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The Financial Education of the Eurozone

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THE FINANCIAL EDUCATION OF THE EUROZONE

By Christopher Smart[1]

ABSTRACT: "The Financial Education of the Eurozone" is both a story of global markets forcing political leaders to take unpalatable steps to reinforce their monetary union, and a dawning realization that if there is to be further integration it will have to come through reinforcing the interdependence of the euro area's markets and banks. This study examines the historical logic behind the establishment of the euro, shows how fiscal and monetary backstops took shape amid the market turmoil and explores the nascent effort to impose structural reform. Finally, it outlines how European-level supervision and regulation of banks and capital markets have significantly bolstered the currency union and urges further progress on these reforms as the best hope for further progress during the current populist moment.

KEYWORDS: *EURO, EUROZONE, EUROPE, EUROPEAN UNION, EUROPEAN BANKS, OPTIMUM CURRENCY UNION, EUROPEAN FINANCIAL CRISIS, EUROPEAN CENTRAL BANK, BANK SUPERVISION, FINANCIAL MARKETS, ECONOMIC IMBALANCES.*

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INTRODUCTION

The European Project looks in trouble once again. Mounting political extremism, feeble growth and the loss of its second largest economy shape a convincing case that the integration of Europe's political and economic institutions has failed to deliver. The common currency, it appears, has created more mutual resentment among its members than mutual solidarity, and the calls for more exits has led many to conclude it was all a terrible mistake. And yet, it survives and in many ways prospers. The reinforcement of euro area institutions following a sudden stop in global financial flows suggests a surprising resilience. Indeed, the euro as a store of value did not suffer directly from the crisis. And for all the gnashing of teeth, euro area governments were forced to double down on their commitments to one another under the skeptical watch of global financial markets. Even in the face of certain voter rebellion, they opted for measures for integration rather than separation or dissolution. For a project that is perennially on the verge of collapse, it is worth re-examining how these leaders committed significant sums of taxpayer resources and agreed to an unprecedented sharing of sovereignty.

This paper argues that the resilience comes from the deep financial integration of the currency union that created both stronger links of interdependence among its members as well as greater flexibility to absorb shocks. On the one hand, the financial market turmoil made it painfully clear to European leaders that investors viewed Europe as more or less a single borrower notwithstanding a treaty that said otherwise. On the other hand, this integration, especially through the banking system, provided mechanisms to reallocate resources throughout the currency union in order to absorb the asymmetric shocks through liquidity injections, market purchases and the euro area payments system. Like the large noisy family they claim to be, European leaders found themselves stuck with the costs of their relatives' mistakes, yet able to reallocate emergency resources under the table even as they sought to set up formal new rules to provide support and enforce discipline. If there is an optimistic case to be made for the euro area, it may be that strengthening its Banking Union can proceed even as the political climate makes structural reforms, fiscal pooling or labor mobility more difficult.[2] Moreover, financial market forces may encourage progress on banking supervision and stability in spite of lingering voter doubts. Arguably, the European political calendar over the next year will put these ideas to their most severe test yet in key national elections. Until now, however, the "Financial Education of the Eurozone" is both the story of global markets forcing political leaders to take unpalatable steps to reinforce their monetary union, and the dawning realization that this very interdependence through markets and banks will likely drive further integration. Steady progress on the technical steps required to enshrine Banking Union and capital market integration may not be sufficient to secure the euro's long-term survival, but they are necessary and realistic next steps amid the current political turmoil.

[2] In the current political environment, any measures that would boost labor mobility would land smack in the middle of Europe's emotional debates over immigration. Even creative proposals on joint debt issuance seem quaint in the current context. See, for example, Delpla and Von Weizsacker (2010). More creative suggestions like European Safe Bonds (ESBies), designed to create a safe asset for banks without pooling of sovereign liabilities, look optimistic today. This is best summarized in Brunnermeier et. al. (2011). Sensible and important long-term reforms that include the coordination of macro-economic policies now seem like a project of decades rather than years (De Grauwe 2011).

Europe still falls far short on key elements of what constitutes an "optimum currency union" (Mundell 1961; McKinnon 1963; Kenen 1969). Roughly summarized, economists have cited four key criteria to achieve optimality: factor mobility, including especially capital and labor, pooling of fiscal responsibility and synchronization of business cycles. Moreover, the political will to accept the economic policies of other members can make or break a currency union (Frankel 2004). While capital mobility has been relatively free within the euro area--and this paper argues crucial in keeping the common currency together--labor mobility has been more constrained. The absence of a common language seems to be a detail that many early champions of the common currency assumed away. As for fiscal integration, of course, the euro area has no central fiscal authority, with the EU budget itself representing only 1 percent of gross domestic product. On business cycles, while Europe's commercial links were deep, it became clear from the emerging imbalances that these economies were hardly synchronized.[3] These failures, in the context of a single currency, have substantially slowed the European recovery such that only in 2014 had it returned to its levels of output before the crisis.[4] As for political will, even the successful summits have often come amid sniping and threats. Arguably, the costs of membership have rapidly surged to exceed the potential benefits.[5]

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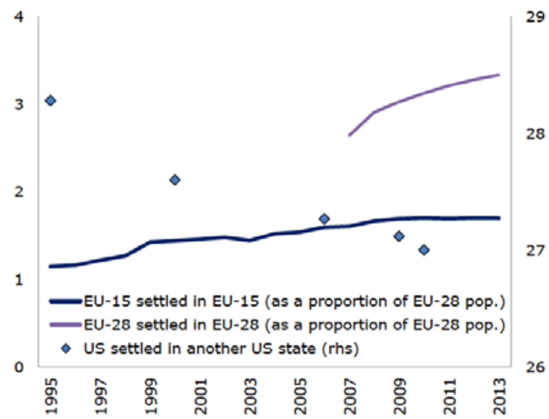
[3] At least one study shows that introduction of the European Monetary Union did little to affect the historical characteristics of member countries' business cycles or their cross-correlations (Giannone, Lenza and Reichlin 2009).

[4] Prior to the sovereign debt crisis, the real GDP of the European Union peaked at $17.4 trillion in 2008, which it only reached again in 2014 (World Bank 2016).

[5] This is the argument of Joseph Stiglitz, although his prescription for recovery seems to assume a level of political cooperation rarely seen in Europe and even less likely to emerge on current trends. He also seems to blame the euro's institutional weakness more on unquestioning "market fundamentalism" than mismanagement of the crisis, which

Chart 1. Proportion of EU Working-age Population Born in Other EU Countries, and Proportion of US Population Born in a Different US State, 1999-2013



(1) Data for the EU excludes Germany, since no breakdown over time was available for foreigners living in Germany by origin country.
Source: Eurostat population statistics and Eurostat special extraction from the Eurostat Labour Force Survey; US Census Bureau, Census and American Community Survey.

Source: Arpaia, A., Kiss, A., Palvolgyi, B., & Turrini, A. 2014. "Labour Mobility and Labour Market Adjustment in the EU." *Economic papers*, 539, 1-44

Indeed, the classic cyclical shock to a monetary union tips some member states into recession and opens disparities in growth rates and unemployment levels that are then locked in by a single currency. With other parts of the union relatively unaffected, there is no incentive to make the difficult decision to share resources for more than humanitarian needs. This leaves the only path of adjustment through a grinding nominal decline in wages and prices that triggers recriminations, populism and ultimately the decision to exit. In the case of the global financial crisis, the shock to Europe revealed very different problems in different places: a fiscal gap in Greece, a property bubble in Ireland, low growth in Portugal and myriad banking issues in Spain, Italy and Cyprus.

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undermined market confidence. If his formula for the euro's success suggests an unrealistic reading of current European opinion, his vision of an orderly breakup seems excessively benign (Stiglitz 2016).

Left to fester individually, none of these disparate problems would have forced a significant response from other European members, either in terms of new rules to bolster better policy or new money to soften the pain of adjustment. As such, it is not difficult to imagine a much more turbulent series of events that included more than one euro member exiting the union.

