) When taking decisions, the members of the Governing Council do not act as national representatives but in a fully independent, personal capacity.”

- **Decision-making procedure**

The ESCB comprises all the central banks of the EU: the NCBs of the eurozone and the ECB (which all together make up the Eurosystem) and the NCBs of the non-EMU countries: Denmark, the UK, and Sweden, plus the NCBs of the accession countries as from May 1st 2004.

**Fig. 1. NCBs, the ECB, the Eurosystem, and the ESCB**
The ECB has three decision-making bodies: the Executive Board, the Governing Council and the General Council.

**Fig. 2. The decision-making bodies of the ECB and their roles**

As for the voting modalities in the Governing Council, *The Monetary Policy of the ECB* indicates:

> The Statute of the ESCB states that the Governing Council shall act by a simple majority when taking decisions on monetary policy and on the other tasks of the Eurosystem. (…) Each member of the Governing Council has one vote. In the event of a tie, the President of the ECB has a casting vote.

Actually, the Governing Council’s decisions are usually taken on the basis of a consensus, which goes counter to its statute. However this assessment is only based on a number of replies by Wim Duisenberg to questions immediately following press conferences\(^1\). In the absence of a publication of minutes and votes (if any), it is impossible to know exactly what is being said at the Governing Council.

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\(^1\) Here are two examples (excerpts from ECB press conferences of 3 February 2000 and 8 June 2000): “First, there was no formal vote. Again, as I had hoped and as it was, it was a consensus decision” and “We had an intensive discussion, a prolonged discussion, which was very useful, and, in the end, resulted in a consensus on what we had to do.”
Evaluating the institutional performance of the ECB

• The issues
There have been continuous complaints about the ECB’s poor communication, and this lack of transparency breeds suspicion about the nature and quality of its decisions. Evaluating the performance of the ECB brings about two series of questions. Do NCB governors comply with the non-partisan voting requirement? Are some countries unduly overrepresented? Is there a means to reveal such institutional dysfunctions? Furthermore, as any other central bank, the ECB is questioned about the efficiency of its monetary policy decisions, i.e. is it too slow in the conduct of its policy? Does it implement too restrictive a monetary policy?

Two papers provide bases for analysing voting procedures and voting power within the Eurosystem. De Grauwe, Dewachter, and Aksoy (1999) assess three scenarios for votes within the Governing Council, from consensus (Euro-wide decisions) to the “ECB rule” (nationalist votes from governors of the NCBs but not from the Executive Board) and, last, the nationalist scenario (in which every member of the Governing Council has nationalist votes). As for Von Hagen and Brückner (2002), they argue that the ECB applies more than proportionate weight to economic developments in Germany and France, suggesting that there may be a biased consensus towards these countries within the Governing Council.

This paper suggests a simple method to provide some insight about these issues.

• The method: Simulating national Taylor rules and various voting procedures in a heterogeneous zone with a single monetary policy
The first stage is to choose a benchmark Taylor rule for monetary policy in the euro area. The choice is based on the guidelines announced by the ECB, which set low inflation as the primary objective (mid-term inflation has to remain below 2%), and activity as secondary. So, the benchmark rule gives the inflation objective a higher weight than the output objective (respectively 1.2 and 0.8), and the inflation objective is 2%. As for the constant term of the Taylor rule, it is the long term real interest rate in the eurozone.

In order to determine the preferred interest rate for each NCB, this Taylor rule is applied to each EMU country as from 1999:Q1. The output gap is measured by the HP filter method applied to national GDPs. Besides, since inflation is supposed to be considered over the
medium term, the inflation rate is smoothed by applying a HP filter to quarterly observations with a weak smoothing parameter ($\lambda=50$).
The rule is also applied to the aggregate output gap and inflation data (calculated directly on the basis of EMU-12 GDP and consumer prices index data) in order to measure the optimal interest rate for the euro area as from 1999.

On the basis of these preferred national and European interest rates, three voting procedures are simulated. Under the assumption that the non-partisan voting rule is breached, each NCB governor votes for the preferred interest rate of his or her country in all three procedures. The difference lies in the behaviour of the Executive Board [EB] and in the way votes are weighted [Table 1].

The first voting rule [Rule A] is the current Governing Council rule of “one country, one vote”. It gives equal weights to every member of the Governing Council and assumes that members of the Executive Board vote according to a nationalist perspective as well (thus giving two votes to those countries with a representative at the Executive Board). As these are the voting weights in force currently, if NCB governors and the Executive Board did have partisan votes, the actual ECB interest rate would be equal to the interest rate resulting from this simulation.

