Institutional reforms of EMU since the crisis: an assessment in view of recent DNB research

by Jakob de Haan and Patrick Kosterink[1]

Whereas observers calling the sustainability of EMU into question pointed to lack of business cycle synchronization, we argue that two other forms of heterogeneity are more important. First, income per capita in low-income euro area member states has not converged to levels in high-income euro area countries. Second, unlike business cycles, euro area member states' medium term cycles are out of sync. Recent research suggests that financial factors play an important role here. This asymmetry of financial and economic developments in different euro area member states cannot be redressed by the common monetary policy conducted by the ECB. We examine to what extent the Stability- and Growth Pact (SGP) and the Macroeconomic Imbalances Procedure (MIP) have been of any help in this respect. We argue that enforcement of the preventive arm of the SGP remains problematic. As compliance with the corrective arm of the SGP was much better, it had a pro-cyclical impact. This could have been avoided if compliance with the preventive arm had been better. Another problem is that the SGP has a blind spot for budget imbalances related to the financial cycle. The MIP better accounts for the financial factors that may cause increasing asymmetry of medium-term fluctuations, but also suffers from weak compliance.

I. Introduction

European integration was initially focused on the integration of goods markets. As far as monetary issues were concerned, the Treaty of Rome described exchange rate policies as a matter of 'common concern', but did not offer substantive contents as to its meaning. Although earlier on, the Werner Report (published in 1970) called for the completion of a monetary union by 1980, it was

1 The views expressed do not necessarily reflect the views of *De Nederlandsche Bank* (DNB). The authors thank *Niels Gilbert*, *Jeroen Hessel* and *Christiaan Pattipeilohy* for their comments on an earlier version of this contribution.

only at the end of the 1990s that decisive steps towards Economic and Monetary Union (EMU) were made. EMU started in 1999 with twelve EU member states; since then seven more countries joined.

At the time, EMU was essentially based on three mainstays. First, monetary policy was delegated to a strictly independent European Central Bank (ECB), with the primary objective of price stability. Second, fiscal policy remained a national responsibility, although fiscal policies had to comply with rules that, at least on paper, were relatively strict. Third, except for trade and competition policies, macroeconomic and financial policies (such as bank supervision) were left to the responsibility of member states.[2]

Already at its outset, several observers called the sustainability of EMU into question. They referred to the absence of political union[3] and heterogeneity among EMU member states, due to which the euro area could not be considered an optimum currency area.[4] This did not deter governments to go ahead. At the time, public support for a common currency was high in most countries. However, in recent years public support for EMU has diminished, both in core- and periphery countries[5], albeit probably for different reasons.

One worrying fact is that in contrast to initial expectations[6], there has hardly been any real convergence between EMU member states. Whereas in the EU as a whole, countries with relatively low levels of income per capita have at least partly overcome their prosperity backlog, within EMU convergence is absent (see *figure 1*). Even though incomes may have initially converged, since the financial crisis countries that initially had relatively low-income levels have diverged from their high-income counterparts.[7]

This raises several questions about the proper design of the monetary union. In this paper we will address three of these questions: (i) Are countries in the euro

2 *de Haan, J./Hessel, J. P. C./Gilbert, N.*: Reforming the Architecture of EMU: Ensuring Stability in Europe, in: Badinger, H./Nitsch, V. (eds.), Handbook of the Economics of European Integration, New York, 2015.

3 *Feldstein, M.*: EMU and International Conflict. Foreign Affairs 76 (1997), 60-73.

4 *Bayoumi, T./Eichengreen, B.*: Shocking Aspects of European Monetary Unification, in: Torres, F./Giavazzi, F. (eds.): Adjustment and Growth in the European Monetary Union, Cambridge, 1993; *De Grauwe, P.*: Economics of Monetary Union, 9th ed., Oxford, 2012.

