

Monetary union and fiscal integration¹

Marek Dabrowski

Bruegel, Brussels

CASE – Center for Social and Economic Research, Warsaw

In the subsequent debates on the rationale and perspectives of the euro area, both supporters and opponents of the *euro project* agreed it must be accompanied by a fiscal and political union in order to survive. However, while the former (e.g. Wolff, 2012) believed this was both possible and desirable, the latter (e.g. Feldstein, 1997; 2012) doubted it would ever happen due to a long historical tradition of sovereign nation states in Europe.

Unfortunately, these debates have suffered from numerous shortcomings. First, the notions of fiscal union and political union have been rarely defined in a precise way (if at all) what has led to frequent misinterpretation of the existing status of EU integration (section 1.2). The same concerns arguments in favor of political and fiscal integration as the condition for the monetary union's sustainability. Frequently, especially in the recent crisis-dominated hot debate, they have been taken as given. As a result, the claim for closer political and fiscal union sounded more like a creed rather than something based on well-founded academic arguments. De Grauwe (2006), who offers an in-depth discussion on interrelations between monetary and political/fiscal union, and Aizenman (2013), who underlines the importance of a banking union (with its fiscal implications) for the stability of a common currency, are prominent exceptions here. However, a closer examination of interlinks between monetary and fiscal union on both a theoretical and empirical ground provides us with a more nuanced picture.

¹ This is the updated fragment of the report prepared within the European Commission DG ECFIN's 2014–2015 Fellowship Initiative (Dabrowski, 2015). The author acknowledges the support of the European Commission, which made this work possible. However, the paper reflects solely personal views and opinions of the author and not necessarily those of the European Commission or any institution, which he is affiliated with.

1 Definitions

Before we move to theoretical and empirical analyses of interrelation between monetary and fiscal union we will try to define both concepts.

1.1 Monetary union

Monetary union can be defined in both narrow and broad terms. In its narrow definition, monetary (or currency) union refers to situation when more than one territory (jurisdiction) share a common currency, and a single monetary and foreign exchange policy (Rosa, 2004). It can result from a bilateral or multilateral agreement when all interested parties decide to create/ share a common currency, common central bank and responsibility for joint monetary policymaking. This is the case of Economic and Monetary Union (EMU) within the European Union (EU), West African Economic and Monetary Union (WAEMU), Central African Economic and Monetary Community (CEMAC), Eastern Caribbean Currency Union (ECCU) and few other similar arrangements. Alternatively, a country may decide to use other country's currency based on its own unilateral decision, just giving up its monetary sovereignty. These are the contemporary cases of Panama, Ecuador, El Salvador and Zimbabwe (using the US dollar), Kosovo, Montenegro (using the euro), Lichtenstein (using the Swiss franc), Nauru (using the Australian dollar), and few other countries.

Under a broader definition, the concept of monetary union also includes multiplicity of currencies that are linked each other through fixed exchange rates. Cohen (2008) calls this variant as an *exchange-rate union*, in opposition to *currency union* (see above). A fixed exchange rate can be set against either other currency or a common metallic standard (silver or gold). As in the case of narrow definition, the broad definition includes cases of multilateral or bilateral agreements such as the Bretton Woods system or the European Monetary System and countries' unilateral decisions. Among the latter, a *currency board* regime is the strongest arrangement.

Such a broader definition was assumed by Mundell (1961) in his seminal analysis of an optimal currency area (OCA) – see section 2.1.

Obviously, there are important differences between *currency union* and *exchange-rate union*, even in its strongest *currency board* variant. In particular, they relate to costs of leaving monetary union, much higher when there is a common currency (Dabrowski, 2012a; Aslund, 2012).

1.2 Fiscal union

Unfortunately, there is no single and clear-cut definition of a fiscal union in economic literature. In the debate on the causes of the European debt crisis and possible remedies, various practical meanings of fiscal union have been assumed by individual authors depending on their personal/ institutional views and opinions and

which particular issues their analyses focus on. Thus, in various proposals related to changes in EU/EMU governance architecture, the notion of fiscal union may involve:

- a higher degree of centralization of fiscal resources at the Union level
- the development of European revenue sources for the EU budget (instead of the contributions of member states)
- a harmonization of taxation/ entitlements within the EU/EMU
- a mechanism of fiscal discipline at both the Union and national levels, including the mechanism of orderly sovereign default
- building up of Union-wide insurance mechanisms against financial turbulences (bailout facilities), including a debt mutualization mechanism
- the creation of institutions with fiscal authority on a supranational level (for example, creating an EU/EMU Ministry of Finance)

In our opinion, all of these proposals constitute elements of fiscal union, which can be defined, in very broad terms, as transfer of part of a fiscal resources and competences in the area of fiscal policy and fiscal management from the national to supranational level.

