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Throwing Out the Baby with the Bathwater? Implications of the Euro Crisis for Asian Monetary Integration

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Abstract

Proponents of Asian monetary integration have always looked to Europe for inspiration. This paper reconsiders the cas in light of the eurozone crisis. I ask what aspects of the earlier consensus remain intact in the wake of the crisis and what aspects must now be rethought. Is there a danger of "throwing out the baby with the bathwater" – a danger, in other words, that Europe's negative experience since 2009 will cause Asia to turn away too quickly and completely from monetary integration? Or is it in fact appropriate to "throw out the baby" – to conclude in light of Europe's example that Asian monetary integration is not an appropriate and desirable goal?

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- **Keywords:** Euro Crisis, Asian Monetary Integration

I. Introduction

Proponents of Asian monetary integration have always looked to Europe for inspiration. Starting with Goto and Hamada (1994), successive authors have viewed the desirability of monetary integration in Asia through the lens of European experience, asking how Europe and Asia, East Asia in particular, compare in terms of the optimum-currency-area criteria (see, inter alia, Bayoumi and Eichengreen 1994; Kwack 2004; Ahn, Kim, and Chang 2006; Hamada,

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Reszat, and Volz 2009). For a decade following the advent of the euro in 1999, Europe's experience was generally regarded as positive, encouraging analysts to use it as the benchmark that Asia had to meet in order to move ahead with monetary integration. Monetary integration had cemented Europe's single market by eliminating the transactions costs and uncertainties associated with national currencies and fluctuating exchange rates. Adoption of the euro had accelerated the process of convergence in which Europe's less developed countries closed the per capita income gap vis-à-vis its economic and technological leaders. The European Central Bank (ECB) had demonstrated that a regional monetary authority could be a reliable steward of price stability. The need for institutions capable of providing oversight and governance of the single currency was met by strengthening the Euro Group of finance ministers and expanding the powers of the European Commission and European Parliament. The single currency deepened political as well as economic ties, in other words, just as anticipated by its proponents.

At the same time, the comparison suggested that Asia should move cautiously when proceeding down the European path. Economic structures and levels of development were even more diverse in Asia. Macroeconomic policies had only begun to converge. Asia had not yet succeeded in creating a region-wide free trade area, much less a single market free of barriers behind the border. Not just product- but also labor-market integration, whether measured by the removal of statutory barriers or observed levels of labor mobility, was less. And, compared to Europe, political integration was less advanced, making governance of a common currency more difficult. The all but universal conclusion was that while regional monetary integration was a desirable goal, Asia should be cautious in moving in that direction. To paraphrase Saint Augustine, a single currency would be Asia's monetary salvation, just not yet.

The crisis that engulfed the euro area starting in 2009 demands that this consensus be rethought. It is now commonplace to hear mainstream observers—both European and extra-European observers—argue that the creation of the euro was a mistake. A one-size-fits-all monetary policy fed real estate bubbles in countries like Ireland and Spain. The elimination of currency risk fueled a massive and unsustainable flow of financial capital from Northern to Southern Europe. When capital inflows came to a sudden stop and growth prospects dimmed starting in 2008, governments found themselves saddled with massive fiscal deficits and unsustainable debts. The absence of supervision and regulation at the level of the monetary union allowed banking systems in some member states to expand beyond reasonable bounds. To prevent their collapse, governments were now forced to socialize their balance sheets. With the public sector compelled or, in some cases, choosing to cut spending in order to restore debts to sustainable levels, the absence of the exchange rate as an instrument of adjustment meant that the crisis countries were consigned to deep recessions and long periods of slow growth.

Increasingly, the conclusion drawn was that Europe's decision to move to monetary union in 1999 was ill-advised. And if in Europe, where economies are relatively homogeneous and political integration is relatively well advanced, the move to a single currency was mistaken, how can it be argued that monetary integration in Asia, where neither these nor the other standard textbook preconditions for monetary union are met, is feasible and desirable?

This paper is a first step in reassessing the desirability of Asian monetary integration in light of the crisis in Europe. I ask what aspects of the earlier consensus remain intact in the wake of the crisis and what aspects must now be rethought. Is there a risk of "throwing out the baby with the bathwater"—a danger, in other words, that Europe's negative experience since 2009 will cause Asia to turn away too quickly and completely from monetary integration? Or is it in fact appropriate to "throw out the baby"—to conclude in light of Europe's example that Asian monetary integration is not an appropriate and desirable goal?

II. What We Knew

A large literature, organized around early work on the theory of optimum currency areas, inquired into the extent to which Europe satisfied the conditions for the operation of a smoothly-functioning regional monetary union.[1] While some of the conclusions drawn by earlier analysts have stood the test of time, subsequent experience has not been entirely kind of much of this early research.

The early literature suggested, accurately as it transpired, that operating a monetary union in Europe was likely to be challenging and, further, that a large monetary union encompassing both Northern and Southern Europe was especially likely to be problematic. Following Mundell's (1961) seminal contribution, much of that early work focused on the symmetry or asymmetry of aggregate supply and demand disturbances affecting prospective monetary-union partners. It showed that supply and demand disturbances, historically, had been more asymmetric in Europe

[1]Citations are provided below.

than in existing monetary unions like the United States. It showed further that this result was driven by the asymmetry of shocks affecting the European periphery, defined by Bayoumi and Eichengreen (1993) as comprised by the United Kingdom, Ireland, Italy, Spain, Portugal, and Greece.[2] While the UK, in its wisdom, chose not to adopt the euro, the other five euro-area countries were precisely those that descended into crisis in 2010. Whether by coincidence or design, the problematic nature of a large monetary union encompassing both Northern and Southern Europe (where Ireland, for present purposes, is an honorary member of the latter) was one thing that the early literature got right.

