

The Crisis and the Euro

Barry Eichengreen
University of California, Berkeley

April 2009

1. Introduction

When fire breaks out in an apartment house, one quickly learns who is prepared to run into the burning building to rescue the infirm and who runs out in order to avoid being singed by the sparks. The great credit crisis of 2008-9 is just such a character-revealing crisis for the euro area and its members. It is revealing of which member states are prepared to run in and which, if any, are contemplating running out. It has provided new information on the effectiveness of the European Central Bank (ECB) as financial fire brigade -- as liquidity-provider and lender of last resort. And it has taught us important lessons about whether the residents of this particular neighborhood are really solidarity minded or simply watching out for their own.

In addition, the crisis has highlighted long-standing criticisms of the architecture of this particular residential complex. The debate over the advisability of establishing the single currency has been rekindled by suggestions that monetary union was responsible for or, at a minimum, aggravated the crisis. Observers have been prompted to ask, with more urgency than before, what kind of renovations should be undertaken to ensure the safety and stability of the edifice, including perhaps a single financial regulator to complement Europe's single market and the euro area's single currency.

2. The Role of the Euro in the Genesis of the Crisis

Most Europeans will insist that the crisis originated in other parts of the world, a position in which they have more than a little justification. The spark was struck in the United States by a housing boom and bust fueled with lax regulation and by the consequent rise and decline in the subprime mortgage market. Accelerant was provided by loose monetary policy once the Federal Reserve cut interest rates following the collapse of the Dot.com bubble and by capital flows from China and other emerging economies, reflecting their savings glut. The key mistake in responding to the crisis, the fateful decision to let Lehman Brothers to fail in October 2008, was similarly a U.S. action.

In all this Europe was a bystander. The ECB did not cut its policy rates as dramatically as the Fed at the beginning of the decade. The current account of the euro area was broadly balanced, in contrast to the chronic external deficit of the United States. While there were isolated failures of European financial institutions such as Dexia and Fortis, none had an impact as disruptive as that of Lehman Brothers.

All this said, the idea that this was an American originated and distributed crisis is too easy. European financial institutions took substantial losses on mortgage-based and related derivative securities, indicating that the shortcomings of internal controls and risk management were not exclusively an American problem. European banks as a group were even more highly leveraged than U.S. banks, so when losses were incurred and deleveraging resulted, financial distress was at least as severe. How the leverage ratios of large European financial conglomerates were allowed to rise to 50 or 60 to 1 is, in retrospect, more than a little difficult to understand. It is similarly baffling, with

hindsight, what kind of sensible business model could have allowed affiliates of Western European financial institutions make home loans, car loans and consumer loans in euros to borrowers with incomes denominated in forints.

Then there is the fact that between 1999 and 2005 housing prices in the euro area rose as strongly as in the United States, leaving them 40 per cent above their 30-year average.¹ Indeed in a number of individual euro area countries such as Ireland and Spain, the run-up was considerably faster than in the United States. In 2005 and 2006, the height of the U.S. housing boom, real residential real estate price increases were faster than in the U.S. not just in Spain and Ireland but also France and Belgium.² In a number of European countries, Ireland and Spain again being prime examples, residential construction as a component of GDP was more important than in the United States.³

Associated with these booms were sharp increases in labor costs. More generous labor compensation meant more income with which to purchase real estate. Higher wages also meant higher export prices and larger current account deficits. Where unit labor costs euro-area wide remained flat between 2000 and 2007, they rose by 13 per cent in Portugal and 15 per cent in Spain.⁴ Where the ballooning of the U.S. current account deficit to 6 per cent of GDP provoked widespread alarm, current account deficits were similarly 6 per cent of GDP in Ireland and even larger elsewhere in euroland: 10 per cent in Spain, 12 per cent in Portugal and 15 per cent in Greece.⁵

¹ Thus, prices rose by a cumulative 110 per cent over the period in the euro area, versus 113 per cent in the United States (Gros 2006).

² Hilbers et al. (2008), Table 2.

³ IMF (2008), Box 3.1.

⁴ Spanish data are from Source OECD, Portuguese data from Blanchard (2006).

⁵ Given that the euro-areas current account was balanced in the aggregate, this implied corresponding surpluses in other countries, notably Germany. The tendency for current account balances to widen relative to the pre-euro era, owing in part to the removal of exchange risk within the region, had been highlighted by Blanchard and Giavazzi (2002).

Moreover, external deficits were not randomly distributed. Gros (2008) shows that the correlation in the change in housing prices and change in the current account across euro area countries in 1998-2004 was 0.8.⁶ Once the housing bubble burst and capital inflows to finance current account deficits dried up, very serious economic and financial difficulties eventuated.

And the advent of the euro played a role in the development of these excesses and imbalances. With delegation of their national monetary policies to the ECB, previously high interest rates in countries like Ireland and Spain came down – from 4 ½ per cent in Spain and 5 ½ in Ireland in 1997, when the decision on initial membership was reached, to less than 1 per cent in 1999.⁷ It was not only that inflation, driven by inertia and generous wage increases that pushed up the prices of nontradables, was higher in the Celtic and Mediterranean fringes in this period – though it was. In addition the change in the level of interest rates, which now converged to those prevailing in Germany, increased housing affordability and goosed demand. And strong demand fed back into relatively rapid increases in wages. With prices marked up over wages, higher inflation meant still lower real interest rates.

