What kind of convergence does the euro area need?

JACQUES DELORS INSTITUT
||||||||||||| B E R L I N |||||||||||||||

| BertelsmannStiftung

What kind of convergence does the euro area need?

Content

Executive Summary

- The Economic and Monetary Union has failed to generate convergence for its member states in the area of economic performance. It is true that the Single Market Act of 1986 was followed by rapid convergence. However, since the introduction of the euro there has been slow and steady divergence. Why did this happen?

- It was clear from the beginning that the euro area would need far more convergence than other currency unions. As early as 1989 the Delors Report, which paved the way for the adoption of the euro, emphasized the need for greater convergence in economic performance. The Maastricht Treaty and the Stability and Growth Pact both focused on convergence. However, they were inadequate. The Maastricht criteria applied only to the period before a state entered the euro area, and the Stability and Growth focused on deficit and debt rules.

- By 2008 it had become evident that the rules had failed to prevent the growth of imbalances within the euro area. This led to the introduction of the Macroeconomic Imbalance Procedure (MIP), which was designed to provide a more nuanced view of the overall macroeconomic picture. Since its introduction in 2011 the MIP scoreboard has shown in detail how member states started to diverge in the 2000s.

- The study shows that three important lessons can be learned from all this. First, we need a better understanding of convergence. And we need to prioritize and ask how much convergence is strictly necessary for the survival of the euro area. Second, we need a more balanced approach to convergence in the euro area. It should include prices, public spending, competitiveness and the external balance. Third, we need clear-cut rules based on the best available indicator which can provide guidance for policy-making and help to detect problems before member states begin to embark on divergent trends.

- In this study, we argue that the euro area is a special case because it lacks adjustment mechanisms that are needed to correct imbalances, and has a single market that is far from being complete. In addition, monetary policy by the European Central Bank can only be effective if the member states have very similar inflation rates. For these reasons the euro area needs more nominal convergence than other monetary unions.

- We argue that we need simpler convergence goals and indicators. In order to be stable, the euro area needs (i) price stability in the form of small inflation differentials, (ii) competitive member states that can maintain a balance between wage growth and productivity rates, and (iii) a balanced external position. There may well be short-term differences as economies adjust. However, over the course of a business cycle these should be no more than minor deviations.

- The study pays close attention to the feasibility of the reform proposals. How to get the right kind of convergence in the euro area ought to be a priority in the current policy debate. Thus the next steps should focus on the integration of binding compliance criteria into the existing economic governance framework. The new targets should be combined with an improved compliance mechanism. Convergence cannot resolve all of the stability design flaws of the euro area, but it is both necessary and a pre-condition for future reforms.

Background

Why convergence matters in the euro area

1. The euro area has been recovering far too slowly since 2008. Although most countries have started to grow again, growth rates are lower than before the crisis and the distribution of growth in the euro area is rather uneven. It is now generally acknowledged that the very structure of the Economic and Monetary Union (EMU) was a root cause in the euro area crisis (European Commission, 2012; see also Enderlein *et al.,* 2012). The EMU combines a common currency with a hetero-geneous economic space. On top of this it lacks effective coordination and adjustment mechanisms capable of detecting, addressing, and correcting imbalances.

2. There are only three options, i.e. to abandon the euro, to muddle through, or to reform the EMU. We believe that the only way forward is to reform the euro. The reasons for this are as follows. First, the euro was a political project designed to enable Europe to become an ever-closer union. The rationale for political unity is stronger than ever. Second, the single market needs a common currency. Complete market integration can be achieved only if exchange rates are eliminated. Third, it seems likely that the costs and risks of the exit option will exceed the cost of reform. Moreover, small countries with a floating or a pegged exchange rate may find it dif-ficult to survive in a world of free capital movement. Life inside the euro area may be rather challenging, but leaving the euro area may be even more daunting. In short, we need the EMU, but we will have to reform it.

3. The euro area must face up to its weaknesses in order to prepare for future shocks, and to become sustain-able in the long run (see also Enderlein *et al.,* 2014). Con-vergence will play a key role in these reforms. Thus the neglect of convergence is one of the major weaknesses of the original structure of the EMU. This was empha-sized from the very beginning by the Delors Commission (Enderlein and Rubio, 2014). In 1989 the Delors Com-mittee, in the Report on Economic and Monetary Union in the European Community, stated that "[g]reater convergence of economic performance [was] needed" (p.11) because a "monetary union without a sufficient degree of convergence of economic policies is unlikely to be durable and could be damaging to the Community" (p.26).

4. Convergence is an important concept in economic theory, which makes a distinction between real and nomi-nal convergence. Real convergence means that living standards become more similar. Nominal convergence refers to underlying parameters such as inflation or productivity. Beta convergence refers to catching up, while sigma convergence signifies convergence to a common level. Box 1 shows the different kinds of con-vergence. (Please see the appendix for a short guide to convergence as a concept in economic theory). There is a large literature on convergence and why it is needed in a common currency area. However, little has been written on what kind of convergence is strictly necessary within the euro area.

Box 1: Different kinds of convergence

	Beta	Sigma
Real	Catching up in living standards, e.g. poor countries achieve same living standards as rich countries	Smaller differentials in living standards across countries, e.g. poor and rich countries become more similar
Nominal	Catching up in economic parameters, e.g. technology diffusion and rise in labour productivity to common levels	Smaller differentials in economic parameters, e.g. inflation differentials become smaller

JACQUES DELORS INSTITUT | BertelsmannStiftung
BERLIN

5. In the euro area real and nominal convergence have been on different trajectories. Real convergence picked up speed between 1986 and 1998. It then began to slow down, and the economies began to diverge. Nominal convergence accelerated in the mid-1990s as interest rates and inflation rates began to converge. There was a reduction in government debt and government deficits. However, nominal convergence came to a standstill from the mid-2000s onwards and in the wake of the meltdown in 2008. Debt levels and deficits began to deteriorate. Other indicators such as inflation rates, unit labour costs, unemployment rates, and long-term interest rates also began to diverge to a significant extent (see Afonso *et al.* (2015) for a discussion why long-term interest rates diverged in the euro area). The euro area had moved from a path that led to convergence to one that led to divergence. In short, there was fast convergence from the introduction of the single market in 1986 until the late 1990s. Since then the trend has been largely reversed.

6. There is a greater need for convergence in the euro area than in other currency unions. There are three reasons for this. First, the euro area lacks a fiscal transfer mechanism that can correct imbalances between member states. Second, the euro area has a single market, but it is not as yet fully integrated. Factor mobility, i.e. the freedom of movement of goods, services, capital, and labour, is not perfect, and especially labour mobility remains low. Third, the single interest rate that the European Central Bank sets on the basis of the average inflation rate can easily translate into a "one size fits none" monetary policy (Enderlein, 2005) if inflation rates differ significantly across countries. For all these reasons, there is a greater need for convergence than in a federal monetary union such as the United States.

The quest for more convergence

7. Is it possible to increase the level of convergence? The economic literature and numerous policy-makers have argued that accession to the euro area would automatically create convergence because it eliminates exchange rate volatility. Moreover, countries are under a great deal of pressure to reform their economies and to remain competitive, since devaluing the national currency is no longer an option. Therefore, many experts believed that market forces of this kind are enough to generate the requisite amount of convergence in the euro area. Such arguments are largely based on the theory of the endogeneity of the optimum currency area (see the seminal paper by Frankel and Rose, 1997).