Analysis of the current integration mechanisms and institutions within the EU leads to conclusion that they involve several ingredients of the fiscal union as discussed earlier: federal budget, including cross-country fiscal transfers, some elements of federal taxation, partial tax harmonization, fiscal discipline rules, fiscal crisis resolution mechanism and federal bailout facilities (see Dabrowski, 2014 for detail analysis). There are few additional fiscal integration mechanisms and facilities within EMU, related to fiscal discipline rules, bailout facilities and (forthcoming) euro area-wide deposit insurance and banking-crisis resolution facilities. This contradicts frequent and somewhat surprising opinions that the EMU is a case of monetary union without a fiscal union (e.g. Bordo et al., 2011; European Commission, 2012). On the other hand, this is a rather shallow fiscal union as measured by the degree of fiscal centralization (1% of EU Member State's Gross National Income or less plus bailing out funds within the EMU) and if compared with contemporary federal states (Wyplosz, 2014).

Taking into consideration that the fiscal union already exists (although with various limitations), a call for supplementing monetary union with fiscal union can be interpreted as the postulate to increase the degree of fiscal centralization within EMU.

Consequently, the existence of fiscal union, even the shallow one, means that the EU, in particular the euro area, also shares characteristics of a political union, which can be understood as ceding part of national sovereignty to supranational bodies (in this concrete case – to the EU governing bodies). Apart from fiscal policy and fiscal management, EU Member States have delegated to the EU level important prerogatives in the areas of trade policy, competition, internal market regula-

tion, immigration, justice and home affairs, agriculture and fishery and many others. Most importantly, the decision of creating the common currency and central bank represented another important step towards political unification (Draghi, 2015).

2 Theoretical foundations

Looking for conceptual foundations of the analysis of interrelation between monetary and fiscal union, we will briefly review two pieces of economic theory: (i) OCA theory, which analyzes economic conditions, under which a common currency can function effectively, and (ii) theory of fiscal federalism, which offers criteria of fiscal centralization and decentralization.

2.1 OCA theory

The OCA theory as developed by Mundell (1961) and McKinnon (1963) analyzes, among others, adjustment to asymmetric shocks in the absence of exchange rate flexibility. The best adjustment mechanism can be provided by free mobility of production factors (labor and capital). In case when factor mobility is insufficient (or shock is particularly large), fiscal policy can help cushion the consequences of idiosyncratic shocks.

However, this part of OCA theory may be interpreted in two ways: either as the retention of fiscal capacity and sufficient fiscal buffers in territories participating in a common currency area to enable them to respond to idiosyncratic shocks in a decentralized way (in the absence of monetary accommodation) or the necessity to arrange cross-territorial fiscal transfers. This second solution may have advantage of reducing the risk of uncoordinated, idiosyncratic fiscal responses conducted in a decentralized way, which can produce additional unnecessary shocks (Cottarelli, 2012a).

The first interpretation stayed behind the original design of the Maastricht Treaty and the Stability and Growth Pact (SGP) (Mortensen, 2004; De Grauwe, 2006). The second one seems to dominate in the post-2010 debate (e.g., Wolff, 2012). The reason of such shift may relate to failure of building sufficient room for countercyclical fiscal policy on national level prior to the global and European financial crisis, resulting from insufficient fiscal discipline (Dabrowski, 2014).

There is also the question of how big is the risk of idiosyncratic shocks within the euro area. According to the original OCA theory, the concept of idiosyncratic shocks relates to real external shocks affecting respective territories in different way, i.e., factors beyond policy control – see the example of shift of external demand from goods produced by territory B to goods produced by territory A, in

Mundell (1961). Looking back for more than 15 years of history of the European common currency it is hard to detect such major asymmetric shocks².

