

European Monetary Integration with Benefit of Hindsight

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Abstract

The year 2009 saw a series of events celebrating the first decade of Europe's monetary union. Within a year, however, the eurozone descended into the most serious crisis in its short history. The question posed in this article is whether scholarly analysis of European monetary integration was deficient in ways that led observers to miss impending problems. The answer given here is that the standard analysis was broadly on the mark, although it missed the need for effective oversight of banking and financial systems at the level of the monetary union and underemphasized political economy considerations.

Introduction

With benefit of hindsight – that is to say, with full knowledge of the sovereign debt crisis that erupted in Greece in 2010 and quickly infected much of the European periphery – it is tempting to assert that the monetary integration project leading to the creation of the euro was a mistake (see, for example, Krugman, 2009). One also hears more nuanced critiques that the mistake was to opt for a large monetary union including relatively poor countries like Portugal and Greece. In both cases, however, hindsight is 20/20. More interesting is the question of why more analysts did not see the problem coming. Was the standard economic analysis of European monetary integration deficient in ways that discouraged economists from issuing louder warnings? Equally important is why the mechanisms that European Union (EU) Member States put in place to address the risks that they did, in fact, perceive proved inadequate for containing them. Finally, there is the question of what steps now must be taken to resolve the crisis and whether the EU has the wherewithal to take them.

I. Making Monetary Union

From the start, the basic analytical approach used to analyze the operation of European monetary union (EMU) was the theory of optimum currency areas (Mundell, 1961). Mundell's framework pointed to different aggregate supply and demand disturbances to different regions sharing a common currency as the main challenge to a smoothly functioning monetary union. It pointed to labour mobility – the relocation of workers from high- to low-unemployment regions – as a key adjustment mechanism. Kenen (1969) added fiscal institutions for the transfer of resources from booming to depressed regions as a further adjustment mechanism that might compensate for the absence of an independent monetary policy.

From the early 1960s, when Mundell wrote his seminal article, through the late 1960s and the discussions that led up to issuance of the Werner Report, Europe's early if abortive

attempt to move to monetary union, and the early 1990s, when European monetary integration came onto the front burner with the Delors Report and the Maastricht Treaty, there were nearly three decades in which to incorporate these insights into economic and policy analysis. The points made by Mundell, Kenen and their followers were, by then, familiar to anyone who had taken a first course in international economics. However, the impact on policy-making was limited by the fact that the literature focused almost entirely on analytical constructs. There were few efforts to apply it to actual or prospective monetary unions like the one about to be constructed in Europe.

The most influential economic studies in the 1990s were therefore those that sought to put empirical flesh on these theoretical bones. The dominant approach involved documenting the operation of these mechanisms in an existing monetary union like the United States and marshalling some evidence that their operation was weaker in Europe, and likely to remain so.¹ Blanchard and Katz (1992) documented the importance of inter-regional labour mobility at business cycle frequencies in the United States. Sala-i-Martin and Sachs (1992) showed that the federal tax and transfer system offset as much as 40 per cent of idiosyncratic shocks to disposable incomes in American states. That these effects were large did not mean that European monetary integration was unworkable, but the observation did raise questions about how Europe would compensate for the weakness of the standard adjustment mechanisms: whether anti-cyclical borrowing at the national level would be enough to compensate for the absence of fiscal federalism, and whether wage flexibility could be expected to compensate for the absence of labour mobility.

Bayoumi and Eichengreen (1993) did the same for asymmetric shocks.² They used structural vector autoregressions – essentially regressions of GDP growth and inflation on their own lagged values together with assumptions about adding up constraints and the presence or absence of contemporaneous effects – to distinguish shocks with a temporary positive impact on output and permanent positive impact on prices (aggregate demand shocks) from shocks with a permanent negative impact on output and positive impact on prices (aggregate supply shocks). They implemented their model using data for EU Member States and American census regions, obtaining two findings, neither entirely unexpected. First, disturbances tended to be more asymmetric across EU members than American regions. Second, this evidence of greater dispersion of disturbances disappeared when the sample was limited to ‘core Europe’ – to Germany, France, the Benelux countries and Denmark. This pointed to the desirability of a relatively small monetary union that did not encompass southern Europe, the United Kingdom and Ireland – regions where shocks were less symmetric and the suitability of a one-size-fits-all monetary policy was more dubious.

Informed by these studies, subsequent discussion and analysis proceeded on the assumption that monetary union would be limited to core Europe – at the outset at least. The ‘convergence criteria’ of the Maastricht Treaty, which specified limits on the deficits,

¹ There were also some attempts to draw inferences about the operation of a prospective European monetary union (EMU) from historical experience with earlier unions, whether the American economic and monetary union in the 19th century or the Latin and Scandinavian monetary unions. Elsewhere I have argued that Europe’s experience is in fact quite different from these ‘precedents’, which either involved a qualitatively greater commitment to political integration (as in the case of the United States) or a qualitatively lesser commitment to monetary integration (which in the cases of the Latin and Scandinavian unions extended only to the inter-circulation of coins) and that these historical comparisons are therefore likely to mislead.