8. The neglect of policy-induced convergence in the original structure of the EMU was due to the belief that convergence would come about automatically. Instead of adopting the recommendations contained in the Delors Report, which stressed the importance of binding rules when it came to preventing imbalances, the original governance framework addressed only one specific area; public deficit and debt. Some feared that member states would engage in beggar-thy-neighbour policies by overspending, and that they would be free riders making use of the cheap common interest rates and low inflation rates provided by the other countries. The deficit and debt rules, which were part of the Maastricht criteria and the Stability and Growth Pact (SGP), tried to prevent this kind of moral hazard and potential spillover effects.

9. When it became clear that the convergence rules in place were insufficient to prevent a drifting apart in economic performance, the Macroeconomic Imbalance Procedure (MIP) was introduced in 2011. The MIP scoreboard contains a number of indicators which provide a comprehensive evaluation of the macroeconomic state of the euro area and the European Union as a whole. It includes indicators that assess the external and internal balances. Each indicator has precise thresholds. The rules for euro area member states are often more stringent than those for the rest of the European Union. It is too early to evaluate the effectiveness of the MIP, though over the last four years it has become apparent that it will be difficult to make adjustments despite constant monitoring by the European Commission and its country-specific recommendations. Moreover, the scope of the MIP is too large, and it lacks simple and transparent guidelines of the kind which should be at the centre of the convergence debate in Europe.

10. The lack of convergence in the euro area has received a growing amount of attention in the EU. Thus the European Commission and the European Central Bank publish regular reports and recommendations on the subject. The Five Presidents' Report, a roadmap published in June 2015 by Jean-Claude Juncker, the President of the European Commission, in conjunction with Donald Tusk, the President of the European Council,

Jeroen Dijsselbloem, the President of the Eurogroup, Mario Draghi, the President of the European Central Bank, and Martin Schulz, the President of the European Parliament, has put the question of fostering convergence firmly in the spotlight (Juncker *et al.,* 2015). It is at the top of the agenda when it comes to reforming, strengthening, and ensuring the survival of the euro area. The report calls for the adoption of a binding convergence mechanism by 2017. Moreover, it suggests that countries which are in compliance with the criteria should have access to a new shock absorption mechanism. Convergence will probably be a key issue in the forthcoming negotiations about the future of the EMU (Enderlein and Haas, 2015).

11. The present study seeks to explain the kind of convergence that the euro area requires, and suggests simpler convergence rules and indicators that can be integrated into the economic governance framework. The rest of the study is structured as follows. The second section examines the challenge of diversity and the kind of convergence that is needed in the EMU. We use this as a benchmark to evaluate the governance tools that are currently in place. In the third section we describe the lessons that have been learned since the Maastricht Treaty in 1992. We suggest the use of simpler convergence rules and indicators, and explain how they can be integrated into the current economic governance framework. We examine the next steps in the convergence process and, in the last section, present our conclusion.
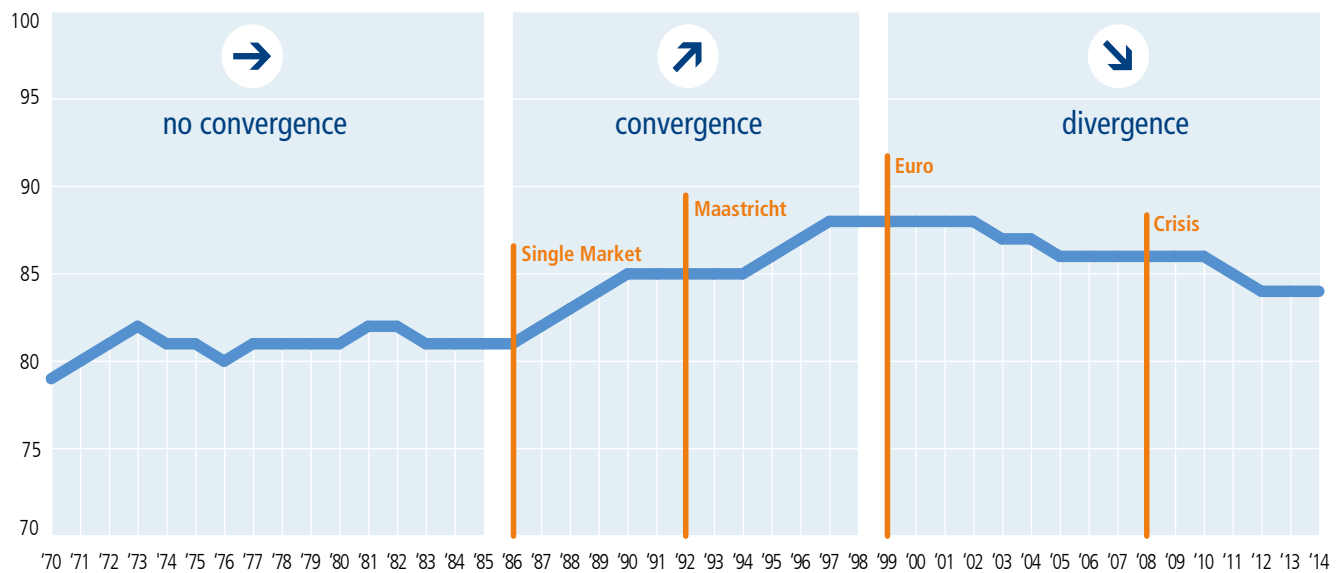
The role of convergence in the EMU

From convergence to divergence

12. How much convergence has there been in the euro area? Between 1970 and 1985 the countries that later forged the monetary union hardly converged at all in real terms. However, after the creation of the single market in 1986 the countries began to converge. Thus those with a lower per capita GDP had higher growth rates. This trend peaked in 1998. Real convergence began to decline in 1999, when the euro was introduced, and gave way to divergence. Figure 1 depicts real convergence in euro area 11 and shows three phases, i.e. no convergence from 1970 until 1985, fast convergence from 1986 until 1998, and then slow divergence.

Figure 1: From convergence to divergence in the euro area

The figure shows real convergence in the euro area 11 since 1970. The countries which adopted the euro in 1999 are Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, and Finland (excluding Luxembourg, which is an outlier). Real convergence is shown as the inverse standard deviation of GDP per capita in PPP (purchasing power parity) from the euro area 11 average. A value of 100 signifies full convergence. Sources: OECD, authors´ calculations.

JACQUES DELORS INSTITUT
BERLIN | BertelsmannStiftung

13. This empirical observation is mirrored in the literature. Several studies that have analyzed convergence in European or OECD countries over a long period of time come to the conclusion that there was a catching-up phase from the 1960s to the 1980s, that this process slowed down in the 1990s, and that it was reversed in the early 2000s (e.g. Crespo Cuaresma *et al.,* 2008; Kaitila, 2014). Analyses of the period from the 2000s up to the present have demonstrated that there was some convergence before the crisis among a small group of European countries and the new member states of the euro area, and that convergence then went into decline (e.g. Benczes and Szent-Ivanyi, 2015; European Central Bank, 2015; European Commission, 2013a; Forgó and Jacvák, 2015; Ferroni and Klaus, 2015; Lee and Mercurelli, 2014).

14. The lack of real convergence shows that the performance of countries in the euro area was very dissimilar. This was well known from the very beginning. The literature on the subject demonstrates that the EMU is not an Optimal Currency Area (OCA). OCAs are generally characterized by a high degree of labour mobility (Mundell, 1961), the production of similar goods (Kenen, 1969), and extensive internal trade (McKinnon, 1963). In addition to these criteria the countries concerned must have reached some kind of agreement on how to deal with country-specific (or asymmetric) shocks and to address imbalances (Baldwin and Wyplosz, 2006).