Two biggest shocks (of 2008–2009 and 2010–2013) were caused by the financial crisis, so they had nominal rather than real character. The first stage of the global financial crisis (2008–2009) had largely external origins (crisis in the US financial sector) and affected negatively all EU and EMU members, in one way or another. Thus, it is hard to argue about its asymmetric character.

On the contrary, the second stage of financial crisis (2010–2013) affected directly only part of the euro area, its so-called periphery. Indeed, it had an asymmetric character, however, not originating from the real sphere³ but from imprudent fiscal policies and banking supervision in individual member states then reinforced by the market fear that crisis-affected countries may leave the common currency area. Thus, they were policy-induced and one can say about idiosyncratic policies rather than idiosyncratic shocks in the OCA theory sense (see Cottarelli, 2012a). In such circumstances, effectiveness of using fiscal transfers as remedy remains questionable.

In the light of the above discussion, increasing the euro area's capacity to respond to idiosyncratic shocks would require increasing flexibility and transparency of labor, capital, product and service markets and rebuilding fiscal buffers on a national level rather than insisting on higher degree of cross-border fiscal redistribution (Fuest and Peichl, 2012; Issing, 2013; Balcerowicz, 2014; Draghi, 2015).

2.2 Theory of fiscal federalism

When discussing economic rationale of closer fiscal integration within the EU and EMU, the *theory of fiscal federalism* should serve as primary guidance, similarly to the role of OCA theory in the debate on monetary integration. This theory helps us understand “*which functions and instruments are best centralized and which are best placed in the sphere of decentralized levels of government*” (Oates, 1999, p. 1120).

² In this respect our opinion differs from those of Rey (2013) and Wyplosz (2015). The latter considers “...highly differentiated debt buildups on highly diverse initial debt level positions as well as different inflation and current account evolutions” as evidence of asymmetric shocks (in the OCA theory sense) affecting the euro area and confirmation “...that the Eurozone is not an OCA.”

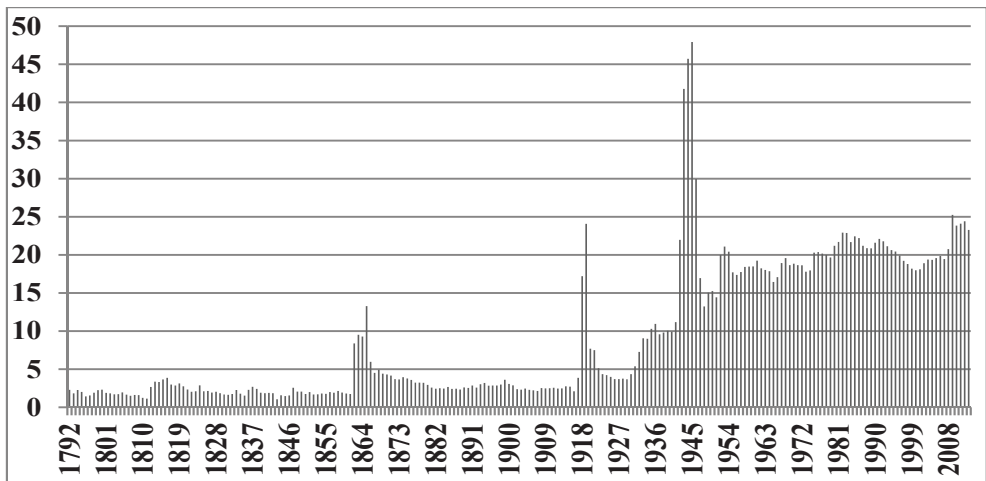
³ Cottarelli (2012a) mentions the “globalization” shock suffered by Italy and Portugal, which produced low-value added goods and faced increasing competition of emerging-market producers. Indeed, it represented asymmetric shock in terms of OCA theory. However, in our opinion, its contribution to financial shock experienced by both countries in 2010–2013 (which originated from sovereign over-indebtedness) was limited and indirect.