² Spawning a large subsequent literature, a recent example of which is Broz (2010).

debts and inflation, interest and exchange rates that EU Member States would have to satisfy to qualify for membership (as well as specifying certain institutional reforms, such as making their national central banks independent), were seen as filters to ensure the desired selectivity. The first unanticipated consequence of the monetary unification process thus occurred even before the single currency was created: the decision was taken to include not just the members of the European core (defined by this time to include Austria, France, Finland, Germany and the Benelux countries, but not Denmark, which had opted out) but also Italy, Ireland, Portugal and Spain. Greece was then added at the beginning of 2001.

This is not an outcome that has been adequately explained in the subsequent literature. Political scientists point to the desire, in France in particular, to avoid a monetary union in which Germany wielded disproportionate power; surrounding it, Gulliver-like, with a collection of smaller members was one way of tying it down. In terms of the economics, fortuitous circumstances strengthening growth and budgets Europe-wide³ may have prevented the Maastricht Treaty's deficit and inflation criteria from playing their intended roles. Italy and Greece used creative accounting to window dress their fiscal accounts (although this observation does not explain why their EU partners allowed them to get away with it). That Belgium, otherwise a member of the European core with a strong claim to admission, had a high debt ratio made it difficult to apply the Maastricht debt criterion in order to keep out other heavily indebted countries. The fact that in the EU decisions like that to go ahead with monetary unification are taken by consensus allowed countries that feared being left behind to credibly threaten to hold up the process (although here the question is why their agreement could not have been secured, in traditional European fashion, through the extension of side-payments and concessions in other areas). Most important, perhaps, was the ability of countries with chronic debt, deficit and inflation problems to disguise them through temporary and unsustainable fiscal and monetary tightening during the short period centred on 1997 when the admission decision was made on the basis of contemporaneous economic outcomes.

Another aspect deserving more attention is why countries like Portugal and Greece, where economic conditions, and therefore appropriate policies, were not well aligned with those in core Europe, were so intent on adopting the euro. Herz and Kotios (2000) offer three answers. First, the euro and its constraints were seen as a useful source of external discipline on the country's own erratic policies. With benefit of hindsight, one can say that this belief that fiscal discipline could be outsourced was more than a little naïve. It imputed a degree of efficiency to financial markets and to the EU's Stability and Growth Pact that neither in fact possessed. The incentive to pursue policies of restraint turned out to be stronger at the stage when the membership decision was not yet taken than when the country had gained admission, especially since Maastricht and subsequent treaties made no provision for an incumbent member of the eurozone being expelled subsequently.

Second, there was the desire to avoid being consigned to second-class status within the EU as more economic policy decisions were taken at the level of the eurozone. However, while this may plausibly explain why some countries were anxious for membership, it does not confront the fact that others (Denmark, for example) did not display the same anxiety.

³ Issing (2008) cites declining oil prices.

Third, there was the belief that adopting the euro would hasten convergence: that Member States where per capita incomes and labour productivity were low would catch up faster with the single currency. Adopting the euro would eliminate the erratic monetary policies that had been an obstacle to catch-up growth in the past. Lower transactions costs and less policy uncertainty would attract foreign investment, boosting capital formation and hastening technology transfer. Lower transactions costs Europe-wide would enable local firms to better exploit economies of scale and scope. The incentive to invest in structural reforms would be sharpened since countries that failed to reform would lose out in the competition for footloose factors of production.

II. From Congratulation to Crisis

There also were, or at least should have been, questions about all this optimism. Eichengreen and Ghironi (2003), analyzing a cross-section of countries, showed that convergence was to be expected only among economies with relatively strong institutions. This was consistent with Barro and Sala-i-Martin's (1992) earlier identification of 'convergence clubs' – a finding which similarly suggested that convergence was conditional. And national institutions being deeply rooted in national history, there was little reason to expect sharp changes over short periods. The existence of localized increasing returns – agglomeration economies from locating different advanced activities complementary to one another in the same local economy – suggested that the country that started out ahead might in fact widen its lead with economic and monetary integration (Krugman, 1993).⁴ For all these reasons, different levels of institutional strength between, say, Greece and Germany, suggested the further divergences in growth performance, raising doubts about the suitability of a common monetary policy.