15. Thus divergence was not really surprising in view of the fact that the euro area was a heterogeneous economic space from the very beginning. Structural differences, such as labour and product market structures, social security and welfare policies, and the banking and financial systems persisted. They reflect a history of different political choices and economic strategies. There is therefore a tension between the demand for more convergence and the various economic models. This study takes a pragmatic approach: There ought to be as little convergence as possible, and as much as is necessary.

16. What kind of convergence does the euro area need in order to address the issue of instability? We argue that there are three types of nominal sigma convergence that the euro area needs in order to avoid drifting apart even further. These are convergence in prices, competitiveness, and external balance. What is the rationale for this? The first threat to stability stems from the fact that the European Central Bank sets a single interest rate based on the average inflation rate. However, inflation rates diverge significantly within the euro area. Thus interest rates will be too low for countries with a high inflation rate, and vice versa. This means that the single interest rate actually destabilizes the euro area. For this reason, inflation differentials should be as small as possible. Second, governments no longer have any control over monetary policy. They can no longer use internal devaluation to remain competitive. Furthermore, states have to make sure that they are on a par with other countries. Therefore, wage growth needs to keep

pace with productivity. Third, countries in the euro area ought to avoid permanent external imbalances. Excessive surpluses and excessive deficits can both cause problems for other member states. Weak demand can impose significant negative externalities on other countries. High levels of debt will be very costly. Thus we need these three types of convergence in order to stabilize the euro area: convergence in prices, competitiveness, and external balance. They are the pre-conditions for sustainability and growth.

Why the governance of convergence failed

17. The current European system of economic governance for convergence is complicated. In an attempt to make it more transparent, a number of different policies have been streamlined and incorporated into the European Semester. It enables the European Commission to monitor developments in the European Union, to issue country-specific recommendations for reform, and to supervise compliance. If the reforms are deemed to be insufficient, the European Commission can impose financial sanctions. However, sanctions have in general been no more than a theoretical threat.

18. Among the most important tools for the governance of convergence are the Maastricht criteria, the Stability and Growth Pact, the Macroeconomic Imbalance Procedure, and the Fiscal Compact (Treaty on Stability, Coordination and Governance: TSCG). These rules apply

to the European Union as a whole, though some are binding or more stringent only in the euro area. In this context we shall examine the rules as they apply to the EMU. We describe the current governance framework for convergence in the appendix.

19. What kind of convergence does the existing governance framework try to foster? All of the rules focus on nominal and not on real convergence. They try to reduce deviation (i.e. sigma divergence) and excessive imbalances by setting convergence targets or thresholds. This is a promising strategy, but it has not as yet generated the envisaged increase in convergence. The Maastricht criteria and the Stability and Growth Pact were severely criticized from the very beginning (e.g. De Grauwe, 1996; Enderlein, 2004; Buiter, 2006). There are three important reasons for this.

20. First, the Maastricht criteria are actually accession criteria. Once countries have joined the euro area, differences in inflation rates and long-term interest rates are simply ignored, although, as empirical studies have shown, they proved to be rather persistent. The rules for becoming a member are much stricter than the rules for being a member. In other words, the architects of the euro area got it the wrong way round.

21. Second, the rules focus on the prevention of deficits and debt. There can be no doubt about the fact that both are of paramount importance. However, the rules are asymmetric and pro-cyclical. They focus on deficits only and

do not establish rules on fiscal policies in good times. In addition, the level at which debt becomes unsustainable is contested and depends on many factors (see the controversy between Reinhart and Rogoff (2010) and Hernandon *et al.* (2013)). The current thresholds of 3 percent deficit to GDP and 60 percent debt to GDP have been missed repeatedly and already lost their binding character.

22. Third, the existing indicators failed to detect important imbalances and risks. The Maastricht criteria apply to countries only before they join the EU. The Stability and Growth Pact does not take price stability in general and inflation differentials in particular into account. The MIP, which came into force in 2011, includes indicators for price stability and competitiveness and provides a more sophisticated picture. The European Commission pays a lot of attention to the choice of indicators (e.g. European Commission, 2011, 2012a, 2012b, 2013a). However, they lack the kind of rigour of the SGP rules or the Maastricht criteria.

23. The euro area needs stability and therefore nominal convergence in prices, competitiveness and the external balance. All in all, the rules have failed to generate enough of the right kind of convergence. In the next section we move on to examine ways of generating more convergence in the euro area.

Rethinking convergence in the euro area

Three lessons from the euro area experience

24. Three lessons can be drawn from the history of the euro. First, the euro area is unique. It is a common currency area that brings together countries with different economic and political structures without the support of fiscal transfers and a fully integrated single market. We now know that the endogenous forces are too weak to create enough convergence among the member states (see also De Grauwe and Mongelli, 2005).

25. Second, we need reliable convergence criteria with which to assess the sources of imbalance in the euro area. As we have seen, destabilization occurs for three reasons. (i) The absence of price convergence, even after accession to the euro area. Inflation differentials contribute to capital misallocation, recessions, and boom-and-bust cycles. (ii) The absence of convergence in the area of competitiveness, which means that some countries have experienced export-led growth, while others have seen their economies go into a decline. (iii) Unsustainable external balances: Some countries have become persistent net borrowers, and others have become constant net lenders. Greater convergence in the euro area can materialize only after these three divergent trends have been resolved.

26. Third, we can learn from the existing governance framework. Empirical evidence suggests that directives and regulations with concrete goals have a better track record when it comes to actually reaching a certain target (Banerji *et al.,* 2015). The SGP was a success in the sense that its rules were simple and transparent. Yet it was also a failure because it attempted to foster convergence by focusing exclusively on deficit and debt rules. The MIP takes a more balanced view of the euro area. Yet it is too complex. Hence in order to attain the requisite degree of convergence we need comprehensible rules based on simple and transparent indicators.

## Simpler convergence goals and indicators for the euro area

27. Bearing in mind what these lessons have taught us, we must now choose the best available indicator for each convergence rule. In other words, we need three indicators that are simple, transparent, and easy to monitor. These indicators should represent the respective areas of convergence as unobtrusively as possible, and they should alert us to divergence in the euro area. Moreover, they ought to be read in conjunction with other macroeconomic indicators, but take precedence in both communication and enforcement.

28. We suggest the use of the following three indicators: inflation differentials, nominal unit labour cost differentials, and the current account balance. In what follows we examine the way in which they depict nominal convergence in their respective fields, and ask whether their inclusion would have helped in the 2000s.

29. Inflation differentials received little or no attention in the early years of the euro area since there was an assumption that they did not exist in the long run. However, inflation differentials did in fact emerge. They can occur for a number of reasons (Honohan and Lane, 2003; Whelan, 2014; Melolinna, 2015) which include differences in prices and labour costs, the Balassa-Samuelson effect (which is the result of a catching-up of poorer countries as they join), and different degrees of openness to the world economy. The more open an economy, the more likely it is that its prices are being driven by external market movements, e.g. high prices for raw materials. Demand shocks such as changes in consumer demand that are due to a shift in consumer preferences can also lead to asymmetric inflation.

30. Thus not all inflation differentials are a cause for concern. However, inflation differentials alert us to two important challenges. First, growing inflation differentials make it more difficult for the ECB to set one interest rate that fits all of its members. Second, since there is only one interest rate, countries which have an above-average inflation rate for a longer period of time will receive an inflow of capital. Countries with lower inflation rates will be saddled with interest rates that are too high. As a result of this, countries with a higher than average inflation rate in the euro area will experience a boom-and-bust cycle. Those with a lower than average inflation rate in the euro area will experience slower rates of growth.