But some contributors to the early literature also questioned whether historical evidence was an accurate guide to the symmetry or asymmetry of disturbances in Europe's prospective monetary union. Frankel and Rose (1997) argued that the optimum currency area criteria are endogenous: that, with the further commercial and financial integration resulting from monetary integration, disturbances would become more symmetric. They showed that with the deepening of trade links in the past, more of which could be expected to flow from monetary integration in the future, business cycles tended to grow more symmetric. Others meanwhile argued that, to the extent that aggregate demand disturbances reflected different monetary policies in the candidate countries, the move to a single currency managed by a single monetary authority would eliminate a second source of asymmetric disturbances as well.

But here the early literature got things only half right. Disturbances related to patterns of real economic activity, as captured by cross-border trade linkages per Frankel and Rose, may have grown less asymmetric with the move to monetary union. But financial disturbances, as reflected in cross-border capital flows, which moved in large volumes between the euro area's core and periphery, did not obviously grow more symmetric. Although the stance of monetary policy instruments, now the European Central Bank's policy rates, may have grown more similar (indeed, they became identical across countries), the monetary policy transmission mechanism and hence the impact of the common policy continued to differ, reflecting differences in the bank structure and mortgage-market institutions across states.

The early literature, again inspired by Mundell, also highlighted the importance

[2]This article was important, I like to think, for "empiricizing" the theory of optimum currency areas and for showing how the symmetry or asymmetry of aggregate supply and demand shocks could be identified and measured.

of labor-market flexibility. Eichengreen (1993), Blanchard and Katz (1997), and Obstfeld and Peri (1998) all emphasized that labor mobility among prospective euro-area member states was lower than between U.S. states and regions. Mauro and Spillimbergo (1998) used data from Spanish regions to show that migration was high among more literate and educated workers but low among the illiterate and less educated. Subsequent experience bore out these observations, although there may, in fact, have been more than the anticipated levels of movement of unskilled workers into the euro area's booming regions during the period ending in 2007.[3] But when Europe was then hit by a massive asymmetric shock, the inability or reluctance of labor to move from the depressed euro-area periphery to the still growing euro-area core became a growing problem (Zoellick 2012) which manifested itself in unemployment rates two to four times as high in the periphery.

Bayoumi and Thomas (1995) emphasized that in the absence of greater labor mobility, very large wage and price adjustments might be needed to meet asymmetric shocks. Their conclusion is underscored by recent experience, though it is fair to say that neither they nor other observers anticipated quite how large both the shock and requisite wage and price adjustments would turn out to be. As with the literature on asymmetric shocks, there were also those who suggested that the degree of wage and price flexibility was endogenous to the monetary regime and, by implication, that it was likely to increase exchange rate adjustments which were no longer available to restore competitive balance. Thus, Alogoskoufis and Smith (1991) presented evidence that wages are more flexible when exchange rates are fixed.[4] Unfortunately, subsequent evidence on whether monetary unification fosters labor market reform and enhances wage and price flexibility turned out to be mixed at best (e.g., Bertola 2010). To the extent that labor market flexibility has increased with monetary union, we now know that resulting flexibility still falls far short of that needed to facilitate adjustment to shocks of the magnitude experienced by post-2008 Europe.

A final implication of the early literature, following Kenen (1969), was that the absence of a federal fiscal system at the level of the European Union was likely to create challenges for the euro area. Sala-i-Martin and Sachs (1993) estimated that transfers within the U.S. monetary and political union offset some 30 to 40 percent

[3]Not so much from the monetary union's less prosperous regions, as it turned out, as from "accession economies" in Central and Eastern Europe that had not yet adopted the euro.

[4]On the other hand, Artis and Omerod (1991) and Anderton and Barrell (1995) found little support for the hypothesis that wages became more flexible when countries entered the European Monetary System.

of state-specific shocks, significantly ameliorating the problems otherwise created by the absence of state-specific exchange rate policies. While other works (e.g., von Hagen 1992) disputed their estimate of the magnitude of the offset, the analytical point stood: the absence of a system of taxes and transfers at the level of the euro area could create problems, or at least remove one obvious mechanism for ameliorating them, in the event of an asymmetric shock.[5]

In sum, contributors to the early literature were aware that the smooth operation of a monetary union had non-negligible preconditions. This awareness informed skepticism about prospects for Europe and, in turn, colored assessments of the outlook for Asia. These early analysts understood that creating the euro was a gamble. To establish the point it is worth quoting the conclusions of a 1997 article by Obstfeld in full:

> "My conclusion is that the current uncertainty over EMU flows directly from the internal macroeconomic tensions of the main European countries, tensions that are unlikely to disappear as a result of the single currency alone. EMU is a gamble that can be won in the long run only if it overcomes the existing political stasis to force fundamental fiscal and labor market reform in its member states. If Europe's leaders cannot do an end run around domestic opposition in the name of European integration, EMU could prove unstable" (p. 317).

III. What We Didn't Know

If some of the difficulties that the euro area was apt to encounter were anticipated in this early literature, others were not. In particular, the crisis into which Europe's monetary union descended starting in 2009 revealed not just problems with the architecture of the euro area but also significant gaps in the analytical literature.

