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Lessons of the European Crisis for Regional Monetary and Financial Integration in East Asia

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Asian Development Bank Institute

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Abstract

The debt crisis in several member states of the euro area has raised doubts on the viability of European Economic and Monetary Union (EMU) and the future of the euro. While the launch of the euro in 1999 stirred a lot of interest in regional monetary integration and even monetary unification in various parts of the world, including East Asia, the current crisis has had the opposite effect, even raising expectations of a breakup of the euro area. Indeed, the crisis has highlighted the problems and tensions that will inevitably arise within a monetary union when imbalances build up and become unsustainable. This note discusses the causes of the current European crisis and the challenges that EMU countries face in solving it. Based on this analysis, it derives five lessons for regional financial and monetary cooperation and integration in East Asia.

JEL Classification: E42, F33, F36, G01

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1. INTRODUCTION

Europe currently faces a severe financial crisis. The debt crisis in several member states of the euro area has raised doubts about the viability of European Economic and Monetary Union (EMU) and the future of the euro.

While the launch of the euro in 1999 created a lot of interest in regional monetary integration and even monetary unification in various parts of the world, including East Asia, the present crisis has had the opposite effect, even raising expectations of a breakup of the euro area. The crisis has highlighted the problems and tensions that will inevitably arise within a monetary union when imbalances build up and become unsustainable.

The objective of this paper is twofold: First, it reviews the causes of the European crisis and explains why the crisis of Greece—a small country accounting for less than 3% of the euro area's gross domestic product (GDP)—could cause so much havoc. Second, it aims to draw lessons that East Asian countries can pick up from the European turmoil so they can pursue further successful economic integration and reduce the risk of financial and exchange rate crises. It will not discuss solutions to the European crisis since this would be a subject rich enough for a separate paper.

The remainder of this paper is structured as follows. The next section reviews the causes of the European crisis. Section 3 then draws five lessons from the European crisis for financial regionalism in East Asia. Section 4 concludes.

2. THE CAUSES OF THE EUROPEAN CRISIS

European countries had just weathered the 2008–2009 crisis and hopes were set for recovery, when in Greece on 5 November 2009 George Papandreou's freshly elected Socialist government revealed that the predecessor government had misled the public about the true state of Greece's public finances and that the budget deficit for 2009 would be 12.7% of GDP—more than double the previously published figure. On 8 December 2009, Fitch Ratings, which had cut Greece to A- when the higher deficit was revealed, cut Greek debt to BBB+, the first time in ten years that Greece was rated below investment grade. Standard & Poor's followed suit on 16 December 2009 and cut Greece's rating by one notch, to BBB-plus from A-minus, saying the announced austerity program was unlikely to produce a sustainable reduction in public debt. On 22 December 2009, Moody's cut Greek debt to A2 from A1 over soaring deficits.

The revelation of the true Greek fiscal situation raised serious doubts about the country's ability to repay its debt. The following rating downgrades and ever rising interest rates led to a deterioration of Greece's access to capital markets that made it ever more difficult and eventually impossible for the government to refinance itself, creating a downward spiral for the Greek economy. While government bond yields rose only modestly immediately after 5 November, they had risen to unsustainable levels by March 2010 (Figure 1), prompting the euro area finance ministers in early April to put €30 billion in bilateral loans on standby for Greece—with the Greek government insisting that it will not need to draw on these funds. By the end of the month, Greece was priced out of the international bond markets and turned to the European Union (EU) and the International Monetary Fund (IMF) to activate a €45 billion bailout package. By early May 2010, the EU-IMF rescue package had to be increased to an amount of €110 billion over three years, a sum that was further enlarged to a total of €130 billion in October 2011. The bailout, however, failed to restore market trust in the Greek economy. Moreover, it failed to halt contagion of the crisis to other countries of the euro area.

Figure 1: 10 Year Government Bond Yields, January 2007–January 2012

Source: Datastream.

In particular, the Greek crisis and the hesitant political response from the other European countries raised concerns over the debt situation and the structural and competitiveness problems of the economically weaker periphery member countries of the euro area, which—in a slightly derogatory fashion—have been named PIIGS (Portugal, Ireland, Italy, Greece, and Spain). As a consequence, the borrowing costs for the PIIGS increased significantly (Figure 1) and the cost of insuring sovereign debt against default soared (Figure 2) as trust in their ability to repay vanished. The crisis also raised awareness of the existing imbalances within the euro area, which constitute a serious problem. The remainder of this section will discuss the major causes of the crisis.

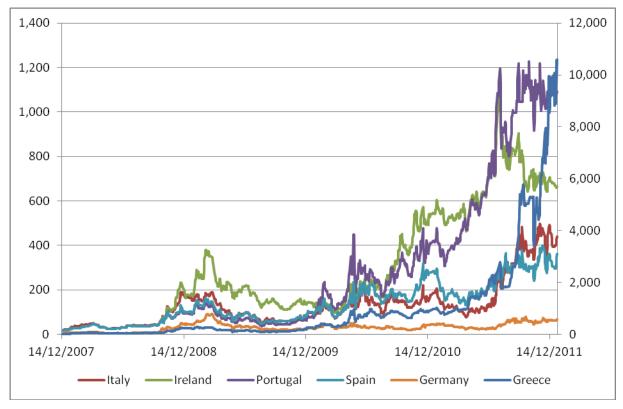


Figure 2: Sovereign Credit Default Swaps, December 2007-January 2012

Source: Datastream.

Note: Scale for Greece is on the right axis.

Banking crisis fuelling sovereign debt crisis and vice versa

It is often wrongly assumed that the European debt crisis is primarily a result of thriftless government spending, especially due to lavish social security systems. Rather, the origins of the European debt crisis can be directly traced back to the global financial crisis of 2008–2009, which spilled over into a sovereign debt crisis in several euro area countries in early 2010. To offset sharp falls in output, euro area governments (as governments in the rest of the world) responded with counter-cyclical fiscal policies that increased fiscal deficits. Moreover, fiscal positions worsened as tax revenues declined and transfer payments grew larger due to rising unemployment during the crisis. In many countries, government bailouts of banking systems also contributed to an increase in public debt. Private debt became public debt, be it through banking crises or the burst of housing bubbles, leading to sovereign crisis. Between 2007 and 2010, the debt to GDP ratio of the euro area increased from 66.3% to 85.4% (Figures 3 and 4).