What early observers saw less clearly, however, was the surprising integration and interdependence of the member states through financial markets and their banking systems.[6] If trade and investment did not flourish as promised, the single currency did open enormous opportunities in banking and finance. Banks rapidly expanded their exposures to other euro markets in search of higher returns where currency risk had apparently disappeared.[7] This led to European economies that were both more integrated with one another and at the same time more susceptible to one another's risks. Thus did isolated national issues like Greek public payrolls and Irish overbuilding suddenly become everyone's problem. Each of these qualitatively different economic imbalances was quickly transmitted as large, undifferentiated potential losses through the financial system. Some of these potential losses arose from direct lending by French and German banks, for example, to the periphery. Some appeared from nowhere as suspicion turned to fear that much larger countries like Spain and Italy might lose market access. In any case, the sudden transmission of the global shock throughout the European financial system forced European leaders to pool resources and share sovereignty in ways that

[6] As Paul Krugman suggests, the absence of fiscal integration may have been more important than the absence of labor mobility, but finance and banking issues were mostly ignored (Krugman 2012).
[7] As an example, the French banking system's financial exposure to the markets of Greece, Ireland, Italy, Portugal, and Spain rose 2.5 times in the five years after the euro's introduction (Bank for International Settlements 2016).

would have been unimaginable before the crisis. Whenever the price of further pooling of sovereignty and resources looked unacceptably high, euro governments determined that the costs of dissolution would be even higher and could not be compartmentalized. Indeed, most leaders chose policies that eventually lost them their own jobs over the prospect of immediate financial calamity.[8]

This study reviews the historical and political context that shaped European monetary union through the financial crisis, and then traces how unexpected financial market pressures forced European leaders to sweep aside treaty restrictions in order to build a joint fiscal backstop and consent to active central bank intervention on their joint accounts. A third section explores the efforts to encourage, and at times impose, structural reforms, which created a framework to address the currency union's structural imbalances, even if its credibility remains dubious. Fourth, the study examines the financial interdependence of the currency union that, for all the concerns about fiscal transfers, actually provided a mechanism for financial transfers that helped absorb the shocks. At the same time, these deep financial linkages also made each member vulnerable to the instability of the others and prompted euro governments to impose unprecedented centralized supervision on their own largest banks. In a fifth and final section, this paper assesses the resilience of what must for the foreseeable future remain a "suboptimum currency union" and suggests a policy agenda to secure the recent gains. While further fiscal integration or structural reforms that boost labor mobility may be difficult to imagine short of another crisis, steady and quiet progress on banking union may still be possible. The outcomes are hardly inevitable, as political leaders could

[8] By 2012, the leaders of Ireland, Portugal, Italy, Spain and France had all been swept from office.

miscalculate and voter moods could sour further. Competitive adjustments and structural reforms do not immediately boost growth, which creates fertile ground for populism and isolationism.[9] Still, the lesson of the last several years suggests that members of the euro area must either hang together or hang separately. Ironically, perhaps, the same integration through financial markets and banks that makes members of Europe's currency union vulnerable to one another also makes the entire structure more likely to endure. As one journalist put it, Europe finds itself in an unhappy marriage with prohibitive divorce costs (Walker 2016).

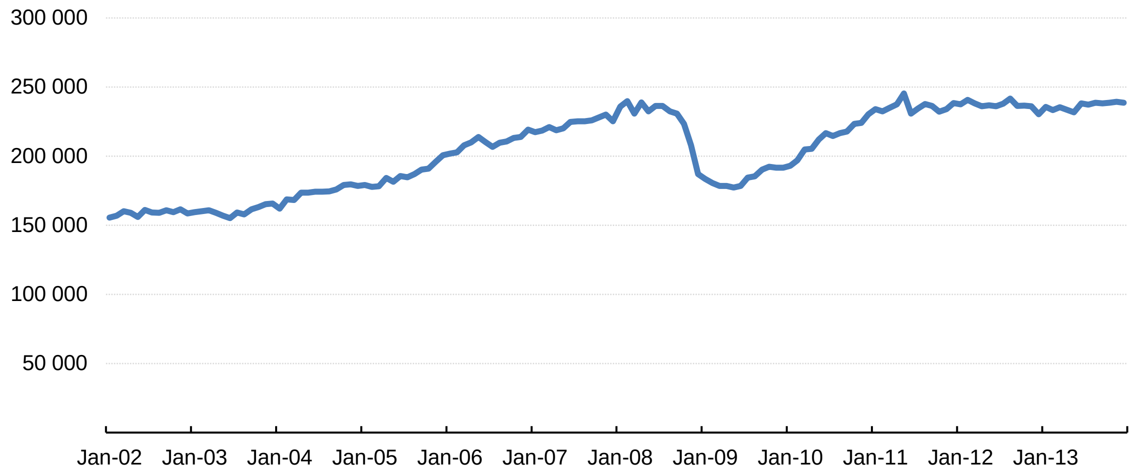
[9] An IMF post-crisis review declared that the fiscal multipliers were much larger than had been assumed by forecasters (Blanchard and Leigh 2013).

I. THE CRISIS IN CONTEXT: COAL, STEEL & FIVE STAGES OF GRIEF

The current wave of anxious headlines announcing Europe's collapse is hardly the first. What is remarkable is that through each Gaullist tantrum or Sterling crisis, an inexorable march toward integration has prevailed. It has been much as Jean Monnet predicted. Inexorable does not mean inevitable, but the arc of the six decades since the establishment of the European Coal and Steel Community has been unmistakably toward greater shared sovereignty. The British vote to leave the European Union, of course, raises fresh questions about the future, but Britain has always been more interested in the continental trading relationships than in any political vision of a more unified Europe. In part, of course, this political vision was driven by a sense that European peace required the sharing of crucial elements of state power. From the mining of coal and forging of steel, the pooling of resources and shared sovereignty spread to commercial regulation and free trade. Plans for a common currency had been sitting on dusty shelves in Brussels and Frankfurt for years, but got a sudden boost with the fall of the Berlin Wall and the fresh prospect of a united and dominant Germany. The collapse of the Soviet Union and the potential turmoil in the East offered further incentives to bolster the political institutions of the West. More recently, the emergence of China as a global power underscored the logic of integration as Europeans increasingly came to fear a world in which all major decisions would be made in Beijing and Washington.

Beyond these geo-political forces, the economic logic behind integration proved powerful as well. The European Common Market initially offered mainly the benefits of tariff-free trade and all the attendant potential of access to larger markets. The concrete economic gains continue to be analyzed and debated, but better growth was an integral part of the promise and the net gains remain far from clear.[10] Of course, the potential weaknesses of the structure and the need for further reforms were understood from the start.