The conventional narrative portrays Europe's problem as a crisis of fiscal

[5]It was suggested that automatic fiscal stabilizers operating at the level of the member state could substitute for fiscal federalism: instead of receiving outright fiscal transfers in bad times and providing them in good times, member states would run deficits in bad times, financing them by borrowing from their monetary-union partners, and, correspondingly, repay in good times. This assumed, of course, that the union's Excessive Deficit Procedure and Stability Pact were not interpreted so rigidly as to prevent the operation of automatic stabilizers, which seemed unlikely, and that debts were not so high and growth prospects so dismal that aspiring sovereign borrowers were not shut out of the capital markets, which was not yet something that was easy to imagine in the circumstances of the 1990s. See, however, Goldstein and Woglom (1992).

profligacy that underscores the difficulties of restraining national fiscal policies in a monetary union. An early literature, based in part on experience with the European Monetary System (the exchange rate system that preceded the euro), had argued that monetary union would enhance fiscal discipline by removing recourse to debt monetization for chronic deficit countries (Johnson 1969, Giavazzi and Pagano 1988). Recent experience, the conclusion follows, establishes the weakness of this mechanism—profligate Southern European governments were able to borrow extensively on the markets, obviating the need for money finance—and highlights the importance of statutory limits on deficits, akin to the balanced budget rules under which state governments operate in the U.S. monetary union. Accordingly, Europe has responded to the crisis by attempting to strengthen the treaty provisions governing fiscal policies in the euro area.

In fact, this conventional narrative is at best incomplete. Fiscal profligacy there certainly was. In Greece the published budget deficit for 2010 exceeded 13 percent of GDP, while the actual deficit, absent window dressing, was greater still, and the Greek government had been running large budget deficits for years. But not so the other crisis countries. Prior to the crisis, Spain and Ireland were both running budget surpluses. As late as 2008, Portugal's budget deficit was 2.7 percent of GDP, well within Stability Pact limits.[6]

In these countries, the roots of the crisis lay elsewhere, in unsustainable construction booms and bank-balance-sheet expansion and in the interaction of capital inflows with private spending. As interest rates came down following the transition to monetary union, Ireland and Spain experienced massive real estate bubbles.[7] In Ireland, the construction boom was underwritten by local banks that funded their operations by borrowing offshore. When the bubble burst, the banks were rendered insolvent and had to be rescued by the authorities, creating very

[6]The situation in Italy was not much different. These countries probably should not be let off too easily for their fiscal policies. To some extent, tax revenues were artificially boosted by real estate booms; spending decisions should not have been made on the assumption that the increased revenues were permanent. The countries in question should have been running even larger surpluses in the good times, in other words. In addition, governments were in fact incurring contingent liabilities, in the form of banking problems, that would be realized when economic conditions worsened; it would have been prudent to provision for these as well during the good times. I have more to say about this below.

[7]For more on the connections between the euro and European housing markets see Choi and Park (2012). Lane and Pels (2011) show how optimism about future growth led to capital inflows that fueled investment in real estate rather than fixed capital formation, something that did little to enhance future competitiveness or validate those expectations of favorable future growth.

large budget deficits where none had existed before.[8] In Spain, the construction boom was even more dramatic, fueled as it was not just by the Spanish banks but also by foreign funds flowing directly into vacation-home purchases. At the peak, a remarkable 13 percent of the Spanish workforce was employed in construction. Thus, when the bubble burst, it first widened the budget deficit by dragging down economic growth and only later punched holes in bank balance sheets, creating additional fiscal obligations for the authorities.

In Portugal the housing boom was more muted, but corporate spending and indebtedness rose dramatically, as firms feeling pressure from Chinese competition (Portugal and China's product mix overlapping significantly) borrowed abroad at cheap interest rates in the effort to update their technology and expand their capacity. In the short run, the additional spending stimulated economic growth and artificially augmented government revenues. But external indebtedness could not rise without limit, and borrowing without structural reform failed to enhance international competitiveness. When Portugal experienced a sudden stop in capital inflows in 2008, first growth and then the fiscal position came crashing down.

This experience has four important implications for the analytic literature. First, monetary union does not guarantee convergence. Official rhetoric had suggested that, with the benefit of hard money, the euro area's low income countries would be able to catch up to its economic leaders. Although the transition to the euro and the accompanying decline in interest rates gave a temporary boost to growth in the euro-area periphery, we now know that this was not sustainable. Growth requires investment and institutional reform. Eichengreen and Ghironi (2003) showed that any tendency for low-income EU members to attract that investment and catch up to the economic and technological leaders was conditional on their first putting strong policies and institutions in place.[9] In practice, much of the additional external finance now available to members of the euro area periphery financed

[8]The problem was accentuated by the insistence of Ireland's European Union partners and the ECB that the government should guarantee bank obligations not just to retail depositors but to wholesale creditors, notably foreign bondholders.

[9]"…our results suggest that the variability of growth rates among the members of a monetary union, expanded to include the members of the 2000 Accession Group, will be limited to historically tolerable levels only if the members of this group achieve significant improvements in the quality of political and economic institutions. If institutional upgrading is slow, then growth will stagnate, placing considerable strains on the common monetary policy, given that it is variations in growth rates around potential that are associated with inflation and with political pressure for policy adjustments. On the other hand, if institutions are quickly upgraded to EU levels, then the dispersion of growth rates will fall even in the short run, reducing the strains on monetary policy."

consumption spending and property investment, not fixed capital formation. The good times it made possible reduced the perceived urgency of structural reform. Evidence of convergence was therefore illusory. Looking across the entire period of 1999-2008, Christodoulakis (2009) shows that the correlation between initial per capita incomes and subsequent economic growth was insignificant. Indeed, to the extent that there was any correlation at all, it was weakly positive.

