The economy of Spain in the eurozone before and after the crisis of 2008

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Abstract

In common with the other periphery countries that joined the euro-zone in 1998-2000, Spain enjoyed ten years of economic prosperity, essentially debt-financed. The financial crisis of 2008 has revealed deep structural problems in the euro-zone, but also among Spain's fiscally autonomous regions, which differ from the financial problems faced by the other European periphery countries. But the Spanish problems with de-leveraging suggest further difficulties for the euro-zone as it attempts to implement sterner budgetary controls over member states.

Key words: autonomous regions, Balassa-Samuelson effect, de-leveraging, euro, sovereign bonds

JEL classification: F33, G01, G15, G18

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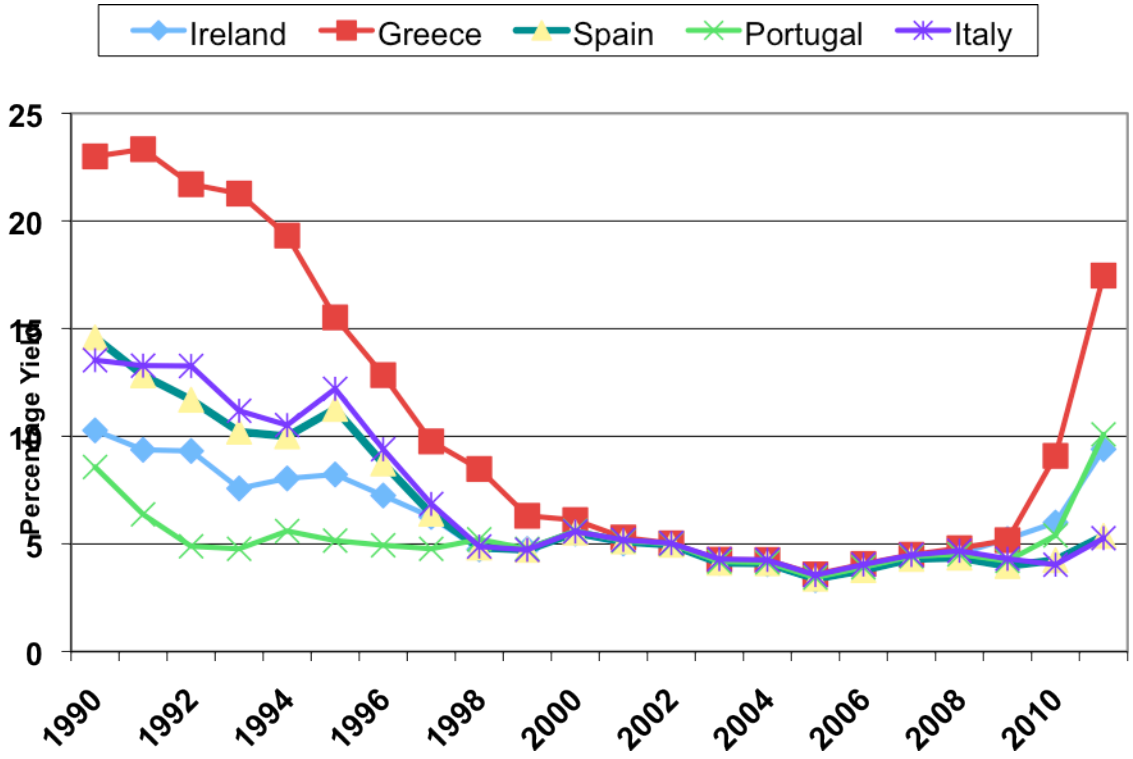
The fear of contagion among global investors as the debt crisis of the euro-zone periphery spread from Greece in 2009 to Ireland and then to Portugal was whether the much larger economies of Spain and Italy might be next. These five countries constitute the Southern Western European Periphery (SWEP hereafter). The responses to the debt crises of the three much smaller countries were already proving inadequate by October 2011, so if Spain stumbled as well, there was little doubt that the common currency experiment with the euro would fail under its current procedures. Major changes would follow, whether the euro-zone remained intact or not. As events unfolded in 2010 and 2011, however, it appeared to investors that Italy might be the real problem as the yields on Italian government debt rose slightly above those on Spanish government debt (see Figure 1).