The second voting rule [Rule B] is intermediate: each vote is given the same weight as in qualified majority voting at the Council of Ministers. This procedure uses weights that are less than proportionate to the population. Indeed, as the “one country, one vote” gives every country the same weight regardless of its size, it leads to an overrepresentation of small countries. That is why the larger countries could try to obtain a redefinition of the voting rule at the Governing Council towards a procedure that would be more dependent on the sizes of countries – such as a rotation system favourable to larger countries, or a double-stage representation system in which larger countries have more votes. In any case, the aim of such reforms would be to lower the voting power of small countries and readjust the decision-making procedure towards a system that reflects more the relative sizes of countries. So, this second aggregation enables to simulate the impact of this type of institutional reform. The (partisan) votes of members of the EB are assumed to be taken into account in the reformed weights.
The last voting rule [Rule C] gives each NCB governor’s vote a weight exactly proportionate
to the country’s share in EMU-12 GDP. The national votes amount to the two thirds of the
aggregate vote, as the NCB governors are 12 out of 18 members of the Governing Council.
The remaining third is provided by the votes of the EB, whose members are all supposed to
vote directly for the whole euro area’s preferred interest rate. The aim of this calculation is to
get a benchmark, since this mode of aggregation is expected to give the appropriate interest
rate for the whole zone –provided that the aggregation of national rules weighted by their
sizes is tantamount to the Taylor rule applied to aggregate data. It means that if the members
of the Governing Council voted for the optimal interest rate for the eurozone, thus behaving
as genuine European non-partisan policymakers, the resulting interest rate would be the same
as the one simulated by this last voting procedure.

Table 1. Weights in the three voting rules

<table>
<thead>
<tr>
<th>Country</th>
<th>Rule A: One country, one vote, and nationalist EB*</th>
<th>Rule B: Weights as for QMV</th>
<th>Rule C: Share in EMU-12 GDP and European EB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxembourg**</td>
<td>1</td>
<td>2</td>
<td>0.29%</td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
<td>3</td>
<td>1.41%</td>
</tr>
<tr>
<td>Finland</td>
<td>1 + 1</td>
<td>3</td>
<td>1.95%</td>
</tr>
<tr>
<td>Austria</td>
<td>1</td>
<td>4</td>
<td>3.13%</td>
</tr>
<tr>
<td>Portugal</td>
<td>1</td>
<td>5</td>
<td>1.69%</td>
</tr>
<tr>
<td>Belgium</td>
<td>1</td>
<td>5</td>
<td>3.74%</td>
</tr>
<tr>
<td>Greece**</td>
<td>1 + 1</td>
<td>5</td>
<td>1.88%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1 + 1</td>
<td>5</td>
<td>5.93%</td>
</tr>
<tr>
<td>Spain</td>
<td>1 + 1</td>
<td>8</td>
<td>8.97%</td>
</tr>
<tr>
<td>Italy</td>
<td>1 + 1</td>
<td>10</td>
<td>17.63%</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
<td>10</td>
<td>21.57%</td>
</tr>
<tr>
<td>Germany</td>
<td>1 + 1</td>
<td>10</td>
<td>31.80%</td>
</tr>
<tr>
<td>Euro area</td>
<td>0</td>
<td>0</td>
<td>6/18</td>
</tr>
</tbody>
</table>

* Members of the Duisenberg Executive Board (simulations end in 2003;Q3); ** not
simulated for lack of data.

The decision resulting from aggregate votes is the weighted average of national votes, using
the weights in Table 1. Note that the median voter’s preferred interest rate could have been
chosen instead, as this procedure cannot be manipulated by voters. However, it can be
objected that since macroeconomic data are common knowledge, NCB governors are unlikely
to have strategic votes that differ from their preferred interest rate. Weighted averages are

2 It could be objected in turn that the measure of the output gap and expectations about the inflation rate are so
equivocal that they are not completely common knowledge.
displayed in this paper, but in practise, the outcome would only be slightly different with the median voter procedure.

- **Aims of this method**

The method presented in this paper provides information about the ECB’s decision-making process. Indeed, the gap between the three simulated voting rules highlights how decision-making procedures—and not only differences in preferences—have an impact on monetary policy-making.