⁶ The other mechanism linking external deficits and housing prices was the greater tendency to subsidize the housing sector in countries at risk of external sector weakness, where governments sought to substitute domestic demand. Van den Noord (2004) observed that in small open European countries where the loss of competitiveness might be thought to do the most to dampen the effects of lower real interest rates, governments and regulators also allowed the highest loan to home value ratios and by extending the most generous tax subsidies for housing, stimulating the internal boom. Osborne (2005) more generally confirms that national housing market development are shaped by both monetary policy (real interest rates) and domestic regulatory policies. As they observe, the domestic impact operates not just through the direct impact on residential construction but also the indirect wealth effect on consumption. (An attempt to quantify this wealth effect for different euro area countries is Andre and Girouard 2008.) These issues have been prominent in the UK debate over adopting the euro (where one argument of the euro skeptics is that greater reliance on variable rate mortgages and higher mortgage debt ratios mean that the same monetary policy changes will have larger effects on the economy).

⁷ Where nominal interest rates are deflated by the harmonized index of consumer prices following Aherne et al. (2008).

Eventually, of course, rapid increases in wages eroded the export competitiveness. As the demand for their exports fell off, not only did the countries in question develop large external deficits but the demand for domestic merchandise softened and domestic inflation slowed. In addition countries like Ireland and Spain became magnets for immigration, which further moderated increases in labor costs.⁸

At this point, roughly the mid-point of the decade, real interest rates converged to euro area levels. While higher than before, those rates were nonetheless considerably lower than prior to the advent of monetary union. The impetus to housing demand therefore remained.⁹ And the greater the immigration, the more that impetus was reinforced.¹⁰

Rising asset prices acquire a momentum of their own, and so it was with housing prices in the catch-up economies.¹¹ This made it more urgent that tighter monetary and fiscal policies be adopted to keep the bubble from inflating further. Fiscal policy, unfortunately, was decided by politicians who knew on what side their bread was buttered. They were reluctant to remove the punchbowl. Von Hagen and Wyplosz (2008) argue that this problem of procyclical fiscal policy has diminished over time, but the experience of countries like Ireland suggests that we will now want to revisit the question.

The ECB for its part made monetary policy with euro-area-wide conditions in mind. And over the euro area as a whole, house price inflation was less alarming. The

⁸ Immigration was running at 2.5 per cent of total population in Ireland and 1.5 per cent per annum by 2005-6.

⁹ This is what was presciently warned of by van den Noord (2004).

¹⁰ The mechanism is documented by Saiz (2007).

¹¹ By the middle of the decade there were warnings of potentially dangerous vulnerabilities from authorities such as Barclay's Capital, as reported in Oxlade (2005).

conventional approach to inflation targeting advised against attempting to targeting asset prices. The strongest argument for monetary union in this context was that the UK had its own independent monetary policy, but its central bank, similarly wedded to the conventional wisdom of inflation targeting, refused to act against the bubble. The problem was not so much monetary union as it was a rigid application of the doctrine of inflation targeting, procyclical fiscal policy, and failure to use supervision and regulation to limit excesses and financial and property markets.

Even if an independent monetary policy, so framed, might not have prevented the crisis, those facing the most serious prospects of deflation following its outbreak would presumably have preferred to see the ECB cut rates even more sharply than it actually did and for it to move even more dramatically in the direction of quantitative easing. Thus, finance minister Brian Lenihan, in his April 2009 supplementary budget speech, warned that Ireland's price level was set to fall by 4 per cent in 2009. The implication was that even the ECB's very low interest rates implied high real rates for Ireland, whose residents would presumably prefer the hypothetical world where they still possessed a national currency which could fall by a third against the euro, much as the pound sterling had fallen since the outbreak of the crisis, raising import prices and thereby stemming deflationary pressures while enhancing export competitiveness.

3. Insiders Out?

Thus, the crisis of 2008/9 is precisely the kind of asymmetric shock warned of by early euro-skeptics and highlighted by the theory of optimum currency areas. Housing prices fell euro-area wide, but they fell more dramatically in some countries than others.

The crisis meant large losses for banks throughout the euro area, but it produced larger losses in some countries than others. It led to rising unemployment throughout the euro area, but more in some countries than others. The result is more deflationary pressure, actual or potential, in some euro area countries than others. It is more strains on the public finances of some euro-area countries as reflected in the widening of spreads on sovereign bonds and their associated credit default swaps.

Under these circumstances, different euro area countries would presumably prefer a different monetary policy response. But the members of the euro area are necessarily consigned to a one-size-fits-all policy, this being the nature of monetary union. This tension has revived the pre-1999 debate over whether monetary union is a good idea. It has also generated chatter and speculation about the possibility that one or more euro area countries might abandon the single currency.¹²

No doubt the temptation exists. Policy makers in the countries where domestic demand is weakest can imagine how, if they still possessed a national currency, they might push it down in order to encourage exports. Those with the most serious worries about failed government bond auctions imagine how, if they still possessed an autonomous national central bank, they might enlist it as sovereign bond purchaser of last resort.