⁻

¹ The fact that the Nordic countries Denmark, Finland, Norway, and Sweden are among the countries with the most generous and comprehensive social security systems (not only in Europe but in the world) but have sound public finances with relatively low debt-to-GDP ratios and are not affected by the crisis speaks for itself.

EU 27 160 Eurozone Belgium Bulgaria 140 Czech Republic Denmark Germany 120 Estonia Ireland Greece 100 Spain France ltaly 80 Cyprus Latvia Lithuania 60 Luxembourg Hungary Malta 40 Netherlands Austria Poland 20 Portugal Rumania Slowenia 0 Slovakia , 201, 201, 202, 204, 204, 206, 201, Finland Sweden United Kingdom

Figure 3: Public Debt as % of GDP, 1995-2010

Source: Eurostat.

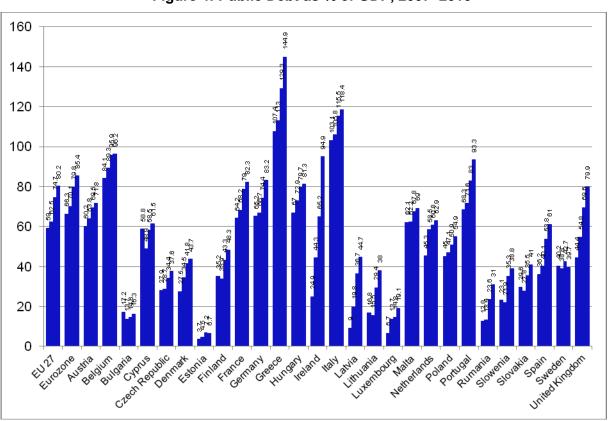


Figure 4: Public Debt as % of GDP, 2007–2010

Source: Eurostat.

Greece is a special case in the sense that the level of Greek debt had already been very high before the crisis, at 107.7% of GDP in 2007. Greek debt, which has been on a continuous rise since 2003, reached a level of 144.9% of GDP in 2010. Like Greece, Italy had a debt level above 100% of GDP prior to the crisis, but unlike in the case of Greece the debt to GDP ratio fell between Italy's adoption of the euro in 1999 and 2007.

Among euro area countries, the most dramatic increase in public debt occurred in Ireland, where the country's debt problems can be clearly ascribed to the country's banking crisis. Ireland did not have a fiscal or debt problem until 2008. Indeed, between 1997 and 2007, Ireland had a fiscal surplus every year except for 2002, when the government recorded a tiny deficit of -0.4% of GDP. Accordingly, the Irish debt to GDP ratio declined steadily over this period from 64.3% in 1997 to 24.9% in 2007, with Ireland being one of the EU countries with the lowest public debt burden. The situation changed in the course of the Irish banking crisis in September 2008 when the Irish government—under pressure from European governments and institutions (including the European Central Bank, ECB) but also from the US government guaranteed most liabilities of Irish-owned banks.2 The government guarantee was initially €400 billion but was later increased to €440 billion. As a consequence, the Irish deficit ballooned and the debt to GDP ratio shot up from 24.9% in 2007 to 94.9% in 2010. The ensuing deterioration of Ireland's access to capital markets in the autumn of 2010 led it to seek an international financial rescue package by the IMF and the EU over €90 billion in November 2011 to finance its borrowing and bank recapitalization needs. According to FitzGerald and Kearney (2011), of the €148 billion of gross public debt at the end of 2010, €46.3 billion (or 30% of GDP) was due to government intervention in the banking system. This figure increased to €60 billion (about 40% of GDP) by mid-2011.

Like Ireland, Spain did not have a fiscal or debt problem before 2008. In the period 1999–2007, Spain had an average annual budget surplus of 0.3% of GDP. In 2007, Spain even recorded a fiscal surplus of 1.9%. Until the outbreak of the global financial crisis, Spain did not violate a single time the EU's Stability and Growth Pact (SGP). Spain's fortunes changed when the global financial crisis put an abrupt end to a long cycle of high growth (which started around 1996) that had been accompanied by a construction and real estate boom (see, e.g., Suarez 2010). When output contracted in 2008, the Spanish housing bubble burst and destabilized the banking system. The Spanish fiscal position deteriorated, with Spain recording fiscal deficits of 4.5% in 2008, 11.2% in 2009, and -9.3% in 2010. Spain's public debt rose from 36.5% of GDP in 2007 to 61.0% of GDP in 2010.

Even in Portugal—which was the first country to breach the SGP in 2002 and which had seen a steady increase of its debt to GDP ratio since joining the euro area in 1999 (when debt stood at 49.6% of GDP)—the by far largest increase of public debt occurred during and after the 2008–2009 crisis, with debt rising by 26.6% from 68.3% in 2007 to 94.9% in 2010.

Thus, the sovereign debt crisis has been directly linked to the global financial crisis and the ensuing problems of European countries' banking sectors after the bankruptcy of Lehman Brothers. With deteriorating public finances, sovereign risk has increased and worsened bank's balance sheets. As pointed out by Véron (2011: 5), the interdependence between sovereign

² According to Darvas (2011), the balance sheet of Irish-owned banks was 3.7 times GDP in 2007; including international banks residing in Ireland the ratio was 7.1 times Irish GDP. Darvas cites figures from the Central Bank of Ireland according to which the total liabilities of the credit institutions resident in Ireland were €1,446 billion in September 2008, of which €787 billion was the liability of domestic banks. See Regling and Watson (2010) and McMahon (2010) for comprehensive analyses of the causes of Ireland's banking crisis.

³ The SGP requires EU member countries to have an annual budget deficit no higher than 3% of GDP and a national debt lower than 60% of GDP or approaching that value.

credit and banking systems has been at the heart of the crisis since sovereign debt of euro area countries are held in large quantities by euro area banks, "with a significant bias for the bonds of the country in which the bank is headquartered but also significant cross-border exposures to other euro area countries' sovereign debt". Since most euro area governments failed to re capitalize banks swiftly after the 2008–2009 crisis, their weak banks are now struggling severely with deteriorating sovereign risk. The fear that further bank bailouts will be needed, which in turn would strain public finances even more, increases sovereign risk further. Even the sovereign risk of the "healthier" euro area countries has increased among fears of further sovereign bailouts, as governments have assumed guarantees for the financing operations of the European Financial Stability Facility (EFSF), the euro area financing arrangement that was created in June 2010 as part of the €750 billion European support package agreed upon in May 2010. A vicious circle has been set in motion, in which "twin sovereign and banking crises […] mutually feed each other" and lead to a "gradual contagion to more countries and more asset classes" (Véron 2011: 1).