Thus, discussion about the perspective of closer fiscal integration in Europe should start from a functional analysis aimed at identifying those policy areas and public goods where the centralization of competences and resources could either offer increasing returns to scale or help address cross-border externalities (see e.g. Berglof et al., 2003 and Wyplosz, 2007 and 2014). As result, any further fiscal integration should be justified by potential benefits of pooling resources to carry out common policies and provide supranational public goods rather than by the very idea of a closer fiscal union itself. In the context of our analysis, this means that potential benefits of greater fiscal centralization (for monetary union stability and sustainability) should outweigh its potential costs in the form of lower efficiency of centralized expenditure (as compared to decentralized), wrong policy incentives on national level (risk of moral hazard and free riding) or redistribution conflict between member states.

3 Examples of other monetary unions

Empirical analysis requires comparison of the current institutional architecture of the EMU with other past or contemporary monetary unions. Most frequently, the EMU is compared with the US (see e.g., Bordo et al., 2011; Henning and Kessler, 2012; Gros, 2013), which may be justified by the similar size of economies, their global importance and the role of the US as the major EU's partner and competitor. However, such comparison suffers from several shortcomings.

Chart 1: US total federal spending 1792–2013
% of GDP



Source: www.usgovernmentspending.com/spending_chart_1792_2013USp_13s1li011mcn_F0f_Spending_In_20th_Century.

First, it disregards different political and institutional characteristics of both: while the US is a federal state, the EU represent an institutional hybrid that merges characteristics of federation, confederation and international organization of independent states (Dabrowski, 2010).

Second, it often overlooks the process of historical evolution of the US federation, which is much more centralized today than it was in the past, including its fiscal dimension (chart 1). Until the beginning of the 20th century, the US federal budget amounted to 2–3% of GDP in peacetime. However, unlike the EU budget, it was concentrated on the provision of typical federal public goods such as general government services and national defense, with almost no redistribution and transfers. It started to grow substantially, including large-scale redistribution schemes, only after the Great Depression in the 1930s.

Third, it disregards other historical and contemporary experiences of monetary unions, heterogeneous in their economic and political architecture and operational details (e.g., Cohen, 2008; Deo, Donovan and Hatheway, 2011).

Indeed, going beyond a simple comparison of the EU/EMU with the USA, and looking for other historical and contemporary cases of monetary unions provides us with a mixed picture.

The first observation relates to the fact that most historically known common currency areas (CCAs) have matched with the territory of sovereign states, either unitary or federal. Furthermore, most historical episodes of monetary unification followed political unification, which was in most cases involuntary, being the result of war, conquest, colonization, etc. (this also relates partly to the US and process of its territorial formation in the 19th century). Thus, it should not be surprising that in such cases monetary union goes hand-by-hand with fiscal union: both are results of the same exogenous factor, i.e., political unification.

EMU is different from most of those CCAs not only as a voluntary union but also because the degree of its political integration is limited (see above). For this reason, it makes sense to compare EMU not only with the monetary unions of federal states but also with voluntary monetary unions of sovereign states. We mean cases when a common currency and common central bank are not accompanied by a meaningful delegation of political sovereignty in other areas (like fiscal policy) to a supranational entity and building a political superstructure.

The 19th century examples of such monetary unions involved the Latin Monetary Union, Scandinavian Monetary Union and German Monetary Union (prior to German political unification in 1871). Due to technical specifics of monetary systems based on metallic standards, they concentrated on unification of gold and silver content of national coins and their free circulation across unions' member states (Cohen, 2008). The first two unions involved no political and other forms of integration, while the German Monetary Union was associated by a custom union.

Two largest contemporary monetary unions outside Europe, the WAEMU and CEMAC, have virtually no political and fiscal integration but they have used a common currency (the CFA franc) since 1945, i.e., for 70 years. Only at the end of the 1990s did member countries of both monetary unions start to develop other segments of economic integration, i.e., custom unions, common markets and some soft forms of supranational macroeconomic policy coordination and fiscal surveillance, following the EU/EMU experience. However, the pace of those integration processes is rather slow, especially in the case of CEMAC.

Nevertheless, both monetary unions have proved sustainable so far in spite of numerous asymmetric shocks (IMF, 2013 for a contemporary analysis of the WAEMU challenges), divergent macroeconomic trends, violent political conflicts (both internal and regional), limited trade and financial integration, etc.

Other contemporary examples of monetary unions with no or weak political integration components include the ECCU and the Common Monetary Area in Southern Africa.