Second, the early literature tended to underestimate the potential for destabilizing capital flows.[10] With the transition to monetary union there was a tendency for capital to flow toward countries where, for a variety of reasons, not all good, interest rates had been higher. Demand being strong, these countries experienced relatively high inflation and growing competitiveness problems, leading to the inevitable sudden stop.

Foster, Vasardani, and Ca'Zorzi (2011) document the growth of intra-euro-area capital flows through 2007 and their sudden stop thereafter. Christodoulakis (2009) notes how the enormous current account imbalances (average 1999-2007 surpluses of 7 percent of GDP in Finland and -7 percent of GDP in Greece) financed by these intra-euro-area flows were not anticipated by early observers, although they created unease in some quarters by the middle of the decade (see e.g., Blanchard 2006). The problem was that there was no consensus about whether these were "good imbalances" driven by unexploited investment and growth opportunities in the recipient economies or "bad imbalances" driven by domestic distortions, including bubbly asset markets and unrealistic expectations of future growth. With the benefit of hindsight, Zemanek, Belke, and Schabl (2009) and Berger and Nitsch (2010) document the tendency for intra-euro-area capital to flow toward the countries where domestic distortions are most severe and structural reforms are least. But hindsight is 20/20.

While these observations are important, what to do about them is unclear. In principle, countries on the receiving end of large inflows should tighten fiscal policy, putting downward pressure on local interest rates, making the carry trade less attractive, and limiting the impact on spending, inflation, and asset markets. They should tighten supervision and regulation of their banks and financial markets in order to prevent foreign funding from fueling leverage and risk taking. In

[10]This was something that had been emphasized by Walters (1990) in the context of the European Monetary System, but the point was not well understood. See however the discussion in Mongelli and Wyplosz (2008).

practice, however, national responses may not be adequate. Adjusting fiscal policy in response to capital inflows is challenging politically, and the good times made possible by the free availability of foreign funding may only discourage the belief that policy adjustments are urgent.

Multilateral surveillance may therefore be required. Foster, Vasardani, and Ca'Zorzi (2011) conclude that large capital flows within a monetary union may "warrant closer monitoring," although they provide no specifics. Dullien and Schwarzer (2009) argue that the Stability Pact needs to be extended to address current account imbalances and feature penalties for violators. In late 2011 Europe took a small step in this direction by adopting a so-called "six pack" of governance reforms which gave the European Commission new powers to monitor competitive positions, external imbalances, and asset-market conditions. When one or more of these "early warning indicators" flash red, they will trigger an in-depth study by the Commission but they will not automatically trigger economic sanctions and fines as suggested by Dullien and Schwarzer.

A third lesson not anticipated by the earlier literature is the need for bank supervision and regulation at the level of the monetary union. It is perhaps not surprising that this point was neglected by early contributors to the literature on optimum currency areas since they wrote in a period when banks were tightly regulated and cross-border banking was limited. But today, in Europe as elsewhere, cross-border bank-intermediated flows are enormous. This creates a number of problems for decentralized supervision and regulation that are especially pronounced in the context of monetary union. First, national regulators may not adequately take into account the external impact of their policies. French and German supervisors, for example, may not have adequately internalized the impact on the incentives facing the Greek government of allowing French and German banks to load up on Greek bonds. Ironically, this is an obvious implication of the cherished EU principle of subsidiarity: that responsibility for a policy should devolve to a lower level of government only when cross-border spillovers between that government and others are second order.[11]

Similarly, when things go wrong with one country's banks, the resulting problems are powerfully transmitted to other countries' banking systems through, inter alia, an interbank market that spans national borders. Thus, no sooner did Irish banks

[11]Ironically because, despite the fact that cross-border spillovers of supervision and regulation were clearly of first-order importance, regulatory authority remained principally at the level of national governments. There are now signs that this will change. Better late than never, one might say.

experience solvency problems than questions arose about the condition of other European banks that had lent to them on the interbank market.

In addition, a monetary union needs a common deposit-insurance system to prevent governments with distressed financial institutions from using deposit insurance to attract funding from their neighbors with beggar-thy-neighbor effects.[12] To the extent that the common deposit-insurance scheme was funded at the level of the euro area, moreover, sovereign debt problems that raised questions about the ability of a government to make good on its commitment to provide insurance would not trigger bank runs.

Finally, there is the need for a bank resolution authority at the level of the monetary union. With the removal of currency risk and expansion of capital flows, there will be a tendency for banks in some members of the monetary union to grow large—too large for their governments, acting alone, to easily resolve when the need arises. This creates the argument for a resolution authority at the level of the monetary union with funding adequate for the task, which in turn reinforces the need for supervision and regulation at that same level to address moral-hazard concerns. The alternative would be the renationalization of banking systems and strict controls on cross-border bank lending and borrowing, but this would be incompatible with the goals of monetary union.

The common implication of these observations is that monetary integration requires the pooling of national prerogatives regarding not just monetary policy but financial policy as well. Countries have to be prepared to cede not just their monetary autonomy but also their financial autonomy—their right to supervise and regulate national banking and financial systems as they see fit. The problem is that control of the banking and financial system is a cherished national prerogative, one that is valued almost as highly as national control of monetary policy itself. European countries, for their part, were clearly unaware that they were signing up for this when they signed up for monetary integration.