Mispricing of risk and misallocation of capital

An important element that contributed to the crisis was a mispricing of risk by capital markets and an ensuing misallocation of capital in the decade before the outbreak of the crisis. European monetary unification brought about a convergence of interest rates among euro area members. Spreads of sovereign bonds of the PIIGS over Germany narrowed rapidly in the runup to EMU membership and almost disappeared once they had become members of the euro area (Figure 5). By January 2001, the time of Greece's entry into the euro area, the yields on 10-year Greek bonds had fallen to 5%—from 25% in 1992. Sovereign risk of virtually all euro area countries, including the PIIGS, was priced more or less the same as German sovereign debt. This was not least because the risk of euro area central government bonds was weighted at zero in regulatory capital calculations and because the Eurosystem (the ECB and the national central banks of the euro area) treated such debt with no haircut—basically as risk-free collateral—when these were offered as collateral for repos and other collateral financing trades (Véron 2011).⁴

⁴ This problem was highlighted early on by Buiter and Siebert (2005), among others, who maintained that the ECB's open market operations created moral hazard by not discriminating sovereign risk within the euro area.

30 25 20 15 10 5 0 .990M10 .991M06 .992M10 .993M06 .994M10 995M06 .996M02 .996M10 997M06 .998M02 .998M10 90M666. 2000M02 2000M10 2001M06 2002M10 2003M06 2004M02 2004M10 2005M06 2006M10 2007M06 2008M02 90M600 .994M02 2002M02 010M02 2006M02 Ireland Greece Spain

Figure 5: 10-Year Government Bond Yields (% per annum), October 1990-December 2011

Source: Eurostat.

Mersch (2011: 6) points to flaws in the Maastricht Treaty and the SGP, which in his view were based on a "flawed economic paradigm" that was "characterized by a strong belief in the power of free markets to discipline governments". With hindsight, it is now obvious that the availability of cheap credit led to an unsustainable accumulation of private (as in Ireland, Portugal, and Spain) and public (as in Greece and Portugal) debt in today's crisis countries. The drop in real interest rates in the periphery countries after their entry into the euro area and the inflowing capital fuelled unsustainable developments, including excessive credit dynamics and real estate bubbles in Spain and excessive fiscal spending in Greece. It also reduced the pressure for economic reform to improve competitiveness within the monetary union as countries could easily finance their current account deficits through an abundance of inflowing capital.

Imbalances in the euro area

A high level of public debt is not a problem *per se*, as long as the government is able to refinance itself and roll over its debt. This requires public debt and the interest burden to grow more slowly than the economy and the tax base. This is not the case in the PIIGS anymore. Today's debt crisis in the PIIGS is therefore not merely a debt crisis; it is first and foremost a competitiveness and growth crisis that has led to structural imbalances within the euro area.⁵ As Bergsten and Kirkegaard (2012: 1) point out, the "competitiveness crisis is manifest in large and persistent pre-crisis current account deficits in the euro area periphery and even larger intraeuro area current account imbalances."

⁵ Indeed, as discussed earlier, the level of debt in Spain was below the euro area average in 2010.

The lacklustre growth performance in the euro area periphery over the past years has been due to an erosion of competitiveness, both against other euro area countries and the rest of the world. The domestic booms resulting from low real interest rates and capital inflows after accession to EMU led to large wage increases in excess of productivity growth and hence rising unit labor costs (Figures 6 and 7) and higher price inflation than in Germany and other "core countries" of the euro area (Figure 8). The result was an erosion of competitiveness of peripheral members of the euro area vis-à-vis the core countries, in particular Germany, which has been able to improve its price competitiveness significantly since the launch of the euro through wage constraints and structural reforms (e.g., Weidmann 2011). The appreciation of periphery countries' real effective exchange rates (Figure 9) impaired export performance and caused large current account deficits (Figure 10). The latter have become increasingly difficult to finance since the outbreak of the crisis in 2010. Hence, "[b]elow the surface of the euro area's public debt and banking crisis lies a balance-of-payments crisis caused by a misalignment of internal real exchange rates" (Mayer 2011: 1).

80,000
70,000
60,000
40,000
20,000
10,000
10,000
Germany Greece Ireland Italy Portugal Spain

Figure 6: Average Annual Wages (in 2009 US\$, constant prices), 1990–2010

Source: OECD.

130
120
110
100
90
80
70
60
50
40
France Germany Greece Ireland Italy Portugal Spain

Figure 7: Unit Labor Costs (OECD index base year 2005=100), 1990-2010

Source: OECD.

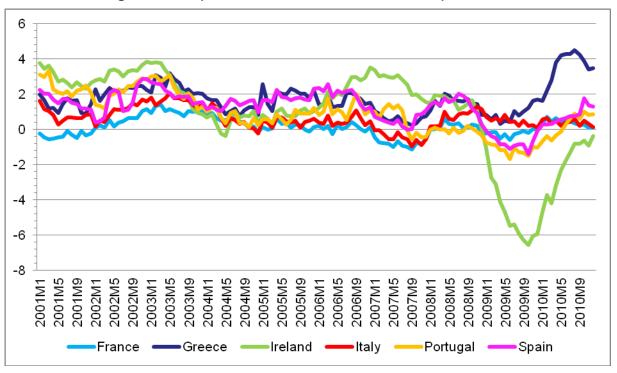
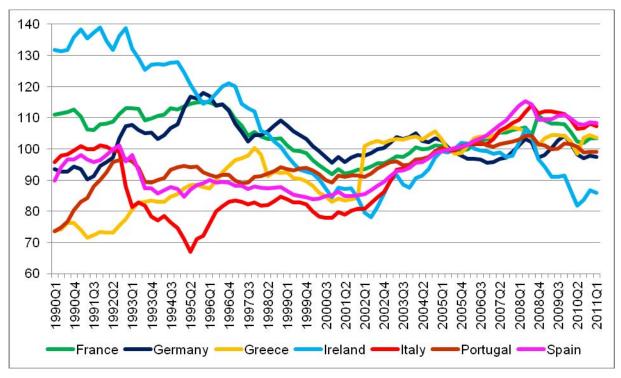


Figure 8: CPI (Differential over German CPI, in %), 1990-2010

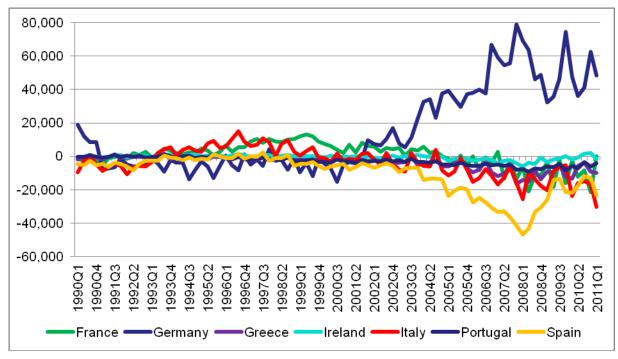
Source: IMF.