But for each of these arguments for reintroducing the national currency, there is a counterargument. Currency depreciation would fan tensions within the European Union. The initiating country's EU partners would feel, not without justification, that it was exporting not just its merchandise but also its problems. One needs to look no further

¹² Since April of 2008, Intrade, the on line prediction market, has offered for trading a contract that pays off if any euro area country announces its intention of dropping the currency on or before December 31st, 2010. As of early April 2009, the pricing of the contract implied a 20.5 probability of this event.

than the reaction in other EU countries to the fall of sterling against the euro for evidence of this danger. More generally, the current downturn, like all downturns, has intensified the pressure for governments to support embattled domestic producers with concessional loans and subsidies. Those policies threaten Europe's signal economic achievement, the creation of a true single market in which producers in EU countries compete on an equal footing. More complaints of currency manipulation and competitive devaluation would place this achievement at risk.

Beyond that, a country that unilaterally abandoned the euro in order to steal a competitive advantage would jeopardize its status as an EU member in good standing. It would not be welcome at the table where EU policies are discussed. The Lisbon Treaty (admittedly yet to be ratified) contains a clause whereby countries can exit the European Union. But there is no clause governing exit from the euro area. The implication is that in order to quit the euro a country would have to quit the EU, thereby abrogating the entire range of treaty obligations to its fellow member states. Nothing precludes this, but given the high value that Europeans attach to their union, it is not something that a member state would contemplate lightly.

Nor is it clear that reintroducing the national currency would really make it easier for a euro-area government to manage its finances. Hallerberg and Wolff (2006) show that sovereign bond spreads (interest rates on ten year government bonds relative to the corresponding German rates) rise more quickly with budget deficits and public debt/GDP ratios in European countries that are not members of the euro area. Eichengreen (2007) documents the same greater sensitivity outside the euro area of sovereign credit ratings. Evidently investors and the rating agencies informing their decisions take comfort in the

fact the conduct of fiscal policy in the euro area is overseen by the mutual surveillance and sanctions of the Stability and Growth Pact and by the fact that the European Central Bank operates under a no-bailout rule that prohibits it from buying bonds directly from governments.

Thus, even if debts and deficits rise in the short run, investors have reason to believe that the trend will not be allowed to persist. Spreads are therefore less likely to blow out. Even if reintroducing the national currency and detaching the national central bank from the European System of Central Banks and the ECB might make it easier for a government to fund its deficit in the short run, this will come at a cost in terms of more expensive funding down the road.

And it is far from clear that greater short-run flexibility would dominate higher longer-run costs in the calculations of policy makers. Some recent commentary has suggested that if a heavily indebted euro-area country found itself forced as a result of the crisis to default on its debt, it would at the same time leave the euro area so that the government could have recourse to money financing. But insofar as the government's objective was not just to finance its immediate expenditures but also to normalize its financial relations and reestablish its good credit, the conclusion does not follow.

Abandoning the euro would only make its problems worse.

The case for reintroducing the euro is probably more compelling in Ireland, where the problem is mainly high wages, rather than Greece, where it is heavy debts. It is that with currency depreciation a grinding deflation and high unemployment can be avoided. Workers are reluctant to accept significant nominal wage reductions even in trying times. Seeing things in "After You, Alphonse" terms, they will accept reductions in money

wages only after an extended period of high unemployment that weakens the demand for their services economy wide. Here the daylight-savings-time argument for currency depreciation is compelling. The question of who goes first and concerns about relative wages are averted through rising import prices, and the rise in unemployment is limited by improved export competitiveness.

The counterargument is that countries can also engineer wage reductions by negotiating a social pact. In small countries especially, it is possible to get representatives of all the sectors around a table, as Ireland did in the 1980s. There are other ways besides currency depreciation to break the logjam, in other words.

And even if, despite all this, the temptation to exit the euro area remains, the technical barriers would be almost impossible to surmount. It would be straightforward for the parliament or congress to pass a law stating that the state and other employers would henceforth pay workers and pensioners in the new national currency. But with wages and other incomes redenominated into that national currency, it would become necessary to redenominate mortgages and credit-card debts of residents as well. Otherwise currency depreciation would have adverse balance-sheet effects for households, leading to financial distress and bankruptcies.

But with mortgages and other bank assets redenominated, bank deposits and other bank balance sheet items would have to be redenominated in order to avoid destabilizing the financial sector. With government revenues redenominated into the national currency, not just public-sector wages and pensions but also other government liabilities, notably the public debt, would have to be redenominated to prevent balance-sheet effects from damaging the government's financial position.

Technically, nothing prevents a national legislature from passing a law requiring banks, firms, households and governments to redenominate their contracts. But while domestic investors are subject to domestic law, the claims of foreign investors are another matter. “Continuity of contract” provisions mean that foreigners could demand to be paid in euros, and they would sue to enforce their claims. Unilaterally redenominating the public debt would technically be an act of default; hence leaving the euro area would not be a way of avoiding debt problems. If a government did go ahead and redenominate the claims of foreigners, its access to international financial markets would be curtailed. If chose not to, depreciation of the national currency against the euro would severely damage the public-sector balance sheet because the domestic-currency value of the external debt would rise.

Either way, this decision would require discussion. There would have to be parliamentary deliberations. Market participants would be aware that reintroduction of the national currency was being considered so that the national unit could be depreciated against the euro. They would have every incentive to act. Anticipating that domestic deposits would be redenominated into the local currency which would then lose value against the euro, they would shift their deposits to other euro-area banks. A system-wide bank run would inevitably result. Investors anticipating that their claims on the government would be redenominated into the national currency would shift into claims on other governments, leading to a bond-market crisis. If the precipitating factor was debate among parliamentarians over whether to abandon the euro, it would be unlikely that the ECB would provide lender-of-last-resort assistance. And if the government was

already in a weak fiscal position, it would not be able to borrow to bail out the banks and buy back its debt.