Furthermore, it can be used as a simple device to reveal possible nationalist votes when the lack of transparency does not allow a more direct analysis of votes. One cannot observe directly whether votes are nationalist, yet one can assume what would happen if they were. Given the current “one country, one vote” voting rule, the simulated Rule A is what the ECB’s interest rate would look like if the members of the Governing Council did take a nationalist stance. On the contrary, if the observed interest rate is different from Rule A, and closer to Rule C (“ideal” voting rule), then it may mean that decisions are made according to the whole euro area’s interests.

Moreover, the more standard technique of simulating a Taylor rule on EMU-12 aggregate data as a benchmark for EMU monetary policy answers more traditional questions about a central bank (e.g. is its monetary policy too restrictive? Is it too slow?).

**II. Monetary policy-making in EMU: Lessons from the simulations**

*Simulations of national Taylor rules: Some heterogeneity remains*

As the graph below shows, a certain degree of heterogeneity remains within the eurozone: while all countries use the same coefficients and the same constant term for the Taylor rule, differences in the output gap and in inflation in 2002 give preferred interest rates ranging from 2% (Germany, France, Austria, Belgium) to 5%-6% (Spain, Netherlands, Portugal) and even higher (Ireland). Statistical analysis reveals that it is mostly due to differences in inflation [see Appendix 1].
National preferred interest rates with the rule: \( i = r + 0.8y + 1.2(\text{infl}-2) \)
where \( r \): euro area long-term real interest rate

Simulations of the three voting rules and of the Taylor rule on European data

- Taylor rule applied to EMU-12 data
- Voting rule A: one country, one vote [NCB governors only]
- Voting rule A: one country, one vote, and nationalist Executive Board
- Voting rule B: intermediate weights
- Voting rule C: 'ideal' rule
- ECB interest rate (main refinancing operations) moved one quarter earlier

- Voting procedures matter
The comparison of the three voting procedures reveals that the interest rate resulting from the Governing Council’s decision is all the higher as the voting power distribution is uniform. This is not surprising: the “one country, one vote” rule overweighs the small countries’ votes while the largest two countries, Germany and France, often have the lowest two preferred interest rates. When the sizes of the countries are better reflected in the voting power distribution, Germany and France are able to drag the interest rate downwards.

In rule A, even though the members of the Executive Board are assumed to have nationalist votes, their votes bring the aggregate decision closer to the euro area’s needs. This is because they mostly increase the weight of large states (Germany, Italy, and Spain, and then also France as from November 2003 when Jean-Claude Trichet became the new President). So, having most of the large countries represented at the Executive Board is a means to introduce more proportionality compared to the NCB governors votes (although it remains less proportional than rule B).

As expected, rule C is very close to the Taylor rule on aggregate data, especially as from 2001.

- **Do the simulations reveal any major institutional dysfunction?**

  Is there any evidence that NCB governors and members of the Executive Board are not neutral as far as national preferences are concerned?

  The comparison between the three simulated voting rules and the actual interest rate with a delay of one quarter shows that most of the time, the ECB rate is very close to the “ideal” rule C. As a consequence, suspicions of partisan votes are invalidated: simulations do not bring any evidence of nationalist votes and on the contrary, they tend to show that the whole area’s interests are taken into account.

- **Are monetary policy decisions in the EMU relevant?**

  The last issue is relative to the economic performance of the monetary policy: is the level of interest rates consistent with the needs of the EMU economy and is the decision-making process prompt enough?

  This time, the observed interest rate is compared to the rate that would result from applying the benchmark Taylor rule directly to aggregate EMU data. In the first quarters of the ECB, the interest rate was too high, but then it caught up with the Taylor rule interest rate. In 2000, the ECB raised its interest rate too high again, possibly for being too optimistic about economic growth or to push governments to lower their deficits. In 2001-2002, the lagged
observed interest rate was quite remarkably close to the Taylor rule, while it seems to remain too high in 2003.

So, most of the time the ECB’s monetary policy seems in conformity with the needs of the euro area (although sometimes temporarily too restrictive), and it is implemented with a delay of approximately one quarter –simulations on monthly data give a more precise delay of four or five months.

However, as Artus and Wyplosz (2002) admit, a delay of five months is not unusual: by comparison, it is similar, or even shorter than other central banks’ delays. Furthermore, as the inflation objective is interpreted over the medium term, it is not necessary for the ECB to have very prompt reactions to changes in the inflation rate. Last, the monetary policy transmission channels in Europe are not as fast as in the USA and so they do not require the central bank to have rapid reactions. Nonetheless, it could be a problem for the UK if the British decided to join the euro.