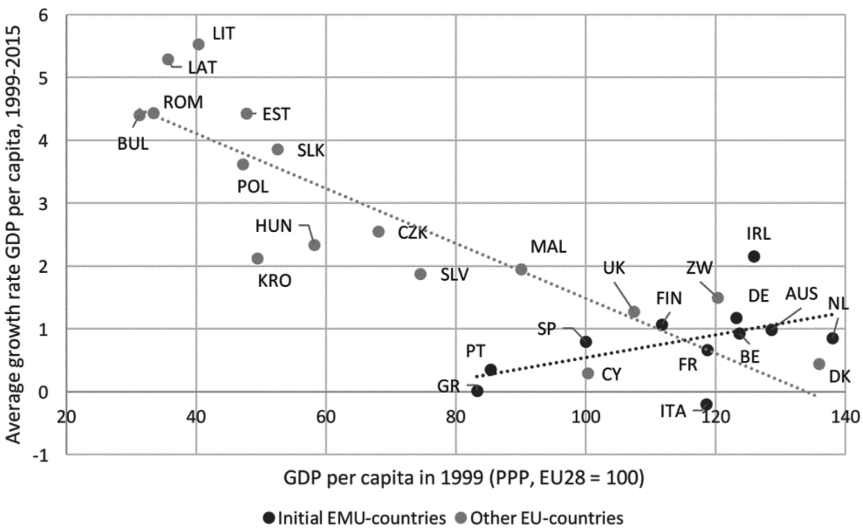
5 *Guiso, L./ Sapienza, P./ Zingales, L.*: Monet's error, in: Economic Policy, 31/86 (2016), 247-297.

6 For instance, according to *Buti* and *Sapir*, a "single European currency has the advantage of reducing transaction costs on goods and factor markets between participating countries. This effect will turn out higher in the peripheral Member States than in the core Member States and will, if accompanied by sound economic policies, favour the process of income convergence." *Buti, M./Sapir, A.*: Economic Policy in EMU, Wotton-under-Edge, 1998, 205.

7 *European Central Bank:* Real Convergence in the Euro Area: Evidence, Theory and Policy Implications. ECB Economics Bulletin, 5 (2015), 30-45.

area sufficiently similar to ensure that a common monetary policy will benefit all of them? (ii) Has the Stability and Growth Pact (SGP) been helpful in this respect? (iii) Which type of imbalances should be addressed in view of recent research and are these imbalances considered in the Macroeconomic Imbalances Procedure (MIP)? To manage expectations: we will not provide definite answers to these questions, but will discuss insights from recent research by *De Nederlandsche Bank* on these issues.

Figure 1: Income convergence since 1999 – EMU versus EU



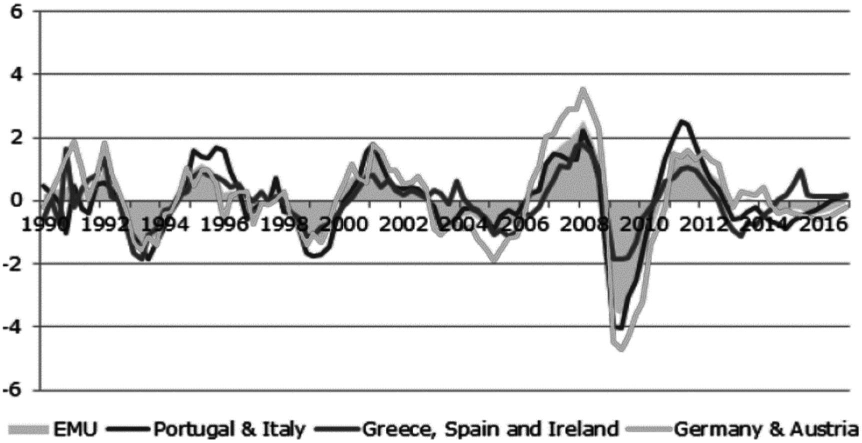
Source: DNB. Notes: this figure shows the relationship between a countries' GDP per capita in 1999 (x-axis), and its average GDP per capita growth rate over the period 1999-2015 (y-axis). The blue dots (line) represent the initial EMU12, whereas the orange dots (line) represent other EU-countries.

The remainder of this paper is structured as follows: section II examines the similarity of economic cycles in countries in the euro area. Section III discusses the SGP. Thereafter, section IV assesses the MIP, while section V provides some concluding remarks.

II. Similarity of economic cycles[8]

In their seminal paper, *Bayoumi* and *Eichengreen* show that before the start of EMU there was a core of countries where economic shocks were highly synchronized, and a periphery where synchronization was significantly lower.[9] In their update of the *Bayoumi-Eichengreen* study, *Campos* and *Macchiarelli* reach more optimistic conclusions.[10] Using the same estimation methodology, sample of countries, and number of time periods, they study the 1989-2015 period and conclude, that the core-periphery pattern has weakened. Likewise, some studies suggest that business cycles have become more synchronized within the euro area due to increasing trade relationships following monetary integration.[11] *Inklaar* et al. find that the positive impact of trade on business cycle synchronization is smaller than reported by *Frankel* and *Rose*, but that synchronization has also increased due to more similar fiscal policies.[12]

Figure 2: Short-term output gaps in EMU countries



Source: Hessel (2017). Notes: to measure short-term fluctuations, the Christiano-Fitzgerald bandpass filter is applied for fluctuations between 2 and 32 quarters.