Figure 2: Inflation divergence in the euro area 11 since 1999
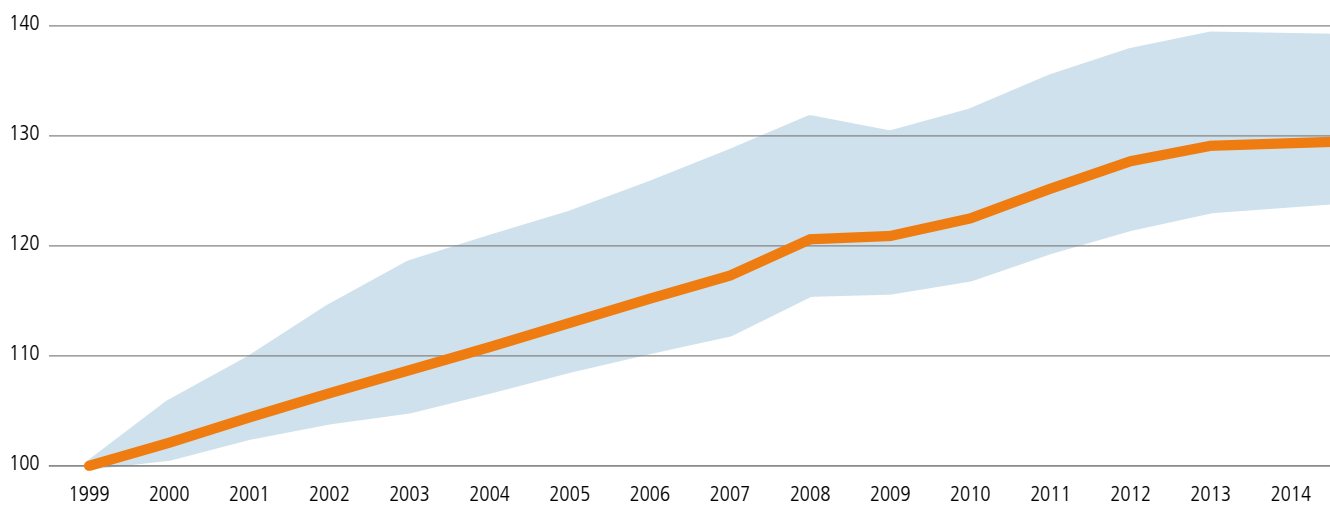
The figure shows the weighted euro area average rate of inflation, and divergence (by adding inflation differentials) since 1999 (=100). Inflation is measured on the basis of the annual average rate of change of the HICP (Harmonized Index of Consumer Prices). Source: Eurostat, authors' calculations.

JACQUES DELORS INSTITUT
BERLIN | Bertelsmann**Stiftung**

31. Figure 2 shows inflation differentials in the euro area and how they have built up since 1999. The euro area as a whole had rates that on average were about two percent. However, this average conceals quite a number of differences. Some countries, in particular Ireland, Greece, Spain, and Portugal, had higher levels of inflation. France was close to the euro area average, while Germany had low inflation rates. Using inflation differentials as a key indicator would have helped to detect this divergence at an early stage.

32. Nominal unit labour costs are a good way of measuring competitiveness, albeit an imperfect one because not all changes in nominal unit labour costs translate into more or less competiveness. Again, this indicator has to be read in context. In general, if wages grow at a faster rate than productivity, countries become less competitive. If productivity grows at a faster rate than wages, countries will become more competitive. It is therefore an important indicator of the relative position of a country, its export strength, and the institu-

**Figure 3: Unit labour cost divergence in the euro area since 1999**
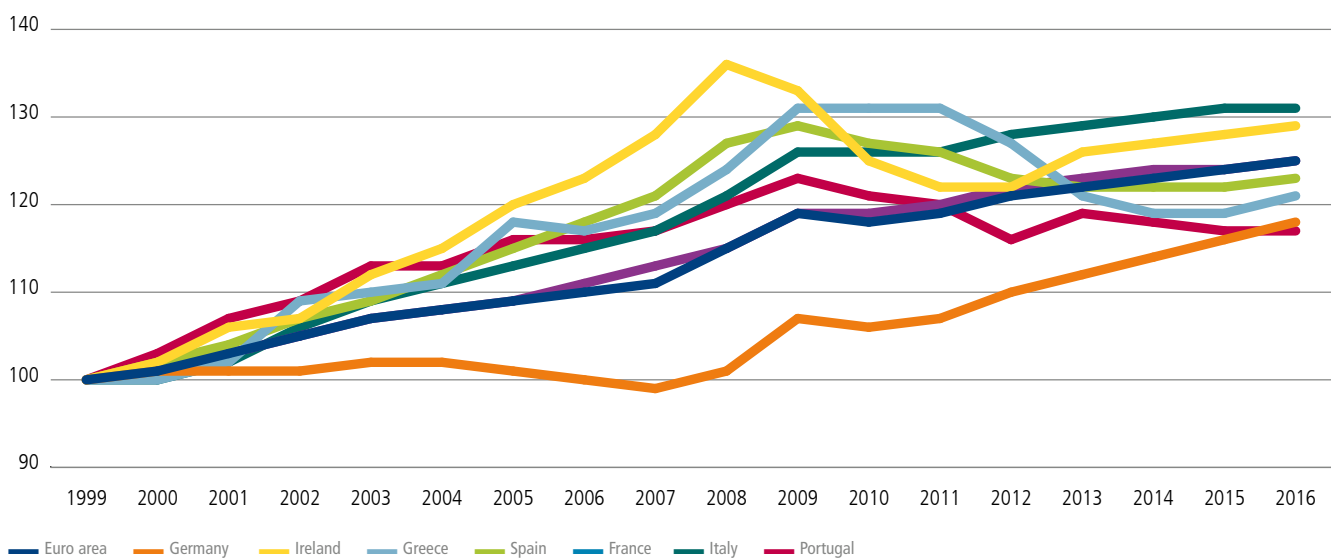
The figure shows nominal unit labour costs in the euro area. Values for 2015 and 2016 are projected.
Divergence is depicted relative to 1999 (=100). It shows the euro area average and that of selected countries.
Source: AMECO, authors´ calculations.

JACQUES DELORS INSTITUT BERLIN | BertelsmannStiftung

tional capacity of the wage-setting partners to adjust to changes in the economy. In the MIP, the Commission reports both short-term and long-term results because adjustments and long-term trajectories are of crucial importance for competitiveness. Using nominal unit labour costs as the central indicator will send a robust message to the wage bargaining parties in the various countries. They are being asked to compare their competitiveness with that of the other countries.

33. Figure 3 shows the unit labour costs in selected countries. Because of years of wage moderation Germany has reduced its nominal labour costs. Wages in France are close to the euro area average and average wage growth has been around two percent. With regard to competitiveness Ireland, Greece, Spain, France, Italy, and Portugal lagged behind Germany and the euro area average. Divergence has slowed down since 2008. Spain, Greece, and Portugal now have wage growth levels that are below the euro area average. However,

because of many years of higher wage growth, years of below euro-area average wage growth will be necessary.

34. Unit labour costs are an important indicator of an economy's ability to implement internal devaluation. Since monetary policy is no longer an option, and since governments do not control the wage-setting process in all the sectors, the ability of the wage-setting system to keep wage growth under control is of crucial importance. Cuts and increases in nominal unit labour costs signal how effectively the economy as a whole can react to market changes.