The optimistic case was predicated on the notion that institutions and policies, where they had fallen short, would be upgraded in response to the more intense competition for resources brought about by the euro. Labour and product market reform there was in the 1990s and after the turn of the century, but it occurred throughout the Organisation for Economic Co-operation and Development; there is little evidence of faster progress in the eurozone (Mayes and Viren, 2009).⁵

It was hard to know therefore how to interpret the post-1999 flow of capital within the eurozone from high to low per capita income and productivity countries. Blanchard and Giavazzi (2002) noted early on that while savings–investment correlations fell sharply with the advent of the euro, there existed two quite different interpretations of the associated intra-eurozone imbalances. The positive interpretation was that investment finance was flowing to the low-income countries of the eurozone periphery because they were the economies with the most scope for rapid productivity growth. The negative interpretation in contrast saw capital as flowing toward problem countries riddled by domestic distortions – bubble-driven asset booms, excessive budget deficits and unrealistic expectations of future growth – and resulting in excessive levels of public- and

⁴ Consistent with this hypothesis, Barrell *et al.* (2010) find a positive impact of the adoption of the euro on productivity growth in the high-income countries of core Europe, but no impact on other lower-income members of the eurozone.

⁵ Bertola (2008) limits his comparisons to EMU and non-EMU EU countries and finds mixed support for the hypothesis: more extensive labour market reform along some dimensions and less extensive labour market reform along other dimensions in EMU countries.

private-sector consumption, rather than the putative investment boom. Alan Walters (1986) had warned of this possibility long before the advent of monetary union: he pointed to the danger that the low-income countries of the European periphery with relatively high inflation rates but now suddenly the same nominal interest rates as their high-income partners would 'enjoy' relatively low real interest rates, giving them every incentive to borrow, whether for reasons good or bad.

In fact, already a decade ago there were a number of disturbing anomalies that, with benefit of hindsight, should have attracted more attention. First, there was little rise in investment rates at the eurozone periphery. There was little evidence that the investment rate had become a more strongly increasing function of the per capita income gap. Second, when that rise in investment eventually came, much of it took the form of residential construction, which did little to enhance productivity growth. Third, already in 2002 there were signs of real exchange rate appreciation and real overvaluation at the eurozone periphery. There were signs, in other words, that differential inflation rates exceeded what could be explained by the Balassa-Samuelson effect (the tendency for the prices of nontraded goods to rise more rapidly in fast-growing catch-up economies and hence for the overall inflation rate to be higher). Fourth, saving seemed to decline in the countries of the eurozone periphery more rapidly than could be explained by the positive wealth effect of lower interest rates and the positive income effects of faster growth due to the freer availability of foreign finance.⁶

With hindsight, we are led to ask: why was more attention not paid to these warning signs? Part of the answer is that, so long as they lasted, these capital flows were profitable for the borrowers and lenders alike. The German banks undertaking much of the lending booked substantial profits, while the Greek government, Irish banks and Spanish real estate developers doing the borrowing were similarly able to live high on the hog. If the process could create problems, well, these would occur on someone else's watch.

More perplexing is why academic and other analysts failed to sound louder warnings. Part of the answer here is the subliminal tendency to go along with the market consensus; nonconformity is costly. Then there is the intrinsic difficulty of distinguishing good and bad imbalances. The same debate about whether the American current account deficit in the decade leading up to 2006 was a good imbalance driven by the attractive investment opportunities associated with information and the productivity miracle, or a bad imbalance reflecting chronic budget deficits and asset-market distortions prevailed in the United States. We now appreciate that there was some justification for both views: while the information technology revolution in the United States was real, so was the real-estate bubble.

Even now, after the fact, there remains deep disagreement about how to apportion those deficits into their 'good' and 'bad' components.⁷ Will the history books revise downward earlier estimates of the effects of the productivity revolution in the United States, given that much of it was concentrated in finance (along with, it should be acknowledged, retail and wholesale trade), where much of the growth in 'output' was unsustainable and the gains proved illusory? Is it not the case that retrospective analyses that now attach considerable importance to global imbalances as a factor in the financial crisis, or at least

⁶ The four points are elaborated in Eichengreen (2010).

⁷ To invoke the language of Blanchard and Milesi-Ferretti (2009, p. 1 *et seq.*).

see imbalances and the crisis as products of common causes (making imbalances the canary in the coalmine), suggest that policy-makers should have leaned against them earlier and harder? That a task is difficult does not give policy-makers dispensation to ignore it. Policy-makers have reluctantly come around to this view when it comes to asset-price bubbles: while these may be hard to identify, this does not mean that they can be treated with benign neglect. The same logic applies to imbalances, whether we mean global imbalances or intra-European imbalances.

III. Fiscal, Financial and Monetary Rules

That the eurozone periphery ultimately descended into a full-blown sovereign debt crisis is seen, in the consensus view, as *prima facie* evidence of the inadequacy of the EU's Stability and Growth Pact. The nature of those failures is understood; again the only mystery is why they were not better anticipated. Even before the transition to the euro, Eichengreen and Wyplosz (1998) observed that there were multiple reasons to doubt that the pact would be enforced. Collegial EU leaders were unlikely to impose embarrassing sanctions on one another. Sanctioning other countries was unappealing insofar as it raised the possibility that one's own country might be in the position of incurring similar sanctions in the future. When France and Germany violated the 3 per cent deficit ratio in 2003 and used their political leverage in the Council to prevent the application of sanctions, it became correspondingly more difficult to argue that the provisions they had eluded should be applied to other countries. The economics pointed in the same direction as the politics: actually imposing the 2 per cent of GDP fines provided for by the pact would only aggravate the financial problems of a heavily indebted government and provoke the very debt crisis that the mechanism was designed to avert.