Figure 9: Real Effective Exchange Rates Based on Relative Unit Labor Costs, 1990Q1–2011Q1



Source: IMF.

Figure 10: Current Account (quarterly data, in million US\$), 1990Q1-2011Q1



Source: IMF.

The structural imbalances, reflected by high current-account deficits of the periphery countries and matching surpluses in core countries, are at the heart of the current problems since a lack of competitiveness impedes the periphery countries' chances of growing out of the crisis. To service their debt, deficit countries essentially need to become surplus countries. However, the fact that the PIIGS are members of a monetary union and hence cannot restore competitiveness by means of currency devaluation makes the adjustment much more painful. An internal devaluation requires harsh structural adjustments and real wage cuts to push down costs. This is politically much more difficult to administer than one-off currency devaluation. As emphasized by Véron (2011), Weidmann (2011) and others, besides fiscal adjustment and bank restructuring, structural reforms that enhance the crisis countries' growth potential are an indispensible dimension of any successful crisis resolution. It is the difficulties of economic adjustment—which require unpopular public policies—that have caused markets to doubt the solvency of the periphery countries.

Lack of trust in European governments' crisis response(s)

The crisis is not merely an economic crisis. It is also a political crisis, stemming from erratic responses and tensions among euro area governments—representing surplus and deficit countries with contradictory interests—quarrelling over the right crisis diagnosis and response. European leaders were caught wrong-footed in 2010, as they believed that a balance of payments crisis was impossible within a monetary union. Since such a crisis was not considered a priori, no crisis resolution mechanism had been put place. European policymakers hence faced the challenge of crafting a crisis response from scratch in the midst of crisis, first agreeing on bilateral lending to Greece and when this appeared insufficient on the creation of the EFSF and the European Financial Stability Mechanism (EFSM). This task has been complicated not only because the negotiations involve a large number of parties—besides the governments of the euro area member countries and the other EU members, the European Commission, the ECB, and the IMF have been involved—but also because the chosen crisis resolution measures have serious ramifications for the long-term institutional framework and functioning of the monetary union. As Bergsten and Kirkegaard (2012: 6) note: "Achieving the dual policy goals of solving a current crisis while trying also to prevent the next one—and using the same policy tools to do both—is rarely easy."

The fears of the surplus countries, led by Germany, that an easy bailout of Greece would set a negative precedent and create moral hazard problems with other deficit countries—especially the larger euro area members Spain and Italy, both of which are considered "too big to save"—prevented a quick resolution of the Greek crisis and led to piecemeal solutions, which were never comprehensive enough to end the crisis and eventually caused contagion to other weak euro countries. Worries of moral hazard and a "transfer union", where deficit countries would have to be financed permanently through direct or indirect transfers and subsidies, made surplus countries also reluctant to endorse proposals such as those for eurobonds (e.g., von Weizsäcker and Delpla 2011) or a partial guarantee of all euro area sovereign bonds by the ECB (Wyplosz 2011). A crisis resolution has been further complicated by the EU's legal framework. In particular, the so-called "no bailout" clause (Article 125 of the Treaty on the Functioning of the European Union) prohibits that a member of the EU assumes the debts of

⁶ Indeed, the EU's Medium-term Financial Assistance facility, which was originally designed in 1970 to deal with balance of payments problems of all member states of the European Community/EU, has since 1999 been restricted to non-euro area member states only, that is, its members are all EU member countries which have not adopted the euro (Bulgaria, Czech Republic, Denmark, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Sweden, and the United Kingdom). (McKay et al. 2010).

another. Also, Article 123 of the Treaty on the Functioning of the European Union forbids direct ECB credit to public institutions so as to avoid monetary financing of fiscal deficits.⁷

The slow negotiation processes between governments, which have needed to secure support from their domestic constituencies, have evoked the impression of a "European political system [that] was ill-equipped to handle a financial crisis and lost control of events ... [, turning] a manageable solution into an increasingly unpredictable entanglement, in which potential losses are rising exponentially" (Ortiz 2011).⁸

3. LESSONS FROM THE EUROPEAN CRISIS FOR FINANCIAL REGIONALISM IN EAST ASIA

Several of the problems that led to the crisis facing the euro area periphery will seem familiar to anyone who has studied or experienced the Asian financial crisis. Although the European crisis is special in that it involves members of a monetary union, which makes it more difficult to handle, it is fair to say that some of the problems could have been avoided if European policymakers had heeded some lessons from East Asia and other emerging regions that experienced crises. Some of the lessons that can be learned from the European crisis are hence not new at all. Yet, the current European crisis also holds some new lessons that countries contemplating different forms of regional financial and monetary cooperation and integration—like countries in East Asia do—should take to heart. In the following section, some lessons, old and new, will be discussed.

(i) Monetary integration in East Asia should proceed very gradually

The arguments in favor of regional monetary and exchange rate cooperation in East Asia—as made for example by Ogawa and Ito (2002), Kawai (2008, 2009), and Volz (2010)—remain valid and strong. However, the European crisis has illustrated once more that any fixed exchange rate arrangement (including monetary union) is prone to crisis if countries do not adjust their economies internally and imbalances are allowed to grow too large. If economic policies are not able to keep the domestic price level competitive vis-à-vis the rest of the integrating area, and external adjustment via the exchange rate are precluded, real exchange rate appreciation will erode the countries' competitiveness. In most cases this will lead to current account deficits that at some point will trigger a balance of payments crisis.

Just like the 1992 crisis of the European Monetary System, the regional fixed exchange rate system that preceded EMU, the current European crisis highlights the dangers that advanced monetary integration brings in the face of economic and political divergences. Macroeconomic imbalances within any kind of fixed exchange rate system will cause problems at some point. And these will be exacerbated by political divergences. East Asian countries should hence steer clear of overambitious monetary and exchange rate integration schemes, since these will backfire and lead to crisis. As has been pointed out before (Volz 2006, 2010), East Asian

Article 123, §1 states: "Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as "national central banks") in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments."