Then there is the fact that adequately funding a common resolution authority will be costly. It will require national governments to make significant contributions to the resolution fund. In the European context these have been estimated to exceed €1 trillion (Munchau 2012). It is not obvious that European governments will be

[12]The famous instance of this occurred in October 2008, when Ireland moved to guarantee all of the retail deposits of its banks without limit, a step that Germany first denounced as attempting to attract deposits at the expense of other euro-area banks and when Berlin then committing to similarly stand behind all its retail deposits.

prepared to pay these costs. The alternative would be to greatly downsize the banks. But, again, this does not seem to be in the political cards.

The challenges of funding a resolution authority at the level of the euro area are indicative of the broader challenges of organizing the fiscal function in a monetary union. That this is no easy task is the fourth lesson of recent European experience. Consider the question of how to fund an adequate emergency financing facility. The government of a monetary-union member can get into financial trouble for reasons other than problems with its banks, Greece being the poster child for the problem in question.[13] European experience suggests that members of a monetary union will have to be prepared to provide emergency funding to the government of a member deemed solvent but temporarily denied market access. In early 2012, when there were fears that the Spanish and Italian governments might soon be in this position, other euro area governments committed some €700 billion for this purpose in the form of actual and contingent funding to the European Financial Stability Facility and European Stability Mechanism. Whether even such sums would be enough to deal with the loss of market access by a country the size of Italy is dubious, however. And whether European governments would be prepared to commit still larger sums is equally unclear.

It would of course be possible, in principle, to turn to the International Monetary Fund (IMF) for emergency liquidity, as was done in the cases of Greece, Portugal, and Ireland in 2010-11. Apart from the fact that IMF resources are themselves limited even in the wake of the commitments made in the spring of 2012 to augment the institution's funding, there is the question of how to organize IMF assistance to the member of a regional monetary arrangement. In its initial arrangements with euro-area countries, there was a tendency for the Fund to defer to the judgments and priorities of the European Commission, representing the interests of other European countries, and the European Central Bank in providing two-thirds of the funding for these programs. But this exposed the IMF to criticism that it was not adequately prioritizing the interests of its shareholders and of the global community. Goldstein (2011) has suggested that the IMF should therefore only participate in programs where it provides the majority of the funding and therefore can demand control of the associated conditionality. But this implies the need for yet further increases in IMF financial resources over and above those

[13]Though, as emphasized above, banking problems in fact played a disproportionate role in the recent European crisis.

agreed in early 2012.

Indeed, the difficulties of arranging IMF assistance to a member of a monetary union are conceptual as well as financial.[14] The policies of a member of a currency area will not simply be determined at the national level. If the preceding arguments are correct, this point applies not just to monetary policy but to fiscal and financial policies as well. Conceivably, some of the policy adjustments that the Fund would require as a condition for supporting a government would bring the country in question into conflict with its obligations to its monetary union partners. In effect, the IMF would then have to obtain agreement to its conditions not just with the crisis country but with the other members and institutions of the monetary union as well.[15]

Finally, there is the question of what to do about sovereign insolvency in the context of monetary union. One option, eventually implemented in the case of Greece, is sovereign debt restructuring. Restructuring should presumably be done by the country in question in consultation with its monetary union partners, given that the cross-border repercussions of such a step are likely to be magnified by the deep economic and financial linkages encouraged by monetary integration.

But Greece is a small country; it accounted for little more than 2 percent of euro area GDP at the time of its restructuring. Doubts about whether the repercussions of a restructuring by a much larger country, such as Spain or Italy, could be as easily contained might cause Europe, in their cases, to hesitate to go down this road. This in turn has given rise to discussions of so-called "Eurobonds," schemes under which the members of the euro area would jointly assume responsibility for some or all of their individual government debts as an alternative to a disruptive restructuring.[16] Outstanding debt stocks are, of course, a large multiple of flow deficits. Pooling those obligations or even a substantial fraction of them therefore implies a very large potential liability for individual member states. Whether they will display the political solidarity necessary to take this momentous step remains to be seen—as do the implications for the viability of Europe's monetary union if they decline to do so.

[14]For more on these issues see Henning (2011).
[15]The difficulties and challenges of organizing IMF consultations with the euro area and its members are well-known; see for example Pisani-Ferry, Sapir, and Wolff (2011).
[16]See for example von Weizsacker and Delpha (2010) and European Commission (2011).

IV. Implications for Asia

The implications of these observations for Asian monetary integration may already be evident, but it is still worth making them explicit.

First, it is important to be sure that the preconditions for a smoothly-functioning monetary union are met before moving to a regional currency. Put in more technical terms, it is reckless to place too much faith in the endogeneity of the optimum currency area criteria. Although some types of business-cycle disturbances, such as those related to trade, may grow more symmetric with monetary integration, others, such as those related to financial flows, may grow less so. Labor market flexibility, whether in the form of the mobility of workers or the adjustment of wages, will not automatically rise to compensate for the absence of the exchange rate as an instrument of adjustment. Crises may force the pace of these changes (as in the case of labor-market reforms in Europe at present) but at a high price.

The same point applies to the convergence of economic structures and levels of economic development. There is no guarantee that monetary integration will accelerate the pace of convergence. Insofar as divergence reflects domestic distortions, monetary integration may only amplify their effects, resulting in yet more divergence, in an illustration of the theory of the second best. If monetary union requires a certain uniformity of economic structures and levels of development in order to operate smoothly, then it is important that such uniformity be achieved before moving to a regional currency instead of assuming that it can be achieved thereafter.