As I asked in Eichengreen (2007), what sensible government, invested in its own survival, would willingly court this danger? What responsible government would even moot the possibility?

Revealingly, the main cases where participants have left monetary unions are of countries that were relatively closed to trade and financial flows and when the banking and financial system was underdeveloped or tightly regulated, leaving only limited scope for capital flight when preparations were underway. The break-up of the Czech and Slovak monetary union and the break-up of the ruble zone are cases in point. The fact that there was little in the way of financial wealth, that exchange controls were still in place, and that the economy was still in the early stages of being opened to the rest of the world made it possible to deliberate without precipitating a meltdown. More generally, research by Nitsch (2004) for a large sample of cases suggests that more open economies are less likely to exit monetary unions.¹³ Clearly, the exceptional openness of EU member states with respect to trade and financial transactions of all kinds places them in this camp.

Is it inconceivable that a participating member state might leave the euro area? If the last year has taught us one thing, it is that many economic events we once thought to

¹³ Nitsch looks at trade openness rather than financial openness, but the two dimensions of openness are correlated. Among other things, trade over- and under-invoicing is an obvious conduit for disguised capital flows.

be inconceivable are not. But, if not inconceivable, we can safely say that exit from the euro area is exceedingly unlikely.¹⁴

4. Outsiders In?

Further support for the notion that the attractions of the euro have not significantly diminished is apparent in the response to the crisis in Denmark, Sweden and the Eastern European member states. These countries, despite all being euro-skeptical to some degree, appear to have concluded that coping with a financially-volatile world is easier inside than outside the euro area. Following the failure of Lehman Brothers, when the ECB cut rates and flooded the markets with liquidity, the Danish National Bank had to raise interest rates to defend the external value of the krone. By late October the Danish rate was 175 basis points above that in the euro area. In a period when an increased premium was attached to liquidity, being part of a liquid euro-area-wide market in euro-denominated bonds was clearly preferable to depending on the small, less liquid market in krone claims.

In particular, having automatic access to the emergency liquidity facilities of the ECB was attractive in a situation where small non-euro countries incur euro-denominated liabilities. On October 27, 2008 the ECB did extend a one-time E12 billion swap to Denmark to help that country defend its currency. But this kind of cooperation is not guaranteed. The only guarantee of access to the ECB's liquidity facilities is membership in the euro area. Perhaps not surprisingly, by November more than 50 per cent of

¹⁴ Observant readers will note that my assessment differs from the market consensus as represented by Intrade. Place your bets.

traditionally euro-skeptic Danes had swung around to favoring euro adoption.¹⁵ By the following spring there was the first-ever poll on adopting the euro that yielded a majority in favor in Sweden.¹⁶

Similar tendencies are evident in Eastern Europe. Hungary and Poland have both indicated that they may speed up the transition to the euro in response to the crisis.

Poland for the first time specified a target date of 2012. Hungary would have to first repay its IMF loan, of course, but there too the crisis has generated new support for the single currency.

The problem being that the convergence criteria require a country to keep its currency stable within the ERM II for two years in order to qualify for accession to the euro area. The crisis has underscored the difficulty of doing so in a volatile financial environment.¹⁷ Since the spread of the crisis to Europe in 2008, a number of Eastern European currencies, including the forint and the zloty, have fallen by as much as 30 per cent against the euro as deleveraging has caused capital inflows to reverse, exposing domestic economic and financial fault lines. Attempting to limit such depreciation to 15 per cent would be difficult in the presence of open capital markets which the candidates maintain as an obligation to the European Union's single market.¹⁸ Central banks would be setting themselves up as targets for speculators.

¹⁵ Sweden being a larger country, and having followed a policy of greater exchange-rate flexibility for some time, did not experience equally severe problems when its currency came under pressure following Lehman Brothers, but a similar change in the tenor of the debate over euro adoption was evident there. See Angus Reid (2008). Britain of course is something of a special case, having traditionally had one foot in Europe and one outside, and possessing relatively liquid financial markets of its own (by the standards of other European countries).

¹⁶ As reported in Eurointelligence (2009).

¹⁷ It has also made it more difficult for candidate countries to satisfy some of the other convergence criteria, such as those pertaining to budget deficits (3 per cent of GDP ceiling) and interest rates (long-term rates within 2 percentage points of the three euro area countries with the lowest inflation).

¹⁸ And, in some cases, as an obligation to the OECD.

The alternative would be for the Eastern European aspirants to adopt the euro unilaterally.¹⁹ Eastern European governments would benefit from removal of the exchange risk premium, while incumbent euro area members would not have to dilute their control of ECB policy by giving votes to countries that had not yet met the formal admission criteria. In addition, allowing the Central and Eastern European member states to adopt the euro would likely lower the cost to Western Europe of providing emergency financial support to the East.

In the event, the European Commission, the German Finance Ministry, and the European Central Bank have all reiterated their opposition to any bending of the Maastricht Rules. The displeasure of the ECB is significant, since it suggests that countries unilaterally adopting the euro would not receive emergency liquidity from the central bank at times of distress, vitiating the main argument for unilateral euroization. In addition, the displeasure of the Commission and the German government is significant because it suggests difficulties for countries that euroize unilaterally and then seek to graduate to full membership in the monetary union.