8 This section heavily draws on *de Haan, J./Hessel, J. P. C./Gilbert, N.*, op. cit., 2015; *Mink, M./ Jacobs, J./de Haan, J.*: Euro Area Imbalances, in: DNB Working Paper, 540 (2016) and *Hessel, J.*: Medium-term Asymmetric Fluctuations in EMU: How Much of a Problem?, in: DNB Working Paper 2017, forthcoming.

9 *Bayoumi, T./Eichengreen, B.*, op. cit., 1993.

10 *Campos, N. F./ Macchiarelli, C.*: Core and Periphery in the European Monetary Union: Bayoumi and Eichengreen 25 Years Later, in: Economics Letters, 147/C (2016), 127-30.

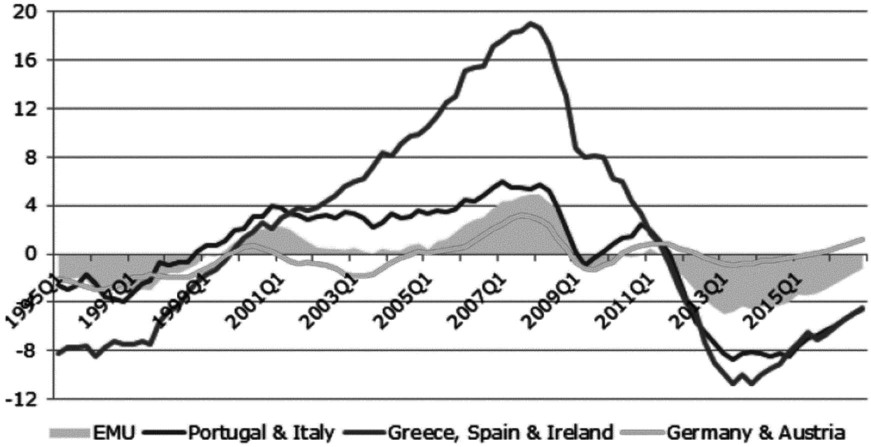
11 See *Frankel, J. A./ Rose, A. K.*: The Endogeneity of the Optimum Currency Area Criteria, in: The Economic Journal, 108/449 (1998), 1009-25.

12 *Inklaar, R./ Jong-A-Pin, R./de Haan, J.*: Trade and Business Cycle Synchronization in OECD countries – A Re-examination, in: European Economic Review, 52/4 (2008), 646-66.

Likewise, *Gächter* and *Riedl* conclude that the adoption of the euro has increased the synchronization of business cycles above and beyond the effect of higher trade integration.[13]

It seems that business cycles in the euro area have indeed converged (see *figure 2*). However, recent research has pointed out that euro area member states' medium term cycles are out of sync (see *figure 3*).

Figure 3: Medium-term output gaps in EMU countries



Source: Hessel (2017). Notes: to measure medium-term fluctuations, the Christiano-Fitzgerald bandpass filter is applied for fluctuations between 2 and 200 quarters.

As pointed out by *Hessel*, the basic idea behind medium term cycles is that in addition to business cycle fluctuations, countries may also be subject to medium term fluctuations, which may lead to longer periods of strong and robust growth, where recessions seem to have little impact, such as the 1960s and the 1990s.[14] These periods may be followed by longer periods of low growth, where every shock seems to lead to a new recession, such as the late 1970s and early 1980s. These medium term cycles may reflect differences in real factors, such as productivity, or differences in financial cycles. The financial and euro crisis suggest that diverging financial cycles in a common currency area may be highly problematic. As shown by *Hessel*, economic divergence in the euro area is much more related to the financial cycle than to the business cycle.[15]

13 *Gächter, M./Riedl, A.*: One Money, One Cycle? The EMU Experience, in: Journal of Macroeconomics, 42/C (2014), 141-55.
14 *Hessel, J.,* op. cit., 2017.
15 Ibid.

Characteristics of the financial cycle are that (i) it is driven by growth in credit and house prices, (ii) it has a much longer duration than business cycles: 16-20 years, instead of up to 8 years, and (iii) it has a wider amplitude, while the correction of the financial cycle is often accompanied by a financial crisis.[16]

Before the financial crisis, financial cycles were in the upswing phase: many advanced economies witnessed very rapid credit and house price growth.[17] Yet within the euro area, financial cycles were asymmetric. The upswing was strongest in a number of countries in the periphery, notably in Ireland, Spain, and to a lesser extent, Greece. In the run up to the financial crisis these countries had experienced strong credit booms, in part because joining the euro area meant that their banks could raise funds from international sources in their own currency. By contrast, the financial cycle was much more contained in Germany and Austria.