The same point arises yet again in the case of fiscal discipline. Whether member states would display adequate fiscal discipline was an issue in Europe's monetary union from the start. The idea that this would occur endogenously once recourse to money finance of budget deficits was removed has been shown to be false. The idea that market discipline would then force fiscal balance has similarly been shown to be false, given that market discipline is erratic. But the notion that fiscal discipline could be imposed from outside in the form of rules or treaty obligations at the level of the monetary union has fared no better. Sovereign states are reluctant to give their monetary-union partners veto power over their fiscal policies and generally find ways around such rules and treaty obligations, as European states did in the first decade of the euro. If there is going to be fiscal discipline, in other words, it will have to be grown at home. It will have to be the result of self-imposed fiscal rules (embedded, where necessary, in the national constitution) and budgetary arrangements conducive to fiscal stability (enhancing the agenda-setting power of the prime minister or finance minister and establishing national fiscal councils).[17] In Europe, here too, much-needed progress is now being made in this direction in response to the crisis. The lesson of that experience is that it is better for the relevant institutional and procedural reform to precede the move to monetary union rather than for it to be forced by a crisis.

A second implication of European experience is that Asia should only consider monetary unification if it is also prepared to see unification of financial supervision and regulation. It should contemplate passing responsibility for the conduct of monetary policy to a supranational regional central bank only if it is also prepared to pass responsibility for supervision of its banks and financial markets to a supranational regulatory authority. A single currency and integrated financial market together with a set of separate national regulators, none of whom adequately take into account the implications of cross-border financial spillovers within the monetary union, is a recipe for disaster. Agreeing to transfer supervisory and regulatory authority to a supranational authority is likely to be an even higher hurdle to overcome in Asia, where governments have long used banks as instruments of their industrial and development policies and adjusted regulatory policies accordingly.

A third implication is that problems of state insolvency and illiquidity can arise. It follows that moving to monetary union without adequate institutional and financial preparation for these contingencies can result in very serious problems. In fact we didn't need Europe's example to realize that such problems can occur in monetary unions: in the U.S. monetary union, cities and counties have repeatedly found themselves unable to make good on their financial obligations. But the differences in the U.S. are two. First, municipalities and counties are small relative to the economy of the states of which they are a part; thus it is not especially challenging for the state government to step in and assume the liabilities of the defaulter if it so chooses. The euro area, in contrast, is made up of a smaller number of larger units, so averting default by one implies a larger financial burden for the others. The same would be true of Asia.

Second, U.S. federal law provides a bankruptcy code with a Chapter 9 under which municipal and county governments can undergo bankruptcy reorganization. No analogous orderly bankruptcy option exists for sovereign states, whether or not

[17]As discussed in von Hagen and Harden (1994) and Wyplosz (2011).

they are members of a monetary union, leaving only the default option (as it were). This would almost certainly be true of Asia, where sovereign states would be reluctant to turn over their economic fate to a supranational bankruptcy authority.

All this means that Asian countries will have to put in place a large pool of funds, along with mechanisms for disbursing them, to deal with the possibility that countries may experience a temporary loss of market access. Here the Chiang Mai Initiative Multilateralization (CMIM) is an important first step. European experience suggests, however, that the requisite financial pool will have to be much larger in the context of monetary union. In any case, the participants in the CMIM have yet to demonstrate that they have in place viable mechanisms for actually disbursing funds; they have not yet demonstrated their ability to disburse them, in other words. Relying on the International Monetary Fund to impose the necessary policy conditionality and take the disbursal decision is a conceivable response but not one that is likely to be especially appealing or viable in Asia.

A fourth implication is that so long as financial supervision and fiscal policy remain less than fully centralized, close surveillance of capital flows within the monetary union will be required. In the first decade of the euro, large capital flows from Northern Europe financed very large current account deficits and, depending on the case in question, unsustainable government budget deficits and private-sector building booms in Southern Europe, with disastrous consequences when they unwound. With benefit of hindsight we can now say that the countries on both the sending and receiving ends of those flows should have taken earlier action to correct them using changes in fiscal and regulatory policies, and that the European Commission and ECB should have issued louder early warnings. As noted above, EU surveillance has now been extended to encompass such matters. The question is whether Asian countries would welcome or accept comparable outside surveillance of cross-border financial flows and capital accounts. China, for one, has not exactly welcomed surveillance of its international accounts and exchange rate by the International Monetary Fund. Whether prospective members of an Asian monetary union would accept firm surveillance of these variables by inter alia the ASEAN+3 Monetary and Research Office (AMRO), recently established in conjunction with the Chiang Mai Initiative Multilateralization, remains to be seen. Doing so would be another important precondition for moving to monetary union.

A common feature of these initiatives is that they will require a high level of political solidarity. That brings us back to the first implication for Asia, emphasized at the beginning of this section, having to do with the unrealism and dangers of assuming that monetary integration will produce the necessary political integration. This is what European leaders assumed, and it is not clear that their assumption will be proven correct. Some (e.g. Rachman 2012) argue, to the contrary, that the euro's crisis is driving European countries apart and destroying whatever limited political solidarity that the continent has managed to achieve. And even if political solidarity and deeper political integration ultimately result from the crisis, Europe will have paid a very high price for their achievement. For Asia, this means that the political solidarity needs to precede monetary unification, not follow it.

All this suggests that for Asia, monetary unification should be regarded at best as a very long run goal. At worst—in the absence of economic and institutional convergence and political solidarity so extensive as to be unrealistic—that goal may be unattainable. This is not news; the point has been made by many earlier authors.[18] Europe's experience simply serves to underscore the word "very" where it precedes "long run goal" and to question whether the preconditions can, in fact, be realistically met.