35. How much wages can diverge in the euro area depends on national productivity rates. As long as wages rise in line with productivity throughout the euro area, wage growth does not threaten price stability. However, low productivity rates and fast wage growth are a cause for concern, especially if there are different trajectories within the euro area. The data show that productivity is growing at different speeds in the euro area. Furthermore, the empirical findings suggest that there has not been any overall convergence, and only a small amount of convergence in certain sectors (Sondermann, 2012). There is no reason why productivity rates ought to converge. However, there are good reasons to argue as we have shown that divergence in unit labour costs will lead to unsustainable imbalances in the euro area.

36. The third indicator that we propose measures the current account balances, which show a country's net transactions with the rest of the world. A growing deficit means that the country is a net borrower. Private and public debt levels are on the rise. This state of affairs threatens the viability of the national economy and increases the risk of default. A growing surplus, on the other hand, can be a reflection of a high savings rate, a low investment rate, and low demand. Not all of them are causes for concern. A growing account surplus should be corrected if there is a persistent negative demand shock or a liquidity trap (see also Gros and Busse, 2013). But all in all, current account imbalances are a sign of destabilizing imbalances. This is also confirmed by empirical evidence: current account imbalances are robust crisis predictors (Frankel and Saravelos, 2011). They are therefore a threat to the stability of the EMU.

37. The asymmetric threshold of the MIP current account balance rule has received a lot of attention. The European Commission justifies the asymmetric target by pointing to the fact that a growing deficit is more of a problem than a growing surplus. The threshold is also broadly in line with empirical research on the link between current account imbalances and balance of payment crises. In addition, there is the question of who actually pays for the adjustment process (De Grauwe, 2012). If debtor countries have reduced their deficit by internal devaluation, they will be confronted with weaker domestic demand (Tressel *et al.,* 2014). In

Figure 4: Current account imbalances in the euro area since 1999
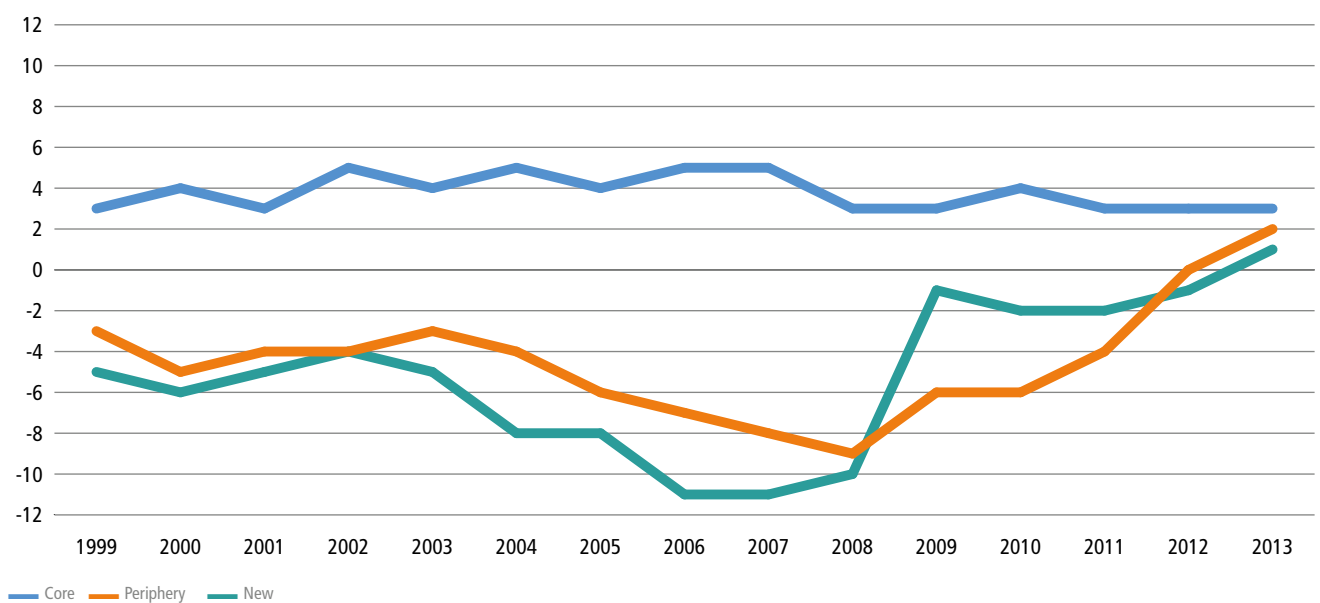
Current account balance as % of GDP in the euro area from 1999 until 2013. Graph shows unweighted averages for members of the euro area in the geographical core (Austria, Belgium, France, Finland, Germany, Luxembourg, and Netherlands) and periphery (Ireland, Italy, Greece, Portugal, and Spain), as well as new member states (Cyprus, Estonia, Latvia, Lithuania, Malta, Slovakia, and Slovenia). Source: Eurostat, authors' calculation.

JACQUES DELORS INSTITUT | Bertelsmann**Stiftung**
BERLIN

addition to the downturn in the economy, which goes hand in hand with growing debt and spiraling unemployment, the adjustment costs can be significant. These costs can be eased if demand in other euro area countries picks up.

38. Figure 4 shows first persistent divergence and then convergence in the current account balance of three groups, which comprise countries at the geographical core, countries on the periphery, and the new member states. Core countries have had a positive current account balance for many years. The other two groups had growing negative balances until 2007–2008 and then recovered. Some divergence was to be expected. Poorer countries

with higher than expected growth rates should see a decrease in savings and an increase in investment, and vice versa (Blanchard and Giavazzi, 2003). In these cases, the deficits must not be corrected. However, if countries continue on a path of net-borrowing, the imbalance should be reduced.

39. How can we determine thresholds for the three different indicators? First, indicators always have to be read in context. In the current governance framework there is no benchmark for the inflation differentials. By contrast, the MIP already has benchmarks for nominal unit labour costs and the current account balance. The change in nominal unit labour costs is not supposed to exceed a three-year average by more than 9 percent. The asymmetric benchmarks for the current account balance are -4 percent of GDP and +6 percent of GDP (based on a three-year average). In the current macroeconomic situation, they seem quite reasonable, at least for the time being.

40. More generally, we propose that the rules should be tied to the business cycles: Over the course of the business cycle, which is about 6 to 9 years in the euro area (Giannone *et al.*, 2009), the deviation of all three indicators should be very close to zero. In other words, the indicators should not deviate significantly from the euro area average.