Figure 1. Sovereign Debt Yields, SWEP Countries



Source: OECD Economic Outlook, Statistical Data Base.

Figure 1 also shows that none of the various policy initiatives undertaken by European Union authorities since 2008 has had a long-lasting effect on the pricing of the Euro-zone's sovereign government bonds. What caused this apparent unraveling of the euro-system after it had appeared to be working so well for the first ten years after the establishment of the European Central Bank in 1998? Why have none of the measures taken or announced had the desired effect as of the end of 2011? The experience of Spain during the halcyon days of the euro-zone and its subsequent problems of deleveraging after the financial crisis of 2008 is instructive for framing answers to those fundamental questions. More important, however, the Spanish experience is instructive for anticipating the probable effects of the enhanced budget oversights for the euro-zone governments that were agreed upon in principle in December 2011 and confirmed at their meeting on January 30, 2012. The ongoing travails of the Spanish government should alert the architects of the new fiscal regime now under construction for the euro-zone to potential problems in managing fiscal oversight even by a central government, much less by the European Commission.

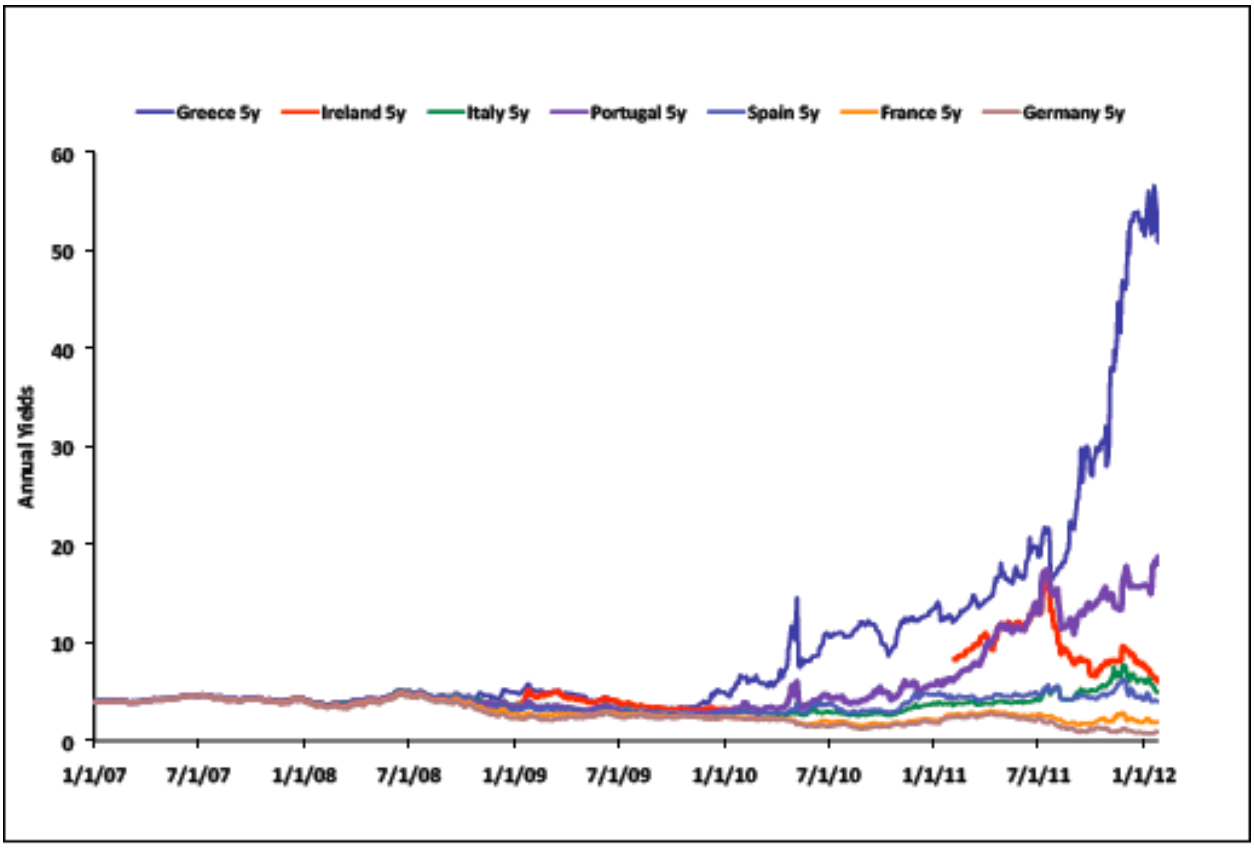
Below, we first explore how and why the euro-system began to pull apart in September 2008, apparently recovered in 2009, but then exploded in 2010. We highlight both the problems of credit bubbles focused on the rapidly rising prices of non-tradeables in the Southern Western European Periphery (SWEP) countries and then the unintended consequences of initial deleveraging when the credit bubbles burst. Sovereign bonds appeared to be a desirable way to redress the balance sheets of the affected firms in the financial sector and the sovereign euro-bonds all rose in price in response until the budget problems of first Ireland, then Greece, and finally Portugal became apparent. We then focus on the case of Spain, examining first how its economy flourished during the initial ten

