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Lacking "Europeanisation" of National Business Cycles as a Risk for the Euro Area

While a largely positive assessment can be made for the first ten years of Economic and Monetary Union, the global financial market crisis is putting the viability of EMU to a test. Owing to the smooth interplay between the institutions shaping economic policy, the capacity of the monetary union to survive is beyond doubt. Moreover, the introduction of the common currency and the implicit processes of policy adjustment have already made for a certain harmonisation of the business cycle within the euro area. Nevertheless, since perfect harmonisation will not be achieved, major shocks like the present financial market crisis oblige monetary and fiscal policy to adopt a flexible approach. In the absence of other mechanisms to smooth such shocks (e.g., fiscal federalism in the USA), a higher degree of economic policy co-ordination and still closer co-operation between the euro area member countries and the ECB is urgently recommended.

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Ten years after the start of EMU, the global financial market crisis is putting its viability to a test. Some observers evoke the danger of the monetary union breaking up, but others point to the experience gained with the institutional interplay which has helped so far to cope even with such a severe crisis at hand. The different degree to which the euro area countries are affected by the financial crisis (institutional differences in the banking sector and real estate markets) reveals the risk potential inherent in the widening gap in member countries' price competitiveness since 1999. Already before 1999 some convergence of national business cycles has been observed in Europe, which continued in recent years. However, the financial crisis affects the euro area like an external shock (triggered by the real estate and banking crisis in the USA) with asymmetric effects which may add to national divergences in the business cycle. The conditions for the successful conduct of a euro-area-wide monetary policy are thereby becoming even more difficult.

The European Economic and Monetary Union (EMU) is a rather heterogeneous group of countries which differ in terms of potential growth, the rate of unemployment, labour market flexibility, the level of economic development as well as of country size and language. Under the title of "Managing Diversity", the OECD (2007, pp. 17ff) raises the following questions in this context: is there convergence between the member countries? Is integration between their economies deepening? At which point does diversity become a problem? What are the appropriate policy responses? Has EMU contributed towards strengthening the incentives for structural reform?

In every monetary union, there are inevitably growth and inflation differentials. They may result from differences in the stance of fiscal policy, sector-specific or regional shocks, differences in the impact of and/or the reaction to common shocks (such as the global financial market crisis 2008-09), the pace of income convergence, differences in preferences, the direct impact of changes in administered prices or indirect taxes etc. Growth of GDP per capita ranged between 4 percent p.a. in Ireland and around ½ percent in Portugal, whereas average inflation spanned from 3.8 percent

Harmonisation within a monetary union

to 1.6 percent. International comparisons like by the OECD (2007, pp. 29ff) show that a monetary union can work smoothly even with a rather heterogeneous membership (e.g., Australia, Italy, Canada, Spain, USA, West Germany):

- The differences, i.e., dispersion of the annual growth rates of real GDP (as measured by the standard deviation) have been larger after 1999 between the euro area countries (EUR 12: 1.9) than between 8 US regions (1.3) or between 20 Italian regions (1.2), 11 West German states (1.0) and 18 autonomous Spanish provinces (0.8). Economic growth within the euro area differs somewhat less, however, than between 8 Australian regions (2.1) and the 10 Canadian provinces (2.0).
- With the exception of Australia, the dispersion of GDP growth rates diminished in all monetary unions between the periods 1980-2005 and 1999-2005.
- The dispersion of growth rates of GDP per capita between the euro area countries does not show a clear trend for the last 35 years, neither in the upward nor the downward direction. Unlike in the past, the three major countries are now in the bottom half of the distribution. Therefore, the growth differentials now appear to be larger even if they are actually no larger than before.
- Inflation differentials have become much smaller since 1990, remaining persistently narrow since 1999 (OECD, 2007, p. 30). The dispersion of inflation rates is somewhat higher than in Australia, Canada or the USA. Within the euro area, inflation differentials have become more entrenched. Most countries in the euro area have since 1999 exhibited a systematically above-average or systematically below-average inflation rate. This is reflected also in the decrease in the correlation coefficient between the national inflation rates and the euro area average since 1999. Such strong persistence seems to be characteristic for the euro area, being even higher for the prices of services than for those of goods.
- So far, the inflation differentials have not led to widening gaps between the price levels or between unit labour costs. The countries with relatively higher inflation rates are those which entered the euro area with comparatively low price levels. The development thus reflects a natural price level convergence to be expected within a monetary union, even if the momentum of convergence has slowed.

The conventional theory of optimal currency areas (OCA theory; Mundell, 1961) claims that labour market and wage flexibility are necessary conditions for the smooth functioning of a monetary union¹. Are these conditions met to a higher degree since 1999 than before? The dispersion of the unemployment rates of the 12 euro area countries has diminished steadily since 1994. Contrary to expectations whereby this trend may reverse with the severe recession of 2009, the worsening of labour market conditions has been rather even across countries. However, convergence of the national unemployment rate towards the euro area average occurred in only two countries (Ireland and the Netherlands) when the period since 1999 is compared with the previous 10-year period (Table 1). In the other countries, national circumstances became more dominant, implying also a more flexible labour market reaction to country-specific conditions. The trend in real wages exhibits a similar pattern, even if the correlation between national wage growth and the euro area average became closer in 7 out of 12 countries (Table 1).

The fact that unit labour costs (equivalent to the real exchange rates) have drifted apart within the euro area since 1999 is a strong sign of a lack of wage flexibility, at least in the former southern "soft currency" countries (Breuss, 2009, pp. 69ff). It is also reflected by the growing divergence in current account balances. This pattern constitutes a non-negligible risk for the cohesion of the euro area.

In the last few years, structural reform has made progress in the euro area. Between 1998 and 2003, the OECD indicator for regulation of goods markets has improved more strongly for the euro area than for the countries outside the euro area (OECD,

Growth differentials have narrowed somewhat

Inflation differentials diminished

Labour market and wage flexibility

Progress in structural reform

¹ Prompted by survey results of its Inflation Persistence Network on price behaviour in the euro area (http://www.ecb.eu/home/html/researcher_ipn.en.html) the ECB launched a further study on wage formation and wage dynamics under the changed circumstances of monetary union (Wage Dynamics Network, http://www.ecb.eu/home/html/researcher_wdn.en.html; ECB, 2008A, p. 81).

2007, p. 27; see also *European Commission*, 2008A p. 86, p. 190). However, the level of regulation in the euro area in 2003 was broadly equal to that of the non-euro-area countries of 1998. While progress has been made for labour market reform for specific groups of employees, there has been little improvement in wage flexibility with regard to shocks. The latter has probably been better accommodated than elsewhere within the Austrian system of social partnership. Assessments of the instruments measuring the growth-enhancing effects of structural reform (e.g., *Dreger et al.*, 2007) or model simulations of the impact of structural reform (e.g., productivity and wage shocks for the entire euro area with a DSGE model *Ratto – Roeger – in't Veld*, 2006, with a two-country DSGE model *Breuss – Rabitsch*, 2009; for the structural measures called for in the context of the "Lisbon" strategy using a WorldScan model *Gelauff – Lejour*, 2006) arrive at the conclusion that structural reforms do raise the growth potential (from the currently modest 2 percent) while reducing structural unemployment (since the implementation of EMU, the jobless rate has gone down by around 1 percentage point to 7½ percent to 8 percent; *OECD*, 2007, p. 27).