Given the apparent asymmetry of financial and economic developments in different euro area member states, the common monetary policy conducted by the ECB is probably not equally suited for all member states. That is, even if the ECB is able to maintain price stability in the euro area as a whole in line with its mandate, its policies will not be optimal for all member states alike if in some member states credit growth is too high causing a boom, while in others credit growth is not problematic. In that case, other policies need to be used to address these asymmetries. It is an open question to what extent the SGP (and its amendments) and MIP have been of any help in this respect, where it should be noted that it may be too early to come to a final judgement, in particular because the most recent institutional reforms may need more time to become fully effective.

III. Fiscal policy coordination in EMU[18]

From the outset, it has been recognized that the process of real convergence was of paramount importance for the smooth functioning of EMU. To foster that process, it was foreseen that national economic policymaking should somehow be coordinated. Initially, the main instrument for this was the Stability and Growth Pact (SGP). The SGP aims to strengthen the monitoring and coordina-

16 *Borio, C.*: On Time, Stocks and Flows: Understanding the Global Macroeconomic Challenges, Lecture in the Munich Seminar Series, November 9, 2012a; *Borio, C.*: The Financial Cycle and Macroeconomics. What Have We Learnt?, in: BIS Working Paper 395, 2012b; *Drehmann, M./Borio, C./Tsatsaronis, K.*: Characterising the Financial Cycle: Don't Lose Sight of the Medium Term!, in: BIS Working Paper 380, 2012.

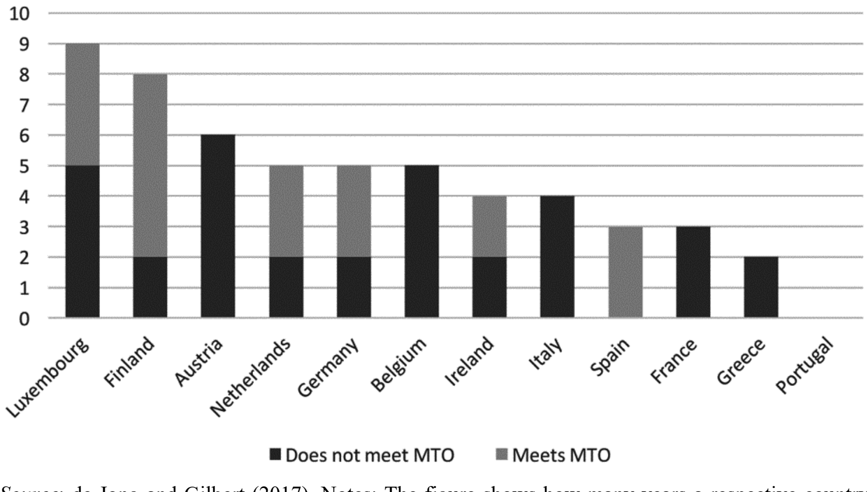
17 *Borio, C.*, op cit. 2012b.

18 This section heavily draws on de *Haan, J./Hessel, J. P. C./Gilbert, N. D.*, op. cit., 2015 and *de Jong, J. F. M./ Gilbert, N. D.*: The Stability and Growth Pact: Adherence and Economic Effects, in: DNB Working Paper, 2017, forthcoming.

tion of national fiscal and economic policies to enforce the deficit (3 % of GDP) and debt limits (60 % of GDP) established in the Maastricht Treaty. In a monetary union the rationale for constraints on national fiscal policies is that unsustainable fiscal dynamics in one member state may entail costs borne by all member states.[19]

The SGP consists of a 'preventive arm' and a 'corrective arm'. Under its 'preventive arm', countries were required to achieve balance and maintain fiscal positions that are close to balance or in surplus, thereby ensuring sustainability while allowing room for cyclical stabilization without breaching the deficit limit of 3 % of GDP. Under its 'corrective arm', procedural steps to be followed once deficits are considered excessive are delineated in the so-called Excessive Deficit Procedure (EDP), specifying conditions and deadlines, and the ultimate possibility of financial sanctions as foreseen by the Treaty.