Recent events suggest that the pact's focus on fiscal imbalances to the exclusion of imbalances in the rest of the economy was part of the problem. To be sure, in the Greek case chronic budget deficits were at the root of the crisis. All that is surprising in retrospect is the ease with which pre-2010 Greek governments succeeded in disguising their severity (also see Featherstone, 2011). Elsewhere in the eurozone periphery, however, budgets had been in balance or even surplus before the crisis. Imbalances were concentrated in the private sector. The Irish, Portuguese and Spanish private sectors had all embarked on debt-financed spending binges. In some cases like Ireland, much of this spending was on residential and commercial real estate, while in others like Portugal it was on current consumption; Spain fell between these extremes. The additional spending was financed by domestic banks that leveraged up their balance sheets by borrowing from banks in the eurozone core. The result was not only financial fragility, but also a loss of international competitiveness as the spending boom drove up wages and costs relative to those prevailing in, *inter alia*, Germany. When the bubble burst in the real estate market and more generally, it punched a hole in the balance sheets of the banks, which in turn punched a hole in the balance sheets of governments. Financial problems created the fiscal imbalances, rather than the fiscal imbalances creating financial problems as was assumed by the architects of the Stability and Growth Pact.

National and EU leaders have now set out to reform the pact in light of these deficiencies. Their so-called 'Euro-Plus Pact' ('Euro-Plus' because the signatories include not just the members of the eurozone, but also Denmark, Poland, Latvia, Lithuania,

Bulgaria and Romania) extends surveillance by the European Commission from budget deficits per se to the determinants of international competitiveness more broadly: the evolution of unit labour costs, the behaviour of labour productivity, hiring and firing costs, the structure and funding of pension schemes and labour force participation rates (see European Council, 2011). Closer co-ordination and more effective oversight of fiscal policies are to be fostered by synchronizing budgetary proposals and policies across Member States (by adopting the so-called 'European semester'). The difficulty of getting the Member States comprising the Council to validate a recommendation by the Commission will be ameliorated though not eliminated by now requiring a vote by a qualified majority of members to overturn the Commission rather than, as before, requiring a qualified majority to activate its recommendation.

This last change waters down an earlier proposal that recommendations issued by the Commission should be allowed to come into force automatically, creating doubts that it will be enough. Some critics, including those who anticipate the need to issue Eurobonds, emphasize the need for further measures through which the EU can limit the deficits of Member States and force corrective action. On the other side, a growing chorus of voices suggests that European fiscal problems can only be solved at the national level, not by EU-level surveillance. The literature (for example, Hallerberg *et al.*, 2009) points to independent fiscal councils, hierarchical budgeting procedures that give agenda-setting and veto powers to the prime minister or finance minister, and contractual rules, like those setting numerical targets and mandating balanced budgets, as approaches to achieving improved fiscal outcomes at the national level.⁸

Where the pact remains strangely silent is on the surveillance of banking systems. The single most important explanation for the debt crisis in Ireland and Spain is that the public sector had large contingent liabilities in the banking sector. When the bubble burst and the banks collapsed, those liabilities came onto the government's balance sheet – the banks being too big and connected to fail. This revealed the contradiction between a single currency and single financial market, on the one hand, and 17 separate national bank regulators, on the other. National regulators at neither the lending nor the borrowing ends of intra-eurozone imbalances had adequate incentive to take the cross-border implications of lax domestic regulation into account, while the region's informal mechanisms for doing so (the Committee of European Banking Supervisors, CEBS) proved not to be up to the task.

Where cross-jurisdiction externalities are extensive, the standard recommendation is to assign responsibility for policy to a centralized authority whose domain encompasses all the relevant jurisdictions and which therefore has an incentive to internalize the spillovers in question.⁹ However, bank regulation being a sensitive national prerogative, the EU has stopped short of this. It has created a European Banking Authority (EBA) headquartered in London and charged with preventing regulatory arbitrage, strengthening supervisory co-ordination among national agencies and promoting supervisory harmonization ('supervisory convergence', in the EU's more politically correct language). Whether the new authority will be given more actual authority than its predecessor, the CEBS, to compel the sharing of information and adoption of regulatory practices at the national level that

⁸ See also Lane (2010) and Calmfors and Wren-Lewis (2011) for a flavour of the literature and debate.