One would wish a more flexible response better attuned to the extent of financial distress on the part of those holding the keys to the euro area. That said, the controversy is revealing of the fact that adoption of the euro has become more attractive as a result of the crisis, not less.

5. The ECB's Policy Response

Prior to the crisis there were worries that the large size of the ECB's board and diversity of attitudes and backgrounds might prevent the institution from responding

¹⁹ As suggested by the IMF in a report leaked to the *Financial Times*, See Wagstyl (2009).

swiftly to financial events. In fact, the ECB did respond quickly, cutting rates and injecting liquidity following the eruption of the Subprime Crisis in August 2007. It then followed up with a number of unprecedented interventions in European financial markets, for example lengthening the liquidity horizon for banks by expanding the share of refinancing granted for more than two weeks. It provided euro swaps to central banks outside the euro system, including the National Bank of Denmark (as noted above) and the National Bank of Hungary. So much for the view that a board twice the size of the Federal Open Market Committee is incapable of reacting.

That said, the ECB was criticized for being slower than the Fed to cut its policy rates to near zero and to embrace quantitative easing – that is, to purchase government bonds as a substitute for being able to maintain negative policy rates, as would appear to be appropriate on the basis of a conventional Taylor rule.²⁰ One counter was that the recession was slower to come to the euro area than the United States and that it was milder on arrival; hence there was less need to simulate the effects of negative policy rates.

By 2009, however, this argument had lost its force. According to IMF forecasts 2009 growth was likely to be even weaker in Europe than in the U.S. (IMF 2009). With inflation running at zero and an output gap of 6 per cent, Taylor's parameters of 0.5 on the output gap and the deviation of inflation from target suggest that policy rates should have been in the neighborhood of -3 per cent.

The counter from defenders of the central bank's policy was that its interventions were targeted at the banking system rather than securities markets, and appropriately so given the still more heavily bank-based nature of European financial system. There was

²⁰ See for example de Grauwe (2009).

the lengthening of refinancing facilities described above. Following the failure of Lehman Brothers, the ECB granted banks unlimited liquidity at prevailing policy rates under the terms of a new “fixed-rate full allotment” tender procedure. It lengthened the list of eligible assets that banks could pledge as collateral. And it increased the number of counterparties that are eligible to take part in its refinancing operations. Given the bank-centered nature of the euro area’s financial system, it was argued that this was a more appropriate focus for central bank interventions than, *inter alia*, large-scale purchases of commercial paper, securitized student loans, securitized auto loans and other credit-market instruments of the sort that play a more important role in U.S. financial affairs and were the target of purchases by the Fed.²¹

While there is something to this point, it confuses credit easing with quantitative easing. Credit easing, as defined by Bernanke (2009), means targeted intervention to restart frozen credit and banking markets. This is the policy in which the Fed engaged between October 2008 and March 2009 and that the ECB pursued with its lengthening of refinancing facilities, broadening of the list of eligible collateral and expansion of the list of eligible counterparties. Quantitative easing, in contrast, is the policy of attempting to avoid deflation by increasing the money supply and pushing down long-term interest rates, and thereby altering expectations of future central bank policy, through the mechanism of purchasing government bonds. This is the policy to which the Fed turned in April 2009. It is appropriate when a large output gap and incipient price-level declines create the danger of deflation. The case for it is distinct from the case for targeted interventions to ensure the continued free flow of bank credit to households and firms.

²¹ A clear statement of this position is Trichet (2009).

Thus, however creative may have been the ECB's interventions in Europe's banking system, its failure to cut policy rates faster and to turn more quickly to quantitative easing remain troubling.

6. The Need for a Single Bank Regulator

As the preceding reminds us, the crisis has seen central banks extending extraordinary support to financial institutions and markets. In addition it has reinvigorated the debate over whether the lender of last resort should have more power to supervise entities that it may be compelled to support in order to align the incentives of the supervisor and the emergency lender (that is, so that the supervisor responsible for detecting potential problems is on the hook in the event that it fails to head them off) and to ensure that the lender of last resort has access to the relevant facts. In the UK the run on Northern Rock showed how information gaps and misunderstandings can develop when one agency is responsible for supervision and another for emergency lending. In the U.S. the crisis has laid bare the problems that can arise when responsibility is dispersed among multiple supervisors, allowing financial conglomerates to shop for the most permissive regulator and preventing any one regulator from seeing the entire picture. In turn this has given rise to calls for reorganizing the supervisory architecture by creating a single supervisor, where the leading candidate is the Fed.

The contradictions of the existing architecture are clearly visible in the European Union, where banks chartered in one member state receive a passport permitting them to do business throughout the single market but supervision and regulation remain national competences. The "home-host" principle makes the home-country supervisor responsible

for supervision of the institutions they license, including their foreign branches and their direct cross-border provision of banking services. But home-country supervisors presumably take decisions with the home country in mind, whereas the cross-border repercussions of their decisions are widespread. A bank licensed to do business in one member state can take deposits from throughout the area. Generous deposit insurance provisions in one member state may have a negative impact on bank balance sheets in other member states, as became apparent in the wake of Ireland's decision to grant unlimited deposit insurance coverage to deposits in domestic banks. Insofar as banks lend across borders, loan losses resulting from lax regulation may have negative spillovers onto neighboring countries, as we saw in Eastern Europe in 2008-9. There do not appear to have been instances where the ECB failed to provide emergency credits promptly owing to a failure to acquire information from the regulatory authorities (the Northern Rock problem), but one can imagine how in principle this problem could arise in a system of multiple national regulators passing information first to their national central banks which then pass it on to the ECB. This problem is especially acute in countries like Germany and Austria where national supervisory authorities are not part of the central bank and appear to be reluctant to deliver information on their own institutions directly to European authorities for reasons of confidentiality.²² One can also imagine free riding and confusion when a bank operates both in the UK and the euro area, rendering it unclear precisely who is its last-resort lender.