III. How will the enlargement affect the decision-making process?

This section adopts a prospective approach. What impact on monetary policy-making in the EMU can we expect when the accession countries join the euro? Is a reform of the decision-making process necessary?

Accession countries and the Maastricht convergence criteria

Since May 1st 2004, accession countries are members of the EMU with a derogation, which means that they have an obligation to become members of EMU provided that they fulfil the Maastricht criteria (although it does not exclude the possibility of a country deciding not to satisfy the criteria deliberately). When are they likely to fully comply with them?

Appendix 2 provides a series of graphs and tables that relate the evolution and current situation of the accession countries as far as the Maastricht convergence criteria are concerned.

3 As for the central bank (CB) independence, it was a condition required for EU membership as part of the *acquis communautaire*. This criterion is less clear because it cannot be measured by a single indicator. De Haan,
- **Price stability**

The price stability criterion requires that the inflation rate that does not exceed by more than 1.5 percentage points that of the three best performing member states. In 2002, this limit was 3.6%.

There has been remarkable disinflation in the accession countries in the last decade. While eight of these countries had inflation rates above 10% in 1994 (as high as 72.2% in Lithuania), in 2002 all but two of them (Slovenia and Hungary) were below the Maastricht threshold of 3.6%.

However, inflation might rise again in the future due to the Balassa-Samuelson effect: because of faster labour productivity growth in the tradable sector compared to the non-tradable sector in fast-growing countries, wages increase in the tradable sector. An increase in wages in the non-tradable sector follows, and it causes prices to go up. The resulting appreciation of the real exchange rate can cause either a rise in the exchange rate (but this rise is bounded by the margins of ERM II, and it will not be possible at all once these countries join the euro) or a rise in inflation.

The problem with higher inflation in the accession countries is not as much its impact on inflation in the eurozone (since the economic weight of these countries is not large enough to cause a threat) as its impact on the choice of a common interest rate: the inflation differential between the current members and the potential future members would lead the latter to prefer higher interest rates.

- **Long-term interest rates**

Long-term interest rates are to be not more than 2 percentage points above the average rate on 10-year government bonds in the three countries with the lowest rates of inflation. In 2003, long-term interest rates were not to exceed 6.8%. Only two countries were above this upper limit: Poland (6.9%) and Hungary (7.1%).

- **Public finances**

Eijffinger and Waller (2003) compile several indexes to evaluate the degree of independence and show that on paper, the CBs in accession countries are outstandingly independent. Yet, the actual independence, measured by the turnover rate of CB governors, is not so good.

4 Two countries out of eight – no consistent data were found for the remaining two: Malta and Cyprus.
Apart from Hungary, Slovakia, and Malta, most countries already meet the public deficit criterion (public sector deficit below 3 percent of GDP) or are close to it.

As for the public debt criterion, all the countries but Malta had a public debt below 60 percent of GDP in 2002 – and even Malta was not far from it, with a debt amounting to 66.4% of GDP. Estonia, Latvia, Lithuania, the Czech Republic, and Slovenia have public debts below 30% of GDP.

- **Exchange rate stability**

  This last criterion requires the countries to have participated for at least two years in the new European Exchange Rate Mechanism (ERM II) within the normal fluctuation margins of +/- 15%, without any devaluation being required.

  The graph in Appendix 2 shows that at least for the eight countries mentioned, exchange rate stability is not a problem. There may be tensions on exchange rates in the future due to the Balassa-Samuelson effect or because of large capital inflows, but so far exchange rates have been stable enough.

  As for the ERM II participation condition, most countries can argue that even though they were not officially in the ERM II yet, they had already established stable exchange rate regimes before entering the EU and the ERM II. Indeed, a number of countries currently have a currency board with a peg to the euro – which is a credible form of a fixed exchange rate regime since it is a strong commitment device. This may favour entry in the EMU before two years’ participation in the ERM II.

  As a conclusion, it is likely that several accession countries should adopt the euro as early as 2006 (or even 2005 if the exchange rate stability criterion benefits from accommodating interpretation) because they already fulfil most of the Maastricht criteria. Yet, the European Commission is not pushing the accession countries to join the euro hastily: instead, it has stressed the need to comply with real convergence in parallel with nominal convergence, in order to lessen the likelihood of asymmetric shocks.

  What can be the consequences on the decision-making process at the Governing Council when the accession countries join the euro?

