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1. Introduction

In this paper we consider how Europe's monetary union will evolve in the next five to ten years. We concentrate on what is likely to be the most important change in that period, namely, the increased number and heterogeneity of the participating states. While the current members of the monetary union will almost certainly continue to converge in terms of per capita incomes, it is probable that they will be joined in EMU by a number of Eastern European countries that have not yet been admitted to the EU itself.² These new members will differ sharply from the incumbents in terms of their economic structures, their per capita incomes, and, potentially, their growth rates. We focus here on the implications of this development for the structure, organization and operation of EMU.³

¹ University of California at Berkeley, CEPR and NBER; and Boston College, respectively. This paper was prepared for a conference on Economic and Monetary Union organized by DG EcFin of the European Commission, Brussels, 21-22 March 2001. We thank Marco Buti, Geoffrey Garrett, Peter Hall, and Andre Sapir for comments and Olga Gorbachev and Irina Telyukova for research assistance. Much of the work was undertaken while Ghironi was at the Federal Reserve Bank of New York and during a visit by Eichengreen to that institution.

² We could have said "Eastern and Southern European countries," given the applications of Malta and Cyprus, although neither of the latter is large enough to significantly affect our analysis. (We omit consideration of them in what follows.)

³ To be clear, our concern throughout is with implications for Europe's monetary union rather than implications for the EU, although this distinction may evaporate insofar as there are pressures for existing member states still outside the monetary union to join and a desire on the part of the accession economies to adopt the euro as quickly as possible.

This focus dictates what we take up and what we leave aside. Thus, we focus on prudential supervision and lending in the last resort on the grounds that the addition of countries with recently-created and still underdeveloped financial systems will be among the most prominent consequences of the growth of EMU. We focus on the coordination of fiscal policies on the grounds that the fiscal positions and problems of the accession economies will differ from those of the incumbents. We focus on labor market flexibility on the grounds that the admission of these new members with large populations and relatively low wages will have potentially important labor market effects. And we focus on the implications of voting and representation rules on the ECB Council for the conduct of monetary policy on the grounds that there will be very considerable pressure for their modification with additional members.

In Section 2 we explore the heterogeneity of the prospective members of the monetary union, focusing on the dispersion of their growth rates around the time of their entry into EMU. We use a model from the empirical literature on economic growth, estimated on data for the 1980s and 1990s, to forecast growth rates in the subsequent period. This exercise confirms that the admission of new members will increase the dispersion of growth rates within EMU very considerably, which is disturbing, since inflation rates depend on growth rates through the operation of the Balassa-Samuelson effect and since the greater dispersion of inflation rates will pull the common monetary policy in competing directions.

While this result is hardly surprising, our analysis reveals two additional aspects of the phenomenon which are rather less obvious. First, while this problem of growth-rate variability would be exacerbated by enlargement to encompass the members of the 2000 Accession Group (Latvia, Lithuania, Romania, and the Slovak Republic), it will not be greatly aggravated by

enlargement to include the members of the 1998 Accession Group (the Czech Republic, Estonia, Hungary, Poland and Slovenia). This suggests what kind of enlargement will be easy for the ECB to digest and, if these considerations shape decision making by the incumbent member states, as seems plausible, what kind of enlargement is most likely to be decided on in coming years.

Second, our results suggest that the variability of growth rates among the members of a monetary union expanded to include the members of the 2000 Accession Group will be limited to historically tolerable levels only if the members of this group achieve significant improvements in the quality of political and economic institutions.⁴ If institutional upgrading is slow, then growth will stagnate, placing considerable strains on the common monetary policy, given that it is variations in growth rates around potential that are associated with inflation and with political pressure for policy adjustments. On the other hand, if institutions are quickly upgraded to EU levels, then the dispersion of growth rates will fall even in the short run, reducing the strains on monetary policy. The contrast between these two forecasts points to the steps that need to be taken to prepare the members of the 2000 Accession Group for membership in the EU and for participation in its monetary union. And it points to the key question, familiar from other contexts, of whether the peer pressure and mutual surveillance that EU membership entail will accelerate the process of institutional reform.

This analysis assumes that the accession economies will join the monetary union at an early date. We discuss the realism of this assumption in Section 3. In Sections 4 through 7 we

⁴Institutional upgrading in the 1998 Accession Group will help also, both in terms of boosting the growth rates of the members and further reducing the variability of growth rates within the expanded EMU. But it is not essential for preventing a marked increase in the variability of growth rates within the enlarged monetary union, in contrast to the situation with the 2000 Accession Group, as we show below.

then consider prudential supervision, fiscal coordination, labor market flexibility, and monetary decision making. Section 8 summarizes the implications.

2. How Much Heterogeneity?

Enlargement to the east will imply a more heterogeneous monetary union. But how much more? Will the gap in per capita incomes and levels of economic development be only transitional, implying the need for special provisions for the early years but no lasting challenges for EMU, or will that heterogeneity persist? Will the dispersion of growth rates rise across countries and intensify the strains on monetary policy, or will it fall, reducing the dispersion of inflation rates and the competing political and economic pressures on the ECB? The answer, we show in this section, depends on the precisely form of that enlargement -- whether it includes only the 1998 Accession Group or encompasses also the 2000 Accession Group. And it hinges on how quickly institutions in the accession economies are upgraded to EU levels.

Our point of departure is a canonical growth model estimated on a cross section of countries. We consider growth rates over the eight-year periods 1983-90 and 1991-98 and forecast outcomes at the end of the next eight-year period, 1999-2006.⁵ Our use of these nonoverlapping eight-year periods makes 2006 the natural terminal date for our forecasting exercise. The timeline for prospective EMU enlargement also makes this an appropriate point at which to consider the composition of the expanded monetary union. Mid-to-late 2002 is the

⁵ Our starting point is accounted for by the fact that the data for a large number of countries is spotty before 1983 and by the fact that there was an important regime shift at the beginning of the 1990s, due to the collapse of central planning in the Soviet bloc and the resumption of private portfolio capital flows. Together with the fact that the data stop in 1998, this accounts for the decision to consider successive eight-year periods.

earliest date by which the EU may welcome new members.⁶ The decision would then have to be ratified by the national parliaments of the incumbents, which is unlikely to occur before 2004. Given the two-year qualifying period for satisfying the convergence criteria implied by the mainstream interpretation of the Maastricht Treaty, this implies 2006 as the earliest plausible date for expansion of the monetary union.⁷

Our sample includes EU members, accession economies, and a sample of others (99 countries in all).⁸ The dependent variable is the average annual rate of growth of per capita income over each eight-year interval. When calculating the dispersion of growth rates, we consider five country groupings: the current members of EMU; the current members of the EU; the preceding list plus the members of the 1998 Accession Group; the preceding list plus the members of the 2000 Accession Group; and the preceding list plus Turkey.

Explanatory variables include the ratio of GDP per capita to U.S. GDP per capita in the initial year, the ratio of government consumption to GDP in the initial year, the average

⁶ If the cohort of new members is large (the “convoy approach” is selected), it is conceivable that negotiations and ratification could take longer.

⁷ Baldwin et al. (2000) suggest that this process might be telescoped so as to permit enlargement as early as mid-2005 if the exchange rate criterion is interpreted loosely (as was done for Finland and Italy) and if euro-ized countries skip the changeover period.

⁸We omit countries for which the majority of exports is accounted for by a single commodity, on the grounds that growth in these countries is likely to be heavily driven by developments in that commodity market and also because there are no EU members or accession economies in this position. The remaining countries for which the World Bank gathers data comprise our sample. We include the Eastern European transition economies and China only in the second subperiod, since data from the era of strict central planning does not contain much information on the behavior of market economies. We include China in the 1990s as the Chinese economy has been moving in more market-oriented directions in the recent years. In the case of Germany, the country’s reunification in 1989 motivates our choice. The list of countries is available on request.

investment rate over the period, and the level of resources devoted to schooling as a measure of educational attainment and investment in human capital.⁹ We include dummy variables for regions and for EU membership as well as period fixed effects. Our measure of institutional quality is from Kaufman, Kraay, and Zoido-Lobaton (1999), who report indicators for voice and accountability (a measure of political and civic freedom), political stability, government effectiveness, adequacy of the regulatory framework, rule of law, and corruption control.¹⁰ We take an unweighted average of these indicators as our measure of institutional quality.