If we use a broader definition of monetary union by including permanently fixed exchange rate regimes (against other currency or common metallic standard – see section 1.1), we obtain more cases in which monetary “federalism” has not been accompanied by the political and fiscal one. This concerns, in first instance, the period of the international gold standard in the second half of the 19th century and the beginning of the 20th century, when most independent (and sometimes politically antagonistic) countries shared the same monetary rules and, in fact, remained in a quasi-monetary union (Eichengreen, 1998; Cesarano, 2009).

4 Benefits, costs and limits of deeper fiscal integration

Now we will turn to discussion on potential net benefits of deeper fiscal integration. Following analysis in section 2.2, we will look for these proposals from the perspective of the theory of fiscal federalism and divide them into measures, which can increase sustainability of a common currency and those that help increasing returns to scale or address cross-border externalities in other policy areas.

In the first group, there are three potential arguments in favor of closer fiscal integration in Europe, namely (i) building the banking and capital market union, (ii) conducting countercyclical fiscal policy and (iii) cushioning asymmetric shocks.

In the light of the recent global and European financial crisis experience, unifying financial market regulations and supervision, building the pan-European deposit insurance and crisis resolution mechanisms (to deal with potential bank failures) can provide obvious benefits for the entire EMU, EU and global economy (due to size and importance of the European financial industry). Most importantly, it will facilitate completing the single market for financial services. Otherwise, as long as regulatory and supervisory power and fiscal responsibility for crisis resolution

remain in national hands (even if banks operate in more than one EU Member State), the incomplete single market will face a continuous danger of fragmentation and renationalization, especially in a time of financial distress (Kumm, 2013). Other positive externalities involve eliminating cross-border regulatory arbitrage and containing danger of cross-border financial contagion. On the other hand, such integration will lead to greater centralization of public resources at the European level as result of launching the European Deposit Insurance Scheme and the Single Resolution Fund.

By the way, the presence of large and sophisticated financial sector with cross-border operations seems to be the main feature, which distinguishes EMU from other contemporary monetary unions of sovereign states (see Aizenman, 2013 and Wyplosz, 2015 on the role of financial integration in ensuring the euro's sustainability).

Some authors (e.g. De Grauwe, 2006; Wolff, 2012, Cottarelli, 2012b) also suggest conducting supranational countercyclical fiscal policy based on the findings in fiscal federalism's literature, which tend to assign this function to the federal level (Oates, 1999; Begg, 2009; Bordo et al., 2011). Leaving aside the discussion on the effectiveness of countercyclical fiscal measures (especially discretionary ones) in smoothing the business cycle in an open economy and against various political traps (Dabrowski, 2012b), one may agree that they have more of a chance to work at the supranational level than the national level due to collective action problem, the risk of free riding and cross border "leakages" of demand (Dabrowski, 2010). On the other hand, it would require building a much bigger fiscal capacity at the European level (probably in the range of at least of 10% of the Union's GDP), including far-going tax schemes, social transfers and other expenditure responsibilities.

Not only is such a far-going fiscal centralization politically unrealistic in a foreseeable future, even within the EMU only, but it may also be economically dysfunctional. First, it can contradict the basic principle of fiscal federalism, i.e. assigning responsibilities to the level of government, which can most effectively carry out a given task. Taking into consideration the internal political, economic, social and cultural diversity of the EU, the optimal degree of its fiscal centralization may be lower than in other "mature" and more homogenous federal states. Second, taking into consideration the remaining huge productivity differences across the EU, centralization of social and income policies (which usually stays behind the substantial size of federal budgets and their countercyclical capacity) may lead to the excessive convergence of labor and social costs⁴ and, as a result, make the EU labor market even more rigid than it is now.

⁴ Experience of German reunification in 1990s when labor costs in East Germany rapidly converged to the West German level (without a sufficient increase in productivity level in the East) and led to a high unemployment rate may serve as a warning example (von Hagen and Strauch, 2001).

For example, Wolff (2012), who supports the idea of moving part of the countercyclical fiscal policy from the national to the euro area level, including the creation of a euro area budget in the range of 2% of GDP, recognizes the risks associated with building a single unemployment insurance system within the euro area. Dullien and Fichtner (2013) also see some risks but they strongly advocate such a common unemployment insurance scheme. Beblavy et al. (2015) propose the EU-wide reinsurance scheme for national unemployment insurance systems.