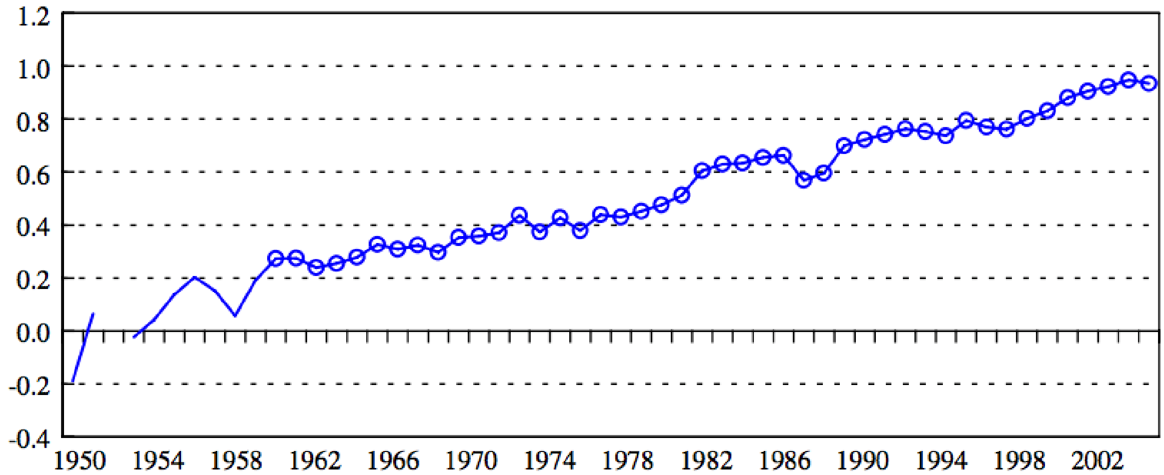
Chart 2. Evolution of Intra-EU28 Export Trade, 2002-2013



Source: Eurostat

[10] Recent research suggests that the introduction of the euro has had a sizable and statistically significant effect on trade among European Monetary Union members. Some estimates imply that EMU has increased trade by about 10% in its first four years of existence. Others point out that a significant part of this trend can be explained by measures of economic integration preceding the introduction of the euro and not by the formation of the EMU itself (Berger and Nitsch 2008). Meanwhile, a report by the European Commission revealed that the introduction of the euro boosted trade by 5% between 1999-2006, while estimates of the impact on intra-euro foreign direct investment growth range widely from 15-200% (Baldwin 2009).

Chart 3. Evolution of Trade Intensity Among EMU Countries, 1950-2005



Source: World Bank

Other currency unions have failed in the past because of a lack of either political or economic integration. The Articles of Confederation in America, for example, granted Congress only minimal power to finance itself or enforce resolutions. In fact, Congress did not have the power to tax or effectively collect requisitions from the States.[11] Ultimately, under the U.S. Constitution, the currency union has proved successful due to common laws, common infrastructure and invisible automatic stabilizers through economic cycles.[12] Also, regulators have developed a common banking system in terms

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[11] Moreover, the Continental Congress printed money at a rate that soon made the currency essentially worthless (Horn 2011). For further comparisons of Europe's struggles with the early history of the United States, see Henning and Kessler (2012) and Frieden (2016).

[12] By some estimates, the U.S. federal budget compensates states 13 cents for every dollar of lost income during a recession (Asdrubali, Sorensen and Yosha 1996). Furceri and Zdzienicka (2013) reveal that European risk-sharing mechanisms are significantly less effective than in existing federations, including the U.S. and Germany. Over the

of resolution and deposit insurance. Switzerland provides a different example. Even though federal government revenue amounts to 10 percent of GDP, the currency remains underpinned by a strong central bank and a common legal framework (International Monetary Fund 2015). In Europe, this history was understood, but it was believed that weaknesses in the euro's initial design could be addressed over time before any external shock offered a true test.[13] Ironically perhaps, the favorable global macroeconomic forces at the time permitted policymakers to avoid difficult choices. Indeed, many of the economic flaws of the currency union were just not visible beneath the ample waves of global liquidity that had built up since January 1, 1999 when the single currency was introduced. Interest rates converged and risks appeared to dissipate along with any interest in pressing reform.[14]

The legal documentation for these new institutions was clear in that sovereignty and financial responsibility continued to reside unambiguously with the member states. Even the Lisbon Treaty, which invested the power to negotiate Europe's trade agreements in Brussels, remained explicit that each member state remained sovereign and

post-EMU period of 1999-2010, the authors find that only 3.4% of recessionary shocks are smoothed through net taxes and transfers.

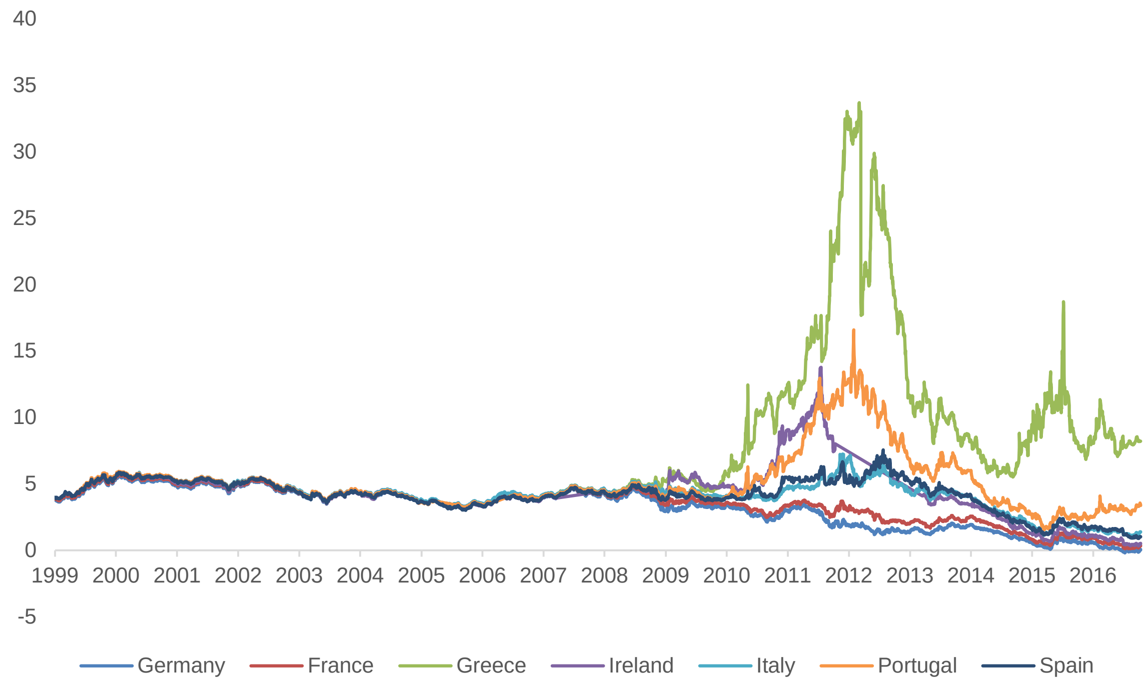
[13] Prominent critics in the United States included Alan Greenspan and Martin Feldstein, who argued that the common currency would increase the likelihood of political conflict rather than decrease it. Even Jacques Delors, European Commission President at the founding of the euro, acknowledged the weaknesses of the structure in the seminal 1989 report from the Committee for the Study of Economic and Monetary Union that he chaired. For a retrospective, see also Enderlein and Rubio (2014) and Rockoff (2000).

[14] Pisani-Ferry (2013) offers an excellent narrative of the differing political and economic incentives of the key players in the negotiations around the launch of the euro, focusing naturally on France and Germany in particular. He also notes that in years just prior to unification, finance ministers did in fact track financial markets closely to ensure that their policies did nothing to knock their currency's value out of alignment with the other initial euro members.

responsible for paying its own way.[15] What few seemed to notice, however, was that financial markets had long since given up reading the fine print. Investors increasingly ignored both political and legal statements that forswore any sharing of liabilities, and priced sovereign obligations of the euro increasingly as those of a single issuer. While bond yields of Spain and Italy were in double-digits during the early 1990s, they had all converged on German bunds within a decade. In the desperate search for yield amid markets that were awash with cash, investors manifestly didn't analyze the odds that one or another euro government might need a bailout.

[15] Article 125 of the Treaty is quite explicit: "A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project." And much of this approach was rooted in German politics and an economic ideology known as Ordoliberalism, which viewed the government's role as helping to approximate competitive market outcomes as often as possible, opposing cartels and monopolies and rejecting intervention to stabilize economic cycles (Dullien and Guerot 2012).