The European Monetary System (EMS), the predecessor of EMU, achieved by means of a quasi-fixed exchange rate regime a high degree of price stability and to some extent also a harmonisation of national business cycles (*Artis – Krolzig – Toro*, 2004). About a further convergence towards a European business cycles, different opinions can be found in the literature. The *European Commission* (2008A, pp. 43ff) finds clear evidence for a further harmonisation, while for *Giannone – Lenza – Reichlin* (2008) the traditional features of the business cycles in the euro area countries and their inter-relations have not changed with the creation of EMU. A group of countries which in the 1970s exhibited a similar level of economic development (GDP per capita), also showed a highly similar cyclical pattern that was hardly influenced by the introduction of the common currency. For another group of countries at originally highly different stages of development, cyclical volatility remained higher also after 1999. Whether a European business cycle can actually (still) be identified depends to a large extent also on the method of analysis applied².

My own analysis of 10 years of EMU (*Breuss*, 2009) concludes that the implementation of EMU has already strengthened the economic union and has contributed towards the emergence of a common business cycle³. While the existence of a common cycle would be crucial for the proper functioning of a monetary policy designed for the entire euro area, much remains to be done in this respect. Moreover, efforts to that end are complicated with each enlargement by a new EU member state. At the same time, although a common cycle would facilitate the task of monetary policy, the heterogeneity of national cycles within the euro area is often a tool of diversification serving to smooth major external shocks.

If one measures business cycles only by the growth rates of real GDP, a marked decrease in the dispersion and thus a convergence towards a "European business cycle" can be observed.

The euro area countries can be divided into two groups: a "core group" of those countries whose growth rates differ from the euro area average within a range from -1.5 to +1.7 percentage points (Belgium, Germany, France, Italy, Austria); the remaining countries form a group where deviations of growth rates from the average are large (between -8 and +9 percentage points; Figure 1). Since 1990, the growth rates of the core group have been somewhat below the average, with the gap steadily narrowing since 1999. This confirms the proposition of *Giannone – Lenza – Reichlin* (2008) with regard to the homogeneous group of countries with similar level of development. In the group of countries with large deviations which mainly includes small countries, the divergence increased significantly until 1999, but narrowed quickly thereafter. Average growth within this group systematically exceeded

² For the various advanced methods of measuring business cycle variations, their dating and analysis see *Scheiblecker* (2007).

³ For further investigation into the European business cycle, the ECB has established a "Euro Area Business Cycle Network (EABCN)" (http://www.ecb.eu/home/html/researcher_eabcn.en.html, <http://www.eabcn.org/>).

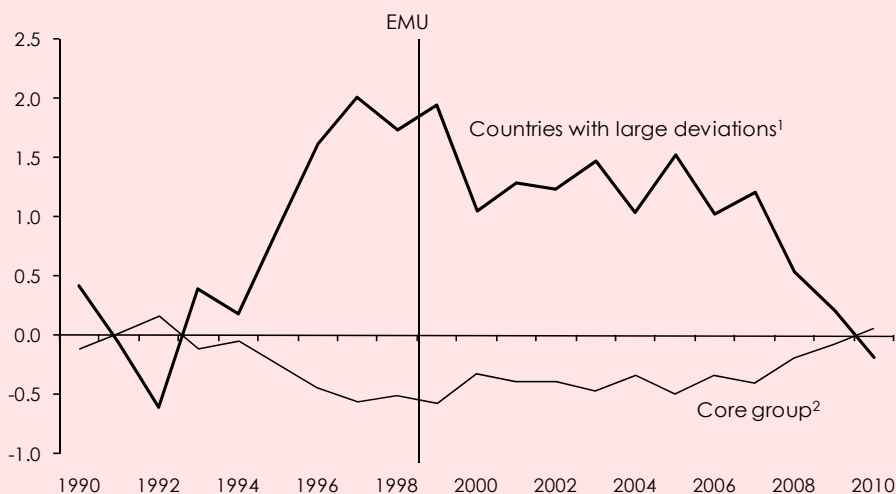
Moving towards a "European business cycle"

European business cycle in the narrow sense

the entire euro area average, while the weak growth performance of the large countries Germany, France and Italy pushed the result below the euro area average.

Figure 1: Comparative growth differentials

Deviation of GDP growth from the euro area average in percentage points



Source: WIFO, European Commission. – ¹ Ireland, Greece, Spain, Luxembourg, The Netherlands, Portugal, Finland. – ² Belgium, Germany, France, Italy, Austria.

If one thinks of the business cycle as a broader phenomenon, the analysis of several macro-economic indicators yields the following picture (Figure 2):

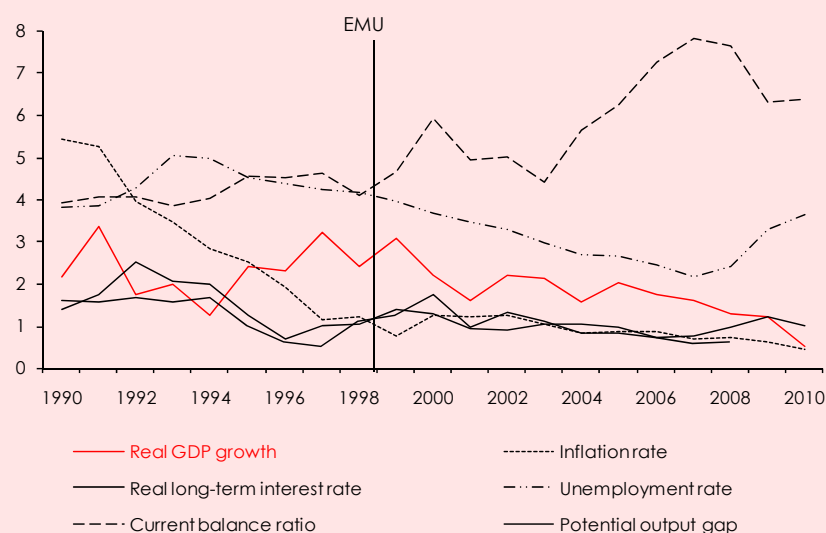
- Growth differentials are narrowing steadily, though already as from 1990. Somewhat more clearly than in the GDP growth rates, the decrease in the dispersion is reflected in the potential output gaps. Since 1990, the standard deviation has declined steadily both of the growth rates of real GDP and of the potential output gap for the 12 countries of the euro area (standard deviation of GDP growth rates on average 1990-1998 2.3, 1999-2007 2.0, dispersion of potential output gap 1.5 and 1.0, respectively). The dispersion of real interest rates diminished similarly slowly as that of GDP growth rates, from 1.3 to 1.0. Long-term nominal interest rates necessarily converge in a monetary union, but inflation rates less so. The countries of the euro area appear to move increasingly towards a "European business cycle" (Figure 2). According to OECD (2007, p. 30), this long-term trend has not substantially gained momentum since 1999. As measured by the trend growth rates (5-year moving averages), the dispersion even increased slightly and was higher than in other regions. The dispersion of growth rates of potential output per capita (estimated on the basis of a production function) increased likewise, according to OECD (2007).
- Contrary to widespread concerns, the projected recession in 2009 triggered by the global financial market crisis does not add to but actually reduces the dispersion of national business cycles. All countries of the euro area are falling into recession with a contraction of GDP, rising unemployment rates as well as higher government deficits and debt levels (bank rescue operations and fiscal stimulus programmes). Whereas the dispersion of GDP growth rates should narrow further in 2010, the crisis has interrupted the harmonisation of unemployment rates: differentials among there latter have widened sharply since 2009 (Figure 2).
- Nominal convergence – starting from the harmonisation of short-term nominal interest rates as a prerequisite of a single monetary policy – is particularly strong for the rates of inflation (where the dispersion has narrowed since 1999 by over 2 percentage points as compared with the period 1980-1998) and for long-term interest rates, but less so for real interest rates (Figure 2).