years of the euro. Regional political tensions were attenuated by lavish applications of credit. Finally, we venture a sober appraisal of Spanish prospects for recovery from the collapse of the euro-bond regime, drawing out implications for the emerging new fiscal regime of the euro-zone and its potential members.

The collapse of the sovereign euro-bond regime

It is evident in retrospect that the sub-prime crisis in the United States, which culminated with the bankruptcy of Lehman Brothers in September 2008, also marked the disruption of the euro-system. Before September 2008, yields on government bonds issued by all members of the euro-zone moved in lockstep with those of Germany. During that period, all central government bonds denominated in euros were accepted on the same terms as collateral for loans from the European Central Bank. Afterwards, increasing

Figure 2. SWEP bond yields compared to France and Germany, Jan. 2007 – Jan. 2012



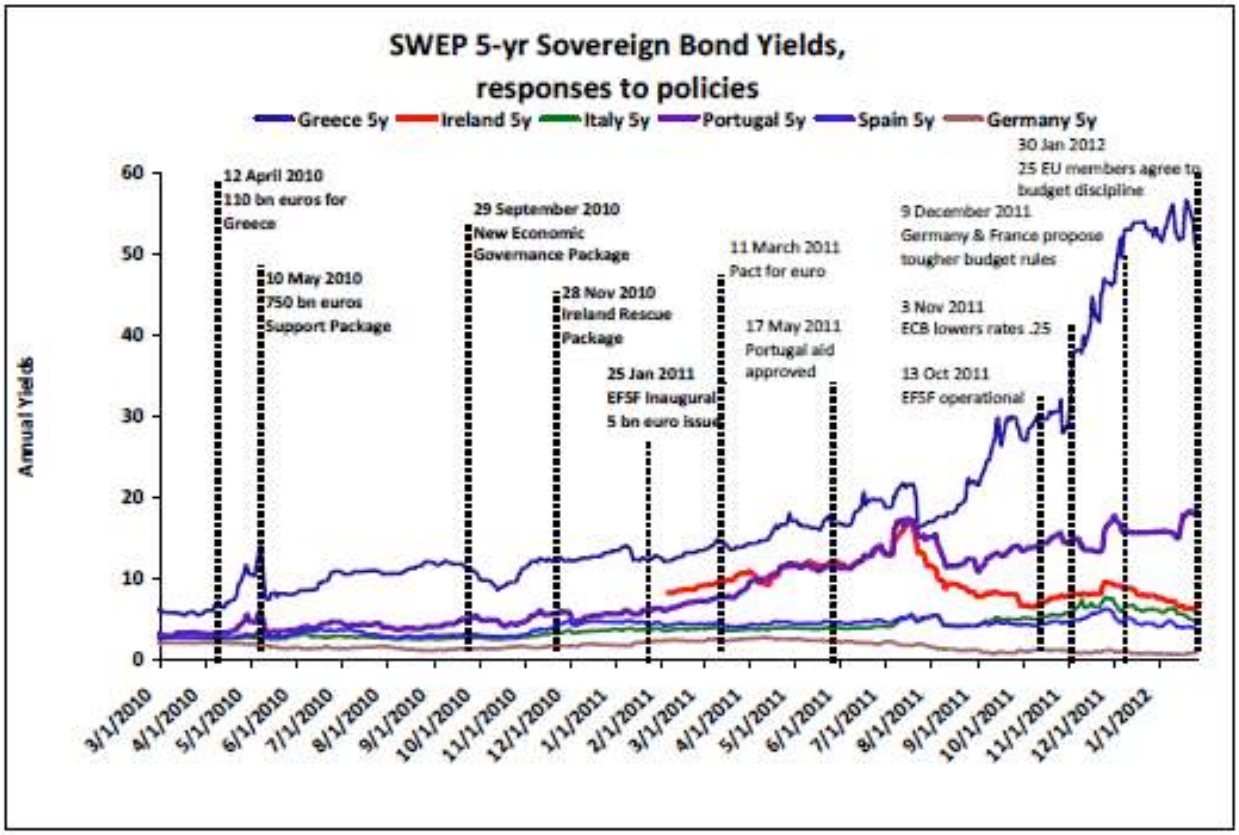
Source: Bloomberg.com/quote

differences appeared as the bonds issued by first Greece, then Ireland, and eventually Portugal were sold at increasing discounts, leading to higher yields compared to German bonds. Spain and then Italy followed with France showing some weaknesses as events unfolded over the following years.

An interesting phenomenon appeared in 2009 as the yields on all euro-zone sovereigns fell for a time, which apparently reassured European Union policymakers that the bold actions undertaken by the European Central Bank initially in 2007 had de-coupled the European banking system from the travails of their Anglo-American cousins. It appears now, however, that this episode was merely the initial stage of a general process of de-leveraging by European banks, a process that is certain to continue through 2012 and likely beyond for several years. It is tempting to see the increasing use of credit default swaps by international finance firms as a common element between the sub-prime crisis in the US and the sovereign debt crisis