  **Some insight on what is likely to happen**
• Preferred interest rates in accession countries

The same simulations as in Section 2 are applied to 22 countries\(^5\): the current EMU members and the 10 accession countries. As it is hardly possible to make credible forecasts for the years 2006 onwards, the simulations are made over the period 1999-2003. The aim is first to calculate what level of interest rates the accession countries would have preferred if they had used the same Taylor rule, and then to estimate what impact it would have had on the votes at the Governing Council if the accession countries had been able to vote too. Although this is quite fictitious as far as institutional history is concerned, it does provide some information on the gaps in economic preferences between the current members of the EMU and the potential future members, and hence on the viability of the current institutional setting applied to an enlarged EMU.

The countries with the highest preferred interest rates are Hungary, Slovakia, Poland, and Slovenia. This is because they are the countries with the highest inflation rates, as the first graph in Appendix 2 shows. Their preferred interest rates decrease along with inflation in 2000-2002, except for Slovenia whose inflation rate remains above 7% in 2002.

Lithuania has the lowest preferred interest rate, sometimes even below zero, because its inflation rate is the lowest.

\(^5\) Actually 19 countries, as data for Greece, Luxembourg, and Cyprus are not available.
Impact on decision-making at the Governing Council

The national preferred interest rates are aggregated according to the three voting rules described in Section 2. The weights for qualified majority voting are the ones indicated in the Nice Treaty, and the sizes of the countries are measured by their shares in total GDP.

Rule A would be the aggregation of votes under the current voting procedure of the Governing Council, and with nationalist votes from all the members of the Governing Council. Rule B stands for a reformed decision-making process (rotation or representation), as the aim of such a reform would be to lower the voting power of small countries and increase that of large countries. Rule C would have been the optimal interest rate for the whole eurozone if the accession countries had already been in it, as it gives each country a weight equal to its size. As no aggregate data for these 22 countries are available, the Executive Board is assumed to vote for the NCB governors’ aggregate vote. Table 2 describes the weights used for each voting rule.

The Taylor Rule applied to the current eurozone and the observed interest rates are used as a reference for the preferences of the current members of the EMU alone, while the three simulated votes include the preferences of the potential future members of the EMU.
Table 2. Weights in the three voting rules with accession countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Rule A: One country, one vote, and nationalist EB</th>
<th>Rule B: Weights as for QMV in Nice Treaty</th>
<th>Rule C: Share in EMU-22 GDP + European EB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxembourg*</td>
<td>1</td>
<td>4</td>
<td>0.27%</td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
<td>7</td>
<td>1.31%</td>
</tr>
<tr>
<td>Finland</td>
<td>1 + 1</td>
<td>7</td>
<td>1.82%</td>
</tr>
<tr>
<td>Austria</td>
<td>1</td>
<td>10</td>
<td>2.93%</td>
</tr>
<tr>
<td>Portugal</td>
<td>1</td>
<td>12</td>
<td>1.58%</td>
</tr>
<tr>
<td>Belgium</td>
<td>1</td>
<td>12</td>
<td>3.49%</td>
</tr>
<tr>
<td>Greece*</td>
<td>1 + 1</td>
<td>12</td>
<td>1.76%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1 + 1</td>
<td>13</td>
<td>5.54%</td>
</tr>
<tr>
<td>Spain</td>
<td>1 + 1</td>
<td>27</td>
<td>8.38%</td>
</tr>
<tr>
<td>Italy</td>
<td>1 + 1</td>
<td>29</td>
<td>16.47%</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
<td>29</td>
<td>20.15%</td>
</tr>
<tr>
<td>Germany</td>
<td>1 + 1</td>
<td>29</td>
<td>29.71%</td>
</tr>
<tr>
<td>Malta</td>
<td>1</td>
<td>3</td>
<td>0.06%</td>
</tr>
<tr>
<td>Cyprus*</td>
<td>1</td>
<td>4</td>
<td>0.16%</td>
</tr>
<tr>
<td>Estonia</td>
<td>1</td>
<td>4</td>
<td>0.10%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1</td>
<td>4</td>
<td>0.35%</td>
</tr>
<tr>
<td>Latvia</td>
<td>1</td>
<td>4</td>
<td>0.13%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1</td>
<td>7</td>
<td>0.22%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1</td>
<td>7</td>
<td>0.38%</td>
</tr>
<tr>
<td>Hungary</td>
<td>1</td>
<td>12</td>
<td>1.05%</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>1</td>
<td>12</td>
<td>1.11%</td>
</tr>
<tr>
<td>Poland</td>
<td>1</td>
<td>27</td>
<td>3.00%</td>
</tr>
</tbody>
</table>

* not simulated for lack of data

As the accession countries have low GDPs compared to the current EMU members, rule C gives them little weight in the voting procedure and so the aggregate interest rate is only slightly above its previous position. If the sizes were measured by population instead of GDP, rule C would give a higher interest rate.