Figure 4: Years member states meet Medium-term Objective under the SGP



Source: de Jong and Gilbert (2017). Notes: The figure shows how many years a respective country has been in the preventive arm (cumulative blue and orange bars), in how many years that country met its MTO (orange bar), and how many years it hasn't (blue bar). As it turns out, six out of twelve original EMU member states have never met their MTO. Figures for Greece are until 2013.

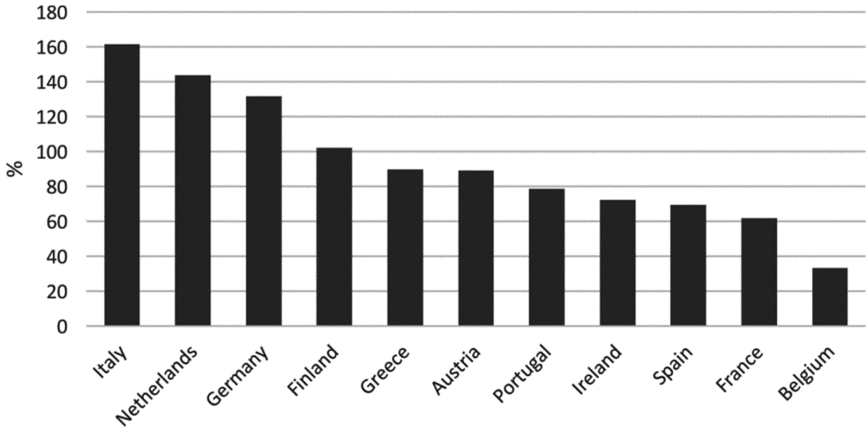
The SGP is regularly criticised for forcing (pro-cyclical) austerity measures on countries, while at the same time countries are criticised for not adhering to its

19 *Buti, M./Carnot, N.*: The EMU Debt Crisis: Early Lessons and Reforms, in: Journal of Common Market Studies, 50/6 (2012), 899–911.

rules.[20] But, of course, for corrective measures to be pro-cyclical, countries have to comply with them to begin with.

Therefore, the voiced criticisms don't seem to be completely consistent, and warrant some further consideration. It turns out that, although compliance with the preventive arm is indeed insufficient (see *figure 4*), compliance with the EDP recommendations is actually quite satisfactory (see *figure 5*). That is, to a considerable degree most member states achieve the required improvement of their structural budget balance demanded from them under the 'corrective arm'. As a consequence, fiscal policies became pro-cyclical. This is largely due to a lack of compliance with the preventive arm.

Figure 5: Compliance with EDP recommendations



Source: de Jong/Gilbert (2017). Notes: The figure compares the required improvements to the structural balance of the twelve original EMU member states, and the actual improvements during the years that countries were under an EDP. A percentage of 100 means a country has fully met the recommendations of the European Council. Luxembourg is absent from *Figure 5* because it has never been subject to an EDP recommendation. Figures for Greece are until 2013.

As such, the Pact's real Achilles heel seems to be its weak enforcement.[21] Enforcement is weak because a qualified majority has to be reached in the ECOFIN before a member state that breached the rules will be formally penalised. As it

20 *de Haan, J./Berger, H./Jansen, D.*: Why Has the Stability and Growth Pact Failed? International Finance, 7/2 (2004), 235–60; *Eyraud, L./Gaspar, V./Poghosyan, T.*: Fiscal Politics in the Euro Area, in: IMF Working Paper 17/18 (2017).

21 *Amtenbrink, F./de Haan, J.*: Economic Governance in the European Union: Fiscal Policy Discipline versus Flexibility, in: Common Market Law Review, 40/5 (2003), 1075–1106; *Schuknecht, L.*: Stability and Growth Pact: Issues and Lessons from Political Economy, in: International Economics and Economic Policy, 2/1 (2005), 65-89; *European Central Bank*: Ten years of the Stability and Growth Pact, ECB Monthly Bulletin, October 2008.

turns out, the ECOFIN cannot credibly commit to adequate enforcement for two reasons: (i) ministers are forward-looking and tend to cover their colleagues in order to build credit in case they breach the rules themselves in the future[22], and (ii) financial sanctions may well be counterproductive, because it will only worsen the economic situation countries that breached the rules are in (whereby negative spill-overs are widely feared). Furthermore, the European Commission's fiscal forecasts, on which fiscal surveillance is largely based, are upwardly biased if the deficit limit is expected to be binding.[23] This either prevents member states from entering an EDP, or diminishes their mandatory budgetary adjustment. As such, the SGP's effectiveness remains doubtful.