The first column of Table 1 reports the benchmark regression estimated by ordinary least squares. Although several coefficients have large standard errors, all have the expected signs. The negative coefficient on GDP is consistent with the catch-up hypothesis, while the negative effect of government consumption confirms Barro's result.¹¹ EU membership positively affects growth, albeit not significantly, reflecting the diverse performance of different (high- and low-income) member states. Transition status is negatively associated with growth. The coefficient on institutional quality is positive, significant and large, confirming that institutions, so measured, matter importantly for growth.¹²

⁹Which we proxy by the teacher-pupil ratio, again in 1982 and 1990. All quantities are measured in 1995 U.S. dollars. Macroeconomic and education data are from the World Bank's *World Development Indicators 2000*.

¹⁰ The indicators are based on data for the 1997-98 period. Thus, we hold these institutional indicators constant across periods in estimation.

¹¹ On the former see for example Mankiw, Romer, and Weil (1992), while on the latter see Barro (1991, 1996, 1997).

¹²Similar conclusions are reported in a paper by Crafts and Kaiser (2001), albeit for a very different specification and sample of countries. Our results on institutions are also consistent with those obtained by Boeri and Bruckner (2000) in a different context.

The second column reports an augmented specification which interacts these macroeconomic, educational, and institutional indicators with dummy variables for EU membership and transition status. Although the standard errors are still large, again the coefficients uniformly have their expected signs. The coefficient on the interaction of transition status and institutions is large, positive, and significantly different from zero at conventional confidence levels even when we continue to control separately for the quality of institutions, as if institutions matter even more for growth in transition economies than elsewhere.¹³

These estimates are only as reliable as the underlying assumptions. An important issue potentially is the endogeneity of institutions. Some institutions surely evolve more rapidly than others: while the rapidly-evolving ones may be affected even in the short run by variations in the rate of economic growth, the slowly-evolving ones are delivered by history and locked in by tradition.¹⁴ Our measures of political and civic freedom and of rule of law, for example, are unlikely to be affected by limited variations in growth rates over periods as short as eight years.

¹³ Interestingly, once we control for the exceptionally strong effect of institutional quality in the transition economies, the dummy variable for these countries no longer enters with a significant coefficient. To check robustness, we experimented with additional specifications, for example adding indicators of infrastructure (electricity consumption, availability of phone lines) and of the composition of production (share of total value added accounted for by industry, manufacturing and agriculture). (All these variables are drawn from the World Bank's data set.) We experimented with alternative measures of educational attainment (enrollment rates in primary and secondary school) and various measures of the size of the public sector. We also included a measure of country size (the ratio of domestic population to U.S. population) among the regressors. In no case were the results noticeably affected. Transition-economy status continued to have a negative effect on growth, while the quality of institutions continued to affect growth positively, and more importantly in transition economies than elsewhere.

¹⁴Note that the relevant issue here is not whether institutions are endogenous or exogenous in general but whether they are endogenous with respect to variations in the growth rate over short horizons like the eight-year period considered here.

Reassuringly, when we construct the index of the quality of institutions using only these components, the results differ insignificantly from those in Table 1. As an additional check we reestimated the equations in Table 1 using as instruments for institutions the distance from the equator, the percentage of the population that speaks English, and the percentage of the population that speak a major European language, which are plausibly exogenous but correlated with institutional quality.¹⁵ The point estimate of the coefficient on the measure of institutions is very similar to before, and that coefficient continues to be significantly greater than zero at the 90 or 95 per cent level, depending on specification.¹⁶ The interaction term continues to suggest that this effect is larger in Eastern Europe than elsewhere. Thus, we are reassured that the estimates in Table 1 are robust.

Because the results are similar in the first and second columns but the fit is better in the latter, we use the equation in the second column for forecasting purposes.¹⁷ A key input into the

¹⁵These are the so-called Hall-Jones instruments, having been used by Hall and Jones in their analysis of the determinants of per capita incomes (Hall and Jones 1998). We use the measure based on all institutions for these estimates. Some readers may be inclined to believe that distance from the equator should be included as an additional determinant of growth, with which it has been shown to be correlated over long horizons, but we are not predisposed to the view that it has a strong effect on growth over the relatively short periods considered here.

¹⁶We get a point estimate of 2.43 with a t-statistic of 1.72 in the specification in column 1, and a point estimate of 3.99 with a t-statistic of 2.22 in the specification in column 2.

¹⁷ We have the 1998 levels of per capita GDP, government consumption, and resources devoted to education to use as initial conditions. To calculate the average investment to GDP ratio out of sample, we fit a linear-quadratic time trend to the available annual data for the investment ratio for each country and use the estimated trend to project values. The data are extended backward beyond 1982 when available. The fact that few data points are available for transition economies and Germany raises doubts about the reliability of the estimated trends (especially since coefficients for several countries are statistically insignificant). We maintain this approach for lack of a better alternative. With this forecast of the growth rate, it is straightforward to calculate per capita GDP in 2006 using the 1998 level as an initial condition.

forecasting exercise is the quality of institutions, about which we make two assumptions. One is that the quality of institutions in each country remains unchanged at its current level.

Alternatively, we assume that institutional quality in the accession economies rises to the average level of EU member states today. These can be thought of as lower and upper bounds on the quality of institutions in the accession economies in the second half of the decade.

Table 2 shows the resulting growth rates and incomes per capita for the accession economies. In the absence of institutional upgrading, the model predicts continued divergence between the EU incumbents and new members. Although the fact that they are starting out behind gives a boost to the growth of the candidate countries, this is not enough to offset their institutional handicaps.¹⁸ In contrast, if institutions are upgraded to levels representative of the EU incumbents, then the accession economies grow considerably faster than the present EMU members. Enlargement still causes increased heterogeneity in the levels of per capita income over the horizon we consider, but faster growth in the accession economies produces a tendency toward convergence in the longer run.

Table 3 reports the standard deviations of growth rates and incomes per capita. In what follows we focus on the growth rates since the standard deviation of per capita incomes is dominated by scale effects (this is why, comparing the first two rows, the standard deviation of per capita incomes is higher in 2006 than in 1999 despite the fact that the dispersion of growth rates is lower). More to the point, it is variations in growth rates that are associated with inflation and with political and economic pressure for adjustments in monetary policy. Greater dispersion

¹⁸ Starting out behind gives a boost to growth in the East not just because of the relative GDP term but also because of its interaction with the dummy variable for accession status, which suggests that the catch-up dynamic is especially powerful in the economies of this region.

of growth rates will imply greater dispersion of national inflation rates due to the operation of the Balassa-Samuelson effect (which predicts higher rates of inflation in economies that are growing rapidly, where rising incomes translate into additional demand for nontraded goods and lead to associated price increases). In other words, it is the growth rates that will provide the economic and political backdrop to -- and strains on -- ECB policy.

Consider the scenario in which institutional quality remains unchanged. As catch-up and convergence within the monetary union proceed, the standard deviation of growth among current EMU members falls.¹⁹ In contrast, as the union is enlarged to encompass the 1998 Accession Group, the 2000 Accession Group, and Turkey, the dispersion of growth rates of income per capita rises. Importantly, the addition of the 1998 Accession Group makes little difference, but the effects of adding the 2000 Accession Group are large. In other words, the expansion of the monetary union to include the 1998 Accession Group should be relatively easily accommodated, while expansion to include the 2000 Accession Group will pose a much more serious challenge for EMU.