The simulations show that while there was a large gap in preferences between the accession countries and the current euro area in 1999-2000, the gap then narrowed to the extent that in 2002, the accession countries’ preferences caught up with those of the current EMU member states. This is due to a fall in inflation in accession countries: the nominal convergence measured by the Maastricht criteria entails a convergence in votes, which is beneficial to institutional coherence.
This is rather good news: if the preferred interest rates for the potential future members of the EMU are in line with the preferred interest rates of the current members, then reaching agreements on monetary policy-making should be easier than expected – provided that the nominal convergence goes on and that the new member states do follow the same monetary policy rule as the current member states.

IV. Conclusions

The EMS may have proved disappointing in the sense that it was intended to be symmetric and it actually resulted in an asymmetric system, with Germany as a monetary policy leader and the remaining member states keeping in line with it. In comparison, the young ECB has been doing rather well. Its decisions are not too slow compared to other central banks, and under the assumptions made in this paper (weights: 1.2 and 0.8, inflation target: 2%, output gap measured by the Hodrick-Prescott filter, slightly smoothed inflation, constant term equal to the long-term real interest rate), its monetary policy appears to be in conformity with the
needs of the euro area. Furthermore, the analysis of the interest rates on the basis of various simulated voting procedures does not reveal any major institutional dysfunction since it seems that NCB governors at the Governing Council do not adopt national stances: small countries do no tend to drag the interest rate upwards, nor do Germany and France pull it downwards. This makes up for the ECB’s lack of transparency: the method presented in this paper to evaluate the institutional performance of the ECB enables to partly reveal the behaviour of the members of the Governing Council in the absence of published minutes and votes. This method also gives some insight on the institutional consequences of the forthcoming enlargement of the EMU. Simulations reveal that although an inflation differential between the current members of the EMU and the potential future members would lead to increased interest rates for the whole zone, it appears that the preferences of both groups of countries had converged to a large extent by 2002. The enlargement of the EMU could be a problem for efficient monetary policy making under two conditions: if NCB governors give in to partisan voting even though this is not permitted by the Treaty, and if preferences among member states diverge. This paper comes to the provisional conclusion that there is no evidence of partisan voting, and that national preferences about the level interest rates tend to converge. This comforting conclusion can lead to think that a drastic reform of the ECB is not necessary in the very short run – but then, it can also mean that it is time to think about the conditions and the impact of an institutional reform quietly while there is no emergency, and thus avoid such harsh debate as in the Stability and Growth Pact turmoil.

[Length including footnotes, references, tables and graphs: 7750 words]

References


European Central Bank (2004), The Monetary Policy of the ECB.


APPENDIX 1: OUTPUT GAPS AND INFLATION IN THE EURO AREA

**Output gaps in the eurozone**

**Smoothed inflation rates in the eurozone**
APPENDIX 2: THE MAASTRICHT CRITERIA IN ACCESSION COUNTRIES

Inflation
(Maastricht criterion in 2002: 3.6%)

Average long-term interest rate over March 2002-February 2003
(Maastricht criterion: 6.8%)

Public deficit/surplus in % of GDP

Source: MINEFI-DREE
Public debt in % of GDP

Exchange rate stability
(Maastricht criterion: +/-15%)

Exchange rate regimes of accession countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Exchange rate regime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyprus</td>
<td>Fixed peg to euro with band +/- 2.25% (additional monetary aggregates targeting)</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>Managed float to euro (inflation targeting)</td>
</tr>
<tr>
<td>Estonia</td>
<td>Fixed peg to euro (currency board)</td>
</tr>
<tr>
<td>Hungary</td>
<td>Crawling peg to euro with band +/-15% (implicit inflation targeting)</td>
</tr>
<tr>
<td>Latvia</td>
<td>Fixed peg to SDR (quasi currency board)</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Fixed peg to euro (currency board)</td>
</tr>
<tr>
<td>Malta</td>
<td>Fixed peg to weighted basket of euro, USD, GBP</td>
</tr>
<tr>
<td>Poland</td>
<td>Full float (inflation targeting)</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Managed float (monetary aggregates targeting)</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Managed float, euro shadowing (monetary aggregates targeting)</td>
</tr>
</tbody>
</table>

Source: De Haan, Eijffinger and Waller (2003) based on Kröger and Redonnet (2001)