Is this negative evaluation of the prospects for Asian monetary integration an overreaction? Does it amount to throwing out the baby with the bathwater? If by monetary integration is meant the further elaboration of swap lines and credits along the lines of the Chiang Mai Initiative Multilateralization, then the case in favor still stands. If by monetary integration one means more extensive cooperation in the region in the conduct of monetary policy, then the case has if anything been strengthened by recent evidence that the cross-border spillovers of national monetary policies are of first-order importance.[19] If one means measures to foster the more extensive use of Asian currencies (rather than the dollar) in intra-Asian transactions, then the case for additional such initiatives along the lines of the China-Japan agreement of December 2011 should still be viewed as desirable. But if by monetary integration one means establishing a full-fledged monetary union with a single regional currency and central bank, then recent European experience suggests that Asia should think twice.

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[18]I cannot help but cite Eichengreen (2007).

[19]The power of such spillovers having motivated complaints in Asia about loose monetary policies in the United States and Europe (the so-called "currency war" problem).

References

Ahn, Changmo, Hong-Bum Kim and Dongkoo Chang (2006), "Is East Asia Fit for Optimum Currency Area? An Economic Assessment of the Feasibility of a Higher Degree of Monetary Cooperation in East Asia," *The Developing Economies* XIV, pp.288-305.

Alogoskoufis, George and Ronald Smith (1991), "The Phillips Curve, the Persistence of Inflation and the Lucas Critique: Evidence from Exchange Rate Regimes," *American Economic Review* 81, pp.1254-1275.

Anderton, Robert and Ray Barrell (1995), "The ERM and Structural Change in European Labor Markets," *Weltwirtschaftliches Archiv* 135, pp.47-66.

Artis, Michael and Paul Omerod (1991), "Is There an 'EMS Effect' in European Labour Markets?" CEPR Discussion Paper no. 598 (December).

Bayoumi, Tamim and Barry Eichengreen (1993), "Shocking Aspects of European Monetary Integration," in Francisco Torres and Francesco Giavazzi (eds), *Adjustment and Growth in the European Monetary Union*, Cambridge: Cambrige University Press, pp.193-229.

Bayoumi, Tamim and Barry Eichengreen (1994), "One Money or Many? Analyzing the Prospects for Monetary Unification in Various Parts of the World," Princeton Studies in International Finance no.76, International Finance Section, Department of Economics, Princeton University (September).

Bayoumi, Tamim and Alun Thomas (1995), "Relative Prices and Economic Adjustment in the United States and the European Union: A Real Story about EMU," IMF Staff Papers 42, pp.108-133.

Berger, Helge and Volker Nitsch (2010), "The Euro's Effect on Trade Imbalances," IMF Working Paper no. 10/226 (October).

Bertola, Guiseppe (2010), "Labor Markets in EMU: What Has Changed and What Needs to Change," in Marco Buti, Servaas Deroose, Vitor Gaspar and Joao Nogueira Martins (eds), *The Euro: The First Decade*, Cambridge: Cambridge University Press, pp.715-758.

Blanchard, Olivier (2006), "Current Account Deficits in Rich Countries," Mundell-Fleming Lecture, Washington, D.C.: International Monetary Fund.

Blanchard, Olivier and Lawrence Katz (1997), "Regional Evolutions," *Brookings Papers on Economic Activity* 1, pp.1-75.

Choi, Changkyu and Kyungsun Park (2012), "Does the Euro Increase Foreign Direct Investment in the Real Estate Industry? Evidence from the German Case," *Journal of European Real Estate Research* 5:1, np.

Christodoulakis, Nikos (2009), "Ten Years of EMU: Convergence, Divergence and Economic Policies," Hellenic Observatory Paper no. 22, London School of Economics (January).

Dullien, Sebastian and Daniela Schwartzer (2009), "The EMU Needs a Stability Pact for