European business cycle in the wider sense

- Despite the stronger convergence of the real economy and in financial markets, the dispersion of current account balances has increased significantly since 1999. This mirrors the fact that euro area countries are drifting apart in their competitive positions as determined by relative prices and costs (Breuss, 2009, pp. 69ff).

Figure 2: Convergence towards a European business cycle

Standard deviations of the euro area countries from the euro-area-12 average



Source: WIFO, European Commission.

A possible indicator for the emergence of a "European business cycle" would be a revealed increase in correlation between the cyclical variations in business conditions in the 12 member countries and the euro area average (Table 1). Developments for four macro-economic indicators – GDP growth, rate of inflation, unemployment rate, real wage growth – show an uneven pattern.

- In only seven out of 12 euro area countries has GDP growth since 1999 been more closely correlated with the euro area business cycle than over the previous ten-year period (for a similar finding see *European Commission, 2008A, p. 49*). Among these are Germany and Austria.
- Inflation rates have been more closely correlated after the start of EMU in no more than two out of 12 euro area countries as compared with the ten-year period before.
- The rate of unemployment has after 1999 been closer to the euro area average than in the ten years before in only two countries, i.e., Ireland and the Netherlands.
- Although relative unit labour costs have strongly drifted apart since 1999, the trend in real wages is more closely correlated with the average than before in seven out of 12 euro area countries.

The picture emerging from this comparison is therefore ambiguous. On the one hand, the dispersion of GDP growth, inflation, interest and unemployment rates has narrowed since 1999; on the other, the cyclical synchronisation as measured by the change in the correlation of key macro-economic variables has not become much higher since 1999 in comparison with the 10 years before the launch of EMU. Thus, the conditions for a greater harmonisation of economic performance within the euro area are still lacking.

EMU adding but moderately to cyclical convergence

Table 1: Correlation of key economic indicators since the implementation of EMU

Correlation coefficients with euro-area-12

| | Real GDP growth | | Inflation rate | | Unemployment rate | | Real income growth (per employee) | |
|---|-----------------|---|----------------|---|-------------------|---|--------------------------------------|---|
| | 1999-2008 | Difference between 1999-2008 and 1989-1998 | 1999-2008 | Difference between 1999-2008 and 1989-1998 | 1999-2008 | Difference between 1999-2008 and 1989-1998 | 1999-2008 | Difference between 1999-2008 and 1989-1998 |
| Austria | 0.79 | + 0.01 | 0.95 | + 0.04 | 0.38 | - 0.47 | + 0.72 | + 0.31 |
| Belgium | 0.87 | - 0.03 | 0.85 | - 0.01 | 0.76 | - 0.23 | + 0.81 | + 0.22 |
| Finland | 0.95 | + 0.47 | 0.61 | - 0.21 | 0.70 | - 0.14 | - 0.26 | + 0.06 |
| France | 0.94 | - 0.01 | 0.94 | + 0.08 | 0.89 | - 0.08 | + 0.75 | + 0.18 |
| Germany | 0.90 | + 0.03 | 0.85 | - 0.06 | 0.56 | - 0.39 | + 0.54 | - 0.31 |
| Greece | 0.13 | - 0.59 | 0.87 | - 0.05 | 0.67 | - 0.20 | + 0.49 | + 1.07 |
| Ireland | 0.66 | + 0.16 | 0.15 | - 0.49 | - 0.06 | + 0.43 | - 0.53 | - 1.09 |
| Italy | 0.91 | - 0.01 | 0.86 | - 0.03 | 0.59 | - 0.32 | + 0.25 | - 0.09 |
| Luxembourg | 0.88 | + 0.42 | 0.67 | - 0.24 | 0.01 | - 0.96 | + 0.81 | + 0.22 |
| The Netherlands | 0.89 | + 0.04 | 0.15 | - 0.23 | 0.58 | + 0.55 | + 0.63 | + 0.09 |
| Portugal | 0.88 | + 0.02 | 0.28 | - 0.68 | - 0.24 | - 1.09 | + 0.35 | - 0.47 |
| Spain | 0.84 | - 0.11 | 0.83 | - 0.14 | 0.38 | - 0.50 | - 0.09 | - 0.90 |
| <i>Standard deviations of the euro area countries from the euro-area-12 average</i> | 1.66 | + 0.01 | 0.75 | - 2.21 | 2.84 | - 1.15 | + 0.93 | - 0.04 |

Source: Eurostat, European Commission.

As the analysis by the OECD has shown, the development in sub-regions (states of a federation, Länder) is not always in perfect harmony even in other monetary unions. They survive nevertheless over long periods, such as the USA. However, in cases like Canada and also the USA, there are substitute mechanisms which smooth the uneven economic performance in the sub-regions, whereas such mechanisms have been explicitly excluded for EMU from the outset.

Among such substitute mechanisms is in Canada and the USA the instrument of automatic budgetary compensation ("Fiscal Federalism"; Oates, 1999, Breuss, 2000). If, for example, in the USA, an exogenous asymmetric shock strikes in one state, but not in others, the mechanisms of fiscal federalism provide for an automatic transfer of the excess tax revenues from states of benign development towards the state adversely affected. According to estimates by Bayoumi – Masson (1995), the long-term regional flows of Federal taxes and transfers in the US amount to \$ 0.22 per dollar in tax revenue (redistribution effect) and the cyclical stabilisation effect equals \$ 0.31 per dollar. In Canada, the redistributive effect is relatively stronger (\$ 0.39) and the stabilisation effect smaller (\$ 0.17). An equivalent fiscal federalism device is lacking in EMU (Breuss, 2000). The redistributive effect generated by the EU structural funds do not perform this task since the regional and cohesion policy of the EU is entirely geared towards the medium- and long-term perspective and its redistribution effects according to Bayoumi – Masson (1995) are much smaller than those of US fiscal federalism.