If we assume institutional upgrading, then the standard deviation of growth rates falls rather than rising as membership in the monetary union expands to encompass Eastern Europe. It falls (rather than rising slightly, as was the case before) when we add the 1998 Accession Group, falls again (rather than rising considerably) when we then add the 2000 Accession

¹⁹ Between 1999 and 2006. Greece, of course, was not a member of EMU in 1999, although it became one in 2001. Because excluding it in the first row but including it in the second would introduce an additional reason why standard deviations could change, we consider the same group of countries (including Greece) in both rows. In practice, the decision is of little consequence. As EMU is enlarged to include Denmark, Sweden, and the UK, the dispersion of growth rates falls only half as fast, reflecting the low predicted growth rate for Sweden.

Group, and falls again when we add Turkey.²⁰ While the dispersion of per capita incomes continues to rise over the forecast horizon, reflecting very different initial levels, the dispersion of growth rates, which is what matters for monetary policy, falls with enlargement of the monetary union.

Thus, our analysis suggests that enlargement to include the members of the 1998 Accession Group will be more easily digested than enlargement to include the members of the 2000 Accession Group. The most important changes needed in the 2000 Accession Group to ensure convergence and to smooth the operation of the expanded monetary union are improvements in the quality of institutions designed to enhance political contestability, government accountability, adequacy of regulation, rule of law, and corruption control.²¹

3. Is a Larger EMU a Realistic Prospect?

Our analysis assumes that the accession economies will adopt the euro at an early date. But entry into the EU does not guarantee acceptance into the monetary union. Candidates are required to demonstrate for two years their ability to satisfy the convergence criteria of the Maastricht Treaty, as EU finance ministers reiterated in their November 2000 report on

²⁰We exclude Bulgaria, Cyprus and Malta due to lack of data (see also footnote 2 above).

²¹The expectation is that integration into the Single Market will intensify the pressure on the accession economies to upgrade their institutions (otherwise, labor will flow out and capital will have no incentive to flow in). Consistent with this expectation, note that the interaction between EU membership and institutional quality is also positive, suggesting that institutional upgrading will further boost growth if these countries at the same time join the EU. This is consistent with the notion that accession to the EU strengthens the incentives to improve institutions.

enlargement.²² But for the accession economies, as for Portugal, Spain and Greece before them, the incentives to seek entry are strong. We see six reasons why they will seek and gain entry at an early date.

First, the accession economies will not enjoy opt outs from the Maastricht Treaty. Unlike Denmark and the UK, who could negotiate opt outs as a condition for agreeing to the treaty, the accession economies will be obliged to accept existing EU treaty obligations. In particular, they will be obliged to prepare for monetary union and to enter as soon as they are deemed ready by their partners.

Second, the accession economies come at least as close as the existing EMU members to satisfying the optimum currency area criteria. They are small. They are open and trade disproportionately with the EU; hence, they stand to gain from the additional trade and foreign investment that a common currency will confer. They already have gone a good way toward establishing independent central banks.²³ Some, like Bulgaria and Estonia, have already demonstrated their ability to live with a monetary policy set by the European Central Bank, while others already formulate their exchange rate policies with reference to the euro. To be sure, these countries still will benefit from the additional credibility that will accrue from assigning monetary policy to a central bank with a reputation for pursuing policies of price stability and with a guarantee of economic and political independence. And they will surely value having input into the formulation of Europe's common monetary policy.

²² Ecofin also insisted that any effort by the new members to unilaterally adopt the euro "would run counter to the underlying economic reasoning of economic and monetary union (Emu) in the treaty."

²³See Ilieva and Healey (2000).

Third, there are few attractive alternatives. While several the accession economies have moved toward greater exchange rate flexibility for lack of another mechanism for coping with capital flows, this is not a comfortable state of affairs.²⁴ It will become less so as the accession economies join the European Union: their EU partners, concerned about low-wage competition from the east, are likely to press for measures to limit exchange-rate variability vis-a-vis the euro. They will insist on the provision of the Maastricht Treaty that requires countries that are not yet part of the monetary union, and especially those seeking to qualify, to participate in an ERM II that will constrain the flexibility of their exchange rates. But exchange rate bands are fragile and crisis prone; the accession economies will want to exit them as quickly as possible by entering the monetary union. One possible solution is short-circuit the ERM-II stage by moving immediately to an Estonian- or Bulgarian-style currency board. But this strategy, if adopted, is likely to be viewed as temporary; as a semi-permanent arrangement currency boards have no advantages relative to monetary union and the disadvantage that the country operating it has no voice in formulating the common monetary policy.²⁵

Fourth, the accession economies will have little trouble satisfying most of the convergence criteria of the Maastricht Treaty that shape the entry decision. On the debt and deficit criteria that were the sticking points for countries like Italy, the candidates are in a favorable position since they possess limited non-inflationary options for financing deficits and

²⁴This is a point that Calvo and Reinhart (2000) have made for emerging markets as a class.

²⁵ The reduction in currency risk from the adoption of the euro may be accompanied by an increase in country risk if the danger of banking crises rises significantly. But we do not think that this possibility is likely to deter the accession economies from their pursuit of early entry into the euro area.

inherited relatively light public debts (Table 4). To be sure, they rate less favorably in terms of the inflation and interest-rate criteria, and the fact that inflation tends to be high in relatively fast growing economies, reflecting the operation of the Balassa-Samuelson effect, suggests that satisfying the inflation criterion will be a challenge (assuming that the institutional prerequisites for fast growth are put in place). But experience elsewhere suggests that these variables — interest rates especially — respond quickly to prospects for EMU membership. And, in contrast to the situation after they enter the monetary union, the candidates will be able to appreciate their exchange rates to push down inflation to the requisite levels during the transitional period when they seek to qualify for EMU membership.²⁶

It is not obvious that additional difficulties in meeting the convergence criteria will materialize in coming years. Most accession economies have relatively centralized fiscal institutions which give them the capacity to respond quickly to shocks (Gleich and von Hagen 2001). Although Eastern European populations are aging, which will increase fiscal burdens related to pensions and health care, demographic change is no faster than in the West. While there are demands for additional infrastructure investment, our econometric analysis suggests that such expenditure will do less to boost growth than institutional upgrading that requires political rather than financial capital; hence, there is unlikely to be overwhelming pressure for budgetary outlays for infrastructure. Complying with EU environmental standards will cost the

²⁶Rogers (2001) estimates that the Balassa-Samuelson effect is likely to imply two additional percentage points of annual inflation in the accession economies. If this leads to an extra 4 percentage points of cumulative inflation between 2004 and 2006, then the exchange rates of the accession economies would have to appreciate by 4 per cent over this period in order to bring total inflation down to average EU levels. This is compatible with the plus-or-minus 15 per cent bands of the ERM-II (although it might have a depressing effect on these countries' traded-goods-producing industries, which would be another cost of qualifying for EMU).

prospective members between 1 and 2 per cent of GDP, a significant but not debilitating amount.²⁷

Fifth, the incumbent members of EMU are unlikely to be able to do much to keep the aspirants out. The new EU member states will have blocking power in the Ecofin Council over a variety of matters requiring unanimous consent.²⁸ They can use that power to block progress on other matters if the incumbents attempt to delay EMU enlargement.²⁹

Sixth, and finally, a number of the accession economies -- most prominently Estonia and Hungary but prospectively others -- have largely solved problems of lax corporate governance, poor internal controls and open-ended public guarantees in their financial systems by selling off their banks to Western European financial institutions.³⁰ This limits the danger of a banking crisis that could derail efforts to satisfy the convergence criteria of the Maastricht Treaty. A banking crisis occurring before the decision was taken to admit a candidate country would have major budgetary costs, potentially placing the economy suffering it in violation of the fiscal criteria of the treaty. It would jeopardize the ability of the country suffering it to satisfy the precondition of participating in the ERM-II without involuntary devaluations. Knowing that the authorities would have to inject liquidity to prop up the banking system, currency speculators

²⁷ The estimate is from Dziegielewska (2000).