⁹ On this and other possible responses, see Neito and Schinasi (2007).

ensure the internalization of important cross-border externalities remains to be seen. A further challenge for the EBA, in addition to imposing its will on national regulators, will be to co-ordinate with a European Commission with powerful regulatory capacity of its own. Not only will the Commission's financial directives and current efforts to encourage 'maximum harmonization' of capital standards within the EU have implications for the EBA, but the decisions of the EBA will have implications for the Commission's policies toward the Stability and Growth Pact, given the powerful implications of developments in the banking system for the fiscal balance.

Just as the crisis raised questions about the conduct of fiscal and financial policies in Europe, it created new challenges for the conduct of monetary policy. The European Central Bank had been created in the mold of the *Deutsche Bundesbank*. Not only was it located in Frankfurt, but its statute resembled that of the *Bundesbank*, and it had a mandate to pursue low inflation. As anticipated by Folkerts-Landau and Garber (1992), it was seen less as a bank with responsibility for lending to and otherwise supporting the operation of the financial system than the embodiment of a monetary rule – the rule in question being that the money supply should be regulated so as to ensure low and stable inflation. Folkerts-Landau and Garber argued that the ECB would be able to single-mindedly focus on price stability only if Europe agreed to repress the financial system – and securitization markets in particular. Otherwise the central bank would be dragged into the provision of emergency liquidity, participating in the payments system and supervising key parts of the financial system.

The global crisis of 2008 and the European debt crisis of 2010 proved Folkerts-Landau and Garber correct. European policy-makers had elected not to suppress the development of securitized markets in corporate obligations, bank liabilities, repurchase agreements, derivative instruments and mortgage products. They failed to acknowledge the incompatibility of their chosen path to financial development with their original conception of the ECB. Following the failure of the investment bank Lehman Brothers in 2008, the ECB was forced to engage in a wide range of unconventional interventions all designed to provide emergency liquidity to securitized markets.¹⁰ Important banks, in Ireland for example, having issued securitized obligations and relying on the wholesale money market to fund their investments, had to turn to the ECB for emergency funding. As Europe's banking crisis morphed into a sovereign debt crisis, the ECB was forced to purchase the government bonds of the crisis countries in order to prevent sovereign spreads from exploding and crises from becoming self-fulfilling.

One response would be to say that unprecedented interventions are undesirable: the ECB's emergency assistance creates moral hazard for banks and governments, which in turn encourages more reckless behaviour. Assigning responsibility for financial stability to the central bank creates potential conflicts with its mandate to maintain price stability. It is too late now to clamp down on securitization; the genie is out of the bottle. The idea of creating 'public utility' banks has not proven viable even in places like the United Kingdom where the idea has formidable intellectual champions (see, for example, Kay, 2009; King, 2009). It may be possible to limit the range of circumstances under which the

¹⁰ Between 2007 and 2008, the share of asset-backed securities in the collateral accepted by the Eurosystem (the ECB together with participating national central banks) rose from 16 to 28 per cent of the total, while the share of non-marketable assets rose from 10 to 12 per cent (Bini-Smaghi, 2009).

ECB is forced to engage in unconventional operations by creating alternative mechanisms for providing emergency assistance to governments in financial distress (see below), but the central bank will inevitably remain the source of emergency liquidity to the banking and payments system. As such, it will always have to be involved in supervision and regulation. Notwithstanding calls that the ECB should ‘get back to basics’, it will remain more than a monetary rule.

IV. Crisis Management

The other important step of EU officials and national leaders was to create a European Stability Mechanism (ESM) – a supranational institution established by international treaty – to deal with the problem debts of sovereigns.¹¹ Creation of the ESM, which is to come into operation in 2013 (and to take the place of the temporary mechanism, the European Financial Stability Facility, EFSF, that will operate in the meantime), reflected a belated realization that the development of unsustainable debts could not always be prevented. Nor could their resolution simply be delegated to the markets. The decision to go ahead with the ESM reflected a recognition that it was undesirable for the ECB to constantly be placed in the position of policy-maker of last resort – for it to have to purchase the debt of financially troubled governments because there was no other way of containing and resolving their problems.

The ESM is charged with undertaking a ‘rigorous analysis’ of the sustainability of the troubled sovereign’s debts. Where it determines that the position is not sustainable, it will then declare that those debts have to be restructured. Where the problem is, instead, simply one of delayed adjustment and the sovereign needs temporary assistance, the ESM will provide a bridge loan, subject to conditions, presumably in conjunction with the International Monetary Fund (IMF) which spearheaded the negotiation of conditionality and provided a third of the funding for the Greek and Irish rescues of 2010 (the EFSF providing the other two-thirds). To facilitate restructuring where this is needed, starting in 2013 all new bonds issued by eurozone sovereigns will be required to include renegotiation-friendly collective actual clauses specifying that only a majority of bondholders have to accept the terms of a restructuring in order for the offer to go through, as opposed to requiring bondholder unanimity, as in most cases at present (European Council, 2011, pp. 31–2).