Intra-Regional Current Account Imbalances," *SWP Comments*.
Eichengreen, Barry (1993), "Labor Markets and European Monetary Integration," in Paul Masson and Mark Taylor (eds), *Policy Issues in the Operation of Currency Areas*, Cambridge: Cambridge University Press, pp.130-162.
Eichengreen, Barry (2007), "The Misguided Dream of Asian Monetary Union," *Global Asia* 2, pp.90-99.
Eichengreen, Barry (2010), "Imbalances in the Euro Area," unpublished manuscript, University of California, Berkeley (November).
Eichengreen, Barry and Fabio Ghironi (2003), "EMU in 2010," in Marco Buti and Andre Sapir (eds), *EMU and Economic Policy in Europe: The Challenge of the Early Years*, Cheltenham: Edward Elgar, pp.381-408.
Eichengreen, Barry and Charles Wyplosz (1998), "The Stability Pact: More than a Minor Nuisance?" *Economic Policy* 13, pp.65-113.
European Commission (2011), "Green Paper on the Feasibility of Introducing Stability Bonds," Brussels: European Commission (November).
Foster, Katrin, Melina Vasardani and Michele Ca'Zorzi (2011), "Euro Area Cross-Border Financial Flows and the Global Financial Crisis," ECB Occasional Paper no. 126 (July).
Frankel, Jeffrey and Andrew Rose (1997), "Is EMU More Justifiable Ex Post than Ex Ante?" *European Economic Review* 41, pp.753-760.
Giavazzi, Francesco and Marco Pagano (1988), "The Advantage of Tying One's Hands: EMS Discipline and Central Bank Credibility," *European Economic Review* 32, pp.1055-1075.
Giavazzi, Francesco and Luigi Spaventa (2010), "Why the Current Account Matters in a Monetary Union: Lessons from the Financial Crisis in the Euro Area," CEPR Discussion Paper no.8008 (September).
Goldstein, Morris (2011), "The Role of the IMF in a Reformed International Monetary System," paper presented to the Bank of Korea conference on the Future of the International Financial Architecture (27-28 May).
Goldstein, Morris and Geoffrey Woglom (1992), "Market-Based Fiscal Discipline in Monetary Unions: Evidence from the U.S. Municipal Bond Market," in Matthew Canzoneri, Vittorio Grilli and Paul Masson (eds), *Establishing a Central Bank: Issues in Europe and Lessons from the US*, Cambridge: Cambridge University Press, pp.228-260.
Goto, Junichi and Koichi Hamada (1994), "Economic Preconditions for Asian Monetary Integration," in Takatoshi Ito and Anne Krueger (eds), Macroeconomic Linkage: Savings, Exchange Rates and Capital Flows, Chicago: University of Chicago Press, pp.359-388.
Hamada, Koichi, Beate Reszat and Ulrich Volz (2009), "Introduction: Prospects for Monetary and Financial Integration in East Asia: Dreams and Dilemmas," in Koichi Hamada, Beate Reszat and Ulrich Volz (eds), *Towards Monetary and Financial Integration in East Asia*, Cheltenham: Edward Elgar, pp.1-9.

Henning, C. Randall (2011), “Coordinating Regional and Multilateral Financial Institutions,” Working Paper no.11-09, Washington, D.C.: Peterson Institute for International Economics (March).

Johnson, Harry (1969), “The Case for Flexible Exchange Rates, 1969,” *Federal Reserve Bank of St. Louis Review*, June, pp.12-24.

Kenen, Peter (1969), “The Theory of Optimum Currency Areas: An Eclectic View,” in Robert Mundell and Alexander Swoboda (eds), *Monetary Problems of the International Economy*, Chicago: University of Chicago Press, pp.41-60.

Kwack, Sung Yeung (2004), “An Optimum Currency Area in East Asia: Feasibility, Coordination and Leadership Role,” *Journal of Asian Economics* 15, pp.153-169.

Lane, Philip and Barbara Pels (2011), “Current Account Imbalances in Europe,” unpublished manuscript, University College, Dublin and UBS (November).

Mauro, Paulo and Antonio Spillimbergo (1998), “How Do the Skilled and Unskilled Respond to ReMgional Shocks? Evidence from Spain,” IMF Working Paper no.WP98/77 (May).

Mitchener, Kris and Ian McLean (2003), “The Productivity of US States Since 1880,” *Journal of Economic Growth* 8, pp.73-114.

Mongelli, Francesco Paulo and Charles Wyplosz (2008), “The Euro at Ten: Unfulfilled Threats and Unexpected Challenges,” unpublished manuscript, European Central Bank and Graduate Institute of International Studies, Geneva (December).

Munchau, Wolfgang (2012), “The Sadly Unpalatable Solution for the Eurozone,” *Financial Times* (22 April), www.ft.com.

Mundell, Robert (1961), “A Theory of Optimum Currency Areas,” *American Economic Review* 51, pp.657-665.

Obstfeld, Maurice (1997), “Europe’s Gamble,” *Brookings Papers on Economic Activity* 2, pp.241-316.

Obstfeld, Maurice and Giovanni Peri (1998), “Regional Nonadjustment and Fiscal Policy: Lessons for EMU,” CIDER Working Paper no.C98-096, Department of Economics, University of California, Berkeley (March).

Pisani-Ferry, Jean, Andre Sapir and Guntram Wolff (2011), Bruegel Blueprint no.XIV, Brussels: Bruegel.

Sala-i-Martin, Xavier and Jeffrey Sachs (1993), “Fiscal Federalism and Optimum Currency Areas: Evidence for Europe,” in Matthew Canzoneri, Vittorio Grilli and Paul Masson (eds), *Establishing a Central Bank: Issues in Europe and Lessons from the US*, Cambridge: Cambridge University Press, pp.195-220.

Von Hagen, Juergen (1992), “Fiscal Arrangements in a Monetary Union: Evidence from the US,” in D.E. Fair and C. de Boissieu (eds), Fiscal Policy, *Taxation and the Financial System in an Increasingly Integrated Europe*, Dordrecht: Kluwer Academic Publishers, pp.337-359.

Von Hagen, Juergen and Ian Harden (1994), “National Budget Processes and Fiscal Performance,” *European Economy Reports and Studies* 3, pp.311-408.

Von Weizsacker, Jacob and Jacques Delpha (2010), “The Blue Bonds Proposal,” Bruegel Policy Brief 2010/03, Brussels: Bruegel (May).

Walters, Alan (1990), *Sterling in Danger*, London: Fontana.

Wyplosz, Charles (2011), "Fiscal Discipline: Rules Rather than Institutions," National Institute Economic Review 217, pp.19-30.

Zemanek, Holger, Ansgar Belke and Gunther Schnabl (2009), "Current Account Imbalances and Structural Adjustment in the Euro Area: How to Rebalance Competitiveness," Policy Paper no.7, IZA Bonn (April).

Zoellick, Robert (2012), "A Blueprint for Germany to Save the Eurozone," *Financial Times* (24 January) www.ft.com.