²⁸ Even if the number of such issues has been slightly reduced by the Nice Summit.

²⁹ This was the same situation that led the Maastricht entry criteria to be interpreted flexibly in 1997 and for all 12 EU member states wishing to join the monetary union to be deemed qualified either immediately or within two years of the inauguration of Stage III.

³⁰ In a number of accession economies, there remains a significant residual market share of publicly-owned financial institutions. This has potentially important implications for financial stability and prudential supervision, as we discuss in the following section.

have an incentive to attack the currency.³¹ A banking crisis could thus force an ERM-II member to devalue involuntarily, providing the EU a rationale for denying it early admission to the monetary union. This is the disaster scenario that banking-system internationalization promises to avoid.

4. Implications for Prudential Supervision and Lending in the Last Resort

One of the most visible effects of monetary unification has been to encourage consolidation in European banking. The euro, in combination with the First and Second Banking Directives, has done much to reduce the barriers to cross-border banking. By fueling the growth of European securities markets and creating new alternatives to bank intermediation, it has forced European banks to contemplate mergers and strategic alliances in order to maintain their profitability.³²

Within the EU, the vast majority of consolidation has been at the national level, although we have now seen the first of what will surely be a rising tide of cross-border mergers and acquisitions. The part of Europe where cross border acquisitions have been greatest is precisely the accession economies (as mentioned at the end of the preceding section). Many of the region's newly-established and reconstituted private banks have been acquired by foreign,

³¹ This is the well-known twin-crisis problem, empirical studies of which have shown the dominant direction of causality as running primarily from banking crises to currency crises (see e.g. Kaminsky and Reinhart 1998).

³² To an extent that consolidation is also independent of the euro, of course: changes in technology and financial regulation worldwide have combined to accentuate economies of scale and scope in commercial banking. The effects are evident in, inter alia, the tendency for Spanish banks to acquire subsidiaries and strategic partners in Latin America.

generally Western European, financial institutions. This has created a two-tier banking system combining a tier of well-capitalized, well-managed, foreign-owned private financial institutions with a second tier of banks still in government hands and saddled with an overhang of nonperforming loans.

These characteristics of the banking sector in the candidate countries pose challenges for prudential supervision and its coordination with monetary policy. Public banks are not subject to market and shareholder discipline, opening the door to lax loan standards and excessive risk taking. Their public owners are sensitive to the condition of their customers as much as of as the banks themselves, resulting in mixed motives and excessive forbearance. International comparisons have shown that this is an environment ripe for financial instability.³³

Unfortunately, the same leading-indicator models used to warn of banking crises in other regions do not perform well in Eastern Europe. Because their securities markets are still underdeveloped, reflecting the weakness of information disclosure and shareholder rights, sudden declines in stock market valuations have less tendency to precipitate default among highly-leveraged bank customers and therefore to create problems for lending institutions in Eastern Europe than in other emerging markets (Eichengreen and Ruehl 1998). On the other hand, increases in short-term capital inflows into the banking sector have an even greater association with financial instability in Eastern Europe than in other emerging markets, reflecting the disproportionate tendency for managers of public banks operating under an umbrella of implicit guarantees to lever up their bets (Weller and Morzuch 2000). There is obviously special need for regulatory and supervisory oversight, taking these differences fully

³³See for example Evanoff (1998).

into account, prior to the full commercialization and privatization of these public institutions.

The main shortcomings of financial regulation in the region is not with the legislation, however, which generally conforms with minimum international standards in the case of the 1998 Group of accession economies, while falling somewhat short (in terms of securities market regulation and regulations regarding bank insolvency and deposit protection) in the 2000 Group. Rather, it is with the consistency of supervisory and regulatory oversight and, in some cases, sheer ability to enforce the law.³⁴ This is troubling, going forward, since cultivating administrative capacity is often more difficult and time consuming than simply changing the law.

The limited administrative capacity of newly-established regulatory agencies in many accession economies suggests that early privatization, which shifts the burden of disciplining bank management to the market, deserves a high priority. Unfortunately, the costs of removing nonperforming loans from public bank balance sheets and recapitalizing these institutions are likely to be significant.³⁵ Large budgetary costs of this sort, not easily financed out of current revenues, could then place the economies in question in violation of the fiscal preconditions for monetary union. Quite apart from its implications for financial stability, there are thus two compelling arguments for completing the bank privatization process as quickly as possible. First, if these budgetary costs are incurred before the accession economies become subject to the provisions of the Growth and Stability Pact, they are less likely to be found in violation of the

³⁴The *Transition Reports* of the EBRD draw this distinction and provide evidence for the assessment in the text. See for example EBRD (1999), pp.46-47.

³⁵The resolution of a systematic banking crisis can cost upwards of 20 per cent of GDP (Caprio and Klingebiel 1996). Argentina in the 1980s holds the record; the cost of resolving its 1981-2 crisis was more than 55 per cent of GDP.

latter. Second, the costs of bank recapitalization can rise quite dramatically with delay.³⁶

Financial control is one of the chapters of the *acquis communautaire* that the candidates must satisfy to complete their accession negotiations. The present perspective suggests that the EU should push hard for the recapitalization, commercialization and privatization of remaining public banks during these negotiations, when it has the most leverage.

The other distinctive characteristic of the financial sector in the accession economies -- that a large share of private banks have been acquired by foreign financial institutions -- raises questions about the compatibility of the single currency with a single, integrated banking system characterized by 20 or more distinct national systems of supervision and regulation. Although the "reg" part of "sup and reg" will be harmonized by mutual recognition and EU directives defining minimum requirements for the regulation of banking systems, prudential supervision is another matter.³⁷ In any case, assigning supervision and regulation to the home-country authorities becomes increasingly problematic as banks come to do a growing share of their business internationally. For example, it becomes difficult for the home-country supervisor to evaluate counterparty risk, given the difficulty of assembling information on foreign counterparties.³⁸

³⁶See Caprio and Honohan (2001).

³⁷Different supervisors can and do interpret EU directives differently. There is little to prevent them from averting their eyes when their national champions take on additional risk in the attempt to get a leg up in international competition. The incentives to react in this way will of course strengthen as that competition intensifies. And more intense cross border competition, in banking as generally, is of course part of the *raison d'être* for the Single Market and the single currency.

³⁸Moreover, as European banking becomes internationalized, a growing share of the repercussions of banking problems are likely to become external to the country in which they originate. There will thus be a tendency for the responsible supervisor to under-invest in their

These are reasons why national supervision is problematic in a financially-integrated Europe.³⁹ They suggest that the advent of the euro will create pressure for the EU to establish a centralized supervisory agency, either within the ECB or independent of it, as argued in the Lamfalussy Report.⁴⁰ Will enlargement to the east accentuate this tendency to centralize supervisory functions? The fact that the new members will have the EU's weakest banking systems and least experienced supervisory authorities points in this direction. That monetary unification, by further reducing transactions costs and making it easier to finance mergers and acquisitions by enhancing the liquidity of European bond markets, will accelerate the process of acquisition of Eastern European banks by their Western European counterparts works in the same direction.

On the other hand, the banking systems of the accession economies are small relative to the countries in question and even more relative to Europe (as noted above). Financial distress will therefore create less pressure for bailouts on too-big-to-fail grounds and less scope for

prevention.

³⁹ And in a financially-integrated world, for that matter. The difference in Europe is that there is some precedent for considering centralizing the supervisory function at the EU level.