In most historical cases, the countercyclical role of the federal budget has come as a result of the prior centralization of various responsibilities: public pension systems, unemployment benefits, deposit insurance, federal infrastructure projects, and general public services (which include defense, public order, foreign policy, public health, education, justice administration, federal taxation, etc.), rather than building explicitly countercyclical fiscal facilities.

Wolff (2012) and the European Commission (2012) suggest a controversial idea of building a centralized euro area's fund which would provide member states with automatic but temporary fiscal transfers in the case of adverse idiosyncratic shocks (repaid in "good" times), a kind of a countercyclical insurance mechanism. The first question is how often do EMU economies experience asymmetric business cycles and suffer from idiosyncratic supply shocks? (section 2.1) Second, if transfers are to be neutral over the medium term as expected in those proposals it means an implicit assumption of a perfect regularity and symmetry of business cycles, which is far from the contemporary reality. Third, it underestimates difficulties with the *ex ante* identification of a given phase of the business cycle and the character of the shock (supply vs. demand, asymmetric vs. symmetric). Finally, it ignores the political economy and politics of any such redistribution mechanism, which most likely will make transfers permanent rather than temporary and repayable.

Gros (2012) argues that redistribution mechanisms in federal states such as the US may help decrease income disparities between regions rather than cushion asymmetric shocks. In his opinion, the US banking union seems to be the most effective instrument for addressing asymmetric shocks. His opinion can be interpreted as assigning the primary role in cushioning asymmetric shocks to mobility of private capital and labor rather than cross-territorial fiscal transfers (section 2.1).

If we go beyond an economic policy sphere, we can find more cases of potential benefits of centralization. This may relate to the EU common defense and security policy (Briani, 2013), the protection of external borders, common asylum policies (both extremely important in the context of 2015 refugee crisis), common consular services, environmental policy and many others.

However, the economic rationale for the centralization of new functions will always have to be confronted with political considerations such as national sovereignty concerns (Begg, 2009; Wyplosz, 2014, 2015), the interests of the incumbents

at the national level and a limited appetite for cross-border fiscal redistribution⁵. As a result, the EU has been built around the principle of subsidiarity enshrined in Article 5 of the Treaty on European Union (TEU). According to this principle, the functions of higher levels of government should be as limited as possible and should be subsidiary to those of lower levels (Mortensen, 2004).

5 Conclusions

Summing up our discussion, monetary unions between sovereign states or within relatively loose political federations or confederations are not a new phenomenon and may be relatively sustainable if not affected by major political shocks such as World War I in case of the gold standard. This means that EMU is not as unique a historical case as suggested by some authors (e.g. Bordo et al., 2011) or official documents (e.g. European Commission, 2012) and it makes sense to learn from the above-mentioned experiences (instead of limiting comparison to the USA). These experiences tell us that monetary integration does not necessarily must be accompanied by fiscal and deeper political integration, or even – by trade and market integration (however, the absence of the latter limits major potential benefit from a monetary union, i.e. lower transaction costs).

If we compare EMU with other past and contemporary monetary unions of sovereign states, it does not look so bad from the point of view of its institutional architecture, complexity and economic characteristics. It is accompanied by the advanced (although still incomplete) Single Market of goods, services, capital and labor which has led to increasing level of trade and investment integration, increasing cross-country labor mobility (Wyplosz, 2015) and high degree of synchronization of business cycles. This means it meets basic economic precondition of its effective functioning as determined by the OCA theory. Furthermore, it is the first historical case when the OCA theory was taken into account during the process of setting the CCA (apart from political goals and considerations). EMU is also accompanied by a partial fiscal and political union.

In response to the recent financial crisis, some important elements of fiscal union have been redesigned, further developed or added. This concerns building up the banking union, sovereign debt resolution mechanism and bailing out facilities within the euro area, and overhaul of fiscal discipline mechanism.

⁵ Buiter (2013) argues that a similar reluctance to cross-regional redistribution is observed within national states in Europe, resulting in secessionist tendencies in some of them.