Chart 4. Sovereign Yields (10-year, %), 1999-2016



Source: Bloomberg

At the same time, the financial integration of the banking system proceeded rapidly. If the economies themselves did not converge to the same business cycle, banks began a slow process of consolidating within their own borders and sniffing around for opportunities to expand into neighboring markets. Large European banks shied away from cross-border purchases within the euro area as the operating synergies of merging operations across different regulatory jurisdictions remained limited. Still, these banks were not at all shy about lending their money into other euro markets. Indeed, French and German banks in particular searched aggressively to recycle savings in higher-yielding markets. Now that the exchange rate risk had essentially disappeared, directing those flows to the corporate and sovereign bond markets of Portugal, Ireland and Greece seemed obvious. By the time the crisis hit, the exposures of euro area banks to other euro area markets had grown significantly.[16]

Thus, the transmission mechanisms were in place to turn a shock in one part of the system into a wave that put the entire monetary union under stress. In retrospect, it's not much of a stretch to trace the reactions of European leaders through the phases of grief that psychologists identify after a tragedy: denial, anger, bargaining, depression and acceptance. As the U.S. subprime crisis swept across the Atlantic in 2009, it was easiest for leaders to deny the existence of a problem or to blame America. Prime Ministers and Finance Ministers railed at the market turmoil as an unfortunate and temporary side effect of the U.S. subprime crisis. Germany's Wolfgang Schäuble insisted that even tougher financial reform was required to restore order to a world in which "speculators" made unreasonable political demands. Later, as the sovereign debts of Spain and Portugal were downgraded, Michel Barnier, the European Commissioner responsible for financial market oversight, proposed the establishment of a European ratings agency to break what he considered a malign American monopoly. Most of the early responses to the crisis stemmed from an impulse to muscle the markets into submission with new rules and implicit threats. Famously, on a beach in Deauville in late 2010, President Sarkozy and Chancellor Merkel agreed to condition any European assistance on the automatic imposition of private sector losses, opting for political convenience over market

[16] French bank exposure to Greece, Ireland, Italy, Portugal, and Spain rose to about $900 billion in 2008, rising from $300 billion in 2005. German bank exposure to the same set of countries also reached $900 billion by 2008, up from about $500 billion in 2005 (Forster, Vasardani and Ca' Zorzi 2011).

confidence.[17] As one senior Irish official put it in a private conversation, "We were telling the markets that they should trust us more than we actually trust each other."

[17] They also agreed to several other ideas that investors found unfriendly, including the inclusion of collective action clauses in new euro area sovereign issuance and the assertion of preferred creditor status for official European loans. For a dramatic account, see Forelle et al. (2010).

II. BUILDING THE FIREWALL

As the depth of the crisis took hold, the anger turned to bargaining, or attempts by politicians to do as little as possible, but ultimately there was reluctant acceptance. The turmoil in financial markets and potential losses at their own banks forced the euro's leaders to reassess key principles. At the same time, they were clearly riding roughshod over longstanding practices and principles. Over the opposition of the president of the European Central Bank, Jean-Claude Trichet, who had insisted that Europe could handle its own problems, the International Monetary Fund was invited to provide a little bit of its money and a lot of its expertise.[18] Over the opposition of Germany, mainly, governments agreed that some sort of help might be available to Greece, but stressed ominously it could only be accessed as a last resort or *ultima ratio*. But the market pressures were relentless. In the end, over a weekend in May 2010 and against a deadline to agree before Asian markets re-opened late Sunday European time, European leaders agreed to a two-part deal that would set the logic for the future firewall. First, euro area governments would indeed bail each other out, in return for greater oversight into each other's fiscal affairs. Second, if governments kept their fiscal paths under control, the European Central Bank would keep the banks liquid and the markets stable.[19]

[18] Blustein (2016) examines the IMF's complex and conflicting role in the European crisis in two excellent papers: "Over Their Heads: The IMF and the Prelude to the Euro-zone Crisis," CIGI Papers, No 60, March 2015, and "Laid Low: The IMF, the Euro-zone and the Rescue of Greece, CIGI Papers, No 61, April 2015.

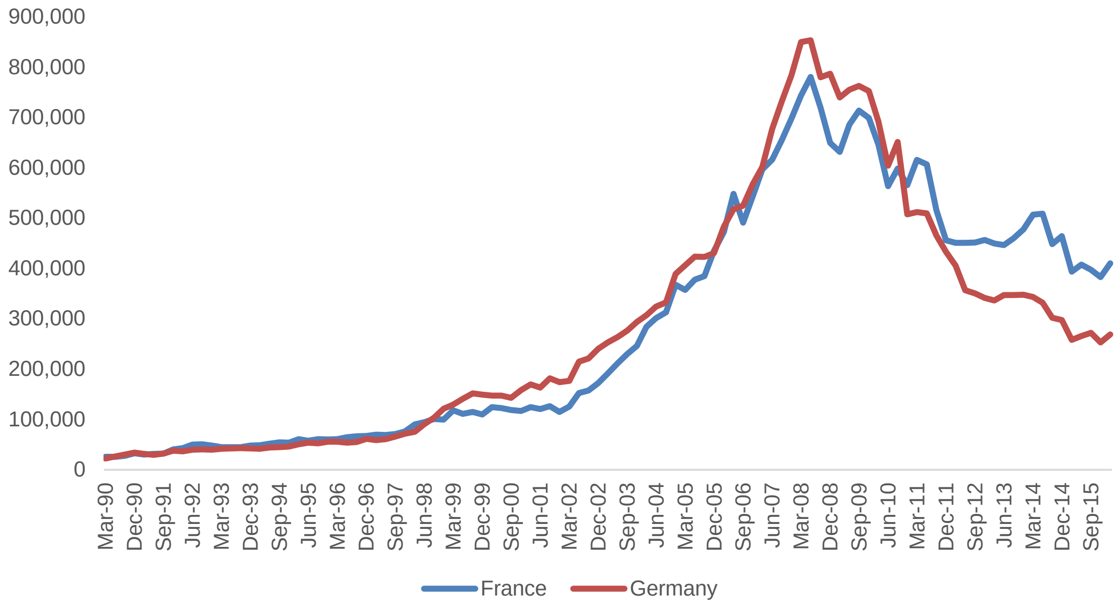
[19] The compromise overcame the fundamental initial deal behind the euro itself, which bridged François Mitterand's desire to bind Germany into European institutions by accelerating discussions of the common currency in return for German insistence that bailouts were foresworn (Sarotte 2010).

Of course, the agreement was never so explicit, and on the fiscal side governments faced a firestorm of criticism from both those who thought it went too far and those who thought it did not go far enough. It was often carefully couched in terms that either hailed the importance of "responsibility" by member governments, or "solidarity" among them. What was clear at each major step toward their new bailout clause was a sense that failure to advance would lead to large immediate losses within the European banking system and potentially catastrophic bankruptcies if the contagion were to spread. In the case of the first loans to Greece, many German and French officials were deeply concerned about the potential losses at their own banks, which had accumulated substantial exposures to Greece in their hunt for yield.[20] But the financial pressures also raised a more fundamental concern for the integrity of the euro and the resilience of the European project. Suddenly, the prospect of a Greek default raised questions about Portugal and Ireland. It was a precedent that would be difficult to reverse. By November that year, excessive stress on Irish banks forced the government to seek loans, which it was offered only under severe conditions and the insistence that bank bondholders, again many of them German and French banks, avoid any losses.[21] The following May, Portugal was granted a similar loan, and by the summer of 2012, Spain reluctantly accepted money for its banks and Cyprus borrowed so its economy would not collapse.

[20] Orphanides (2015) cites the exposure (including insurance group exposure) at just under € 80 billion and argues that this selfishness shaped a response that imposed the costs of the crisis on the borrowing countries while bailing out the lender.