⁴⁰ While there is an argument for regulatory competition to encourage innovation, this argument is dominated by concerns for systemic stability as geographical and product-market segmentation dissolve and problems in one regulator's domain to spill over into the others. Thus, the traditional argument for national supervision on the grounds that national supervisors are better informed about risks to stability in relevant market breaks down when the market is no longer defined along national lines. Not surprisingly, the collapse of product market segmentation has already led some countries, like the UK, to establish single integrated regulatory agencies. We anticipate that even the country in which the two authors reside, despite its own history of regulatory competition, will move in this direction with the elimination of traditional restrictions on cross-border bank branching and on the separation between commercial and investment banking.

contagion through the interbank market than in the event of the failure of a large Western European institution. Moreover, to the extent that the further integration and consolidation of European banking causes banks in the new member states to be acquired by larger institutions from elsewhere in the EU, this will automatically remedy some of the weaknesses of Eastern European financial systems and export key supervisory functions to more experienced agencies in the west.⁴¹ Thus, while monetary union has already added to the pressure for centralization of some supervisory functions at the EU level, enlargement to the east will lend only a bit of additional momentum to the inevitable movement in this direction.⁴²

⁴¹At the expense of aggravating the too-big-to-fail problem as Western European banks acquire yet additional branches and subsidiaries.

⁴²Will those functions be housed in the central bank, as the ECB has proposed, or in an independent agency, as favored by the German government? Arguments for housing the supervisory agency in the central bank include that (i) supervisory information is valuable for the conduct of monetary policy, and (ii) the monetary authority must act as lender of last resort in times of crisis, an activity that must be informed by information that only a supervisory authority can possess. Arguments for an independent agency are that (i) housing this function in the central bank creates the potential for conflict with the monetary-policy function (there is some evidence that central banks responsible for prudential supervision are more susceptible to inflationary pressures) and (ii) even a central bank with no supervisory authority can obtain in short order the information it needs in order to carry out lender of last resort activities. For discussion, see Peek, Rosengreen and Tootell (1999) and Goodhart and Schoenmaker (1993). We are skeptical of this last point. It seems unlikely, for example, that the Federal Reserve would have moved so quickly to inject large amounts of uncollateralized credit into the U.S. banking system in response to the Bank of New York crisis in 1985 or that it would have been in a position to orchestrate the private-sector rescue of Long-Term Capital Management in 1998 had it not been able to obtain first-hand information on the nature of these crises. We therefore suspect that the ECB will acquire additional supervisory responsibilities over the course of the next decade. And as the number of national supervisory agencies with which it has to communicate increases further with enlargement, the transactions and communication costs associated with decentralization will become higher still, sharpening further the incentive for the ECB to assume some of these functions itself.

5. Implications for Fiscal Policy

Our discussion of fiscal policy is brief, focusing on the implications of enlargement, since fiscal coordination is the topic of the chapter by von Hagen and Mundschenk (this volume).

Upon joining the EU, the accession economies will become subject to the convergence requirements on fiscal policy and the “reference values” for deficits of no more than 3 per cent of GDP that help to determine whether they qualify for EMU.⁴³ After they qualify, they will still be subject to the Growth and Stability Pact (GSP) that requires all EU members to aim for “medium-term objectives of budgetary positions close to balance or in surplus.”⁴⁴ For most EU member states, budgets close to balance or in surplus in normal times will permit automatic stabilizers sufficient room to respond to ordinary recessions without exceeding the reference value of 3 per cent, above which questions of budgetary sustainability and financial stability may arise. The worry is that the accession economies may experience unusually large shocks, either of the business cycle variety or one-off disturbances like a banking problem. Therefore they will require larger “medium-term” surpluses in order to reconcile the 3 per cent reference value with the need to avoid procyclical changes in discretionary fiscal policy (and to implement countercyclical discretionary changes, the need for which we discuss below).⁴⁵ It follows, in this view, that the

⁴³The 3 per cent reference value can be exceeded in circumstances that are deemed exceptional, but only temporarily and by a relatively small margin. An exceptional downturn is when there is an annual fall of real GDP of at least 2 per cent. (A fall of 0.75 to 2 per cent could qualify, depending on its abruptness and persistence.)

⁴⁴The Growth and Stability Pact consists of two Council regulations, one on the Excessive Deficit procedure and another on surveillance, and a European Council resolution that provides guidance to the Council and member states on the application of the pact.

⁴⁵Two arguments are made for why more room should be made for changes in budget balances in certain economies. Some economies are subject to more pronounced business cycles,

accession economies should be subject to particularly stringent application of the SGP.

We see more merit in the opposing argument. What should be changed to accommodate the accession economies is not the requirement that medium-term budgets must be close to balance, but rather the requirement that deficits cannot exceed 3 per cent of GDP except in exceptional circumstances. The 3 per cent ceiling was chosen to reconcile real growth rates, real interest rates, and inherited levels of debt with a nonexplosive path for the latter.⁴⁶ But with institutional upgrading the EU's new members will be able to grow considerably faster than the incumbents did in the 1990s (or than they will for the foreseeable future), enabling them to run larger deficits without risking explosive growth of their debts.⁴⁷ What should be reinterpreted on their behalf is not the "close to balance" clause in the GSP but the 3 per cent "reference value" in the protocol to the Maastricht Treaty.

Moreover, the accession economies are certain to be large recipients of structural funds transfers and grants from the EU, many of which require them to commit matching funds. Thus, requiring the recipient to cut current spending in a recession could further destabilize its economy by jeopardizing EU grants and thereby choking off another source of demand. More plausibly,

and there may be shocks to the budget itself (one-off tax shortfalls or exceptional expenditures). Conventional estimates suggest that each of these components can lead to an additional 1 per cent of GDP swing in the budget balance in more volatile economies (see Artis and Buti 2000). The main shock to the budget foreseen by investigators (e.g. European Commission 1999) is world interest rate shocks affecting debt-service costs, and the effects of these should be small in the accession economies, given their relatively light debt loads.

⁴⁶See Buitier, Corsetti and Roubini (1993). That it also coincided with the German "golden rule" that deficits should not exceed public investment (typically, 3 per cent of GDP) did not hinder the progress of negotiations.

⁴⁷That inherited debt/GDP ratios are relatively low reinforces the point.

the recipient governments would protect their own spending on items for which they also received structural funds transfers (highway construction, for example), while placing the burden of cuts on others (say, teachers' salaries). The consequence would not be to enhance the efficiency of public spending. The stricter is enforcement of the GSP, it follows, the more flexible should be the requirements for member states to match incoming EU grants.

A final implication of enlargement derives from the fact that the new member states will rely more heavily on discretionary changes in fiscal policy. Deficits are less elastic with respect to the cycle in Europe's low-income economies, which rely less on progressive income and corporate taxes and more on the essentially proportional VAT. Since they will derive less support from automatic stabilizers, they will have to rely more on one-off changes in fiscal policy. And since they inherit relatively low levels of public debt, they will be able to undertake these discretionary adjustments of taxes and public spending in the interest of stabilization.⁴⁸

The response of the political system being difficult to forecast, such discretionary changes in fiscal policy are more difficult to project than automatic ones. This will make it more difficult to coordinate fiscal policies in timely fashion. Member states will have to provide information on

⁴⁸Buti, Franco and Ongena (1998) show that discretionary changes in fiscal policy tend to be larger and more stabilizing in countries with low levels of public debt. Given the decision lags that generally delay the implementation of discretionary changes in fiscal policy, the danger arises that such changes may turn out to be procyclical, or at least less effective than hoped. This creates an argument for reforming the fisc in ways that enhance its automatic-stabilization properties. To some extent this will come automatically: as the accession economies increase their administrative capacity, they will increase their reliance on direct taxes; and as they develop more sophisticated welfare states, spending on unemployment benefit and poverty alleviation will presumably become more countercyclical. Should the EU encourage them to move in this direction? This is unclear, in part because the mix of taxes and design of public spending programs are still regarded as predominantly national matters and therefore subject to the principle of subsidiarity.

national budgetary discussions more promptly. This raises concerns about sovereignty: EU have already made clear their reluctance to share more information on policy actions prior to their implementation.⁴⁹ The more demanding nature of fiscal coordination in an enlarged monetary union also points to the need to streamline the process whereby recommendations for fiscal adjustments pass from the national authorities to the European Commission and then to the Ecofin Council and the European Council, and to the importance of strengthening the Commission's capacity to process and evaluate the incoming information.⁵⁰

To put these concerns in context, it is important to recognize that the budgets of the accession economies, like their economies and financial systems, will be small relative to those of the EMU incumbents following accession.⁵¹ Hence the cross-border spillovers of their fiscal policies will be small. Insofar as their debts will similarly be small relative to European financial

⁴⁹The Dutch, French and British governments in particular.