Figure 5: Simpler convergence goals and indicators
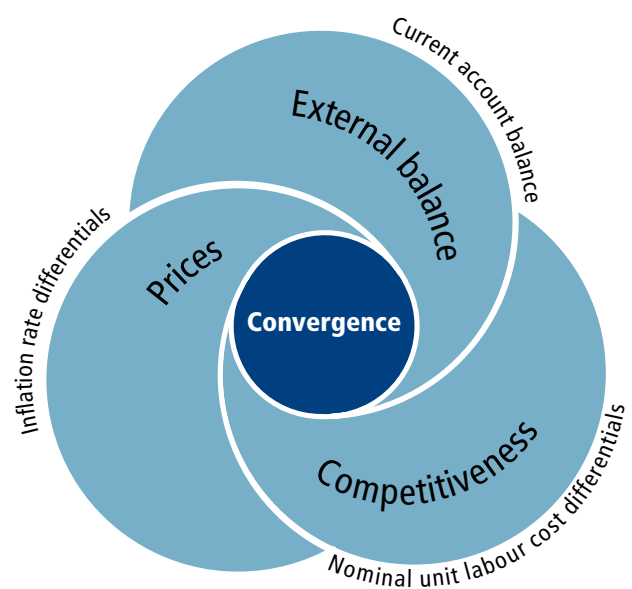
41. It is important to note that the government has no direct control over these indicators. This is true of the inflation rate and competitiveness, since they are linked to national wage-setting structures. This is also true of the current account, which is determined not only by fiscal policy, but also by private spending patterns and shocks such as productivity shocks (Bussière *et al.,* 2005). However, this can be said about most macroeconomic indicators. Therefore, these three indicators are benchmarks for a whole range of reforms. Since governments can do little about the past, the indicators should also be forecasts, though we must bear in mind that they are not always very precise.

42. In sum, the euro area needs convergence in prices, competitiveness, and the external balance. Each area should be measured with the help of the best possible indicator, i.e. inflation rate differentials, nominal unit labour cost differentials, and the current account balance. Over the course of a business cycle, differentials should be as close to zero as possible, and the governance framework should place particular emphasis on the prevention of persistent deviations. Figure 5 depicts the convergence rules and indicators. Convergence cannot resolve all of the design flaws of the euro area, but it is necessary, and it is a pre-condition for future reforms (see also Cœuré, 2015).

Next steps in the convergence process

43. The next step in the convergence debate should be to move from economic arguments to political processes. How can the European Union agree on better convergence rules and indicators? How can they be implemented and enforced? What reforms will be needed in the member states in order to meet the criteria? The Five Presidents' Report is generally cautious when it comes to content and tends to emphasize procedural matters (Enderlein and Haas, 2015). It makes a point of addressing the lack of convergence in the euro area, and calls for a binding convergence process. In the first phase before 2017 member states will reach agreement on policies and reforms. The second phase will implement new instruments designed to promote convergence and stability, including new binding convergence targets. The present study makes a contribution to the first stage by proposing new convergence rules and indicators.

44. Once the EU has reached agreement on convergence targets, they should be enforced. The Five Presidents' Report offers a new approach to implementation and incentives. Rather than relying on the carrot and the stick, the Five Presidents want to emphasise the benefits. Countries which comply with the convergence rules may accede to the next stage in EMU integration, which is an EMU-wide shock absorption mechanism. Membership of a shock insurance scheme would help countries to stabilize their economies.

45. How would a shock absorption mechanism actually function? Enderlein *et al.* (2013) suggest that whenever countries are in a cyclical upturn and are above the euro area average, they will have to contribute to the fund. Whenever they are below the euro area average, they can obtain money from the fund in order to help them to stabilize demand and limit deficits and debt accumulation. Other suggestions include a euro area budget (Marzinotto *et al.,* 2011) and a European unemployment benefit scheme (e.g. Dullien, 2014; Andor, 2015). If well designed, a shock insurance scheme could solve two problems at once. First, it addresses the problem of asymmetric shocks and business cycles across the euro area, and thus takes into account diversity and structural differences. Second, it provides an incentive for countries to adhere to the convergence rules. In contrast to financial sanctions, which are pro-cyclical, membership of the shock insurance scheme will be counter-cyclical and a source of stability.

Conclusion

46. Convergence will play a key role in the reform of the Economic and Monetary Union. This study outlines the kind of convergence that is needed in order to stabilize the euro area, and contributes to the current search for better convergence rules and indicators. We have examined the economic arguments for convergence in the euro area, compared them with the current economic governance framework, and suggested viable rules and indicators designed to address the shortcomings.

47. We have seen that the euro area is a special case because it does not have adjustment mechanisms capable of correcting imbalances, and because it has a single market that is far from complete. That is why the euro area needs more nominal convergence than other monetary unions. In order to survive, it needs price stability in the form of small inflation differentials, competitive members states that can maintain both a balance between wage growth and productivity rates, and a balanced external position. There may be short-term differences as economies adjust. However, in the course of a business cycle, these should be minor deviations.

48. We believe that better convergence rules can be adopted. The Five Presidents hope to agree on new binding convergence criteria by 2017, and to implement them as part of a large reform package designed to stabilize the EMU and prepare it for future shocks. The proposed convergence rules can be integrated into the economic governance framework and the European Semester. They can help to streamline the current arrangements and can be combined with a new enforcement mechanism that focuses on the benefits that will accrue if member states meet their targets.

49. The present study has argued that the euro area needs more convergence and has suggested simpler convergence goals and indicators for a renewed political process. We need more research on the next two priorities, i.e. process and reforms. (i) How can we agree upon, implement, and enforce better convergence criteria? (ii) What kind of economic, political, and institutional reforms are necessary in order to enable countries to meet the convergence criteria?

Appendix

An overview of current governance for convergence in the EMU

• Economic policy coordination has been significantly increased in the euro area since the crisis. The Six-Pack, Two-Pack and the TSCG legislations strengthened and streamlined the economic governance framework. Convergence rules in the euro area focus on public sector balance: there are four rules for government debt and deficit. In addition, rules and indicators cover also inflation, and the external and internal balance. All convergence rules demand nominal convergence. This table provides an overview of the current rules and indicators in the euro area, grouped into types of convergence, indicators, the maximum enforcement possible, and the legal framework.

Types of convergence	Indicators	Max. enforcement	Legal framework
Inflation rates	Inflation rate within 1.5 % of the three EU countries with the lowest rates	Condition for accession to euro area	Maastricht
	Long-term interest rate within 2 % of the three EU countries with the lowest rates	Condition for accession to euro area	Maastricht
	Deflated house price index not more than 6 % y-o-y change	Excessive Imbalance Procedure (deposit of 0.1 % of GDP)	MIP
Public sector balance	Government deficit less than 3 % of GDP	Condition for accession to euro area	Maastricht
	Government deficit less than 3 % of GDP	Excessive Deficit Procedure (fine plus non-interest-bearing deposit of 0.2% of GDP)	SGP
	Government debt less than 60 % of GDP	Condition for accession to euro area	Maastricht
	Government debt less than 60 % of GDP	Excessive Deficit Procedure (fine plus non-interest-bearing deposit of 0.2 % of GDP)	SGP
	Government debt less than 60 % of GDP	Excessive Imbalance Procedure (deposit of 0.1 % of GDP)	MIP
	Medium Term Objectives: close to balance	Interest-bearing deposit of 0.2 % of GDP	SGP
	Balanced budget rule: government deficit less than 0.5% of GDP	Integration into national legal system, in case of non-compliance European Court of Justice	TSCG

Types of convergence	Indicators	Max. enforcement	Legal framework
External balance	Current account balances less than 6 % and more than -4 % of GDP (3-year average)	Excessive Imbalance Procedure (deposit of 0.1 % of GDP)	MIP
	Net international investment position not more than -35 % of GDP	Excessive Imbalance Procedure	MIP
	Export market shares not more than 5 % change over 5 years	Excessive Imbalance Procedure	MIP
Competitiveness	Nominal ULC not more than 9 % change over 3 years	Excessive Imbalance Procedure (deposit of 0.1 % of GDP)	MIP
	Real effective exchange rate not more than -5 and +5 % change over 3-year average	Excessive Imbalance Procedure	MIP
Internal balance	Private sector credit flow not more than 14 % of GDP	Excessive Imbalance Procedure (deposit of 0.1 % of GDP)	MIP
	Private sector debt not more than 133 % of GDP	Excessive Imbalance Procedure	MIP
	Unemployment rate not more than 10 % over 3-year average	Excessive Imbalance Procedure	MIP

Source: Authors' compilation.