⁸ A similar view was expressed by Standard & Poor's (2012), the rating agency, when it downgraded nine euro area countries in January 2012: "[T]he effectiveness, stability, and predictability of European policymaking and political institutions have not been as strong as we believe are called for by the severity of a broadening and deepening financial crisis in the euro area."

economies are not ready (yet) for a regional exchange rate system, let alone monetary union. A high level of political agreement and commitment is needed among countries to pursue successful monetary integration, as well as close macroeconomic and fiscal coordination.

East Asian countries should pursue a very gradual approach to monetary integration that will allow for much flexibility and room for adjustment. Managed floating regimes guided by currency baskets are one option to keep relative intra-regional exchange rate stability while avoiding the dangers of fixed, rigid arrangements. Any moves towards closer monetary and exchange rate cooperation will require a high degree of political dedication and readiness to subordinate domestic economic policies to defending the chosen exchange rate arrangement. It will also require a willingness to cooperate and trust among the partner countries, both of which have to grow over time.

Although monetary unification is not on the current agenda in East Asia anyway, the recent European experience provides further reason to believe that monetary union in East Asia should not become a goal anytime soon (whether it should become so at a later stage is also open for discussion). Prior to monetary unification, Europe had a discussion on the right strategy for monetary unification, with two opposing schools of thought, the "Nike approach" vs. the "coronation theory" of monetary unification. The Nike approach ("just do it"), which assumed that economies would converge endogenously once monetary union is completed, seems flawed with hindsight. Rather, the coronation theory (or Bundesbank view) which argued that monetary union should be the crowning achievement after a long process of convergence and political integration seems vindicated.

(ii) Costs and benefits of international financial integration need to be reconsidered

The European crisis has highlighted once again that international financial integration will not automatically lead to an efficient allocation of capital, as predicted by neoclassical theory. The SGP's belief in the ability of free markets to efficiently allocate capital and discipline governments was certainly not warranted (Mersch 2011). What we have seen instead, is that unrestricted financial integration in the euro area contributed to the development of unsustainable imbalances and bubbles. While financial markets underpriced sovereign risk in the euro's first decade, the pendulum has swung back and gave way to excessive pessimism about the periphery countries' ability to repay their debt. (In the case of Greece, the pessimism is certainly warranted.) Funds, now that they are needed, have dried up, forcing painful (and overdue) adjustment.

The European crisis countries are currently experiencing what a large number of developing and emerging countries went through over the past decades: a period of strong, yet unsustainable output growth fuelled by capital flow bonanzas comes to a halt at some point, leading to a "sudden stop" or reversal of capital flows (Reinhart and Reinhart 2009). This pattern, which "has often been repeated in the modern era of global finance" (Reinhart and Reinhart 2009: 9), and now once more in Europe, should give pause to seriously reconsider the costs and benefits of international financial integration. Fortunately, the global financial crisis and now the European crisis have not only given impetus to fresh academic thinking on this matter, but also led the IMF to reconsider its position on capital account management and regulation of international capital flows (Ostry et al. 2010, 2011).

⁹ For an analysis and discussion of different forms of currency baskets and their effects on East Asian countries' real exchange rates see Volz (2010).

Against this backdrop, East Asian countries, many of which still maintain (partial) capital controls, should consider carefully which types of capital flows may be beneficial for their long-term development, and which may not be. Given that financial institutions engaging in cross-border activities increase systemic risk and pose a serious regulatory challenge, East Asian countries should be careful with liberalizing financial markets too fast. For instance, the countries of the Association of Southeast Asian Nations (ASEAN) should proceed very carefully when working towards their declared goal of allowing a "freer flow of capital" (ASEAN 2008: 6) as part of building a Single Market and Production Base across ASEAN by 2015.¹⁰

A pragmatic approach to capital account management, however, does not need to stand in contrast to regional financial integration. But the question of which sectors of financial markets should be integrated and to which extent needs to be addressed. As seen time and again, a greater degree of international (including regional) financial integration increases contagion risk; the crisis of a small European economy—Greece—triggered a full-blown European crisis not only because Greece happens to be a member of the euro area, but because banks and other financial institutions from other EU countries had built up exposure to Greece. For East Asian countries, there remain valid arguments to facilitate cross-issuances and integration across the region's bond markets, given the relatively small size of many local bond markets as this should increase investors' interest in the region and help reduce the continuing over-dependence on financial intermediation in US and European financial markets. ¹¹ But in view of recent experiences, regulators should be very cautious when it comes to, for instance, the development of non-transparent securitization and credit default swaps markets, both on a national and regional scale.

Since regional financial integration would require at least partial liberalization of domestic financial regulations and cross-border restrictions on financial services and financial flows, the regulatory architecture needs to keep pace with financial integration. In financially integrated areas, close cooperation between national regulators is needed. As was realized too late in Europe, from a certain level of regional financial integration a regional regulatory body is needed to supervise financial institutions whose activities stretch across borders. If ASEAN, or other groups of countries in the region, want to go ahead with regional financial integration, they need to ensure not only that national regulators are up to the task, but also that appropriate supranational regulatory structures are put in place. This issue will be discussed further below.

The Single Market and Production Base is part of the plan for creating the ASEAN Economic Community (AEC), the details of which are outlined in the AEC Blueprint (ASEAN 2008) that was formally approved by the ASEAN heads of state/government in November 2007. Plummer (2010: 15) remarks that most concrete measures projected in the AEC Blueprint "really refer to concerted efforts to develop national capital markets, rather than any grandiose regionally-integrated market."

¹¹ For an overview of various initiatives to promote bond market development in the region see, for instance, Schou-Zibell (2008).

Steps towards the creation of European supervisory authorities to help oversee Europe's financial sector from a pan-European perspective were taken only in late 2008, when the president of the European Commission mandated a high-level expert group on financial supervision in the EU. The expert group, led by Jacques de Larosière, proposed three new supervisory authorities, which were established in November 2010 and started operation in January 2011: the European Banking Authority (EBA) based in London, the European Securities and Markets Authority (ESMA) based in Paris, and the European Insurance and Occupational Pensions Authority (EIOPA) based in Frankfurt. These three supervisory authorities were complemented by the creation of the European Systemic Risk Board (ESRB), which is responsible for the macro-prudential oversight of the financial system within the EU and which has a secretariat hosted by the ECB.