What a debt restructuring would mean for the eurozone and its financial system would depend on the condition of Europe’s banks. Until the Greek crisis forced their hand, ECB officials and national leaders resisted the restructuring option for fear of what this would do to the balance sheets of weak European financial institutions. This is of course the same reason why seven years had to pass between the eruption of the Latin American debt crisis in 1982 and the first Brady Plan restructurings of sovereign debt in 1989; money-centre banks had to be given time to strengthen their balance sheets sufficiently to absorb the mark-to-market costs of restructuring. It is why even when the decision to restructure the Greek government’s debt was finally taken in the summer of 2011, the debt relief afforded

¹¹ This section focuses on longer-run crisis resolution arrangements rather than current events and policy responses. Those events and responses are in flux, and any analysis of them is apt to quickly become dated. A link to the ESM treaty is at Commission (2011).

the country was limited and losses to the banks were more cosmetic than real.¹² Officials today, like their predecessors in the 1980s, may be hoping that with sufficient time weak European banks can be recapitalized by stealth. The question is whether, given the crushing debt burdens and growing popular unrest in the crisis countries, the banks will have sufficient time.

The alternative is using government budgets to inject public funds into weak banks or engineering the merger or absorption of weaker by stronger institutions. The interesting question, from a political economy standpoint, is why the German government (many of the problem banks in question being German) finds it even more difficult to sell its constituents on the idea that taxpayer money should be used to recapitalize the country's own banks than to bail out Greece and Ireland. One suspects that this peculiar state of affairs reflects internal divisions over burden sharing. There is disagreement within Germany over who exactly should pay to recapitalize the *landesbanken*, regionally organized state-owned banks that concentrate on wholesale banking and are invested in the government bonds of the countries of the eurozone periphery: the regional or federal authorities. In the absence of agreement, the dispute plays out as a war of attrition. This in turn prevents the EU from dealing rationally with the crisis countries' unsustainable debts.

A further assumption underlying the structure of the ESM is that decisions concerning emergency assistance will be based on rules rather than discretion. In order to counter the pressure that politicians regularly feel to provide a bail-out as a way of playing for time and avoiding the difficulties surrounding restructuring, economic models will be used to determine the sustainability of a government's debts, and when sustainability problems are indicated, the ESM will be barred from lending except when private investors participate in the subsequent restructuring by accepting the necessity of a 'haircut' (a debt write-down). The problem is, of course, that there will always be less than full agreement on the model. Calculating debt sustainability requires forecasts on future rates of economic growth, future interest rates and future primary government surpluses or deficits, and considerable uncertainty inevitably surrounds such forecasts. If there are political incentives to put off restructuring, the temptation to invoke rosy scenarios may be irresistible. And the idea that the ESM will be rules-based will turn out to be a mirage.

Then there is the problem that requiring the addition of collective-action clauses to all new bonds issued by eurozone governments may only make it more difficult for the crisis countries to wean themselves off official assistance and re-enter the market. Contractual provisions that make it easier to restructure increase the perceived likelihood on the part of investors that heavily indebted countries will, in fact, restructure, making it harder for those countries to borrow. Research on the impact on sovereign bond spreads of collective-action clauses (which have been included by tradition in most international bonds issued in London and governed by English law) suggests that while they may reduce borrowing costs for lightly indebted countries unlikely to have to restructure for reasons of their own making, they raise borrowing costs for heavily indebted countries already near the brink of default (see Eichengreen and Mody, 2003). The implication is that for this aspect of the ESM design to go forward it would first be necessary to clear away the crisis countries' unsustainable debts.

¹² For a detailed accounting, see Allen *et al.* (2011).

Finally, there is the question of whether ESM funding is adequate. Initially, European leaders agreed that the ESM should be endowed with €80 billion in capital, of which €40 billion would be due in 2013 with the remainder to be phased in over the following three years. This would have added €11 billion to the German government's budget in 2013 and was resisted by parliamentarians there who wanted to deliver a tax cut to their constituents in advance of that year's general election. The compromise offered by German Chancellor Merkel was to stretch out the contribution over five years.

€80 billion is, in any case, a relatively modest sum in the present context – hardly enough to fund the EU's contribution to the Greek or Irish rescue. EU leaders recognized that an effective emergency financing facility would have to have more resources at its disposal, while at the same time acknowledging that it would be impossible to get these past domestic parliaments and taxpayers. The solution was to endow the ESM with €700 billion of total capital, where in addition to the €80 billion actually paid in there would be €620 billion of 'callable capital', which the fund will be able to ask shareholders to provide as needed.

The problem with callable capital is that the more Member States that require ESM assistance and hence the greater the need to call capital, the fewer states will be in a position to provide it. Countries whose sovereign bonds have AAA ratings will only have to provide guarantees for ESM borrowing, while countries with lower rating would have to put up additional cash. This could transform the ESM into a transmission belt for contagion: one country having to resort to the mechanism would heighten the likelihood of other countries also in a marginal financial position having to put up cash, weakening their own budgetary positions and heightening doubts about the sustainability of their own debts. A solution to this problem would be to fully capitalize the ESM before such doubts arise. Alternatively, countries with impeccable financial credentials could be relied on to fund the mechanism. Once again, however, domestic politics is the obstacle to effective collective action.