In an attempt to improve the functioning of the SGP, it has been amended by the so-called 'Six-Pack', 'Two-Pack' and 'Fiscal Compact'. We will briefly describe these changes, and thereafter discuss whether they address the shortcomings identified above.

The 'Six-Pack' entered into force on 13.12.2011, with the aim of strengthening fiscal policy coordination and introducing a framework for macroeconomic policy coordination (see *section IV*). In the fiscal field, the 'Six-Pack' allows an EDP to be initiated if a member state that exceeds the debt limit of 60 % of GDP does not bring down its debt with 1/20 annually (averaged over three years). Further, an expenditure rule was introduced that puts a maximum on public expenditure growth for member states that have not reached their MTO. And finally, perhaps most importantly, Reverse Qualified Majority Voting (RQMV) was introduced. Whereas the ECOFIN normally had to agree to sanctions by means of qualified majority, RQMV only allows members to oppose the proposed sanctions. This allows for more automaticity in rule enforcement.

The 'Two-Pack' entered into force on 30.05.2013. It consisted of two regulations that build on and complement the regulations laid down under 'Six-Pack'. Under the new regulations, member states are required to publish their draft budgetary plans for the coming year. The Commission thereafter has the opportunity to review them and, if necessary, provide guidance on how to alter them to be in line with the requirements of the SGP.

Finally, the 'Fiscal Compact' entered into force on 01.01.2013. Its most im-

22 *de Haan, J./Berger, H./Jansen, D.*, op. cit., 2004; *Claeys, G.,/Darvas, Z./Leandro, A.*: A proposal to revive the European fiscal framework, in: Bruegel Policy Contribution, 7 (2016).

23 *Gilbert N. D./de Jong, J. F. M.*: Do the European Fiscal Rules Induce a Bias in Fiscal Forecasts? Evidence From the Stability- and Growth Pact, in: Public Choice, 170/1 (2017), 1-32.

portant feature was the introduction of a mandatory balanced budget rule that the signatory countries committed to implement in their national legislation. The balanced budget rule can be considered respected if member states achieve their MTO. The 'Fiscal Compact' also foresees that member states commit themselves to budgetary proposals by the European Commission, unless a qualified majority in the ECOFIN opposes them.[24] Finally, countries are asked to report ex ante on their public debt issuance plans as to better coordinate their financing strategies.

The measures undertaken during 2011-2013 intensified the level of coordination of national fiscal policies in order to prevent the occurrence of both excessive deficits and public debts. Furthermore, the enforcement mechanism gained more automaticity and transparency. However, these amendments have not been able to (fully) remedy the fundamental shortcomings that we have identified before. Namely, ECOFIN members still have the discretionary power to decide on the imposition of sanctions on fellow member states, although it has become harder to do so since the implementation of RQMV. The enforcement mechanism therefore remains insufficiently credible. This was illustrated recently when the ECOFIN refrained from sanctioning Spain and Portugal for running too high a budget deficit. Furthermore, the threat of financial sanctions remains incredible, because they may still amplify economic downturns. Whereby the consequential negative spillovers remain an impediment for decisive enforcement. A possible improvement would be to make sanctions non-financial, e. g. temporary loss of budgetary sovereignty, as this would render the rules increasingly incentive compatible. In addition, the presence of an independent fiscal council at the national level may help to attenuate the upward bias in fiscal forecasts.[25]

Furthermore, the financial crisis made clear that even if at first sight fiscal policy adheres to the SGP, there may be underlying problems related to the financial cycle.[26] The budgetary impact of the crisis was much larger than expected in some countries. The average budget deficit in the euro area in 2009 was 5.2 % of GDP larger than the European Commission had forecasted in March 2008, just months before the collapse of Lehman Brothers. The deterioration was even considerably larger in most of the countries in southern Europe, with the exception of Italy. In Portugal, Ireland, Greece and Spain, the budget deficit for 2009 increased

24 *European Central Bank*: Main Elements of the Fiscal Compact. ECB Monthly Bulletin, March 2012.

25 *Gilbert N. D./de Jong, J. F. M.*, op. cit., 2017.