These issues are not new, although the urgency now attached to resolving them is. The EU Financial Services Action Plan (FSAP) of 1999 established minimum standards for supervisors and regulators. The European Commission's White Paper on financial

²² As noted by Bini-Smaghi (2009b).

services regulation, produced in December 2005 and designed to provide a blueprint for the next five years, ruled out the idea of a single European regulator. Instead it advocated relying on three so-called Level 2 committees of regulators established in 2001-4 to promote the harmonization of national regulations and advise the European Commission on directives: the Committee of European Securities Regulators (CESR), the Committee of European Banking Supervisors (CEBS), and the Committee of European Insurance and Occupational Pension Supervisors (CEIOPS).²³

But despite having been around for some years, these three committees did not prevent gaps in directives (which failed to adequately cover inter alia off-balance sheet activities) or the uneven implementation of EU directives by national authorities. More recently, the de Larosiere Committee (2009) suggested creating a European System of Financial Supervision, still building on the three committees but replacing existing members with full-time independent professionals. These independent professionals, it is argued, would not come under pressure from the financial sector and other special interests to moderate efforts to coordinate the application of existing supervisory standards and encourage cooperation among supervisors.

Even then, however, the banking, securities market and insurance supervisors would not possess a comprehensive picture of the operation of large financial conglomerates operating in all three sectors. There has been movement at the national level within EU member states toward centralizing supervision across sectors; 15 of 27 member states now have a fully integrated single supervisor in place. Why this should be optimal at the national but not the EU level is unclear.

²³ The Lamfalussey Framework distinguishes four levels of cooperation: a Level 1 of promulgating agreed core principles of EU legislation, a Level 2 of directives and regulations, a Level 3 of the implementation of EU legislation at the national level, and a Level 4 of enforcement by the European Commission.

Then there are the problems associated with decentralized implementation. National authorities would still be responsible for the actual supervision, and there would still be the incentive for permissive application as a way of attracting additional activity to the domestic market. For example, the incentive to attract institutions to the domestic market by allowing them to pile on excessive leverage and rely on off-balance-sheet transactions would remain.²⁴

For dealing with the special challenges posed by large cross-border institutions, the EU seeks to bring together the supervisors of the countries in which they operate into “colleges.” According to the CEBS, the purpose of these colleges is to facilitate the exchange of information and views, dovetail supervisory reviews so as to avoid duplication of effort, and coordinate the decisions of the national authorities. The committee has published a template for memoranda of agreement governing the operation of individual colleges.²⁵ Participation in these colleges should enable national supervisors to acquire a more complete profile of the risk profile of the institutions with which they are concerned, assuming that participants in fact reveal what they know. But the incentive problems that may cause national supervisors, still possessing considerable discretion, to hesitate before acting will not be altered by the existence of these colleges. And the establishment of colleges would be feasible only for the largest institutions.

Finally, the de Larosiere Committee has recommended the creation of a European Systemic Risk Council (ESRC) to be chaired by the president of the ECB. The ESRC would pool and analyze all information relevant to systemic risk. This seems eminently

²⁴ Another potential problem is that financial conglomerates increasingly operate in multiple domains: banking, securities underwriting, and insurance alike. This creates an argument for a single regulator not merely across national markets but also across financial functions. Thus, Alistair Darling has recommended merging the three committees.

²⁵ See CEBS (2009).

sensible given how Europe possesses a single financial system. But it is also revealing of the fault lines within the EU. Thus, where the de Larosiere Committee recommended that the ESRC be chaired by the president of the ECB, British Chancellor of the Exchequer Alistair Darling suggested that the ECB and national central banks, not least the Bank of England, should be equally represented on the new body, which should report to the European Council rather than the European Central Bank.

This leads to the fundamental question. The argument that a single financial market requires harmonized regulation to eliminate scope for regulatory arbitrage and free riding is compelling. But harmonization at what level: the euro area or the European Union? Those who see the key issue as harmonized crisis management and emergency liquidity provision will favor harmonization at the level of the euro area.²⁶ Those who see it as harmonized core rules and supervision for banks operating with a single passport will emphasize harmonization or centralization at the level of the single market. These are differences that can be resolved only when the domain of the single market and the single currency are the same. That the borders of the two arrangements do not coincide is a long-standing fact of European life. The crisis has placed it in bold relief.

That conflict becomes even more stark if one concedes that regulatory harmonization through, *inter alia*, the three Level 2 committees is not enough – that a single financial market requires a single regulator and that information sharing and incentive compatibility require placing that single regulator in the central bank. Schoenmaker and Oosterloo (2008) recommend going further and establishing a European Prudential Supervisory Agency and a European System of Supervisory Agencies comparable to the ECB European System of Central Banks. In their set-up,

²⁶ For example Bini-Smaghi (2009b).

home-country supervisors could ask host supervisors to perform on-site inspections of host-country operations, and the home supervisor would feed its information into a common data base of the system. The European Prudential Supervisory Agency would have the power to take key supervisory decisions and the design of policy.