Conclusions

The year 2009 saw a series of events celebrating the first decade of Europe's monetary union.¹³ However, within a year the eurozone descended into the most serious crisis in its short history, making it significantly harder to maintain that the project was a success. The question posed in this article is whether scholarly analysis of European monetary integration was deficient in ways that led observers to miss impending problems. I would argue, to the contrary, that the standard economic analysis was on the mark. The theory of optimum currency areas pointed to reasons why monetary union was likely to work less smoothly in Europe than in, say, the United States. Labour mobility was less and likely to remain so for linguistic and cultural reasons. Fiscal federalism at the level of the EU was underdeveloped and likely to remain so for political reasons. The EU budget was small and dedicated disproportionately to agriculture and infrastructure; there was strong resistance in high-income countries like Germany to what was disparagingly referred to as 'transfer union'. Business cycle disturbances affecting different European countries were more idiosyncratic than those felt

¹³ Such as the conference published subsequently as Buti *et al.* (2010).

by different census regions in the United States, underscoring the potential problems with a one-size-fits-all monetary policy. All of these observations were borne out by subsequent events.

The literature also highlighted reasons why the eurozone's mechanism for ensuring fiscal balance – the Stability and Growth Pact – was unlikely to be effective (see, for example, Heipertz and Verdun, 2010). It pointed to the importance of instead prioritizing statutory and procedural reform at the national level. This was, in fact, the approach taken to the conduct of monetary policy: the Maastricht Treaty required governments to enhance the independence of their national central banks prior to their becoming part of the Eurosystem. That nothing analogous was done for fiscal policy should have been a warning sign.

Where the standard analysis fell short was in failing to highlight the need for effective oversight of banking and financial systems at the level of the monetary union. Folkerts-Landau and Garber had noted the connection, but their point received little emphasis in the subsequent literature. Perhaps this was because the structure and regulation of the banking system did not figure in early influential contributions to the literature on optimum currency areas. Perhaps it reflected the belief, in more inflation-phobic European countries in particular, that the ECB should be conceived more like a monetary rule than a market maker and liquidity provider of last resort. Perhaps it reflected the more general failure of macroeconomists to adequately incorporate banking and finance into their models, something of which we have been reminded at considerable cost by the global financial crisis.

The other place where the standard analysis fell short was in helping us to understand the politics of monetary union. There was the fateful decision in 1998 to go for wide monetary union, followed by the decision to admit Greece, where in both cases economic analysis would have pointed to taking the opposite decision. While the literature on the domestic and international politics of EMU, summarized by Sadeh and Verdun (2009), takes us some way toward understanding these outcomes, important unanswered questions remain. Now there are the complex politics of crisis management, which involves hard bargaining between European governments, their domestic constituents, the Commission, the European Banking Authority and the ECB. There is the involvement of the International Monetary Fund in crisis-resolution efforts, the solicitation of financial assistance from countries like China and Brazil, and the unsolicited advice of the government of the United States. This complex game will be fodder for political scientists for years to come, whether the single currency survives or not.

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References

Allen, P., Eichengreen, B. and Evans, G. (2011) 'Europe's Plan Won't Cut Greek Debt'. *Bloomberg News*, 4 August. Available at: «<http://www.bloomberg.com>».