In the present severe global crisis, two new challenges arise for the EU budget: to intervene both rapidly and in a flexible way into the EU economies with the purpose of their short-term stabilisation⁴:

- A *Financial Crisis Fund* could be financed from a "Tobin" tax on (predominantly speculative) financial market transactions in Europe. In this way, the instigators of financial market crises would be liable to contribute also to their resolution. Such financing is possible as illustrated by many studies on the subject (of late Schulmeister – Schratzenstaller – Picek, 2008). Such a Financial Crisis Fund was proposed by the French Presidency of the Council, but has so far been rejected by

⁴ Proposals for a Financial Crisis Fund and a Stabilisation Fund were presented by Breuss (2008B) at the occasion of a conference organised by the European Commission with the title "Reforming the budget, transforming Europe" on 12 November 2008 in Brussels. (http://ec.europa.eu/budget/reform/conference/programme_de.htm, http://ec.europa.eu/budget/reform/conference/documents_de.htm).

Harmonisation of economic performance

Substitute instruments and mechanisms

Fiscal Federalism

Financial crisis and stabilisation funds

the other EU countries who favour action at the national (though co-ordinated at EU) level to rescue banks in difficulties. For Austria, such a Fund would be particularly helpful in view of the pending credit default risks, since Austrian banks exhibit the highest exposure vis-à-vis Eastern Europe with a total of € 224 billion in outstanding credits, equivalent to 78 percent of Austrian GDP (*Wirtschaftsblatt*, 7 November 2008, p. 2).

- *Stabilisation Fund*: a severe international financial market crisis is normally followed by a recession in the real economy, as witnessed by the repeated downward revisions of GDP projections by international organisations like the IMF, the European Commission or the OECD, or indeed by the experience of the global crisis of 1929. Also in this respect, the EU would need an instrument for short-term cyclical stabilisation. Such a Stabilisation Fund⁵ could be implemented along the lines of the fund for aid in the case of natural disasters provided for in the EU budget.

In the absence of provisions for a US-type fiscal federalism, a variety of stabilising mechanisms for the smoothing of cyclical shocks⁶ were proposed from the entry into force of EMU (for a survey, see *Breuss*, 2000). The introduction of a fiscal federalism device was rejected; indeed, a "no-bail-out" clause was included into the EU Treaty (Art. 103) in order to avoid problems of moral hazard. However, the current global crisis has led to a change of mind in some quarters – so far only at the national level, in the form of massive intervention into the banking system (going even as far as nationalisation).

Whether the implementation of a Stabilisation Fund would undermine member countries' responsibility for their economic policy (in particular fiscal policy) and give support to the idea of French President Sarkozy of establishing a "European economic government", is difficult to judge. Such a Stabilisation Fund may be financed from seigniorage of the ECB⁷ or (in addition) from a potential new "Tobin tax" (*Breuss*, 2000, 2008B). It should, in any case, be called upon in severe crises like the present one only.

A fundamental reform of EU budgetary policy cannot, however, consist in simply prolonging current procedures into the future, bearing in mind only the well-known challenges. It has to go hand in hand with a discussion about the meaningfulness of the allocation of responsibilities currently in place (*Breuss*, 2008B) between the EU and its member countries as well as inside the member countries (centralisation versus de-centralisation, federalism⁸, etc.), analysed from a public choice and political economy perspective. A large number of investigations are already available on this issue⁹, and also the consortium *ECORYS – CPB – IFO* (2008) has adopted this approach. It is only after such a fundamental analysis that the "value added for the population" can be judged – with regard to efficiency, allocation between different

Change in the allocation of responsibilities

⁵ The European Globalisation Fund (EGF) implemented in 2006 with the purpose of accommodating the negative repercussions of globalisation is already such a flexible instrument and its resources have recently been increased to an important extent (http://ec.europa.eu/employment_social/egf/index_de.html).

⁶ Thus, *Italianer – Vanheukelen* (1993, p. 496) proposed a mechanism for automatic stabilisation that would not require a "European Transfer Union" along the lines of fiscal federalism. It would consist of a system of transfers based on the unemployment rates. The stabilisation mechanism would thereby be financed in a counter-cyclical way, either by member countries with above-average GDP growth, via the Community budget or via a separate Stabilisation Fund.

⁷ Since 2006, the ECB assigns the revenues from euro currency circulation (ECB profits or seigniorage) to the national central banks in the year when they accrue, unless they are retained and added to financial reserves due to poor operational results (ECB, press statement on the financial result of the ECB for the year 2007, Frankfurt am Main, 6 March 2008). Estimates by the *European Commission* (1990, p. 206), building upon the experience of the US Federal Reserve, arrived at seigniorage revenues for the ECB totalling \$ 2 to 2.5 billion per year in normal times. According to the ECB Annual Report 2007 (ECB, 2008C, p. 248), the ECB share of revenues from currency circulation amounted to € 1.319 billion in 2006 and € 2.004 billion in 2007. In both years, the revenues from seigniorage were retained in order to avoid distributed profits to exceed the amount of net annual earnings.

⁸ An analysis of spending priorities in the EU Financial Framework 2007-2013 from a fiscal federalism perspective is offered by *Pitlik* (2006).

⁹ *Falk – Hötzl – Leo* (2008) point to conflicting goals and inconsistencies in the financing of regional policy and top-level research in the area of science, technology and innovation (STI). Advantages and drawbacks of a federal EU structure and an economically meaningful distribution of responsibilities are discussed in the context of the draft Constitutional Treaty by *Breuss – Ellner* (2004). This topic has again become relevant in connection with the Lisbon Treaty.

government levels (EU, member countries, regions, local communities), popular acceptance of the EU, etc.

In the face of the current recession it is eye-catching that the EU budget is geared predominantly towards the *long-term* financing of the EU policy areas (structural funds, CAP, extension of the Lisbon Strategy beyond 2010)¹⁰. A *short-term* budgetary item for the stabilisation of the business cycle is lacking. The cohesion policy with its long-term perspective has proved successful in more than one instance: thus, Ireland advanced from one of the poorest countries in Europe to the second-most wealthy one; although Portugal and Spain or Greece benefited somewhat less¹¹, a financially well-endowed structural policy can be expected to generate further growth dynamics in the new EU member countries¹². Nevertheless, in the very times of severe crisis a short-term budgetary instrument is painfully missed at the EU level.

The mechanisms at work according to the theory of optimal currency areas (OCA) as claimed by *Mundell* (1973) and by *Frankel – Rose* (1998) may also lead to a gradual harmonisation of the business cycles of countries participating in the monetary union, namely via the increase in intra-euro-area trade as a consequence of closer economic integration (*Breuss*, 2009, pp. 76ff).

In its present state, EMU is a monetary union without a fiscal union (*Eichengreen*, 2007, 2009). This deficiency is criticised also by *De Grauwe* (2009) as a potential cause for a breakup of EMU.