If member states outside the monetary union are reluctant to see this responsibility vested with the ECB, then they will find themselves outside the single financial market as well as the euro area. If member states inside the monetary union oppose regulatory centralization, then they will have to opt for the renationalization of finance. Cross border subsidiaries will have to be independently capitalized and ring-fenced. The single passport will be no more.

7. Implications for Reserve Currency Competition

That this is a U.S. originated and distributed crisis has not exactly enhanced the regard in which U.S. financial assets and markets are held. And that the Fed has responded by flooding the markets with liquidity, while the Congress and Administration have implemented a program of fiscal stimulus that implies budget deficits as far as the eye can see, does not imply a strong dollar going forward. The crisis has thus raised hopes in Europe that the euro might emerge as a serious rival for the dollar for the status as the leading international currency.

At the same time, recent events are a reminder of the singular depth and liquidity of U.S. financial markets and of the fact that U.S. treasury bonds remain the main destination for investors fleeing to quality. The dollar in fact strengthened as the gravity of the crisis became apparent. Early on it was possible to argue that this reflected the

faster reaction of U.S. investors as, in the effort to deleverage, they liquidated prior foreign investments and repatriated their funds. But as deleveraging became global this logic became harder to sustain. The positive correlation between the Chicago Board Options Exchange Volatility Index (VIX) and the dollar exchange rate in 2008 strongly suggests that the dollar remains the principal beneficiary when global investors perceive an increase in risk.

Some recent analysis (e.g. Chinn and Frankel 2008) has compared the sizes of the U.S. and euro area economies and argued that if the euro area becomes significantly larger – either through faster productivity growth or simple enlargement of the euro’s domain – there could come a tipping point where central banks shift the composition of their reserve portfolios en masse into euros. But, in fact, size alone is not enough; to be attractive as a form of reserves a currency needs a broad and liquid market. The crisis has revealed that, notwithstanding the expansion of euro-area bond markets, the market remains segmented on the basis of a set of national debt instruments that are imperfect substitutes for one another. Where the U.S. has a federal fiscal authority that issues homogenous debt instruments whose liquidity is effectively guaranteed by the Federal Reserve, different euro area countries issue bonds with very different risk characteristics, as evidenced by their spreads over German bunds – spreads that blew out in 2008 as a result of the crisis and associated banking and budgetary problems. Under what circumstances the ECB is willing to backstop the market in, say, Greek or Irish bonds is unclear, given the no-bailout rule preventing it from buying bonds directly from the issuer.

The crisis also prompted discussion of whether it was desirable for euro area governments to issue a single euro bond backed by them jointly (Soros 2009). Initially, governments would agree on limited issuance of euro area bonds; such bonds would supplement rather than replace national issues and markets and be used mainly in lending to member states in financial difficulty. Over time, however, such issuance would become a stalking horse for a federalized budget and an EU bond market that fully replaced national markets. This was seen in some circles as a financial-engineering strategy for strengthening confidence in the public finances of countries like Greece, whose default might undermine the position of other member states. In other circles it was criticized as an opaque mechanism through which countries with weak finances would receive subsidies from the stronger counterparts.

There was some justification for both views. But, in practice, issuance of such a bond is probably a precondition for the emergence of the euro as a serious rival to the dollar. Only when a homogeneous debt instrument with a euro-wide market comes into existence, when it is backed by the full faith and credit of euro area governments as a group, and only when it is backstopped by the ECB will the euro be in a position to seriously rival the dollar as a reserve currency.

Whether the euro area requires a centralized fisc in order to survive is, at a minimum, questionable – especially if the members agree on burden sharing arrangements in response to cross-border bank insolvencies. Whether the euro requires a more centralized fisc in order to rival the dollar as a reserve currency is, however, a different matter.

8. Conclusion

The great credit crisis of 2008/9 has highlighted the strengths and weaknesses of Europe's unprecedented experiment with a single currency. It has demonstrated that the euro area possesses a central bank prepared to respond quickly to distress in European financial markets, if one at the same time strangely reluctant to expand the money supply in response to the danger of deflation. It has showed that life for small European countries is more comfortable inside the euro area than outside – few if any incumbent members have seriously contemplated exiting, while a number of traditionally euro-skeptical EU member states now regard joining the euro area more favorably as a result of the crisis – even if the straitjacket of a single monetary policy is uncomfortable given the magnitude of the asymmetric shock.

The crisis has also exposed the contradictions of a Europe in which there is a single market for financial services dominated by a handful of large cross-border banks but a number of different national regulators, each with responsibility for the Europe-wide operations of banks licensed in its jurisdiction. The gravity of recent banking problems suggests that cooperation among national authorities, whether in the form of colleges of regulators or Level 2 committees, will not suffice. Ultimately, Europe will either have to move forward toward more centralized supervision and regulation, presumably in the form of a European System of Prudential Supervision – a powerful EU-level authority to which national supervisors report and whose instructions they carry out, in a manner analogous to the relations between the ECB and euro area national central banks – or it will have to move backward to the renationalization of its financial markets.