in the euro-zone. One argument to explain why the housing bubble went on so long in the US is that there was no convenient way to "short" the residential mortgage backed securities (RMBS) that were the hallmark of the US financing of the housing bubble, much less to short the collateralized debt obligations (CDOs) that were ingeniously constructed from packages of the RMBSs. The creation of an index to indicate the default rates of various tranches of CDOs in 2007 finally provided the basis for a transparent market in credit default swaps on CDOs to emerge (Gorton, 2010). As short-sellers of RMBSs and CDOs (i.e., buyers of specialized CDSs on these derivative securities) profited from the collapse of the housing bubble in the US, they turned their attention to the more easily developed market in CDSs on government bonds, including especially those denominated in euros. Prices of CDSs on euro-government bonds thereafter followed very closely the yield spreads on euro-government bonds. (BBVA, October 2011)

The policy response to the collapse of the sovereign euro-bond regime by the European Union authorities has been consistently behind the curve as the euro bond crisis has developed. To date, there is no obvious solution to the Greek problem (February 6, 2012, just after the collapse of talks with Greek authorities and representatives of private investors). Further, the individual piecemeal steps that have been taken over the past two years seem to have made the problem increasingly worse, as shown in Figure 3. There, yields of 5 year sovereign bonds of the SWEP countries are compared to yields on German bonds for the two years January 2010 through January 2012. After each major intervention by EU authorities, or by the European Central Bank, yields have fallen, but only briefly before beginning to rise again as market participants realize the futility of the measures taken. (A useful timeline of all policy actions taken since December 2005 is provided on the ECB web site: http://www.ecb.int/ecb/html/crisis.en.html.)