With the targeted, timely and co-ordinated reaction to the international financial crisis and the looming crisis of the real economy, the European Union and EMU have successfully passed a stress test. The asymmetric economic policy architecture still in force appears to be flexible enough to react to crises. A proper "European economic government" is not indispensable. Already at its meeting of 15 to 16 October 2008 in Brussels, the European Council confirmed its intention "in view of the financial crisis...to proceed in a concentrated and comprehensive way in order to restore the smooth functioning of the financial system . . ." (*European Council*, 2008A, p. 1). It welcomed the measures taken by the ECB, the good co-ordination with the central banks of partner countries and with the Fed as well as the "concerted action plan of the euro area countries of 12 October 2008" (*European Commission*, 2008B). The European Council advocates measures " . . . to safeguard the stability of the financial system, to support the key players among financial institutions, to avoid bankruptcies and to guarantee the safety of saving deposits . . ." (*European Council*, 2008A, p. 2). In addition, taxpayers were to be protected and the management to be held responsible. "In view of the exceptional circumstances, timely and flexible action should be ensured in applying the European rules (e.g., in the Stability and Growth Pact)". The Council welcomes" . . . that the Commission is implementing the rules of competition policy, notably with regard to state aid" (e.g., in the recapitalisation of banks according to Art. 87 para. 3b ECR; *European Commission*, 2008C, 2008E). In addition, the Conclusions (*European Council*, 2008A, pp. 3-5) refer to a series of measures to avoid the emergence of financial crises: early warning, protection of personal savings, financial sector co-ordination at the European level, stricter equity capital requirements, tighter rules for rating agencies and for accounting requirements, restoration of confidence, increase in transparency through international co-operation. The world financial summits of the 20 most important global trade nations (15 November 2008 in Washington, 2 April 2009 in London) were to elaborate new rules for the international financial markets.

In November 2008, the *European Commission* (2008D) proposed a "European Economic Recovery Programme" to the tune of € 200 billion or 1.5 percent of EU GDP. Likewise, in December 2008, the *European Council* (2008B) suggested a comprehensive co-ordination of fiscal policy in the EU to address the crisis. Overall, the insti-

Endogenous theory of optimal currency areas

Co-ordination instead of a European economic government

¹⁰ Considerations about the future of the Lisbon Strategy ("post-2010") are presented in *Breuss* (2008C).

¹¹ See the regular CohesionReports by the European Commission (http://ec.europa.eu/regional_policy/sources/docoffic/official/repor_de.htm), most recently the "Fifth Interim Report on economic and social cohesion" of 18 June 2008.

¹² *Breuss* (2002). Yet, the re-allocation of structural funds resources from the former cohesion countries Greece, Ireland, Portugal and Spain towards the new EU member countries may be accompanied by a similar shift in direct investment activity (*Breuss – Egger – Pfaffermayr*, 2003).

tutions of the EU and of EMU have stood the test in acting decisively to accommodate the shock of the international financial crisis and its potential repercussions on the real economy. Against the background of the massive increase in the fiscal stimulus "package" in the USA, the major EU economies may follow (Germany has already adopted a second counter-cyclical programme) in stepping up their efforts to mitigate the impact of the financial crisis in 2009.

The fact that the growth performance of the euro area economy has been rather modest when compared with the entire EU or the USA seems to indicate that the asymmetric architecture of EMU works well in times of severe crisis, but not in normal times. The process of policy co-ordination is complex and heavy. The co-ordination of fiscal policy within the framework of the Stability and Growth Pact is undermined by member countries pursuing national interests. Government action is influenced by electoral considerations which may trigger a "political business cycle". Election dates staggered in time in the member countries may therefore complicate a harmonisation of the business cycle within the EU or at least within the euro area. A centralised monetary policy is appropriate for all EU countries only under the condition of a harmonised business cycle. A harmonisation of election dates across member countries may improve policy co-ordination in the euro area. This theoretical hypothesis by *Sapir – Sekkat (1999)* has been confirmed empirically by *Breuss (2008A)* (on the basis of model simulations). A synchronisation of election dates would stimulate GDP growth and reduce unemployment, but at the same time add to inflation and in some countries weaken the budget balance.

EMU entered into force in 1999 with originally 11 member countries. In 2001, Greece adopted the common currency. After EU enlargement in 2004, Slovenia acceded to monetary union in 2007 as the first of the new EU member countries. Malta and Cyprus followed in 2008, Slovakia in 2009. After the implementation of the customs union in 1967 and of the Single Market in 1993 it is in principle the goal of the EU to include all member countries into the subsequent major step of economic integration that is EMU.

At present, 16 countries and thus more than half of the 27 EU countries participate in monetary union. A complete monetary integration of all EU countries into EMU is still far off. The enlargement process and thereby the extension of the Single Market advances more quickly than integration into EMU. Three of the EU-15 countries are still staying outside monetary union, for different reasons. Denmark and the UK have an opt-out clause laid down in the Maastricht Treaty. In Denmark and Sweden, euro adoption was rejected in popular referenda held in 2000 and 2003, respectively. While the three countries would meet the convergence criteria¹³, they do not want to adopt the common currency.

The new EU member countries, for their part, are pushing towards entry into EMU, although they hardly (or not at all) meet the convergence criteria. While an enlargement of the monetary union is desirable, every accession of more and more heterogeneous countries carries the risk of a backlash in the efforts to harmonise the cyclical profile in the EU (*Breuss, 2002*), since the level of development of the new EU member countries is very uneven and altogether significantly lower than that of the EU 15. These countries, due to the Balassa-Samuels effect (*Breuss, 2006, pp. 274ff*), will exhibit a trend towards rising inflation and thus real appreciation in the process of catching up, since their business cycle is not yet harmonised with that of the EU 15 (*European Commission, 2008A, pp. 203ff*). For that reason, the harmonisation of the business cycle has to start always anew. On the other hand, the endogenous optimal-currency-area theory would claim that after adoption of the common currency the cyclical patterns would automatically converge on the back of closer trade relations with the euro area.

Harmonisation via a common election date

Does EMU enlargement undermine efforts at harmonisation?

¹³ The four convergence criteria (primary criteria: inflation rate, government finances, long-term interest rates and exchange rate stability) are defined in greater detail in a Protocol annexed to the EU Treaty (Protocol No 21 on the convergence criteria), the assessment of compliance is carried out pursuant Art. 121 (1) EU Treaty.

Risks from the global financial crisis for monetary union

The global financial market crisis represents a shock which in its origins is comparable with the Great Depression of 1929 (*Reinhart – Rogoff, 2008*) and has similar repercussions on the real aggregates of the economies¹⁴. The big difference to 1929 consists in the massive policy counter-action, both via monetary (interest rate cuts down to 0 percent) and fiscal policy (bank rescue operations and large-scale stimulus "packages"). For all we know about the impact of monetary and fiscal policy multipliers, the biggest damage for the economy should thereby be averted¹⁵. Money market rates have been cut drastically – the Fed lowered its key interest rate from 5.25 percent in autumn 2007 to almost 0 percent by the end of 2008. The ECB lowered its major intervention rate somewhat more prudently from 4.25 percent in early October 2008 to 2 percent in January 2009. The counter-cyclical stimulus programmes set up worldwide and reinforced on an ongoing basis vary in size from 6 percent of GDP in China, 5.8 percent in the USA, 2.4 percent in Germany down to ½ percent in France, Italy and Brazil (*Saha – von Weizsäcker, 2008, The Economist, 31 January 2009, pp. 71-72*). In Austria, the two stimulus packages adopted for 2009-2010 amount to some 2 percent of GDP. To this should be added the large-scale bank rescue operations with guarantees and capital injections (for a survey see *ECB, 2008B, p. 85*).