References

- Aizenman, J. (2013): Reflections on the euro crisis: prioritizing the road ahead, paper presented at the seminar of the Economic Institute of the National Bank of Poland, June 21, www.nbp.pl/badania/seminaria_files/21vi2013.pdf.
- Alphandery, E. (2012): The Euro Crisis, *European Issues*, No. 240, Foundation Robert Schuman, May 14.
- Aslund, A. (2012): Why a Breakup of the Euro Area Must Be Avoided: Lessons from Previous Breakups, Policy Brief, No. 12–20, Peterson Institute for International Economics, www.piie.com/publications/pb/pb12-20.pdf.
- Balcerowicz, L. (2014): Euro Imbalances and Adjustment: A Comparative Analysis, *Cato Journal*, Vol. 34, No. 3 (Fall).
- Beblavy, M., Gros, D. and Maselli, I. (2015): Reinsurance of National Unemployment Benefit Scheme, CEPS Working Document, No. 401, January, www.ceps.eu/system/files/CEPS%20WD401%20Beblavy%20Gros%20and%20Maselli%20Reinsurance%20study%20EC.pdf.
- Begg, I. (2009): Fiscal Federalism, Subsidiarity and the EU Budget Review, Swedish Institute for European Policy Studies, Report No. 1, April.
- Berglof, E., Eichengreen, B., Roland, G., Tabellini, G. and Wyplosz, C. (2003): Built to Last: A Political Architecture for Europe, *Monitoring European Integration*, vol. 12, London, Center for Economic Policy Research.
- Bordo, M.D., Markiewicz, A. and Jonung L. (2011): A Fiscal Union for the Euro: Some Lessons from History, NBER Working Paper, No. 17380, September.
- Briani, V. (2013): Armaments duplication in Europe: A quantitative assessment, CEPS Policy Brief, No. 297, July 16.
- Buiter, W. (2013): Europe: The Light at the End of the Tunnel Is Still Two or Three Years Away, Citi GPS: Global Perspectives and Solutions, May 10, www.citivelocity.com/citigps/OpArticleDetailPrint.action?reco.
- Cesarano, F. (2009): Monetary Theory and Bretton Woods. The Construction of an International Monetary Order, Cambridge University Press.
- Cohen, B. (2008): Monetary Unions, in: Whaples, R. (ed.): *EH.Net Encyclopedia*, February 10, <http://eh.net/encyclopedia/monetary-unions/>.
- Cottarelli, C. (2012a): European Fiscal Union: A Vision for the Long Run, presentation at the Gerzensee Conference, November 1–2, IMF Fiscal Affairs Department, www.imf.org/external/np/speeches/2012/110112.htm.
- Cottarelli, C. (2012b): Fiscal Federations: Lessons for the Design of a European Fiscal Union, presentation for the ECB-IMF Conference in Frankfurt, December 13, IMF Fiscal Affairs Department, www.imf.org/external/np/speeches/2012/121312.htm.
- Dabrowski, M. (2010): The Global Financial Crisis: Lessons for European Integration, *Economic Systems*, Vol. 34, Issue 1, pp. 38–54.