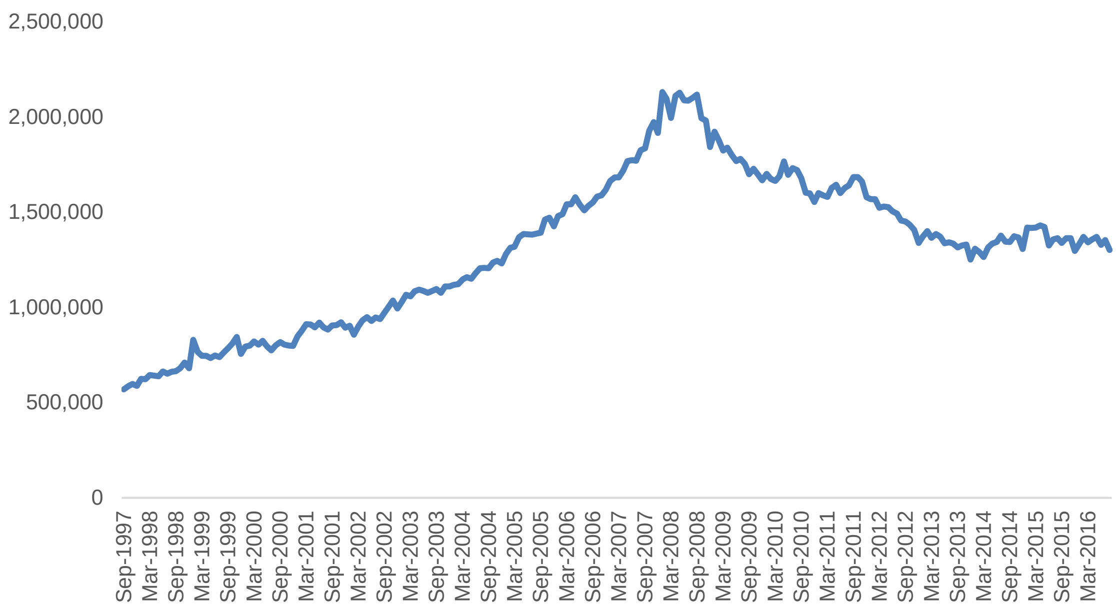
[21] For the best inside account of the Irish crisis, see Cardiff (2016).

Chart 5. Bank Exposure to Greece, Ireland, Italy, Portugal, and Spain (USD Millions), 1990-2016



Source: Bank for International Settlements. 2016. "Locational Banking Statistics." Bank for International Settlements. Last modified October 18, 2016. http://www.bis.org/statistics/bankstats.htm.

Chart 6. Euro Area Cross-border Loans (EUR Millions), 1997-2016



Source: ECB Statistical Data Warehouse. 2016. "Monetary Financial Institutions Loans." ECB Statistical Data Warehouse. http://sdw.ecb.europa.eu/

The process was rarely smooth amid conflicting statements from 17 different prime ministers, finance ministers and central bank governors. Moreover, political leaders were operating on time horizons punctuated by looming regional elections, while investors had circled bond redemption dates on their calendars. Most important, perhaps, was the disconnected expectations of both groups. Investors long for simple and comprehensive solutions that can be delivered quickly. Governments, meanwhile, understand that few solutions are either simple or comprehensive in the political world. Before markets settled, private investors (in a second Greek package) and even depositors (in Cyprus) were forced to accept losses. By then, however, the principle of mutual support among euro governments had been clearly established. The mechanism remained slow and unwieldy, but in the end the permanent European Stability Mechanism confirmed the common responsibility of the union toward individuals under market stress. All told, in 2012, the euro member states pledged up to $1 trillion to this effort, which even conceding a little optimistic accounting, represented a substantial commitment of taxpayer money to protecting their union.[22]

The permanent availability of fiscal resources, however, only came with a considerable pooling of sovereignty and greater fiscal oversight. Because Greece was the first country to seek assistance, it was broadly assumed that a lack of budget discipline lay at the heart of market concerns. In fact, while the Greek government had been overspending (and underreporting its deficit) for years, fiscal balances across the rest of the region were mostly sound.[23] European leaders, however, focused intensely on the need to cut deficits to restore market confidence.[24] German, Dutch and Finnish leaders were fighting a rearguard action to prevent the slide toward what they called a "transfer union," which in their mind involved rich countries writing blank checks to poor ones. Thus, they believed they could not sell their own voters on the notion of large loans to troubled neighbors unless there was significant central control over national finances. At one point in the Greek saga, Schäuble proposed establishing an outside control board that would sign-off on government disbursements. He even floated a broader vision of "enforceable contracts" among all members of the currency union to ensure balanced

[22] One of the better journalistic accounts of how European leaders juggled these financial and political pressures comes from Spiegel (2014).
[23] Public debt in the Eurozone had actually dropped from 70.6 percent of GDP in 1999 to 64.9 percent in 2007. In 2007, Ireland and Spain had debts below 35 percent of GDP (23.9% and 35.5% respectively), with minimal fiscal challenges (Eurostat 2016a).
[24] In the end, France and Germany, the countries best positioned to provide fiscal support, actually contributed about half the tightening at a time when support was most needed. This was at a time when European debts and deficits were lower on average than either the United States or Japan (Eurostat 2016b).

budgets. These proved to be steps too far, but the mechanisms agreed in the end represented a significant encroachment on national sovereignty. Finance ministries were required to submit draft budgets to the European Commission for review even before they were sent to their own parliaments for consideration. Financial sanctions for countries violating these would be triggered automatically, unless other countries explicitly voted against them.[25] Enforcement has been mixed, including most recently for the 2015 deficits of Spain and Portugal, but it remains far more than a rubber stamp.

As the terms of these fiscal arrangements took shape, the European Central Bank gradually found a path to its own commitment to provide liquidity to troubled banks and bring stability to the markets. Of course, the initial fiscal package for Greece was prerequisite to the ECB's Securities Market Program (SMP) in 2010, which bought up €220 billion of sovereign debt (Fabian and Schwaab 2013).[26] But this commitment was carefully proscribed and still subject to withering criticism in the German press.[27] Soon enough, however, the scope of the potential problem grew to include Spain, which was struggling with a banking crisis, and Italy, where the prime minister openly flouted reform commitments. Bond yields for both countries hovered near 7 percent, and analysts were rapidly calculating that convincing rescue packages for both of them could exceed €2.5 trillion (Evans-Pritchard 2011). Even if there had been the political will to increase its resources substantially, there were concerns that additional commitments

[25] The colorfully named Six-Pack -originally approved in 2011-, Two-Pack -originally approved in 2013- were reviewed in 2014 together with the Stability and Growth Pact -originally approved in 1997.
[26] In the end, the ECB's asset purchase programs generated €6 billion in interest income from 2010-2015 (European Central Bank 2016).
[27] In the end, the ECB bought €220 billion in the bonds of Greece, Ireland, Italy, Portugal, and Spain (Blackstone 2014).

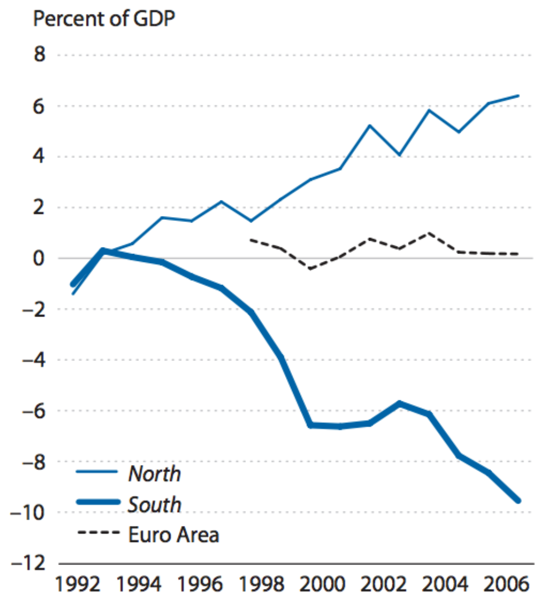
from countries like France would bring its balance sheet under scrutiny. The asymmetric shocks from periphery banks were now reverberating dangerously in the core. This existential fear for the euro created the conditions for the final step by the European Central Bank to intervene in markets far more boldly, overcoming a longstanding taboo and further pushing the monetary union down the road of shared financial responsibility. European Central Bank President Mario Draghi's announcement of Outright Monetary Transactions (OMT) in the summer of 2012 could not have been possible politically without the commitment of fiscal resources to a firewall and a tightening of fiscal supervision. The combined pooling of fiscal and monetary resources, even if they remain clumsy and difficult to trigger, established an essentially unlimited firewall for any future sovereign in trouble. If the members of the euro area were still a long way from taking on joint and several liability for one another's debts, it was clear that any losses from the ECB's holdings would be absorbed by the ECB itself, and at least indirectly by the member states.