(iii) Crisis prevention and resolution mechanism needs to be in place before the next crisis

As discussed above, establishing a crisis resolution mechanism in the midst of crisis is not easy. East Asian countries have their own experience of how difficult it is to coordinate crisis responses or even create a new crisis facility in the eye of the storm. When the Asian financial crisis of 1997–1998 hit, East Asian countries were completely unprepared to cope with such a crisis and the region was left at the mercy of the international community, with the IMF as the major crisis manager. The failed attempt at the time to set up an Asian Monetary Fund (AMF) was not only due to external pressures from the US government and the IMF, but also due to a lack of support of the Japanese AMF proposal by some East Asian countries, notably the People's Republic of China (PRC) (Henning 2002).

As a reaction to the Asian financial crisis of 1997–1998, the ASEAN+3 countries (ASEAN plus the PRC, Japan, and the Republic of Korea) started in 2000 to build a net of bilateral financial support facilities known as the Chiang Mai Initiative (CMI). The CMI was eventually expanded and transformed in 2010 into a multilateral arrangement—the Chiang Mai Initiative Multilateralization (CMIM)—including all ASEAN+3 member countries as well as Hong Kong, China. As part of the CMIM, ASEAN+3 established its own independent regional surveillance agency, the ASEAN+3 Macroeconomic Research Office (AMRO) in April 2011. AMRO, which is based in Singapore, is in charge of monitoring and analyzing the economic and financial soundness of regional economies and supporting the CMIM decision-making process.

While these have been important achievements, further efforts are needed to make the CMIM fully functional. The CMIM, equipped with US\$ 120 billion, is too small to deal with a full blown crisis in East Asia. An increase of available lending amounts is therefore expedient. Moreover, the so-called IMF link, a provision that allows member countries to draw only 20% of the agreed amounts without an IMF program, has thus far prevented the CMIM from becoming fully effective. Given the stigma that the IMF still carries in the East Asian region, it would be politically difficult for any government in the region to seek an IMF program. When Korea, for instance, needed liquidity support during the 2008 crisis, it was not considered an option for the government to draw on the CMI (the CMIM was not operational yet). While Korea could have accessed US\$ 18.5 billion from various countries under the swap agreements it had agreed within the CMI at the time, it could have drawn only 20% of this amount (US\$ 3.7 billion) without seeking an IMF program (Sussangkarn 2010). Instead of calling on the CMI, Bank of Korea sought an agreement in October 2008 with the Federal Reserve to establish a temporary reciprocal liquidity swap-line over US\$ 30 billion.

As Lombardi (2010: 9) points out, "although definite progress has been made, the reliability of the CMIM is still, technically, untested". To make the CMIM fully operational, ASEAN+3 countries need to discuss changes to the current provisions. This need not necessarily mean scrapping the IMF link, as suggested by Sussangkarn (2010) and Kawai (2010), but could also include recognising the IMF's new precautionary facilities (the Flexible Credit Line [FCL] and the Precautionary Credit Line [PCL]) as a sufficient condition for drawing on the CMIM beyond the first 20% without needing to undergo a standard IMF program (Henning 2011; Volz 2012). If a big crisis hits the region, IMF support will be needed and therefore it will be better to work out the details of cooperation between the CMIM and the IMF beforehand to avoid frictions in times of crisis.

East Asian countries should increase efforts to beef up the CMIM and AMRO *now*. There is no time for complacency in East Asia since risks are looming. In 2008–2009 the global financial crisis underscored how vulnerable the region is to external shocks (e.g., Plummer 2010). A

worsening of the European banking crisis or any unforeseen tail risk events in another corner of the world may well have adverse effects on various East Asian countries, and the region should be prepared to respond to these promptly and decisively.

(iv) Surveillance and monitoring of regional financial markets should be strengthened

The European crisis has shown what we had already seen during the Asian crisis: crises can spread quickly among closely integrated economies, either through the trade channel, or the financial channel, or both. Among others things, East Asian countries need to manage the risks associated with capital inflows. Because of strong interdependences, a regional approach (in addition to global efforts) to volatile capital flows is called for. In an integrated region and world, no country can isolate itself from surrounding troubles. Since effective regulation, surveillance, and monitoring are the best crisis prevention, East Asian countries should reinforce efforts to strengthen the regional financial architecture, in complement to strengthening domestic regulatory capacities and global financial cooperation.¹³

An important lesson of both the global financial crisis and the European crisis is that regulatory authorities must not focus only on microprudential regulation and supervision of individual financial firms. Rather, regulatory authorities need to try to identify and manage systemic risk, i.e., the risks imposed by interlinkages and interdependencies in a market, where a triggering event, such as the failure of a large financial firm, could seriously impair financial markets and harm the broader economy. As pointed out by Kawai (2011: 123), "[t]here is an urgent need in Asia both to strengthen microprudential supervision and regulation and to establish an effective macroprudential supervisory framework". 14

Building on an already existing institution, East Asian countries should first of all strengthen the newly created AMRO, which is currently staffed with only a director and a handful of economists plus support staff. Much larger resources need to be devoted to AMRO to allow it to carry out meaningful macroeconomic and financial market surveillance.

Moreover, since safeguarding financial stability is a task that involves multiple stakeholders, including finance ministries, central banks, and financial regulators and supervisors, it would be expedient to initiate a continuous dialogue of all relevant authorities across the East Asian region concerned with financial and macroeconomic stability to exchange on potential sources of financial market vulnerabilities and discuss common issues for financial sector supervision and regulation. A proposal for such a forum, named the Asian Financial Stability Dialogue (AFSD), was made by Asian Development Bank (ADB) President Haruhiko Kuroda in September 2008. The AFSD could be thought of as a regional equivalent to the Financial Stability Board (FSB) to promote coordination and information exchange among authorities responsible for financial stability. In contrast to the FSB, which includes only five East Asian countries as members (the PRC; Hong Kong, China; Indonesia; Japan; the Republic of Korea; and Singapore), an AFSD could bring together the monetary and financial authorities of *all* East Asian countries. As a regional forum—which could be placed under the ASEAN+3 framework—the AFSD could focus on issues relevant to East Asia, including issues related to financial

¹³ On the issue of subsidiary see Plummer (2010: 16–17).

¹⁴ While macroprudential regulation to deal with capital inflows is particularly important in a monetary union where interest rate and exchange rate policy cannot be used at all to address the build-up of bubbles (e.g., Spain), it is also crucial for any kind of fixed exchange rate system where monetary policy independence is constrained (e.g., PRC). For macroprudential supervision and regulation across Asia, see Kawai (2011: 123).