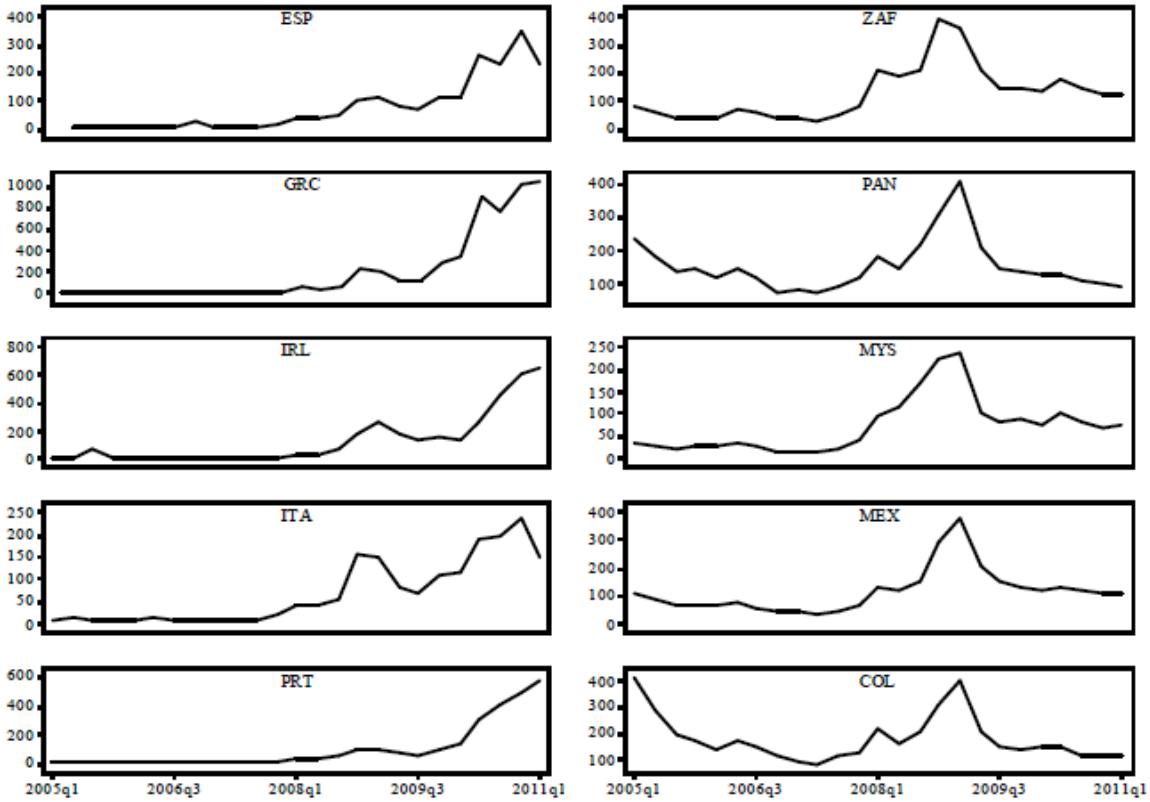
Figure 3. Responses of sovereign euro-bond yields to policy actions by EU authorities since January 2010.



Source: Bloomberg.com/quote & European Central Bank, Timeline of the economic crisis, http://www.ecb.int/ecb/html/crisis.en.html.)