JACQUES DELORS INSTITUT
BERLIN | BertelsmannStiftung

A short guide to convergence and economic theory

- Neoclassical growth models, which are sometimes referred to as exogenous growth models, all predict real convergence in time and space. In other words, they say that poorer regions and countries will catch up with richer parts of the world. This is borne out by the standard Solow–Swan model (Solow, 1956; Swan, 1956). Its key assumption is that the rate of return on capital is diminishing. Thus capital will flow from the rich to the poor because the rates of return on capital will ultimately be higher in poorer regions with low capital intensity. On the assumption of constant population growth and an exogenous rate of technological change, poorer countries will have higher growth rates than richer countries and end up with the same steady-state level of income. This prediction is also called the full or unconditional convergence hypothesis, which states that poorer countries will automatically catch up with richer countries.

- However, there is little empirical evidence to support the notion of full convergence. Important studies in economic theory have sought to explain why this is the case. Broadly speaking they fall into two groups. The first argues that the assumption of diminishing returns on capital is only of theoretical importance because diminishing returns set in slowly (Barro and Sala-i-Martin, 1992). The second argues that the model is too simplistic and ignores other important

drivers of economic growth such as economies of scale and agglomeration effects (Krugman, 1991). Other accounts point out that markets can be imperfect (e.g. Lucas, 1990).

- There is a more guarded hypothesis in exogenous growth theory that postulates conditional (and not full) convergence. Countries do not converge to one steady-state level, but to different ones based on key parameters. Club convergence occurs if a group of countries with similar underlying economic parameters converges towards a common steady-state level, whereas other countries never manage to catch up. There is some empirical evidence for club convergence in the euro area where some (but not all) countries share a number of important characteristics.

- While neoclassical growth theory is parsimonious when it comes to assumptions and predictions, its main weakness is the lack of empirical support. Recent growth theory, which is often called endogenous growth theory, seeks to overcome the shortcomings of exogenous growth theory by jettisoning some key assumptions. Productivity is no longer considered to be exogenous (Romer, 1990). In fact, policy and institutions can make a difference. Countries can move to higher growth trajectories by having more effective human capital, by investing in human capital, and by having a workforce that is more qualified and for this reason can make better use of capital inflows. Endogenous growth theory has two important advantages when we compare it with

exogenous growth theory. First, it can explain why we do not observe real convergence. Second, it produces guidelines for policies that can steer the economy towards a higher growth trajectory and a higher growth trajectory and steady state level.

- There are two general types of convergence: real and nominal. Real convergence refers to convergence in living standards. In the case of country comparisons, it is most commonly measured in terms of GDP per capita in the form of Purchasing Power Parity (PPP) or Purchasing Power Standards (PPS). This makes it possible to compare living standards across countries and over time, although it is important to note that it says nothing about the distribution of income. Nominal convergence refers to the convergence of important parameters of the economy. It is an umbrella term for many different kinds of convergence such as convergence in macro-economic indicators such as inflation, or structural and institutional convergence.

- In addition, economists distinguish between beta and sigma convergence (terms coined in the seminal study by Barro and Sala-i-Martin, 1992; see also Sala-i-Martin, 1996). Beta convergence is synonymous with catching up. It means that lower-income countries have a higher growth rate than high-income countries. In other words, there is a negative correlation between the level of GDP per capita in PPS and the growth rates in the following year. Beta convergence, as we have seen, can be both unconditional and conditional. Sigma con-

vergence signifies convergence to a common level. It can refer to a situation in which richer countries adjust downwards while poorer countries adjust upwards, for instance after a shock. Sigma convergence signifies that variance in the variable of interest decreases over time.

Bibliography

Afonso, António, Michael G. Arghyrou, and Alexandros Kontonikas, "The Determinants of Sovereign Bond Yield Spreads in the EMU", *ECB Working Paper Series,* no. 1781 (2015): 1–38.

AMECO, AMECO Database: *Annual macro-economic database,* Brussels: European Commission (accessed November 2015).

Andor, László, "Completing the EMU – the next steps: Towards greater resilience and stronger recovery capacity through developing unemployment insurance in the eurozone", Hans Böckler Stiftung – European Dialogue, Brussels: 16-17 April 2015.

Baldwin, Richard, and Charles Wyplosz, *The Economics of European Integration,* Berkshire: McGraw-Hill Education (2006).

Banerji, Angana, Bergljot Barkbu, James John, Tidiane Kinda, Sergejs Saksonovs, Hanni Schoelermann, and Tao Wu, "Building a Better Union: Incentivizing Structural Reforms in the Euro Area", *IMF Working Paper Series* 15, no. 201 (2015): 1–40.

Barro, Robert J., and Xavier X. Sala-i-Martin, "Convergence", *Journal of Political Economy* 100, no. 2 (1992): 223–51.

Benczes, Istvan, and Balazs Szent-Ivanyi, "The European Economy in 2014: Fragile Recovery and Convergence", *Journal of Common Market Studies, Early Access* (2015): 1–19.

Blanchard, Olivier, and Franceso Giavazzi, "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets", *Quarterly Journal of Economics* 118, no. 3 (2003): 879–908.

Buiter, Willem H., "The 'Sense and Nonsense of Maastricht' Revisited: What Have We Learnt about Stabilization in EMU?", *Journal of Common Market Studies* 44, no. 4 (2006): 687–710.

Bussière, Matthieu, Marcel Fratzscher, and Gernot J. Müller, "Productivity Shocks, Budget Deficits and the Current Account", *ECB Working Paper Series,* no. 509 (2005): 1–34.

Cœuré, Benoît, "Towards a Political Covnergence Process in the Euro Area", Speech at the Interparliamentary Conference "Towards a Progressive Europe," Berlin, 16 October 2015.

Crespo Cuaresma, Jesus, Doris Ritzberger-Grünwald, and Maria Antoinette Silgoner, "Growth, Convergence and EU Membership", *Applied Economics* 40, no. 5 (2008): 643–56.

De Grauwe, Paul, "The Economics of Convergence: Towards Monetary Union in Europe", *Weltwirtschaftliches Archiv* 132, no. 1 (1996): 1–27.

De Grauwe, Paul, and Francesco Paolo Mongelli, "Endogeneities of Optimum Currency Areas – What Brings Countries Sharing a Single Currency Closer Together?", *ECB Working Paper Series,* no. 468 (2005): 1–38.

De Grauwe, Paul, "In Search of Symmetry in the Eurozone" *CEPS Policy Brief,* no. 268 (2012): 1–5.

Delors, Jacques, *Report on Economic and Monetary Union in the European Community,* Luxembourg: European Commission (1989).

Dullien, Sebastian, *A European Unemployment Benefit Scheme: How to Provide for More Stability in the Euro Zone,* Gütersloh: Bertelsmann Stiftung (2014).

European Central Bank, "Real Convergence in the Euro Area: Evidence, Theory and Policy Implications", *Economic Bulletin Issue,* no. 5 (2015): 30–45.

European Commission, "A blueprint for a deep and genuine economic and monetary union: Launching a European Debate", *Communication from the Commission* 777 (2012): 1–51.

Enderlein, Henrik, "Break It, Don't Fix It!", *Journal of Common Market Studies* 42, no. 5 (2004): 1039–46.