⁵⁰The proposals to strengthen fiscal coordination tabled by the Commission in 2001 are consistent with this quest. They include (i) creating a working group of senior treasury officials within the Economic and Financial Committee to prepare the meetings of the Euro Group finance ministers (the Euro Group being made up of the finance ministers of member states participating in the monetary union), so that fiscal issues can be more thoroughly discussed, (ii) requiring EMU members to inform one another and the Commission prior to adopting policies that are likely to impose externalities on other member states (rather than simply submitting the budget once this has been agreed by national authorities), and (iii) having the Commission evaluate the euro-zone policy mix twice a year (rather than annually, as at present). Predictably, support for these recommendations has been mixed. Member states that do not yet participate in EMU have warned that de facto shifting coordination functions to the Euro Group would create a feeling of exclusion among countries that have not yet joined the monetary union and sow divisions within the Ecofin Council. And whether the Commission has the capacity to engage in the essentially continuous policy reviews implied by a biannual schedule can reasonably be questioned.

⁵¹Small in absolute size, not small relative to a share of the GDP of the countries undertaking it (since the share of public spending in GDP is roughly the same in the accession economies as in the EU incumbents).

markets, this will limit the pressure on the ECB to backstop their public debt markets so as to prevent debt-servicing problems from infecting European financial markets and institutions.⁵²

Thus, the problem is not so much that fiscal imbalances in the new Central and Eastern European members threaten to place financial and economic stability in Western Europe at risk, something that is unlikely given the disproportion in the economic and financial size of the two regions. Rather, it is that a Growth and Stability Pact and procedures tailored to the circumstances of the EU's high-income incumbents will not be compatible with growth and stability in the accession economies. If even more diverse growth performance results, the competing pressures on the common monetary policy will be greater still. To put the point more colloquially, if fiscal policy is not part of the solution, then even greater pressure will be placed on the monetary authorities to provide it.

6. Implications for Labor Markets

Admitting ten Central and Eastern European candidate countries will expand the EU's population by a third, which is equivalent to the increase in German population due to reunification. Not only are wages in the accession economies a fraction of those in the monetary union (half of EMU levels in the 1998 Accession Group, a third of EMU levels in the 2000 Accession Group), but unemployment rates are uniformly higher in the accession economies; this was the case at the end of 1999 not just in Poland, Hungary, the Czech Republic and Poland,

⁵²To be sure, as institutions are upgraded and per capita incomes converge with those of the incumbents, so too will budgets and, eventually, debts. This implies is that the EU has a window of time during which to sort out the issues complicating efforts to coordinate fiscal policies more closely.

the four most important cases from the present point of view, and also in Bulgaria, Estonia, Slovenia, the Slovak Republic, and Romania. Thus, enlargement will provide Western Europe with a reservoir of labor with incentives to move.

Will these incentives to relocate produce the more mobile labor force needed to smooth the operation of the monetary union?⁵³ Will the greater elasticity of labor supply at the national level that results from this mobility ratchet up the pressure for the reform of labor market institutions?⁵⁴ The answer to both questions is likely to be "yes, but to a limited extent over the time frame relevant to this paper." For one thing, the incumbents may attempt to limit the access of the citizens of the new member states to jobs in the western countries for a transitional period. The Commission has proposed that labor mobility should be limited for a period of 5 to 8 years, echoing the German line. But whether such restrictions can be effectively enforced is a question. To be sure, a similar transitional period of limited labor mobility was applied to Greece, Portugal and Spain when they entered the European Community. But this predated the creation of the Single Market. If the new members are to receive the other rights and privileges of countries participating in the Single Market, then it will become difficult to restrict the movement of their citizens across its internal borders. Stopping workers from moving will require halting trucks, trains and barges at the border, in turn raising transport costs (and transactions costs generally), and slowing the process of commodity-market integration. Conversely, allowing the trucks to roll will make it harder to stem labor flows and to prevent

⁵³Recall that in optimum-currency-area literature (e.g. Mundell 1961), labor mobility is the obvious alternative to the exchange rate as a margin on which regional adjustment can take place in response to "asymmetric shocks" (shocks to demand or supply affecting different countries or regions differently).

⁵⁴As suggested by Bertola and Boeri (this volume).

migrant labor from participating in the informal sectors of the high-income countries. Given that there is likely to be strong resistance to denying the accession economies the other benefits of participation in the Single Market, efforts to limit labor mobility for this transitional period may be considerably less successful than historical precedent suggests.

In any case, migration depends on more than wage and unemployment differentials. While per capita incomes in East Germany were a third of West German levels immediately following reunification (almost exactly equivalent to the differential between the EU and the ten members of the 1998 and 2000 Accession Groups today), the entire East German labor force did not migrate to West Germany. It can be argued that large fiscal transfers to the new German *lander* undermined the incentive to move, but also important were large differences in housing costs and the absence of well-developed migrant networks. Burda (1992) concludes that these non-wage, non-unemployment related factors dominated migration decisions in the immediate post-unification years.⁵⁵ This will similarly be the case with accession. Housing-cost differentials will discourage migration. Migrant networks will be underdeveloped. These obstacles will dissipate with time, but they will limit labor mobility in the short run.

The evidence from German unification (e.g. Hunt 2000) is that the most- and least-skilled workers have the greatest tendency to move. Western European members of the Union will therefore import unskilled workers for low-paying, physically-demanding jobs when their labor markets are tight, a tendency that already manifests itself in, inter alia, the legions of the

⁵⁵ Historical evidence similarly suggests that migrant networks are an extremely important determinant of labor flows (Hatton and Williamson 1998). Hunt (2000) provides supportive evidence from German unification, although she attaches more importance to wage differentials and unemployment rates than the earlier work of Burda.

legions of Albanian and Bulgarian workers engaged in harvest labor, legally and illegally, in Greece. University graduates also will have a disproportionate tendency to move, reflecting their possession of the linguistic and social skills needed to adjust to life in another country. As the mutual recognition of technical credentials is extended to the accession economies, they are likely to show up in Western European countries with tight labor markets. If the EU attempts to limit labor mobility for a transitional period, their relocation will be slowed, since the requirement that workers present their technical credentials to employers and professional associations provides an additional threshold at which the policy of preventing in-migration can be enforced. This suggests that the informal sector will be the main beneficiary of more elastic labor supplies in the short run, while manufacturing will be least affected.

Thus, while increased labor mobility is likely to be one of the positive side-effects of eastward expansion for Europe's monetary union, the extent of the change should not be exaggerated, especially in the short run when migrant networks are underdeveloped and manufacturing continues to play a large role in the European economy.

7. Implications for ECB Policy Formulation

We have reviewed a number of arguments for expecting a larger, more heterogeneous monetary union at an early date. But the real stumbling bloc to granting admission to these additional members may be the ability of the ECB decision-making process to handle larger numbers.

Enlargement to include a significant number of accession economies increases the danger that the six Executive Board members, whose decisions will presumably be guided to a

considerable extent by conditions in the euro zone as a whole, might be outvoted by a coalition of national representatives who prefer a different policy suitable for only a small part of the EMU economy. One might imagine the nine members of the 1998 and 2000 Accession Groups, for example, enjoying catch-up growth while suffering from relatively high Balassa-Samuelson inflation, allying with Finland, Ireland, Italy, Portugal, Spain and Greece, where conditions are similar, to demand anti-inflationary interest rate hikes that choke off expansion in the rest of Euroland, whose six national representatives, together with the six members at large, can command only a minority of votes.⁵⁶ Countries accounting for less than a third of euro-zone economic activity where conditions were quite different from those in the rest of the monetary union could thus dictate the common monetary policy.