26 *Gilbert, N. D./Hessel, J. P. C.*: The Financial Cycle and the European Budgetary Reversal During the Crisis: Consequences for Surveillance, proceedings of the 15th Workshop on Public Finance Banca d'Italia, Perugia, 4-6 April 2013.

by a staggering 11.2 % of GDP on average. The worsening fiscal positions were caused by the turn of the financial cycle.[27] Recent research shows that a turn of the financial cycle has a much larger negative impact on public finances than a turn of the normal business cycle.[28] This is mostly due to their effect on government revenues. Rising asset prices increase revenues in capital gains and transaction taxes. Furthermore, high wage growth increases income tax revenue, especially when the system is progressive. Whereas, added to that, wealth effects stimulate domestic demand and thereby revenues from indirect taxes. All these factors reverse when the financial cycle turns, resulting in a large budgetary deterioration.

This points to an important omission in the SGP, as the macroeconomic, financial and fiscal risks associated with the expansion of external imbalances, credit growth, sectoral debt levels, and housing prices were not taken into account in assessing member states' fiscal policies.[29] The question is whether the MIP deals with these issues.

IV. Macroeconomic imbalances procedure

The MIP has been introduced in 2011 as part of the 'Six-Pack'. Like the SGP, it consists of a 'preventive arm' and a 'corrective arm'. The procedure is oriented around a scoreboard of fourteen indicators. These include, among others: current account balance (3-year backward moving average, % of GDP), real effective exchange rates (3-year percentage change), private sector debt (% of GDP), private sector credit flow (% of GDP), and year-on-year changes in house prices (relative to a consumption deflator). Per indicator, thresholds have been defined to identify potential imbalances.

The MIP aims to prevent and address potential macroeconomic imbalances that may be harmful to the member state itself, other member states, or the euro area as a whole. The procedure works as follows. Through alert mechanism reports, all countries subject to the MIP are analysed. Economies that require more detailed inspection will be subject to an 'in-depth review', which classifies countries' mac-

27 Contrary to popular belief, these budgetary reversals can be mainly attributed to a large decline in public revenue, while the direct costs of financial sector bailouts played a more limited role in most countries.

28 *Bénétrix, A./Lane, P. R.*: Fiscal Cyclicality and EMU, in: Journal of International Money and Finance, 34 (2013), 164-176.

29 *Buti, M./Carnot, N.*, op. cit., 2012; *Lane, P. R.*: The European Sovereign Debt Crisis, in: Journal of Economic Perspectives, 26/3 (2012), 49–68. *Hessel* finds that short-term fluctuations cannot explain differences in fiscal policy outcomes across EMU countries. Medium-term fluctuations have more explanatory power, notably the principal component of the output gap, credit growth and house price growth. *Hessel, J. P. C.*, op. cit., 2017.

roeconomic situation as having: (i) no imbalances, (ii) imbalances, (iii) excessive imbalances, or (iv) excessive imbalances with corrective action. Countries having 'imbalances' or 'excessive imbalances' will receive (country-specific) recommendations, whereas those being classified as having 'excessive imbalances with corrective action' will be subject to an Excessive Imbalances Procedure (EIP).

In case of an EIP, the country in question will be required to submit a corrective plan with concrete measures to address its imbalances. Enforcement, in turn, is based on a two-step approach, whereby non-compliance with Council recommendations may ultimately lead to financial sanctions. That is to say, if a country fails to comply with the corrective actions laid down by the Council, it has to make a non-interest bearing deposit of up to 0.2 % of GDP. After a second compliance failure, this deposit may be converted into a fine. Also here, all decisions about penalising countries are made in the Council via RQMV.

The MIP was designed in part to fill the blind spot the SGP had for financial-economic imbalances that could, in turn, also reflect badly on member states' fiscal positions. This innovative orientation has been largely validated, also by recent research. *Hessel*, for instance, examines the drivers of differences in medium-term cycles in EMU countries.[30] His results suggest that both real and financial drivers play a role in explaining medium-term fluctuations. However, financial factors have become more important over time, while real factors have become less important. This is in line with the recent literature suggesting that the imbalances in the euro area are related to asymmetric financial developments between member states.[31]