The resilience of the euro area vis-à-vis the worldwide financial crisis is being assessed markedly differently by observers. Some see the danger of a breakup (*Eichengreen, 2007, 2009, attaches, however, a low probability to this scenario*), others see in the common currency the only meaningful rescue anchor. Thus, Iceland which as a consequence of the financial crisis moved to the verge of state bankruptcy (averted only through massive financial aid by the IMF) and whose currency has been suspended from foreign exchange since autumn 2008 to avoid collapse, has for a long time been sceptical towards the EU (largely due to possible restrictions on fishery); now it wishes to join monetary union as quickly as possible. The plan of introducing the euro in Iceland unilaterally, like in Montenegro, has been rejected by the European Commission. Like all other EMU candidates, Iceland has first to become member of the EU and meet the convergence criteria. In a transition period, Iceland may tie the Krona to the euro and later join the Exchange Rate Mechanism II. Iceland is expected to apply for membership still in 2009. Also the UK, severely hit by the financial crisis, has now adopted a much more positive attitude vis-à-vis the euro.

Abstracting from such extreme views expressed, there are indeed alarming signals of euro area members drifting apart:

- Some countries in the euro area (notably Greece, Ireland and Spain, to some extent also Austria), due to a downgrading of their credit rating, have to pay substantially higher risk premia on government bonds than, for example, Germany. The rating agency Standard & Poors currently arrives at markedly different assessments of the creditworthiness of the euro area countries: the best rating (AAA) enjoy Germany, France, Luxembourg, the Netherlands, Finland and Austria. Ireland may lose its AAA rating. Belgium and Spain have been rated with AA+, Slovenia AA. Italy, Malta, Portugal and Slovakia receive a rating A+, Greece even A– (*Pinzler – Schieritz, 2009, p. 19*). Austrian government bonds are currently traded at a somewhat higher risk premium (up to 1.3 percentage points) than German bonds, mainly due to Austria's exposure to the high risks of Eastern Europe.
- The massive fiscal policy interventions of many EU countries (stimulus "packages" and debt incurred for bank refinancing) entail a drastic increase in government debt. Part of it should be compensated by banks' liability of repayment. Compli-

¹⁴ The theoretical transmission channels from the financial sphere to the real economy are discussed in *Scheiblecker (2008)*. For the academic perspective on the current financial crisis and the related grave errors of projection, see *Summer (2008)* for a review.

¹⁵ Nevertheless, the poor effects of the massive fiscal policy intervention and the zero-interest-rate policy applied in Japan in the 1990s cast some doubt on the strategy pursued. They hardly had an impact on the real economy, but led to a massive increase in government debt. A positive counter-example is the successful handling of the banking and financial crisis by Sweden in the early 1990s. The Swedish example of the nationalisation of banks in the crisis or direct participation in banks' equity capital by the state and the outsourcing of toxic assets into a "bad bank" is now being followed in a number of countries.

ance with the rules of the Stability and Growth Pact is not the first priority in the current situation, as explicitly conceded by the European Commission when it presented its European Economic Recovery Programme (*European Commission, 2008D*)¹⁶.

- So far, two EU countries (both though not members of the euro area) have received financial support: within the framework of a co-ordinated financing arrangement, Hungary was granted in November 2008 loans to the amount of € 20 billion with a maturity of 17 months (IMF € 12,5 billion, Weltbank € 1 billion, EU € 6,5 billion). The EU facility is granted as balance of payment support as provided for in Art. 119 of the EU Treaty¹⁷. Latvia received from the IMF¹⁸ in December 2008 a standby facility of SDR 1.5 billion for 27 months for macro-economic stabilisation, mainly for the maintenance of the exchange rate tie to the euro. In January 2009, the European Commission decided to recommend to the Council to grant Latvia medium-term financial aid up to € 3.1 billion. As in the case of Hungary, the loan is extended for balance of payments support. The next EU country to claim IMF support could be Romania (*Die Presse, 31 January 2009, p. 22*). Turkey will also need help from the IMF.
- Further-reaching financial aid (beyond balance of payments support, e.g., in the case of government default) is explicitly excluded in the regulations for monetary union (Art. 103 EU Treaty: "no-bail-out-clause") in order to prevent moral hazard and to force the euro area countries to keep public finances in order as required by the EU Treaty and the Stability and Growth Pact. Whether or not in the dramatic case of actual bankruptcy of a euro area member country the commitment to solidarity according to Art. 2 EU Treaty will dominate is an open question. In the case of "exceptional circumstances outside government control..." a member country may, subject to certain conditions, receive financial aid from the Community pursuant Art. 100 (2) EU Treaty (apart from balance-of-payments support according to Art. 119 EU Treaty).
- Efforts to foster the well-advanced financial market integration and financial market stability in the EU¹⁹ have suffered a severe setback with the financial crisis. This issue is dealt with by the OECD (2009) in its latest Economic Survey of the euro area and the ECB (2008B) in its Financial Stability Report.
- The present systemic crisis reveals once again a weakness of EMU, namely that the issue of "lender of last resort" has not been explicitly resolved in the EU Treaty²⁰. Up to now, this role was not assumed by the ECB in the case of less spectacular bank collapses in the euro area, but it was rather the national central banks which provided support for ailing commercial banks. However, in the context of the current across-the-board banking crisis it is not only the ECB which takes on this function in the EU, through generous supply of liquidity for banks, but increasingly also the member countries, by setting up comprehensive bank rescue operations. Like in the USA (where the Fed provides liquidity and rescue "packages" are financed from the Federal budget), both institutions serve jointly as lenders of last resort.
- Notwithstanding these shortcomings, the problems in managing the financial crisis and the implicit risks like that of deflation (*Decressin – Laxton, 2009*) are not confined to the euro area. They extend in a similar way to the USA and other

¹⁶ Suggestions for an appropriate course of fiscal policy in the crisis offer *Spilimbergo et al. (2008)*.

¹⁷ Joint declaration of Ecofin Council Presidency and European Commission on medium-term financial aid for Hungary, IP/08/1595, Brussels, 29. October 2008; IMF: <http://www.imf.org/external/index.htm>.

¹⁸ Ukraine received from the IMF a loan of \$ 16.4 billion. Information on further crisis support operations (Iceland \$ 2.1 billion, Pakistan \$ 7.6 billion) can be found on the IMF website: <http://www.imf.org/external/index.htm>.

¹⁹ For further information see the website of the European Commission http://ec.europa.eu/internal_market/top_layer/index_42_de.htm; for the activities of the European Commission in the context of the financial market crisis see http://ec.europa.eu/economy_finance/focuson/focuson13254_de.htm. The Ecofin Council of 2 December 2008 adopted the recommendation for a doubling of the medium-term financial support in the case of balance-of-payments difficulties of a non-euro-area EU member state from currently € 12 billion (according to Council Regulation No. 332/2002 of 18 February 2002) to € 25 billion.