This assumes that national representatives are influenced by national — as opposed to EMU-wide — conditions.⁵⁷ There is some evidence from voting by regional Reserve Bank governors in the United States consistent with this view.⁵⁸ Even if this is not the case, there remains the danger that such a large number of Governing Council members will succumb to gridlock as a result of increased decision-making costs. Six Executive Board members plus anywhere from 17 to 28 national central bank governors will create large-numbers problems for

⁵⁶This, then, is the Section 2 case where institutional reform in fact occurs and growth rates rise relative to the EU average.

⁵⁷ It is not necessary to assume for present purposes that central bank governors on the Governing Council pay attention only to national conditions when voting on monetary policy, only that they are influenced by local conditions to a greater extent than are members of the Executive Board.

⁵⁸ See Eichengreen (1993) for a survey.

the Governing Council. It will take a very large conference table to even seat the members.⁵⁹ This visual metaphor suggests the difficulty of building the consensus that is characteristic of central banks whose policy decisions are regarded as authoritative. An ECB that was slow to raise interest rates when inflation was accelerating or to cut them when growth was slowing, reflecting its inability to make quick decisions, would enjoy neither policy credibility nor political support.

This large-numbers problem suggests reducing the number of voting members of the Governing Council, while the regional-interests problem suggests reducing the number of national central bank governors relative to Executive Board members. EU leaders took a first step in this direction at the Nice Summit by inserting in their draft treaty a clause allowing for changes in the ECB's decision-making procedures without the need to call another inter-governmental conference. But only a few days before that same summit the ECB issued a statement reminding leaders that "the core constitutional principle of government of the monetary policy of the ECB is 'one member, one vote'."

Proposals for squaring this circle include:

- An FOMC-like solution, in which national central bankers rotate on and off the Governing Council.
- An IMF-like solution, in which groups of countries form constituencies.
- Stripping the national central bank governors of their voting power over monetary policy

⁵⁹ Imagine that every member is allowed to make a 15 minute opening statement. It would then take a day to dispense with the opening ceremonies.

while allowing them to continue to attend policy meetings.

- Empowering the Ecofin Council to set inflation targets and limit the ECB's mandate to achieving them.
- Giving additional votes to Executive Board members.

The last of these options is perhaps the least ambitious and therefore the least objectionable politically but it is also least able to address the problems at hand. But while it would prevent regional interests from becoming even more dominant with the enlargement of the monetary union, it would not solve the large-numbers problem.⁶⁰ At the other extreme, stripping national central bank governors of their voting rights would be the cleanest solution but the most least feasible politically.⁶¹ Moreover, the accountability of Europe's monetary policy makers would be further weakened if national central bankers, who are ultimately accountable to their domestic polities, were effectively removed from the Governing Council. Allowing the national central banks governors to attend Council meetings and even to speak is unlikely to placate the critics.

Empowering the Ecofin Council to set an inflation target and broad guidelines for monetary policy would streamline ECB decision making by providing a framework for its interest-rate decisions.⁶² The guidelines provided by the Ecofin Council would provide an

⁶⁰And even in the case of this relatively modest proposal, there is likely to be considerable resistance to creating what would amount to first- and second-class members of the Governing Council.

⁶¹ Those who would resist giving Executive Board members additional votes would now register the same objections in spades.

⁶² In addition, it would enhance political accountability.

agenda-setting function for the deliberations of the ECB Council. The ECB would then have instrument independence but not goal independence. But this reform would not change the fact that in an expanded monetary union there would still be an unprecedented number of Governing Board members who would have to agree on these strategic decisions, nor would it address the danger of an overly slow response or even inaction in the face of rapidly changing conditions.

An FOMC-style solution, in which a subset of national central bank governors serve, say, staggered 12 month terms on the Governing Council, allowing all regions to be represented but solving both the large numbers and regional-dominance problems, seems like an intuitive solution to American observers. While European countries would resist moving to such a system because they are accustomed to continuous representation on the Council, it is worth recalling that neither was rotation the initial arrangement for the Federal Reserve committee charged with making monetary policy; rather, it was phased in after several years in response to evidence of the unworkability of earlier arrangements. A problem with rotation, it is said, is that the representatives of the countries in which Europe's predominant financial centers are located are a source of information on financial-market conditions. Requiring them to rotate off the Council might therefore impede the flow of information to the ECB. This was the rationale for granting the Federal Reserve Bank of New York a permanent seat on the Federal Open Market Committee when monetary policy decision making within the Federal Reserve System was streamlined centralized and streamlined in the 1930s. But emulating this example would be more difficult in Europe insofar as the continent has no one dominant financial center like New

York, reflecting its many years without a single market or a single currency.⁶³ However, the argument that the flow of information about financial-market conditions requires the central bank governor of the country (or countries) in which the principal financial centers are located is less plausible today, to the extent that there exist alternative mechanisms for assembling information on financial conditions. And insofar as the national central bank is not also the national financial supervisor (and therefore privy to private information on the condition of local financial institutions), the argument is weaker still.⁶⁴

A final possibility is reform along the lines of the IMF constituency system. The 20-plus countries participating in the monetary union could be assembled into constituencies, say, four or five in number, each having a single vote. The reorganization of the Bundesbank following German reunification provides something of a precedent. Absent reorganization, GEMU would have expanded the Bundesbank Council to 26 members (10 members of the directorate and 16 *land* central bank presidents). This number being considered unworkable, the decision was taken to merge a number of *land* central banks, reducing their number to nine.⁶⁵

But where Germany's post-EMU reorganization abolished the affected *landers'* separate

⁶³The European equivalent, given the continent's more horizontal financial system, might be for the central bank governors of France and Germany (plus Italy and the UK?) to have permanent seats while the others rotate. But how many others? If the goal is to give the Executive Board a majority, this might leave only one rotating seat, which would not appeal to the smaller members. If the solution is to raise the number of votes cast by each Executive Board member, which would permit more rotating seats, then it is not clear why the same result cannot be achieved by giving Executive Board members more votes but leaving the status quo otherwise unchanged.

⁶⁴See the discussion in Section 4 above.

⁶⁵ At the same time the number of members of the directorate was reduced from ten to eight.

regional representatives, under a constituency system the separate national representatives would remain. This would imply the need for pre-negotiation among those national representatives, whose chair would then have to represent their collective view in the deliberations of the Governing Council. If the point of reorganization is to speed and simplify decision making, a constituency system that replaced negotiation with pre-negotiation and shifted the haggling to before the actual Council meeting might achieve little.

While neither rotation nor some kind of constituency system is a perfect solution, we would tend to favor the former as a more effective way of streamlining decision making and promoting frank discussion, and thereby information revelation, within the ECB Council.⁶⁶ And even if none of these options meets every objection, there are nonetheless compelling arguments for some kind of reform. As Baldwin et al. (2000) observe, it is important to set these changes in motion prior to enlargement of the monetary union. The larger the numbers, the more difficult it will be to agree on changes; status quo bias will grow stronger. The evolution of the U.S. Federal Reserve System suggests that such reforms can be pushed through over the objections of regional interests after the fact, but that it may then take a crisis to galvanize the authorities into action.⁶⁷ In the United States this meant the Great Depression. These are not circumstances under which Europe should prefer to modernize and streamline decision making in its monetary union.

8. Conclusion

⁶⁶This is also the recommendation of Bini-Smaghi and Gros (2000).

⁶⁷ See Eichengreen (1992).

We have argued that membership in Europe's monetary union will be radically different as soon as five years from now. EMU will include a substantial number of new Eastern European members, since these countries will be anxious to join and will likely be able to do so. They come as close as the incumbents to satisfying the classic optimum-currency-area criteria for participation. They will satisfy the criteria in the protocol to the Maastricht Treaty governing qualification. By threatening to exercise their veto power in the Ecofin Council, they will have political leverage. The main risk to their qualifying is a currency crisis leading to their forceable ejection from the ERM-II, precipitated by problems in the banking sector. But if the accession economies continue to internationalize their banking systems at the current pace, the danger of such banking problems should be reduced considerably by the time their accession negotiations are completed and their EU membership is ratified.