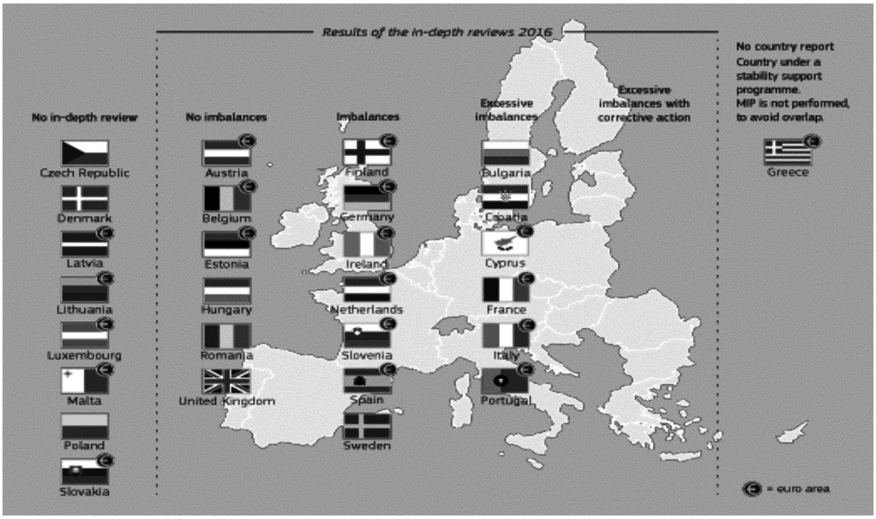
Although the MIP also takes seemingly important financial indicators into account, it largely seems to be shooting with hail. That is to say, it arguably targets too wide a set of imbalance indicators, whereby most member states are almost constantly subject to in-depth reviews. This is troublesome, in particular because it may very well diminish the degree of urgency that national policymakers attach to country-specific recommendations: if the fire alarm is constantly ringing, at some point one may be inclined to largely ignore it. Then, if a fire is really spreading, and member states are subject to unsustainable imbalances, they may lack the incentive to act decisively, with potential detrimental consequences for itself, other member states and/or the euro area as a whole.

The evidence suggests that compliance indeed remains unsatisfactory, both in

30 *Hessel, J. P. C.*, op. cit., 2017.
31 See de *Haan, J./Hessel, J. P. C./ Gilbert, N.*, op. cit., 2015 for a further discussion.

terms of the large number of imbalances and compliance with consequential country-specific recommendations. This is not surprising, also because the MIP has a similar decision-making process and therefore weak enforcement as the SGP. As it turns out, thirteen EMU member states were subject to an in-depth review in 2016, while nine were ultimately classified as having ‘imbalances’ or ‘excessive imbalances’ (*Figure 6*). Those countries on average crossed six out of fourteen thresholds indicating macroeconomic imbalances. Whereby also compliance with the country-specific recommendations from the 2015 MIP cycle was largely insufficient. Given its goal to achieve macroeconomic stability, these observations are not particularly promising. A possible solution may be to focus on only a sub-set of the indicators currently in place, namely: current account balance, real effective exchange rate, house prices, and credit growth. As such, arguably, the most relevant real- and financial imbalance indicators are taken into account, without sacrificing the signalling value they ought to provide.

Figure 6: Outcome in-depth reviews 2016



Source: European Commission. Notes: this figure shows the outcome of the 2016 in-depth reviews conducted in the context of the macroeconomic imbalances procedure. It shows that eight countries were not subject to an in-depth review, six were classified as having ‘no imbalances’, seven were classified as having ‘imbalances, whereas another six were classified as having ‘excessive imbalances’. Greece was not reviewed because it is subject to a stability support programme.

V. Concluding remarks

From the outset, the sustainability of EMU has been called into question. Many (critical) academics argued that, especially due to heterogeneity between member states, EMU could not be considered an optimum currency area. Whereas the focus in older literature was on lack of business cycle synchronization, we argue that two other forms of heterogeneity are more important. First, income per capita in low-income euro area member states has not converged to similar levels as in high-income euro area countries, which may have undermined support for EMU in countries where support for the common currency initially was very high. Second, unlike business cycles, euro area member states' medium term cycles are out of sync. Both real and financial drivers can play a role in explaining lack of medium-term cycle synchronization, but recent research suggests that financial factors have become more important over time, while real factors have become less important.

Given the apparent asymmetry of financial and economic developments in different euro area member states, the common monetary policy conducted by the ECB is probably not equally suited for all member states. So other policies need to be used to address these asymmetries. We examine to what extent the SGP and MIP have been of any help in this respect. Although the reformed policy coordination frameworks currently in place are important steps in the right direction, we have argued that these reforms are inadequate. Whereas the SGP, and its extensive amendments, have gone a long way to facilitate sound national fiscal policies, enforcement of the preventive arm of the SGP remains problematic. As compliance with the corrective arm of the SGP was much better, it had a procyclical impact. This could have been avoided if compliance with the preventive arm had been better. Another problem we identified is that the SGP has a blind spot for budget imbalances related to the financial cycle. The MIP better accounts for the financial factors that may cause increasing asymmetry of medium-term fluctuations, but arguably does so to the detriment of subsequent compliance with its recommendations.