III. ACKNOWLEDGING IMBALANCES AND OUTLINING REFORMS

Alongside the dramatic construction of the firewall, European leaders also undertook the far more difficult and incremental task of making their economies function better both on their own and as part of a currency union.[28] Their focus was spotty and the progress has been mixed, but the effort reflects an understanding that fiscal and financial excess are largely symptoms of their "suboptimum" structure. In fact, Europe's true weakness lies in the large imbalances within the euro area, just as the early skeptics had predicted. These imbalances, however, were neatly hidden within a world of ample global liquidity, low interest rates and weak bank regulation. While European peripheral debt traded at double-digit yields in the 1990s, the Maastricht Treaty offered the prospect of low inflation and no devaluation risk. This led to large flows of capital from mainly Germany, France and the Netherlands to mainly Ireland, Portugal and Greece, and most of it flowed through the banking sector. The money was invested overwhelmingly in consumption and housing, however, and this drove up wages and costs and contributed further to the imbalances.[29]

[28] Insufficient reform efforts in the years before the crisis have hampered the ability of many countries like Italy, Spain, Portugal and Greece to adjust and made their current need for structural reforms all the more urgent (European Commission 2014).
[29] For an elegant re-telling of this saga, and careful argument on the importance of understanding the main causes of the crisis, see Baldwin et. al (2015).

Chart 7. Euro Area Current Account Imbalances, 1992-2007



Source: Holinski, N. et al. 2012. "Persistent Macroeconomic Imbalances in the Euro Area: Causes and Consequences." *Federal Reserve Bank of St. Louis Review*, 94, 1-20.

At the heart of these imbalances are different levels of productivity, which themselves are the product of differences in the labor laws, educational systems and administrative effectiveness across the currency union. Resolving them required far more difficult change than the simple review of taxing and spending plans. It is even more intrusive than euro-level bank supervision since it involves dictating that a country address specific elements of its economic strategy to mitigate excesses in its performance. For the periphery, the focus has been on improving competitiveness, boosting investment and expanding exports. For countries like Germany and the Netherlands, which have been running large current account surpluses, the prescriptions have focused on measures that can boost domestic demand such as eliminating the tax wedge that discourages hiring, boosting child care to bring more women into the workforce and improving domestic infrastructure. They all amount to detailed to-do lists drawn up in Brussels for each member state to implement. On paper, it's a remarkable step toward a logic of central coordination of economic policy.

Of course, the operative phrase in this last sentence is "on paper." In fact, even as leaders devoted most of their attention to budgets and banks, they did consent to measures that would bring the different economies more in line. In parallel to the Excessive Deficit Procedures that name and shame the profligate, an Excessive Imbalances Procedure was established to monitor progress on structural reforms that were intended to narrow the gaps.[30] Included in this mechanism were specific limits on current account deficits and surpluses, with deadlines for correcting them and threats of fines to be levied much along the same lines as the procedures for keeping budgets more or less balanced.[31] In practice, the results are hard to assess so far. Ultimately, those designated for reviews have overwhelmingly been the perennial deficit countries, like Greece, Ireland, Portugal, and Spain.[32] Eventually, however, the Commission could not

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[30] This procedure is part of the EU's so-called 'six-pack' legislation, which aims to reinforce the monitoring and surveillance of macroeconomic policies in the EU and the euro area (European Commission 2016a).

[31] As weak as the enforcement mechanisms on budget deficits may be, the Imbalances Procedures has a long way to go. For euro area Member States under the Excessive Deficit Procedure, financial penalties kick in earlier and can be gradually stepped up. Failure to reduce the deficit can result in fines of up to 0.2% of GDP. Decisions on most sanctions under the Excessive Deficit Procedure are meant to be automatically taken by so-called Reverse Qualified Majority Voting (RQMV). In other words, fines are considered approved by the EU Council of Ministers unless a qualified majority of Member States overturns them. On the other hand, if the Commission concludes that excessive imbalances exist in a Member State, an Excessive Imbalance Procedure can be launched and the Member State concerned must draw up a corrective action plan (European Commission 2016a).

[32] A systematic analysis of the divergent pattern of current account imbalances in the euro area shows that we can identify two groups of euro area countries that were running

ignore surpluses in Germany, which ultimately exceeded those of China in nominal dollar terms, and the German government was forced to respond. It is hard to argue that such a mechanism provides an effective tool to advance politically difficult reforms. It is impossible to suggest it will drive a realignment of structural imbalances on its own. Nevertheless, the mechanisms and the review processes represent an incremental acknowledgment that each country owes a responsibility to others within the currency union to have its economic policies reviewed, and that each should take into account its impact on the others. If it is not a yet a credible mechanism for solving the problem, it does at least for the first time acknowledge the issue, which European leaders have traditionally sought to deny altogether.

average current account surpluses (North) and deficits (South) of 4.6 percent and –6.8 percent of GDP, respectively (Holinski et al. 2012).

IV. THE CRUCIAL STEP TO BANKING UNION

As European leaders grappled to contain the shock waves that nearly sank their monetary union, they launched a parallel effort to examine the mechanism that had transmitted the shocks so rapidly: the banking system. One of the defining features of the European economy, of course, is the centrality of banks in financing the economy, while in the United States far more money is raised through capital markets. Still, if the extent of the interdependence among European banks was not a surprise, the implications of these large mutual exposures had not been fully appreciated. For all the handwringing about sharing fiscal resources, it meant that the euro's financial system could in fact reallocate resources across the monetary union when struck by external shock. At the same time, when it became clear that market contagion could spread so quickly from Athens and Dublin to Rome and Madrid, with direct potential consequences in Paris and Frankfurt, it was urgent to place the banks under much closer scrutiny.

It is perhaps ironic that as the euro area's leaders and finance ministers struggled to build a mechanism that would share fiscal resources, the Eurosystem itself was sharing financial resources through the banking system when markets seized up. Above all, this came through the provision of unlimited amounts of liquidity, which was initially far more generous than the response of the U.S. Federal Reserve System. While the Fed was initially precluded from providing funding to investment banks in 2008, the ECB in 2009 offered Enhanced Credit Support to its universal banks amounting to some €600 billion (Stratfor 2010). Later, of course, these liquidity lines included long-term refinancing operations and targeted-long-term refinancing operations for banks in need of liquidity and Emergency Liquidity Assistance for banks in program countries. As we have seen, these were supplemented by the ECB's direct interventions in the debt markets of individual countries through the SMP and OMT, which in their own way used pooled resources to address market disruption. More controversially, the Eurosystem helped absorb asymmetric shocks through its cross-border payments system, the Trans-European Automated Realtime Gross Settlement Express Transfer system (or Target 2). While it seems a stretch to suggest that this amounted to a €700 billion[33] liability for Germany as it financed the current account deficits of the southern European periphery, the system certainly provided a mechanism to ensure that payments within the currency union would be made in spite of broader market turmoil pending broader assessments of a member's creditworthiness.[34] All told, these efforts have been reckoned near € 1.4 trillion (Allard et al. 2013).