Given the EU's investment in its single market, in finance as in other goods and services, moving forward toward centralized supervision is more likely. But doing so will not be easy. Political resistance will have to be overcome. And the architecture of the new arrangements will not be straightforward. Situating the European System of Prudential Supervision outside the central bank may create problems of information sharing and policy coordination between the euro area's supervisor and crisis lender. But placing it inside the central bank will be impossible so long as the borders of the euro area and Europe's single financial market differ. The only solution is for member states outside the euro area to leave the single market or, more likely, to adopt the single currency. All this is a reminder that Europe's current structural challenges will not be dispatched easily.

Reference

- Ahearn, Alan, Juan Delgado and Jakob von Weisacker (2008), "A Tale of Two Countries," Bruegel Policy Brief no.2008/4 (June).
- Andre, Christophe and Nathalie Girouard (2008), "Housing Markets, Business Cycles and Economic Policies," unpublished manuscript, OECD (September).
- Angus Reid (2008), "Swedes Divided on Euro Adoption," *Angus Reid Global Monitor*, www.angus-reid.com (10 December).
- Bernanke, Ben (2009), "The Crisis and the Policy Response," Stamp Lecture, London School of Economics, www.frb.org (13 January).
- Bini-Smaghi, Lorenzo (2009a), "The Euro Area's Exchange Rate Policy and the Experience with International Monetary Coordination since the Crisis," www.ecb.int (April 6).
- Bini-Smaghi, Lorenzo (2009b), "Regulation and Supervisory Architecture: Is the EU on the Right Path?" Speech to 2009 ECON meeting with National Parliaments, 12 February, www.bis.org.
- Blanchard, Olivier (2006), "Adjustment within the Euro: The Difficult Case of Portugal," unpublished manuscript, MIT.
- Blanchard, Olivier and Francesco Giavazzi (2002), "Current Account Deficits in the Euro Area: The End of the Feldstein-Horioka Puzzle?" *Brookings Papers on Economic Activity*, pp.147-209.
- Chinn, Menzie and Jeffrey Frankel (2008), "The Euro May Over the Next 15 Years Surpass the Dollar as the Leading International Currency," NBER Working Paper no.13909 (April).
- Committee of European Banking Supervisors (2009), "Template for a Multilateral Coordination and Cooperation Agreement on the Supervision of XY Group," www.c-eps.org (27 January).
- De Grauwe, Paul (2009), "Nichts Heiliges an der Ein-Prozent-Marke," *Der Standard* (20 April), www.derstandard.at.
- De Larosiere, Jacques (2009), *The Report of the High Level Group on Financial Supervision in the EU*, Brussels: EU (February).
- Eichengreen, Barry (2007), "The Break-Up of the Euro Area," NBER Working Paper no. 13393 (September).

Eurointelligence (2009), “Majority of Swedes Want to Introduce the Euro,” *Eurointelligence*, www.eurintelligence.com (21 April).

Gros, Daniel (2006), “Bubbles in Real Estate: A Comparative Longer-Term Analysis of Housing Prices in Europe and the U.S.,” CEPS Working Document no.239.

Hallerberg, Mark and Guntram B. Wolff (2006), “Fiscal Institutions, Fiscal Policy and Sovereign Risk Premia,” Discussion Paper no. 35/2006, Frankfurt: Deutsche Bundesbank.

Hilbers, Paul, Alexander Hoffmaister, Angana Banerjee, and Haiven Shi (2008), “House Price Developments in Europe: A Comparison,” IMF Working Paper no.WP/08/211 (September).

International Monetary Fund (2008), “Housing and the Business Cycle,” *World Economic Outlook*, Chapter 3 (April).

International Monetary Fund (2009), *World Economic Outlook*, Washington, D.C.: IMF (April).

Mongelli, Francesco Paolo and Charles Wyplosz (2008), “The Euro at Ten: Lessons and Challenges,” unpublished manuscript, Graduate Institute of International and Development Studies, Geneva (December).

Nitsch, Volker (2004), “Have a Break, Have a... National Currency: When Do Currency Unions Fall Apart?” CESifo Working Paper no. 1113 (January).

Osborne, Jenny (2005), “Housing in the Euro Area: Twelve Markets, One Money,” *Quarterly Bulletin* 4, pp.87-114.

Oxlade, Andrew (2005), “Spain Tops Europe House League,” www.ThisIsMoney.co.uk (4 March).

Saiz, Albert (2007) “Immigration and Housing Rent in American Cities,” *Journal of Urban Economics* 61, pp.345-371.

Schoenmaker, Dirk and Sander Oosterloo (2008), “Financial Supervision in Europe: A Proposal for a New Architecture,” in Lars Jonung, Christoph Walker and Max Watson (eds), *Building the Financial Foundations of the Euro: Experiences and Challenges*, London: Routledge, pp.337-354.

Soros, George (2009), “The Eurozone Needs a Government Bond Market,” *Financial Times*, www.ft.com (18 February).

Trichet, Jean-Claude (2009), “Restoring Confidence in the Global Financial System,” Speech at the annual meeting of the Research Institute of Japan, Tokyo, www.ecb.int (17 April).

Van den Noord, Paul (2004), "Modeling Cyclical Divergence in the Euro Area: The Housing Channel," OECD Economics Department Working Paper no.400 (September).

Von Hagen, Juergen and Charles Wyplosz (2008), "EMU's Decentralized System of Fiscal Policy," Economic Papers no. 306, Brussels: European Commission.

Wagstyl, Stefan (2009), "IMF Urges Eastern EU to Adopt Euro," www.ft.com (5 April).