²⁰ *Schinasi – Teixeira (2006)* analyse the potential risks for the European internal financial market emanating from the non-settlement of the role of the lender of last resort. The ECB does not even mention this issue in its special Monthly Report on the occasion of its 10th anniversary (ECB, 2008A).

third countries. Moreover, already more than 25 percent of the world's currency reserves are held in euro. From the perspective of diversification away from the dollar (65 percent of the global currency reserves) towards the euro (Breuss – Roeger – *in't Veld*, 2009), the euro has acquired a major role.

Against the background of the global financial market crisis and its increasingly grave consequences for the real economy, observers' views on the future viability of the European Economic and Monetary Union become more and more different. Some people express fears of a breakup of EMU. For others, EMU and the euro become more attractive in the very times of crisis – in particular in those countries which are most negatively affected by the financial crisis (Iceland, the UK) and where people have so far been sceptical vis-à-vis the EU and the common currency.

Like the Great Depression of 1929, the present financial market crisis is indeed not confined to only a few countries (as, for example, the Asian, Russian, Swedish or Argentina crisis in the 1990s), but has taken on a global dimension. Such a constellation is rare, but its repercussions are severe given the highly globalised economy with its manifold inter-linkages. With the experience of the dire consequences of non-reaction and a relapse into national protectionism during the 1930s, almost all industrialised countries are taking massive counter-action. This is even true for China, but first and foremost for the USA and Europe. Unlike the USA, Europe cannot react in a uniform way since it is divided into EFTA and EU countries and the latter are partly members and partly non-members of the monetary union. Given this heterogeneity in the underlying conditions it is all the more surprising that in the enlarged EU early attempts for an anti-crisis policy are made. Yet, further efforts at co-ordination will have to be made in order to stem a rebound of nationalist sentiment (promotion of "national champions" in industry and banking) that would jeopardise the cohesion of the Single Market and of the monetary union.

The present global crisis also brings to the fore a number of weaknesses in the political design of WWU, in particular the fact that the role of the lender of last resort has not been clarified explicitly, but has been claimed ad-hoc by the ECB and the EU countries. Direct financial support (bail-out) in the case of state bankruptcy of a euro area country is excluded by the EU Treaty. According to the latter, financial aid from the EU budget can only be granted in the case of balance of payments difficulties (e.g., Hungary), but not in support of the government budget of a member state.

The major financial shock originating from the USA affects the countries of the euro area to a different extent, due to the specificities of their economic structure and the incomplete harmonisation of their business cycle profile. Moreover, the crisis exacerbates the imbalances arising from the divergent trends in unit labour costs which have built up over a long time (Germany and Austria enjoy a comparative advantage in this respect, most southern European countries find themselves in an unfavourable position). The different degree of EU countries' vulnerability overall is reflected in different national credit ratings for the issue of government bonds. In the final analysis, the challenge for the EU and notably for the euro area is one of managing diversity via flexible and reinforced cooperation between the European institutions (ECB, European Commission, EU member countries).

Yet, the sometimes cited danger of a breakup of the monetary union is unrealistic. The problems triggered by the financial market crisis are not confined to the euro area, but hit the UK, Switzerland and especially the USA in the same way. Moreover, the euro is constantly gaining importance for the diversification of global currency reserves and is, for that reason alone, an indispensable factor for the world economy.

Artis, M., Krolzig, H.-M., Toro, J., "The European Business Cycle", *Oxford Economic Papers*, 2004, 56(1), pp. 1-44.
 Bayoumi, T., Masson, P.R., "Fiscal Flows in the United States and Canada: Lessons for Monetary Union in Europe", *European Economic Review*, 1995, 39(2), pp. 253-274.

Conclusions

References

- Breuss, F., "Flexibility, Fiscal Policy and Stability and Growth Pact", in European Commission, 4th ECSA-World Conference – The European Union and the EURO: Economic, Institutional and International Aspects, Luxembourg, 2000, pp. 98-126.
- Breuss, F., "Benefits and Dangers of EU Enlargement", *Empirica*, 2002, 29(3), pp. 245-274.
- Breuss, F., *Monetäre Außenwirtschaft und Europäische Integration*, Peter Lang – Europäischer Verlag der Wissenschaften, Frankfurt am Main, 2006.
- Breuss, F. (2008A), "A Common Election Day for the Euro Zone?", *Kyklos*, 2008, 61(1), pp. 19-32.
- Breuss, F. (2008B), Mehrwert der EU-Ausgaben, Beitrag anlässlich der Konferenz "Den Haushalt reformieren, Europa verändern", Brussels, 2008.
- Breuss, F. (2008C), "Die Lissabon-Strategie – Post 2010: Wie soll es weitergehen?", in Federal Ministry for Economic Affairs and Labour, Die Zukunft der Wirtschaftspolitik der EU: Beiträge zum Diskussionsprozess "Lissabon Post 2010", Vienna, 2008, pp. 127-173.
- Breuss, F., "Ten Years of EMU – Achievements, Weaknesses, Challenges", *Austrian Economic Quarterly*, 2009, 14(1), pp. 49-72, http://www.wifo.ac.at/www/jsp/index.jsp?fid=23923&id=35601&typeid=8&display_mode=2.
- Breuss, F., Egger, P., Pfaffermayr, M., "Structural Funds, EU Enlargement, and the Redistribution of FDI in Europe", WIFO Working Papers, 2003, (195), http://www.wifo.ac.at/www/jsp/index.jsp?fid=23923&id=23508&typeid=8&display_mode=2.
- Breuss, F., Eller, M., "The Optimal Decentralisation of Government Activity: Normative Recommendations for the European Constitution", *Constitutional Political Economy*, 2004, 15(1), pp. 27-76.
- Breuss, F., Rabitsch, K., "An Estimated Two-Country DSGE Model of Austria and the Euro Area", *Empirica*, 2009, 36(1), pp. 123-158.
- Breuss, F., Roeger, W., in't Veld, J., "Global Impact of a Shift in Foreign Reserves to Euros", *Empirica*, 2009, 36(1), pp. 101-122.
- Decressin, J., Laxton, D., Gauging Risks for Deflation, IWF, Staff Position Note, 2009, SPN/09/01.
- De Grauwe, P., "The Euro at Ten: Achievements and Challenges", *Empirica*, 2009, 36(1), pp. 5-20.
- Dreger, Ch., Artís, M., Moreno, R., Ramso, R., Surinach, J., "Study on the Feasibility of a Tool to Measure the Macroeconomic Impact of Structural Reforms", *Economic Papers*, 2007, (272).
- ECORYS, CPB, IFO, Eine Studie zu den Ausgaben der EU, im Auftrag der Europäischen Kommission, Rotterdam, 2008, http://ec.europa.eu/budget/reform/conference/documents_de.htm.
- Eichengreen, B., "The Break-Up of the Euro Area," NBER Working Paper, 2007, (13393).
- Eichengreen, B., "The Break-Up of the Euro Area," Annual Meeting of the American Economic Association, San Francisco, 3 to 5 January 2009.
- European Commission, "One Market, One Money: An Evaluation of the Potential Benefits and Cost of Forming an Economic and Monetary Union", *European Economy*, 1990, (44).
- European Commission (2008A), "EMU@10: Successes and Challenges After Ten Years of Economic and Monetary Union", *European Economy*, 2008, (2).
- European Commission (2008B), Erklärung zu einem abgestimmten Aktionsplan der Länder des Euro-Währungsgebiets, Paris, 2008.
- European Commission (2008C), Staatliche Beihilfen: Kommission gibt Mitgliedstaaten Orientierungshilfe zur Bewältigung der aktuellen Bankenkrise, Brussels, 2008.
- European Commission (2008D), Europäisches Konjunkturprogramm, Mitteilung der Kommission an den Europäischen Rat, Brussels, 2008.
- European Commission (2008E), Staatliche Beihilfen: Kommission veröffentlicht Leitlinien für die Rekapitalisierung von Banken, um den Kreditfluss in die Realwirtschaft anzukurbeln, Brussels, 2008.
- European Commission, Interim Forecast, Brussels, 2009.
- European Council (2008A), Schlussfolgerungen des Vorsitzes 15.-16. Oktober 2008, Brussels, 2008.
- European Council (2008B), Schlussfolgerungen des Europäischen Rates 11.-12. Dezember 2008, Brussels, 2008.
- ECB (2008A), "10th Anniversary of the ECB, 1999-2008", *Monthly Bulletin*, 2008, (Special Issue).
- ECB (2008B), *Financial Stability Review*, Frankfurt am Main, 2008.
- ECB (2008C), *Jahresbericht 2007*, Europäische Zentralbank, Frankfurt am Main, 2008.
- Falk, R., Hölzl, W., Leo, H., "On the Roles and Rationales of European STI-Policies", in Gelauff, G., Grilo, I., Lejour, A., *Subsidiarity and Economic Reform in Europe*, Springer, Berlin, 2008, pp. 129-142.
- Frankel, J.A., Rose, A.K., "The Endogeneity of the Optimum Currency Area Criteria", *The Economic Journal*, 1998, 108(449), pp. 1009-1025.
- Gelauff, G.M.M., Lejour, A.M., "Five Lisbon Highlights: The Economic Impact of Reaching These Targets", CPB Document, 2006, (104).
- Giannone, D., Lenza, M., Reichlin, L., "Business Cycles in the Euro Area", NBER Working Paper, 2008, (14529).
- Italianer, A., Vanheukelen, M., "Proposals for Community Stabilization Mechanisms: Some Historical Applications", *European Economy*, 1993, (5), pp. 493-510.
- IWF, *Global Financial Stability Report Market Update*, Washington D.C., 2009.
- Mundell, R.A., "A Theory of Optimum Currency Area", *The American Economic Review*, 1961, 51(4), pp. 657-665.