¹⁵ See ADB (2008, 2010) and Kawai (2011: 139).

market development, management of capital flows, regional financial integration, and contingency planning for cross-border crisis management. ¹⁶ It could also be used as a means to help East Asian countries to develop and project joint positions on financial issues discussed in international forums and institutions, including the FSB and the IMF.

(v) Banks need to be recapitalized swiftly after crisis

A final lesson one may draw from the European crisis relates to the great importance of swift action in cleaning up the banking system once a crisis has hit. Even though this is not a new lesson, it is an important one, and one that was not heeded in Europe—which is indeed a major reason why the European banking and sovereign debt crises have been reinforcing each other, turning the Greek crisis into a crisis of previously inconceivable dimensions.

Unlike in the US, where the Federal Reserve System and the Office of Thrift Supervision conducted a capital assessment of the largest US financial institutions under the Supervisory Capital Assessment Program (commonly referred to as the "stress test") in spring 2009 to determine whether they had sufficient capital buffers to withstand the recession and further financial market turmoil, no such measures were taken in time in Europe. In the stress test, the US authorities came to the conclusion that 10 of the country's 19 largest financial institutions were undercapitalized and required them to immediately strengthen their capital base, a measure that helped to restore "trust in the institutions at the core of the US financial system" (Véron 2011: 3). In contrast, the "stress tests" that were conducted across Europe in September 2009 "went virtually unnoticed as the results were not made public" (Véron 2010)—and hence failed to restore trust. For the second EU-wide stress tests, carried out in July 2010, bank-bybank results were publicly disclosed, but they nonetheless failed to restore confidence since the disclosures lacked specificity and comparability. Even worse, some banks that had passed the stress tests were exposed as undercapitalized soon afterwards. The third round of stress tests in July 2011, now carried out under the auspices of the EBA, was considered more credible, but by summer 2011 the European sovereign crisis had already unfolded. Because of European policymakers' failure to re capitalize financial institutions quickly and restore trust among them, "Europe's banking system has been in a continuous stage of systemic fragility since 2007-08" (Véron 2011: 1). As Véron (2011: 5) puts it: "Even though it is impossible to know counterfactuals, had the Western European banking sector been less fragile at that time, it is very possible that a different course would have been taken involving Greek debt restructuring as early as 2010, and everything afterwards would have developed very differently."

The lesson is clear: financial authorities must respond swiftly and decisively to banking crises with rapid recapitalization of banks. Europe has set a negative example in this respect. The dire Japanese experience in the 1990s with too slow and insufficient action taken by regulatory authorities in cleaning-up up the banking sector after the burst of the real estate and stock bubble in 1991 should have been a warning; the swift action taken by the Swedish authorities to resolve the Swedish banking crisis of 1991–93 should have served as a positive example. When the next banking crisis hits East Asian countries, authorities should address the problems quickly and decisively. To facilitate a quick response after the outbreak of a crisis, supervisory authorities should put in place an adequate legal and institutional framework for the resolution procedures. The latter is another point that should make it onto the "to-do-list" of the proposed AFSD.

¹⁶ Plummer (2010: 19) remarks that "[t]here are a sufficient number of critical issues of high priority in Asia but that are lower in importance at the global level, and vice versa, to justify an institutional cooperative structure such as the AFSD."

¹⁷ For lessons of Japan's banking crisis see Fujii and Kawai (2010); for lessons from Sweden see Jonung (2009).

4. CONCLUSIONS

The European crisis has highlighted what can go wrong in terms of regional financial and monetary integration. The crisis has exposed major deficits of the euro area's institutional framework and has been compounded by an insufficient policy response. One of the major shortcomings that led to the European predicaments was that monetary unification was not accompanied by an adequate level of financial and macroeconomic cooperation among euro area countries. Nonetheless, it would be a mistake to conclude that European monetary unification was a fundamentally flawed idea. There is no doubt that the (political) decision to allow Greece to join the euro was a grave and very costly mistake. It is also questionable whether Portugal should have entered the euro area. Yet the current crisis was not unavoidable: had Ireland regulated its financial sector more stringently, it would not be in trouble today. Had Spain applied macroprudential regulation to contain its property bubble, its problems today would be less grave. Had the PIIGS carried out structural reforms and adjusted internally in time, they would not face severe competitiveness problems today. If only... The vulnerabilities of the euro area and its individual member countries have become obvious now and ought to be addressed. European policymakers, despite all criticism, have responded to the crisis with farreaching reforms of the euro area's institutional framework as well as structural reforms at home, even if government action—which in Europe after all has to be democratically legitimized by national parliaments—appears slow compared with the speed at which financial markets operate.

Beyond Europe, the crisis provides important lessons for East Asian countries. While some of these lessons are not new at all, they deserve to be taken seriously. Although at first sight one may draw the conclusion from the European crisis that East Asian countries should abandon regional integration efforts, the opposite is true: East Asia needs more regional monetary and financial cooperation to strengthen the regional financial architecture. Regional financial and monetary cooperation need to keep pace with integration of the real economies of East Asia, which is progressing quickly. This does not imply that East Asian countries should emulate the European integration process or declare the long-term goal of monetary unification. East Asian countries will have to craft their own model of financial regionalism. And while doing this, they should learn from past mistakes—their own and the ones made in Europe. This paper highlights five lessons for regional financial and monetary cooperation and integration in East Asia: (1) do not rush monetary integration; (2) rethink costs and benefits of international financial integration; (3) develop and strengthen a regional crisis prevention and resolution mechanism before the next crisis hits the region: (4) reinforce surveillance and monitoring of East Asian financial markets; and (5) put in place adequate resolution procedures and recapitalize banks swiftly once the banking system is in trouble.