The breadth and depth of the ECB's ultimate response to the crisis also highlighted a true vulnerability of the system. It was more than the immediate potential losses that emerged from the growing mutual exposures among euro area financial institutions. What became known as the "doom loop" connecting banks and their sovereign governments soon came into focus as perhaps the weakest and most vulnerable element to the euro's architecture.[35] When the sudden stop came, the banks found themselves grappling with twin sets of corrosive forces. Weak economies meant that governments had larger deficits to finance and banks had more loans going bad. Amid

[33] In the spring of 2012, the Bundesbank's claims on the ECB amounted to €700 billion (Pisani-Ferry 2013).
[34] The classic attack on Target 2 came from Sinn (2011). Prominent rebuttals include Whelan (2011). For a more balanced description, see Cour-Thimann (2013).
[35] The IMF was among the first to highlight the problem and to assemble a list of reforms that could address the risks (Véron 2016).

turbulent European markets, governments relied increasingly on their own domestic banks to finance their deficits, while banks teetering near insolvency were increasingly seen as greater potential burdens on their governments. This created a self-fulfilling dynamic that undermined any effort at restoring confidence with fiscal measures alone.

After initially rebuffing suggestions that their banks were in trouble, Europeans agreed to try to restore confidence with a series of their own stress tests. Initially, investors greeted these with some disdain as they were designed with wildly optimistic criteria while refusing to contemplate the damage that a sovereign default might cause.[36] The official capital needs did not rise much in subsequent efforts, but they eventually provided substantially more transparency into cross-border exposures, which partly helped confidence. For example, the 2011 stress test included a scenario involving sovereign stress and applied haircuts to sovereign and bank exposures (European Banking Authority 2011). At the same time, the process also substantially boosted the focus by bank management on the explicit risks on their balance sheets.

The real key to breaking the "doom loop," however, lay not merely in more transparency, but in the establishment of a credible mechanism that would not force unsustainable contingent liabilities on the finances of already struggling sovereign budgets. Ireland provided the prime example of banks sinking what was otherwise a sustainable fiscal path. By the time Spain needed help two years later, European leaders had finally agreed to offer financing for the specific purpose of supporting banks. Still,

[36] The first pan-European stress test in 2010 turned up a capital need for the entire euro banking system of less than €4 billion. However, the 2011 stress test revealed a €26.8 billion capital shortfall. The latest EU-wide stress test in 2016 revealed a starting common equity tier-1 ratio of 13.2% for the sample at the end of 2015. This ratio was 400 basis points higher than in 2011 (European Banking Authority 2016).

they would not take the important step of lending directly to recapitalize banks from the European level. For countries like Germany, it remained politically unacceptable to put their own taxpayers on the hook for bad property loans in other countries. In the event, Spain's bank credit line only added 1 percent of GDP to the national debt and confidence ultimately returned.[37]

As events in Spain and Italy revealed how banking integration made the currency union as a whole dependent on the health of its parts, further developments confirmed that the parts were dependent on the whole. Each individual part is entirely dependent on the whole. Specifically, each national banking system is utterly dependent on the European Central Bank for the provision of cash and liquidity, and the threat of ending that liquidity amounts to a threat to shut down a country's banking system and consequently its economy.[38] In June 2012, the government of Cyprus was forced to accept unparalleled conditions of fiscal austerity, bank resolution and depositor haircuts in order to avoid de facto eviction from the euro. More dramatically, by the summer of 2015, the bulk of the euro area had severely limited its financial exposures to Greece and any political goodwill toward its new government was in shreds. Yet if the euro area as a whole was not vulnerable to events in Athens, Greece itself found itself wholly dependent on the euro area. Even having denounced the terms of its massive loans and even after a decisive referendum that rejected those terms, Prime Minister Alexis Tsipras found that he was helpless to overcome his country's dependence on the euro's financial system.

[37] In the end, the government drew €40 billion of the €100 billion credit line (Reuters 2012). Yields fell 150 basis points over six months. Bloomberg.

[38] Banking systems, dependent as they are on credibility, take years to evolve and grow, but can collapse in no time (Diamond and Dybvig 1983). Eichengreen (2007) set forth a long list of the technical, economic and political obstacles to exit long before the crisis broke out.

Draft plans to introduce a new currency were ultimately abandoned in the face of acknowledged potential risks that included closed borders and martial law (Galbraith 2016). If even a government with such a clear mandate to reject the conditions of euro membership could not contemplate the next logical step, it remains hard to imagine other circumstances that would lead any member to take that step deliberately.

What became abundantly clear through these events was that the transmission mechanism for the euro area's credit and economic activity was also the source of its greatest vulnerability and required reinforcement. If European policymakers ultimately could not go as far as a direct recapitalization of banks, they took a different and in many ways far more radical step. They approved direct and central supervision of Europe's largest banks as well as the systemically important banks in smaller member states. The Single Supervisory Mechanism at the European Central Bank represented an unprecedented decision by sovereign states to centralize the crucial functions of banking supervision. Essentially, Europe's most important banks were to be examined by supervisors of different European nationalities who would be ostensibly immune from local political intrigue. It will be a phone call from Frankfurt that tips a bank into insolvency proceedings whether or not it has connections to a ruling party in the midst of an election campaign. Moreover, when insolvency is declared, it will proceed according to the rules set forth in the Bank Resolution and Recovery Directive, which specifies who will absorb the losses and what sort of government support is permitted. In addition, the Single Resolution Fund is also gathering contributions from banks. Some worry that the pace of accumulation remains too slow to be useful when the next crisis hits, but it represents another pan-euro pool of money to bolster a government's ability to pay the costs of a bank gone bad.[39] These new structures have yet to be tested in practice, of course, but the mechanisms themselves represent an important step forward in the pooling of political authority over sensitive domestic financial affairs.

[39] A proposed European Deposit Insurance Scheme that would cover individual deposits up to €100,000 has been shelved over German objections. (Guarascio 2016).

V. THE BEST PATH FOR WORSE TIMES

"How Greece Saved the Euro" was the title that George Papaconstantinou was tempted to give the memoir he wrote about his tumultuous stint as the Greek finance minister.[40] It is not as outrageous as it may sound for this was the crisis that first forced European leaders to stare into an abyss and make unprecedented decisions to bind their fates to one another more closely. They pooled their resources to create a "firewall" to protect their project from market turmoil, they agreed to subject one another to uncomfortable peer scrutiny, and they enshrined their central bank as the ultimate guarantor of financial stability. They took some initial steps towards addressing the structural differences among their economies to boost productivity, reduce imbalances and make their business cycles more synchronized. Finally, they went further still to reinforce the mechanisms that oversee the banking network that can transmit a shock to one member to each and every other member.

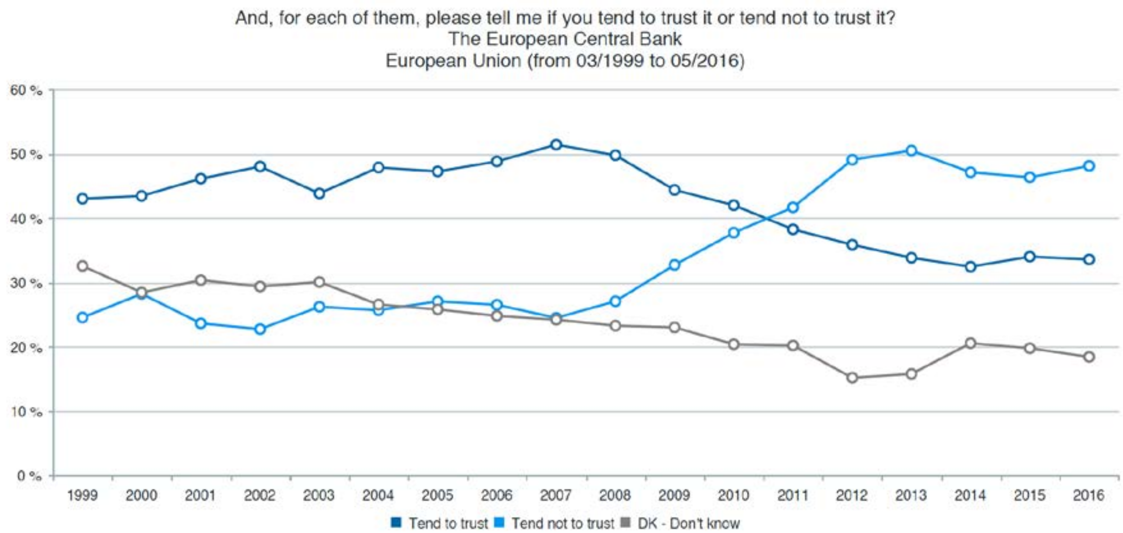
These historic steps toward a shared future, of course, do not mean the euro area is on an inevitable path to stability and prosperity. Indeed, Europe's economic recovery since the crisis remains unimpressive and the forecasts are hardly encouraging. Amid the continuing forces of political populism, financial deflation and slow growth, political tensions will rise. Extremist and anti-European political forces have been gaining influence in France, Italy and the Netherlands. Unemployment is falling on average, but still remains stubbornly above 10 percent and many times higher for youth in the periphery. Left to slowly fester, the disparities among the euro area's economies will