Enderlein, Henrik, "One Size Fits None", *Central Banking* XVI, no. 1 (2005): 24–28.

Enderlein, Henrik, Peter Bofinger, Laurence Boone, Paul De Grauwe, Jean-Claude Piris, Jean Pisani-Ferry, Maria João Rodrigues, André Sapir, and António Vitorino. Completing the Euro. A Road Map towards Fiscal Union in Europe (Report of the "Tommaso Padoa-Schioppa Group"), *Notre Europe Studies & Reports,* no. 92 (2012): 1-68.

Enderlein, Henrik, Lucas Guttenberg, and Jann Spiess, "Blueprint for a Cyclical Shock Insurance in the Euro Area", *Notre Europe Studies & Reports* no. 100 (2013): 1–79.

Enderlein, Henrik, Joachim Fritz-Vannahme, and Jörg Haas, *Repair and Prepare: Strenghtening Europe's Economies After the Crisis,* Gütersloh: Bertelsmann Stiftung and Jacques Delors Institut – Berlin (2014).

Enderlein, Henrik, and Eulalia Rubio, "25 Years After the Delors Report: Which Lessons for Economic and Monetary Union?", *Jacques Delors Institute Policy Paper,* no. 109 (2014): 1–18.

Enderlein, Henrik, and Jörg Haas, "A Smart Move: Why the Five Presidents' Report Is Cautious on Substance and Ambitious on Process", *Jacques Delors Institute Policy Paper,* no. 139 (2015): 1–10.

European Commission, "Scoreboard for the Surveillance of Macroeconomic Imbalances: Envisaged Initial Design", *Commission Staff Working Paper,* no. 1361 (2011): 1–11.

European Commission, "Scoreboard for the Surveillance of Macroeconomic Imbalances", *European Economy Occasional Papers,* no. 92 (2012a): 1–28.

European Commission, "Completing the Scoreboard for the MIP: Financial Sector Indicator", *Commission Staff Working Paper,* no. 389 (2012b): 1–7.

European Commission, "Refining the MIP Scoreboard", *Commission Staff Working Paper,* no. 790 (2013a): 1–35.

European Commission, "Focus: Catching-up Processes in the Euro Area", *Quarterly Report on the Euro Area* 12, no. 1 (2013b): 1–42.

Eurostat, *HICP Database,* Luxembourg: Eurostat (accessed November 2015).

Ferroni, Filippo, and Benjamin Klaus, "Euro Area Business Cycles in Turbulent Times: Convergence or Decoupling?", *ECB Working Paper Series,* no. 1819 (2015): 1–35.

Forgó, Balazs, and Anton Javcák, "Economic Convergence of Central and Eastern European EU Member States over the Last Decade (2004-2014)", *European Economy Discussion Paper,* no. 1 (2015): 1–28.

Frankel, Jeffrey, and Andrew K. Rose, "The Endogeneity of the Optimum Currency Area", *Working Paper,* September (1997): 1–33.

Frankel, Jeffrey, and George Saravelos, "Can Leading Indicators Assess Country Vulnerability? Evidence from the 2008-09 Global Financial Crisis", *HKS Faculty Research Working Paper Series* 11, no. 24 (2011): 1–53.

Giannone, Domenico, Michele Lenza, and Lucrezia Reichlin, "Business Cycles in the Euro Area", *ECB Working Paper Series,* no. 1010 (2009): 1–39.

Gros, Daniel, and Matthias Busse, "The Macroeconomic Imbalance Procedure and Germany: When Is a Surplus an 'Imbalance'?", *CEPS Policy Brief,* no. 301 (2013): 1–5.

Herndon, Thomas, Michael Ash, and Robert Pollin, "Does High Public Debt Consistently Stifle Economic Growth? A Critique of Reinhart and Rogoff", *Cambridge Journal of Economics* 38, no. 2 (2013): 257-79.

Honohan, Patrick and Philip R. Lane, "Divergent Inflation Rates in EMU", *Economic Policy* 18, no. 37 (2003): 357–94.

Juncker, Jean-Claude, Donald Tusk, Jeroen Dijsselbloem, Mario Draghi, and Martin Schulz, *Completing Europe's Economic and Monetary Union,* Brussels: European Commission (2015).

Kaitila, Ville, "Transnational Income Convergence and National Income Disparity: Europe, 1960-2012", *Journal of Economic Integration* 29, no. 2 (2014): 343–71.

Kenen, Peter, "The Theory of Optimal Currency Areas: An Eclectic View", In *Monetary Problems of the International Economy,* edited by Robert Mundell and Alexander Swoboda, Chicago: University of Chicago Press (1969): 41-60.

Krugman, Paul, "Increasing Returns and Economic Geography", *Journal of Political Economy* 99, no. 3 (1991): 483–99.

Lee, Kang-Soek, and Franceline Mercurelli, "Convergence in the Core Euro Zone under the Global Financial Crisis", *Journal of Economic Integration* 29, no. 1 (2014): 20–63.

Lucas, Robert E. Jr., "Why Doesn't Capital Flow from Rich to Poor Countries?", *American Economic Review* 80, no. 2 (1990): 92–96.

Marzinotto, Benedictra, André Sapir, and Guntram B. Wolff, "What kind of fiscal union?" *Brugel Policy Brief* 2011, no. 6: 1-8.

McKinnon, Ronald, "Optimum Currency Areas", *American Economic Review* 53, no. 4 (1963): 717–24.

Melolinna, Marko, "What Has Driven Inflation Dynamics in the Euro Area, the United Kingdom and the United States", *ECB Working Paper Series,* no. 1802 (2015): 1–35.

Mundell, Robert A., "A Theory of Optimum Currency Areas", *American Economic Review* 51, no. 4 (1961): 657–65.

OECD, *OECD.Stat,* Paris: OECD (accessed November 2015).

Praet, Peter, "The Financial Cycle and Real Convergence in the Euro Area", Speech at the Annual Hyman P. Minsky Conference on the State of the US and World Economies, Washington D.C., 10 April 2014.

Reinhart, Carmen, and Kenneth Rogoff, "Growth in a Time of Debt", *NBER Working Paper Series* 53, no. 15639 (2010): 1–25.

Romer, Paul M., "Endogenous Technological Change", *Journal of Political Economy* 98, no. 5 (1990): S71–102.

Sala-i-Martin, Xavier X., "The Classical Approach to Convergence Analysis", *Economic Journal* 106, no. 437 (1996): 1019–36.

Solow, Robert M., "A Contribution to the Theory of
    Economic Growth", *Quarterly Journal of Economics* 70,
    no. 917 (1956): 65–94.

Sondermann, David, "Productivity in the Euro Area:
    Any Evidence of Convergence?", *ECB Working Paper
    Series,* no. 1431 (2012): 1–29.

Swan, Trevor W., "Economic Growth and Capital Accumula-
    tion", *Economic Record* 32, no. 63 (1956): 334–61.

Tressel, Thierry, Shengzu Wang, Joong Shik Kang, Jay
    Shambaugh, Jörg Decressin, and Petya Koeva Brooks,
    "Adjustment in Euro Area Deficit Countries: Progress,
    Challenges, and Policies", *IMF Staff Discussion Notes* 14,
    no. 7 (2014): 1–34.

Whelan, Karl, "Inflation Differentials and Euro Area
    Monetary Policy", *European Parliament, Directorate
    General for Internal Policies, Policy Department A: Economic
    and Scientific Policy,* no. 3 (2014): 1–16.

Imprint