- Barrell, R., Holland, D., Liadze, I. and Pomeranz, O. (2010) 'The Impact of EMU on Growth in Europe'. In Buti, M., Deroose, S., Gaspar, V. and Martins, J.N. (eds).
- Barro, R. and Sala-i-Martin, X. (1992) 'Convergence'. *Journal of Political Economy*, Vol. 100, pp. 223–51.
- Bayoumi, T. and Eichengreen, B. (1993) 'Shocking Aspects of European Monetary Unification'. In Torres, F. and Giavazzi, F. (eds) *Adjustment and Growth in the European Monetary Union* (Cambridge: Cambridge University Press).
- Bertola, G. (2008) 'Labour Markets in EMU: What has Changed and What Needs to Change'. *European Economy: Economic Papers*, no. 338 (Brussels: European Commission).
- Bini-Smaghi, L. (2009) 'Conventional and Unconventional Monetary Policy'. Speech to the International Centre of Monetary and Banking Studies, Geneva, 28 April.
- Blanchard, O. and Giavazzi, F. (2002) 'Current Account Deficits in the Euro Area: The End of the Feldstein-Horioka Puzzle'. *Brookings Papers on Economic Activity*, Vol. 2, pp. 148–86.
- Blanchard, O. and Katz, L. (1992) 'Regional Evolutions'. *Brookings Papers on Economic Activity*, Vol. 2, pp. 1–75.
- Blanchard, O. and Milesi-Ferretti, G.M. (2009) 'Global Imbalances: In Midstream?' Available at: <<http://www.imf.org>>.
- Broz, T. (2010) 'The Impact of Demand and Supply Shocks from EMU on Business Cycles of Central and Eastern European Economies'. Unpublished manuscript, Institute of Economics, Zagreb.
- Buti, M., Deroose, S., Gaspar, V. and Martins, J.N. (eds) (2010) *The Euro: The First Decade* (Cambridge: Cambridge University Press).
- Calmfors, L. and Wren-Lewis, S. (2011) 'What Should Fiscal Councils Do?' Working Paper 3382 (Munich: CES-Ifo).
- Commission of the European Communities (2011) 'Treaty Establishing the European Stability Mechanism Signed'. Available at: <<http://www.europa.eu>>.
- Eichengreen, B. (2010) 'Imbalances in the Euro Area'. Unpublished manuscript, University of California, Berkeley.
- Eichengreen, B. and Ghironi, F. (2003) 'EMU in 2010'. In Buti, M. and Sapir, A. (eds) *EMU and Economic Policy in Europe: The Challenge of the First Two Years* (Cheltenham: Edward Elgar).
- Eichengreen, B. and Mody, A. (2003) 'Do Collective Action Clauses Raise Borrowing Costs?' *Economic Journal*, Vol. 114, pp. 247–64.
- Eichengreen, B. and Wyplosz, C. (1998) 'The Stability Pact: More than a Minor Nuisance?' *Economic Policy*, Vol. 26, pp. 65–114.
- European Council (2011) 'Conclusions'. EUCO 10/1/11, Rev 1, 24–5 March.
- Featherstone, K. (2011) 'The Greek Sovereign Debt Crisis and EMU: A Failing State in a Skewed Regime'. *JCMS*, Vol. 49, No. 2, pp. 193–217.
- Folkerts-Landau, D. and Garber, P. (1992) 'The ECB: A Bank or a Monetary Policy Rule'. In Canzoneri, M., Grilli, V. and Masson, P. (eds) *Establishing a Central Bank: Issues in Europe and Lessons from the US* (Cambridge: Cambridge University Press).
- Hallerberg, M., Strauch, R. and Hagen, J. von (2009) *Fiscal Governance in Europe* (Cambridge: Cambridge University Press).
- Heipertz, M. and Verdun, A. (2010) *Ruling Europe: The Politics of the Stability and Growth Pact* (Cambridge: Cambridge University Press).
- Herz, B. and Kotios, A. (2000) 'Coming Home to Europe: Greece and the Euro'. *Intereconomics*, July/August, pp. 170–6.
- Issing, O. (2008) *The Birth of the Euro* (Cambridge: Cambridge University Press).

- Kay, J. (2009) 'Narrow Banking: The Reform of Bank Regulation'. Available at: «<http://www.johnkay.com>».
- Kenen, P. (1969) 'The Theory of Optimum Currency Areas: An Eclectic View'. In Mundell, R. and Swoboda, A. (eds) *Monetary Problems of the World Economy* (Chicago, IL: University of Chicago Press).
- King, M. (2009) 'Speech to Scottish Business Organisations', 20 October.
- Krugman, P. (1993) 'Lessons of Massachusetts for EMU'. In Torres, F. and Giavazzi, F. (eds) *Adjustment and Growth in the European Monetary Union* (Cambridge: Cambridge University Press).
- Krugman, P. (2009) 'A Continent Adrift'. *New York Times*, 16 March.
- Lane, P. (2010) 'Rethinking National Fiscal Policies in Europe'. *Vox EU*, 17 June.
- Mayes, D. and Viren, M. (2009) 'Ten Years of European Monetary Union'. Unpublished manuscript, University of Auckland and Bank of Finland.
- Mundell, R. (1961) 'A Theory of Optimum Currency Areas'. *American Economic Review*, Vol. 51, pp. 657–65.
- Neito, M.J. and Schinasi, G. (2007) 'EU Framework for Safeguarding Financial Stability: Toward an Analytic Framework for Benchmarking its Effectiveness'. Working Paper 07/260 (Washington, DC: International Monetary Fund).
- Sadeh, T. and Verdun, A. (2009) 'Explaining Europe's Monetary Union: A Survey of the Literature'. *International Studies Review*, Vol. 11, pp. 277–301.
- Sala-i-Martin, X. and Sachs, J. (1992) 'Fiscal Federalism and Optimum Currency Areas: Evidence for Europe from the United States'. In Canzoneri, M., Grilli, V. and Masson, P. (eds) *Establishing a Central Bank: Issues in Europe and Lessons from the US* (Cambridge: Cambridge University Press).
- Walters, A. (1986) *Britain's Economic Renaissance* (New York: Oxford University Press).