All this means that EMU is likely to include new members whose economic and financial structures differ sharply from those of the incumbents as early as 2006. How challenging will this expansion be for the ECB? If the dispersion of growth rates rises considerably, so too will the dispersion of inflation rates. Monetary policy will be pulled in competing directions, increasing the difficulties created by a "one-size-fits-all" policy and placing additional political pressures on the ECB. But such an increase in the dispersion of growth rates is not an inevitable consequence of enlargement of EMU to the East. It will not follow, under plausible assumptions, from expansion to include the members of the 1998 Accession Group. It will result from expansion to include the members of the 2000 Accession Group only if institutional upgrading continues to lag.

Together, these findings suggest that acceptance of the 1998 Accession Group into the

EU will be unconditional but that acceptance of the 2000 Accession Group will be conditioned on significant institutional reform. But nothing here implies that EMU will be unable to accommodate this expansion to include new members, whether they number five or ten. The wide monetary union created in 1999 has been able to handle members with different structures, growth rates and per capita GDP.⁶⁸ Enlargement will enhance labor mobility within the monetary union and thereby ease its member' adjustment to shocks. But it also will heighten the need to strengthen procedures for mutual surveillance of national fiscal policies and to coordinate the supervision and regulation of financial institutions at the EU level. These are things that the European Union will have to address in any case, however, expansion of its monetary union or not. That is to say, expansion will only intensify the pressure to do what is already necessary.

Politically, the most formidable challenge will be to reorganize decision making within the ECB. Agreement will not come easily; large countries will be reluctant to rotate off the Council, and small countries will hesitate to take seats at the back of the bus. But, as the Nice Summit reveals, these are the directions in which decision making in the European Union is headed anyway. The European Central Bank can be no exception.

⁶⁸Although these differences are less than those that will exist when EMU is expanded to the east.

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Table 1
Growth Regressions for Two Seven Year Periods (1983-1990 and 1991-1998)
(Dependent variable is annualized rate of growth of per capita GDP)

Variable	Coeff. (SE)	Coeff. (SE)
Constant	0.13 (0.95)	-0.92 (1.13)
Fixed Effect	-0.19 (0.39)	-0.11 (0.38)
Africa	-0.50 (0.80)	-0.79 (0.86)
Latin America	-0.43 (0.80)	-0.46 (0.82)
Asia	1.90 (0.83)	1.59 (0.85)
EU dummy	0.22 (0.80)	3.93 (4.72)
East. Europe	-4.55 (0.90)	-2.13 (2.34)
Investment	6.38 (2.42)	9.45 (2.64)
Initial GDP	-1.65 (0.88)	-0.99 (1.08)
Education	4.07 (9.59)	17.12 (16.80)
Gov Consump	-0.14 (0.13)	-0.11 (0.13)
Institutions	1.51 (0.40)	0.70 (0.44)
EU*Invest.		-14.35 (19.13)
EU*Init.GDP		-1.19 (1.95)
EU*Education		-23.45 (25.35)
EU*GovCons		-2.09 (8.54)
EU*Instituts.		1.68 (2.00)
East*Investm.		-11.84 (5.95)
East*Init GDP		3.36 (9.50)
East*Educ.		-5.86 (24.19)
East*GovCons		-0.843 (5.04)
East*Instituts.		4.006 (1.44)
R-squared	0.43	0.51
Num. Obs.	174	174

Note: standard errors (SE) in parentheses. Data are for 99 countries; the panel structure of the data set provides approximately twice that number of observations.

Source: see text.

Table 2
Growth and Income Levels, Actual and Projected

	Initial conditions		No institutional reform		Institutional convergence	
	Growth rate (% pa)	Per capita GDP (US \$)	Growth rate (% pa)	Per capita GDP (US\$)	Growth rate (% pa)	Per Capita GDP (US \$)
	1991-1998	1998	1999-2006	2006	1999-2006	2006
Czech Republic	-0.18	5142.06	0.03	5154.92	2.73	6378.74
Estonia	-1.11	3950.61	-0.44	3812.77	2.58	4845.02
Hungary	0.3	4920.36	1.91	5725.18	3.73	6594.99
Poland	3.77	3876.56	0.28	3965.49	2.93	4881.52
Slovenia	1.34	10637.28	1.62	12099.45	3.53	14042.69
Latvia	-4.58	2327.66	-2.81	1853.05	1.89	2702.94
Lithuania	-4	2196.84	-1.74	1908.66	2.96	2774.41
Romania	-2.05	1310.14	-3.4	993.32	2.89	1645.74
Slovak Republic	0.28	3822.17	-2.27	3182.04	2.32	4593.42
Turkey	2.65	3167.2	-4.7	2154.99	2.76	3939.5

Source: see text.

Table 3
Standard Deviations of Prospective Growth Rates and Per Capita Incomes (in U.S. dollars)

	No institutional reform		Institutional convergence	
	Growth rate	Per Capita Income, 2006	Growth rate	Per Capita Income, 2006
Current EMU members in 1999	1.8	10204		
Current EMU members in 2006	0.79	11275		
The above, with other EU members added, 2006	1.39	10804		
The above, with 1998 Accession Group added, 2006 ²	1.41	14734	1.29	14332
The above, with 2000 Accession Group added, 2006	2.1	15888	1.18	15456
The above, with Turkey added, 2006	2.36	15968	1.16	15494

Notes:

1. "Current" refers to time of writing. Greece is included in this group although it was not a founding member of EMU to facilitate comparison with the row immediately below it.
2. Bulgaria, Cyprus, and Malta are omitted because of missing data.

Source: see text.

**Table 4. EMU Convergence Criteria
Central and Eastern European Accession Candidates**

	Rate of inflation in %			Interest rates ⁶⁹	Budget deficit ⁷⁰			Government debt ²			Exchange rate regime
	1999	2000	2001		1999	2000	2001	1999	2000	2001	
Reference value	2.0	2.8	3.2	7.4	-3.0	-3.0	-3.0	60.0	60.0	60.0	ERM II
BU	0.3	8.9	6.6	5.0	-1.0	-1.5	-1.5	93.6	95.5	97.5	Currency board (EUR)
CZ	2.1	4.1	5.1	7.6	-4.2	-5.2	-6.1	29.0	29.0	28.5	Managed floating (EUR)
EE	3.3	3.9	4.8	7.1	-4.7	-1.1	-0.9	11.0	11.4	12.6	Currency board (EUR)
HU	10.0	9.8	6.6	9.3	-3.8	-3.0	-3.0	72.7	70.5	63.3	Fluctuation band (EUR)
LT	0.8	1.5	3.2	8.2	-8.6	-2.9	-2.5	28.6	26.3	26.6	Currency board (USD)
LV	2.4	3.4	4.1	10.4	-3.8	-1.9	-1.6	10.6	10.6	10.4	Peg (SZR)
PL	7.0	10.0	7.4	13.1	-3.7	-2.4	-2.5	43.0	43.7	42.5	Flexible
RO	44.8	44.2	22.9	43.4	-4.0	-3.5	-3.0	32.3	31.3	30.4	Managed floating (EUR)
SI	6.1	9.0	7.6	n.a.	-0.7	-1.0	-1.0	24.3	25.0	25.5	Managed floating (EUR)
SK	10.6	12.1	6.7	7.7	-3.9	-5.5	-5.6	25.3	27.0	26.7	Managed floating (EUR)

Source: Deutsche Bank EMU Watch no. 88 (6 December 2000), p.3.

⁶⁹ 10-year government bonds, where available, in % p.a. Shorter maturities for BU, EE, LT, LV, RO, SK.

⁷⁰ In % of GDP. Definitions may differ from those of the EU.