- Mundell, R.A., "Uncommon Arguments for Common Currencies", in Johnson, H.G., Swoboda, A.K. (Eds.), *The Economics of Common Currencies*, Allen & Unwin, Chicago, 1973, pp. 114-132.
- Oates, W.E., "An Essay on Fiscal Federalism", *Journal of Economic Literature*, 1999, 37(3), pp. 1120-1149.
- OECD, Euro Area, *OECD Economic Surveys*, Paris, 2007.
- OECD, *Economic Outlook*, Paris, 2008, (84).
- OECD, Euro Area, *OECD Economic Surveys*, Paris, 2009.
- Pinzler, P., Schieritz, M., "Unglaublich! Wirklich?", *Die Zeit*, 2009, (6), pp. 19-20.
- Pitlik, H., "Ausgabenprioritäten im EU-Budget 2007-2013: Die Perspektive des Fiskalföderalismus", *WIFO-Monatsberichte*, 2006, 79(12), pp. 911-924.
- Ratto, M., Roeger, W., in't Veld, J., "Fiscal Policy in an Estimated Open-economy Model for the Euro Area. Economic Spillover and Policy Coordination in the Euro Area", *Economic Papers*, 2006, (266).
- Reinhart, C.M., Rogoff, K.S., *This Time is Different: A Panoramic View of Eight Centuries of Financial Crises*, NBER, Cambridge, MA, 2008.
- Saha, D., von Weizsäcker, J., *Estimating the Size of the European Stimulus Packages for 2009*, Bruegel, Brussels, 2008.
- Sapir, A., Sekkat, K., "Optimum Electoral Areas: Should Europe Adopt a Single Election Day?", *European Economic Review*, 1999, 43(8), pp. 1595-1619.
- Scheiblecker, M., "Datierung von Konjunkturwendepunkten in Österreich", *WIFO-Monatsberichte*, 2007, 80(9), pp. 715-730, http://www.wifo.ac.at/www/jsp/index.jsp?fid=23923&id=30061&typeid=8&display_mode=2.
- Scheiblecker, M., "Auswirkungen der Finanz- und Immobilienkrise auf die Realwirtschaft", *WIFO-Monatsberichte*, 2008, 81(8), pp. 577-591, http://www.wifo.ac.at/www/jsp/index.jsp?fid=23923&id=33283&typeid=8&display_mode=2.
- Schinasi, G.J., Teixeira, P.G., "The Lender of Last Resort in the European Single Financial Market", *IMF Working Paper*, 2006, (06/127).
- Schulmeister, St., Schratzenstaller, M., Picek, O., *A General Financial Transaction Tax. Motives, Revenues, Feasibility and Effects*, WIFO, Vienna, 2008, http://www.wifo.ac.at/www/jsp/index.jsp?fid=23923&id=31819&typeid=8&display_mode=2.
- Spillimbergo, A., Symansky, Blanchard, O., Cottarelli, C., *Fiscal Policy for the Crisis*, IMF, Staff Position Note, 2008, SPN/08/01.
- Summer, M., "Die Finanzkrise 2007/08 aus der Perspektive der ökonomischen Forschung", *Geldpolitik & Wirtschaft*, 2008, (Q 4), pp. 91-107.

Lacking "Europeanisation" of National Business Cycles as a Risk for the Euro Area – Summary

After 10 years of EMU and a largely positive outcome the global financial crisis will put the euro area to a serious test. Indeed, the euro and the political adjustment processes it entails have already led to the emergence of a European business cycle. As its perfect harmonisation has not yet been achieved and will remain an illusion, drastic events, such as the current shock of a financial crisis, force fiscal and monetary policy makers to react flexibly. Due to the lack of other mechanisms, such as fiscal federalism in the USA, to cushion severe shocks a more systematic coordination of all fields of economic policy and an enhanced cooperation between member countries and the ECB seem highly advisable. The problems resulting from the financial crisis will not be limited to the euro area, but will equally hit the UK, Switzerland and, above all, the USA. At the same time the euro has become ever more important as an instrument for the diversification of world foreign reserves and for this reason alone it is indispensable for the world economy. Admittedly, the current financial crisis has revealed some institutional shortcomings (the unresolved issue of the role of the "lender of last resort"; to what extent will the "no bail-out rule" be applied in an emergency). However, recent experience with the positive interplay of policy institutions has shown that despite various prophecies of doom the viability of the euro area is beyond doubt.