[40] See Papaconstantinou (2016).

grow. The poorer countries may again feel increasingly trapped by the common currency and powerless to create jobs in the face of its relentless economic logic. The richer countries may again feel increasingly dragged down by the underperformers and resentful at continuing calls for resource transfers. Ultimately, if there is a conscious decision to exit the euro, it will be more political than economic. It will be driven by complex alignments in each state around the uncertain political benefits of further integration such as continental peace and global strategic heft and the immediate costs of pooling sovereignty, supranational policymaking and cross-border resource transfers. Voters may also have evolved in terms of their reactions to what has been done and the decisions of the last five years may have fueled further resentment and extremism that make the current structures more brittle.[41] It could also fall apart in an accident or miscalculation during fraught negotiations.

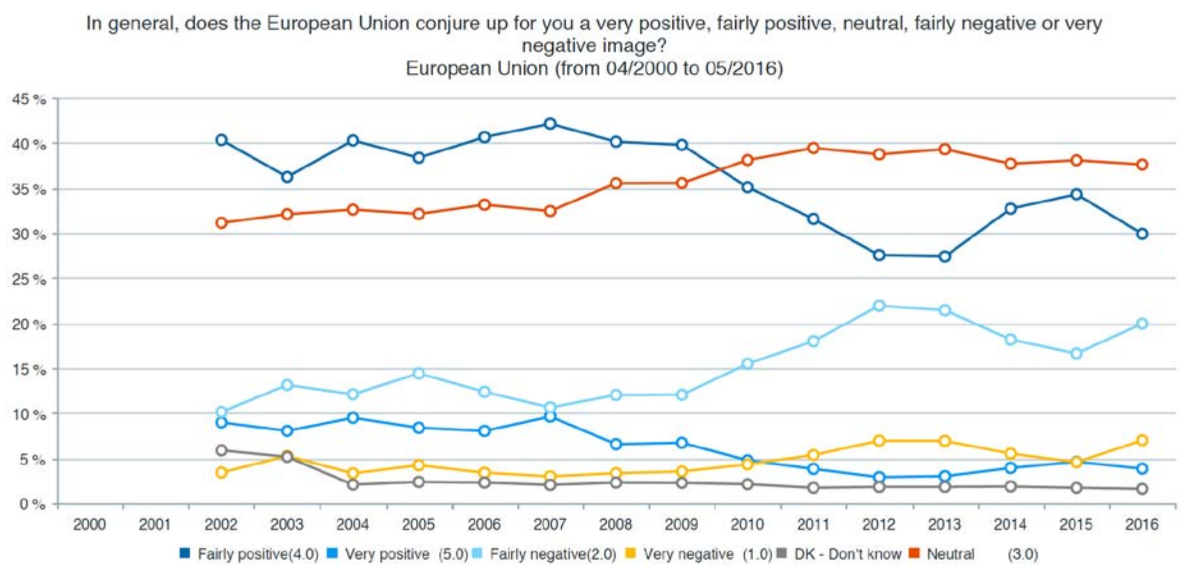
[41] In a growing number of European countries right-wing parties, from populist and nationalist to far-right neofascist, have made important electoral gains (European Humanist Federation 2013). For developments on the left, see Stavrakakis and Katsambekis (2014).

Chart 8. Trust in the European Central Bank, 1999-2016



Source: Eurobarometer

Chart 9. Image of the European Union, 2000-2016



Source: Eurobarometer

What is remarkable, however, is that throughout the crises and economic upheaval of the last few years, confidence in the European Union has deteriorated but hardly dissolved. Within this fraught political context, which makes progress on fiscal integration, labor mobility or intrusive social reforms counterproductive, it is possible to envision a more technical agenda of banking and financial reform that provides important reinforcement of the current structures. This agenda would include progress on insolvency regimes, which in countries like Italy significantly delay the conversion of bank collateral and leave banks burdened with large non-performing loan ratios. Direct bank recapitalization, which would address the 'doom loop' decisively, seems unlikely in the forseeable future. Nevertheless, schemes like the Spanish banks program of 2012 that lend through a sovereign with lengthy tenors and low interest rates could help clean up non-performing loan portfolios in Italy and Portugal and bolster the credibility of the single supervisor. Accelerating contributions to the Single Resolution Fund would also improve confidence in the system, while limited deposit insurance, or perhaps euro-level re-insurance of national deposit insurance schemes, would also help share the costs of cleaning up bad banks. Limiting the sovereign exposure of banks triggers opposition from governments that are overly dependent on a few national champions to finance their deficits. Still, sensible transitional periods to some flexible limits will make even the weakest government budgets better off if they are required to diversify their bond sales and banks themselves are required to diversify their holdings.[42] An alternative to addressing the differential sovereign risks across the currency area would be to haircut sovereign debt at different levels when banks post it as collateral for their liquidity needs.

[42] Proposals like European Safe Bonds addresses the same problem in a different way, but the political hurdles seem higher than ever (Brunnermeir et. al. 2011).

The outright abolition of the national central banks may also be too much for a climate that is rife with nationalist sentiment, but further steps are possible to subsume their rights and prerogatives into the control of central institutions in Frankfurt to make progress toward a unified pan-euro banking system. Finally, more integration of capital markets can be important to reinforcing the euro, improving cross-border risk taking, diversifying funding sources, and increasing access to financing.[43] While these bank and financial market reforms alone may not be enough to secure a flourishing future for the European currency union, they are a necessary--and this paper argues realistic--set of minimum goals.

In the near term, what makes any deliberate calculation to exit the euro so difficult is the integration of the common currency's banks and financial markets. This makes the whole unexpectedly dependent on the parts--and, as in Cyprus in 2012 and Greece in 2015--the parts dependent on the whole. It is hard to imagine, however, that grinding periods of dissatisfaction can continue indefinitely without triggering new crises that generalize the problem and force a reaction. In the most recent experience, these reactions have created the design for mechanisms intended to address Europe's imbalances and mitigate the impact of future shocks, but the current equilibrium remains vulnerable over the long term. Addressing the euro's fundamental flaws, which will require significant further pooling of national sovereignty, will be difficult in the current populist mood. Sharp and unexpected political developments—a populist election victory or a fresh immigration crisis—may well trigger events that lead to miscalculation

[43] On September 30, 2015, the European Commission adopted an Action Plan on Building a Capital Markets Union, which sets a program of actions that will establish the building blocks of an integrated European Union capital market by 2019 (European Commission 2016b).

and collapse. So far, however, the financial education of European leaders has underscored the lesson that integration has brought interdependence that is increasingly difficult and costly to unravel. Given the achievements of Banking Union so far--and given the continued need to clean up weak banks—they would do well to make progress where progress is possible.

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