REFERENCES

- ADB. 2008. Emerging Asian Regionalism: A Partnership for Shared Prosperity. Manila: Asian Development Bank.
- ADB. 2010. Institutions for Regional Integration: Toward an Asian Economic Community, , Manila: Asian Development Bank.
- ASEAN. 2008. ASEAN Economic Community Blueprint. Jakarta: ASEAN Secretariat (http://www.aseansec.org/5187-10.pdf).
- Buiter, W. H., and A. Siebert. 2005: How the Eurosystem's Treatment of Collateral in its Open Market Operations Weakens Fiscal Discipline in the Eurozone (And What to do About it). CEPR Discussion Paper No. 5387. London: Centre for Economic Policy Research.
- Darvas, Z. 2011. A Tale of Three Countries. Recovery after Banking Crisis. Bruegel Policy Contribution No. 2011/19. Brussels: Bruegel.
- Delpla, J., and J. von Weizsäcker. 2011. Eurobonds: The Blue Bond Concept and its Implications. Bruegel Policy Contribution No. 2011/02. Brussels: Bruegel.
- FitzGerald, J., and I. Kearney. 2011. Irish Government Debt and Implied Debt Dynamics 2011–2015. Quarterly Economic Commentary, Autumn. Dublin: Economic and Social Research Institute.
- Fujii, M., and M. Kawai. 2010. Lessons from Japan's Banking Crisis, 1991–2005. ADBI Working Paper No. 222. Tokyo: ADBI.
- Henning, C. R. 2002. East Asian Financial Cooperation. Policy Analyses in International Economics 68. Washington, DC: Institute for International Economics.
- Henning, C. R. 2011.Coordinating Regional and Multilateral Financial Institutions. PIIE Working Paper No. 11–9. Washington, DC: Peterson Institute for International Economics.
- Jonung, L. 2009. The Swedish Model for Resolving the Banking Crisis of 1991–93; Seven Reasons Why it was Successful. Economic Papers No. 360. DG ECFIN. Brussels: European Commission.
- Kawai, M. 2008. Toward a Regional Exchange Rate Regime in East Asia. Pacific Economic Review 13(1): 83–103.
- Kawai, M. 2009. The Role of an Asian Currency Unit. In Towards Monetary and Financial Integration in East Asia, edited by K. Hamada, B. Reszat, and U. Volz. Cheltenham, UK: Edward Elgar.
- Kawai, M. 2010. East Asian Financial Co-operation and the Role of the ASEAN+3Macroeconomic Research Office. In Regional and Global Liquidity Arrangements, edited by U. Volz and A. Caliari. Bonn: German Development Institute.
- Kawai, M. 2011. G-20 Financial Reforms and Emerging Asia's Challenges. In Asia and Policymaking for the Global Economy, edited by K. Derviş, M. Kawai, and D. Lombardi. Washington, DC: Brookings Institution Press.
- Lombardi, D. 2010. Financial Regionalism: A Review of the Issues. Washington, DC: Brookings Institution.

- Plummer, M. G. 2010. Regional Monitoring of Capital Flows and Coordination of Financial Regulation: Stakes and Options for Asia. ADBI Working Paper No. 201. Tokyo: Asian Development Bank Institute.
- Mayer, T. 2011. Euroland's Hidden Balance-of-payments Crisis. EU Monitor 88. Frankfurt am Main: Deutsche Bank Research. 26 October.
- McKay, J., U. Volz, and R. Wölfinger. 2010. Regional Financing Arrangements and the Stability of the International Monetary System. DIE Discussion Paper No. 13/2010. Bonn: German Development Institute.
- McMahon, J. 2010. The Irish Banking Crisis: Lessons Learned, Future Challenges. Address to Mazars Banking Conference. 26 May (http://www.centralbank.ie/press-area/speeches/Documents/26%20May%202010%20-%20Address%20to%20Mazars%20Banking%20Conference,%202010%20by%20Jonathan%20McMahon.pdf).
- Mersch, Y. 2011. Optimal Currency Area Revisited. Pierre Werner Lecture at the European Institute. Florence. 26 October (http://www.bis.org/review/r111027b.pdf).
- Ogawa, E., and T. Ito. 2002. On the Desirability of a Regional Basket Currency Arrangement. Journal of the Japanese and International Economies. 16 (3): 317–334.
- Ortiz, G. 2011. It's too Early for a Brady Plan for Greece. Financial Times. 22 November.
- Ostry, J. D. et al. 2010. Capital Inflows: The Role of Controls. IMF Staff Position Note No. 10/04. Washington, DC: International Monetary Fund.
- Ostry, J. D. et al.2011. Managing Capital Inflows: What Tools to Use? Staff Discussion Note No. 11/06. Washington, DC: International Monetary Fund.
- Regling, K., and M. Watson. 2010. A Preliminary Report on the Sources of Ireland's Banking Crisis. Report commissioned by the Minister for Finance of Ireland, May (http://www.bankinginquiry.gov.ie/Preliminary%20Report%20into%20Ireland%27s%20Banking%20Crisis%2031%20May%202010.pdf).
- Reinhart, C., and V. Reinhart. 2009. Capital Flow Bonanzas: An Encompassing View of the Past and Present. In NBER International Seminar on Macroeconomics 2008, edited by J. Frankel and C. Pissarides. Chicago, IL: University of Chicago Press.
- Schou-Zibell, L. 2008. Regional Cooperation and the Development of Bond Markets—The Asian Experience. In Financial Innovation and Emerging Markets: Opportunities for Growth vs. Risks for Financial Stability, edited by U. Volz. Berlin: InWEnt.
- Standard & Poor's. 2012. Factors Behind our Rating Actions on Euro Area Sovereign Governments. 13 January (http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245327305715).
- Suarez, J. 2010. The Spanish Crisis: Background and Policy Challenges. CEPR Discussion Paper No. 7909. London: Centre for Economic Policy Research.
- Sussangkarn, C. 2010. The Chiang Mai Initiative Multilateralization: Origin, Development and Outlook. ADBI Working Paper No. 230. Tokyo: Asian Development Bank Institute.
- Véron, N. 2010. European Bank Stress Tests: Third Time Lucky? VoxEU. 20 December (http://www.voxeu.org/index.php?q=node/5947).

- Véron, N. 2011. The European Debt and Financial Crisis: Origins, Options. Congressional Testimony Submitted to the US Senate Committee on Banking, Housing, and Urban Affairs: Subcommittee on Security and International Trade and Finance. 22 September (http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=9bec6 123-d58d-423d-bf17-4fdcb9b113c3).
- Volz, U. 2006. On the Feasibility of a Regional Exchange Rate System for East Asia: Lessons of the 1992/1993 EMS Crisis. Journal of Asian Economics 17(6): 1107–1127.
- Volz, U. 2010. Prospects for Monetary Cooperation and Integration in East Asia. Cambridge, MA: MIT Press.
- Volz, U. 2012. The Need and Scope for Strengthening Co-operation between Regional Financing Arrangements and the IMF. Mimeo. Bonn: German Development Institute.
- Weidmann, J. 2011. Germany's Role in the Global Economy. Speech at the American Council on Germany. Washington, DC. 26 September. (http://www.bis.org/review/r110930f.pdf?frames=0).
- Wyplosz, C. 2011. A Failsafe Way to End the Euro area Crisis. VoxEU. 26 September. (http://voxeu.org/index.php?q=node/7031).