- Dabrowski, M. (2012a): The need for contingency planning: potential scenarios of Eurozone disintegration, CASE Network E-Briefs, No. 11/2012.
- Dabrowski, M. (2012b): Fiscal and Monetary Policy Determinants of the Eurozone Crisis and its Resolution, CASE Network Studies and Analyses, No. 443.
- Dabrowski, M. (2014): Fiscal or Bailout Union: Where Is the EU/EMU's Fiscal Integration Heading?, *Revue de l'OFCE*, No. 132, April.
- Dabrowski, M. (2015): Monetary Union and Fiscal and Macroeconomic Governance, *European Economy Discussion Papers*, No. 13/2015, September, http://ec.europa.eu/economy_finance/publications/eedp/pdf/dp013_en.pdf.
- De Grauwe, P. (2006): On Monetary and Political Union, *CESifo Forum*, No. 4/2006.
- Deo, S., Donovan, P. and Hatheway, L. (2011): A brief history of break-ups, *UBS Research: Global Economic Perspectives*, October 11, www.ubs.com/economics.
- Draghi, M. (2015): Stability and Prosperity in Monetary Union, *Project Syndicate*, January 2, www.project-syndicate.org/print/ecb-eurozone-economic-union-by-mario-draghi-2015-1#.
- Dullien, S. and Fichtner, F. (2013): A Common Unemployment Insurance System for the Euro Area, in: *Bringing Europe's Business Cycles Closer Together ... But How?*, *DIW Economic Bulletin*, Vol. 3, No. 1, January 4.
- Eichengreen, B. (1998): *Globalizing Capital. A History of the international Monetary System*, Princeton University Press, Princeton, NJ.
- European Commission (2012): A Blueprint for a Deep and Genuine EMU. Launching a European debate, Communication from the European Commission, COM(2012)777, November 28, http://ec.europa.eu/archives/commission_2010-2014/president/news/archives/2012/11/pdf/blueprint_en.pdf.
- Feldstein, M. (1997): EMU and International Conflict, *Foreign Affairs*, November/December.
- Feldstein, M. (2012): The Failure of the Euro, *Foreign Affairs*, January/February.
- Fuest, C. and Peichl, A. (2012): European Fiscal Union: What Is It? Does It Work? And Are There Really 'No Alternatives'?, *IZA Policy Paper*, No. 39, March, <http://ftp.iza.org/pp39.pdf>.
- Gros, D. (2012): The False Promise of a Eurozone Budget, *CEPS Commentary*, December 7.
- Gros, D. (2013): Banking Union instead of Fiscal Union?, in: Allen, F., Carletti, E. and Gray, J. (eds.) *Political, Fiscal and Banking Union*, European University Institute, Florence and Wharton Financial Institutions Center University of Pennsylvania, Philadelphia, USA.
- Henning, C. R. and Kessler, M. (2012): Fiscal Federalism: US History for Architects of Europe's Fiscal Union, *BRUEGEL Essay and Lecture Series*.
- IMF (2013): West African Economic and Monetary Union (WAEMU). Staff Report on Common Policies for Member Countries, *IMF Country Report*, No. 13/92.

- Issing, O. (2013): The case for political union isn't convincing, *Europe's World*, Summer. www.europesworld.org/NewEnglish/Home_old/Article/tabid/191/ArticleType/ArticleView/ArticleID/22139/language/en-US/Default.aspx
- Kumm, M. (2013): No to a Transfer Union, yes to an Economic Justice Union, in: Allen, F., Carletti, E. and Gray, J. (eds.) *Political, Fiscal and Banking Union*, European University Institute, Florence & Wharton Financial Institutions Center University of Pennsylvania, Philadelphia, USA.
- McKinnon, R. (1963): Optimum currency areas, *American Economic Review*, vol. 53, pp. 717–725.
- Mortensen, J. (2004): Economic Policy Coordination in EMU: What Role for the SGP?, CEPS Working Document, No. 202, June
- Mundell, R. (1961): A theory of optimum currency areas, *American Economic Review*, vol. 51, pp. 657–665.
- Oates, W.E. (1999): An Essay on Fiscal Federalism, *Journal of Economic Literature*, Vol. 37 No. 3, pp. 1120–1149.
- Rey, H. (2013): Fiscal Union in the Eurozone?, in: Allen, F., Carletti, E. and Gray, J. (eds.) *Political, Fiscal and Banking Union*, European University Institute, Florence & Wharton Financial Institutions Center University of Pennsylvania, Philadelphia, USA.
- Rosa, S. (2004): Definition of Currency Union, IMF Committee on Balance of Payments Statistics, Currency Union Technical Expert Groups (CUTEG), www.imf.org/external/np/sta/bop/pdf/cutegl.pdf.
- von Hagen, J. and Strauch, R.R. (2001): East Germany: Transition with Unification, Experiments and Experiences, in: Blejer, M.I. and Skreb, M. (eds.) *Transition: The First Decade*, MIT Press.
- Wolff, G.B. (2012): A Budget Capacity for Europe's Monetary Union, BRUEGEL Policy Contribution, Issue 2012/22, December.
- Wyplosz, C. (2007): Has Europe Lost Its Heart?, in: Aslund, A. and Dabrowski, M. (eds.) *Europe After Enlargement*, Cambridge University Press, pp. 6–28.
- Wyplosz, C. (2014): The centralization-decentralization issue, draft essay prepared under the DG ECFIN's 2014–2015 Fellowship Initiative.
- Wyplosz, C. (2015): The Common Currency: More Complicated than It Seems, in: Badinger, H. and Nitsch V. (eds.) *Handbook of the Economics of European Integration*, Routledge (forthcoming).