The policy responses of the European Union have not only been "behind the curve" as the crisis has unfolded, but that they have in some measure prolonged the crisis thanks to the determination to preserve the euro, and to keep Greece in particular in the euro-zone. To date, that determination has meant preserving the system that allows the European Central Bank to treat the sovereign government bonds of each eurozone member country on the same basis, despite differences in the underlying deficit and debt structures among the fiscally independent states. An interesting working paper published by the National Bureau of Economic Research has sifted through the data banks of the International Monetary Fund to find country counterparts to each of the SWEP countries in

Figure 4. Evolution of sovereign debt CDS prices, eurozone countries and comparable non-eurozone countries. 2005-2011, quarterly averages.



Source: Aizenman, J. et al. (2011), Figure 2, p. 40. Note: The comparison country for Spain is South Africa; for Greece, Panama; for Ireland, Malaysia; for Italy, Mexico; and for Portugal, Colombia.

terms of their central government budget situations leading up to the 2008 crisis. Figure 4 from their paper shows that for each member of the euro-zone, regardless of their counterpart country, the effect of the 2008 crisis has been worse than in comparably indebted countries and it has been prolonged. No doubt this is due to the uncertainty over what measures will be taken by the euro-zone authorities as well as doubts whether the announced measures will have the intended effect of restoring the previous regime. As we argue below, the Spanish experience in dealing with the crisis should make market participants doubt that the actions taken to date will ever restore the previous euro-bond regime.

The fundamental factor that was common to both the sub-prime crisis in the US and the European sovereign bond crisis was the collapse of the spending bubbles sustained by access to cheap financing. Housing and consumer durables were at the heart of the US case, as in the Irish and Spanish cases, but the spending splurges in Greece and Portugal were less in housing than in government services and infrastructure projects. Italy remains *sui generis*, as does Iceland, which may best be understood as a gigantic hedge fund run by incompetents (Lewis, 2010). There are common themes for the problems of each European periphery country under the euro-system's operating rules for its first decade, however, namely access to cheap financing through the facilities of the European Central Bank and relatively more rapid increases in prices of non-tradables (service sector labor, land, and housing) in the poorest countries.

The experience of the European periphery countries within the common currency area recalled the Balassa-Samuelson effect that economists noted in the 1960s when developing countries began to open their economies while joining the Bretton Woods system of fixed exchange rates. Neal (2007), explained:

> The explanation for the Balassa-Samuelson effect is that poor countries are poor mainly because they do not trade very much with the rest of the world, but that also means that their price levels are low relative to the rest of the world. The consequence of not trading much is that their agricultural and manufacturing sectors, protected from competition, become less productive relative to more advanced countries, and wage incomes are correspondingly lower. Much of the economy's output becomes non-tradable therefore. Trade barriers protect their jobs in manufacturing and agriculture while most services are inherently non-tradable. The general level of consumer prices will also be low, the result of low money wages throughout the economy.
>
> Once trade opens up with the more advanced countries of the world, however, prices of tradable goods in the backward countries tend to rise very quickly toward the common world price. They are clearly doing that already in the accession countries, given the removal of the previous trade barriers that prevented trade between east and west Europe. As wages rise in the now-tradable sectors of the developing economy in response to the gains from trade, the wages in the non-tradable sectors of the developing economy will rise as well, raising the general price level. The more rapidly their trade expands relative to their trading partners, the more rapidly will their price level rise as well relative to their more advanced trading partners. (Neal, 2007, p. 304)

As the European periphery countries that joined the euro by 2002 were forced to maintain a fixed nominal exchange rate with their more advanced trading partners, their real exchange rates continued to appreciate as long as their domestic inflation rates continued to be higher than those in the more advanced euro-zone economies. Neal concluded that the accession countries joining the European Union en masse in 2004 were "well-advised to delay joining the euro-zone until their price levels are close to those in the rest of the EU." (p. 394) The object lesson for the poorer countries that had already joined the euro-zone by 2002, however, was that they could now borrow at favorable interest rates from the rest of the world and apply the increased supply of funds to whatever

projects they desired. This proved to be housing in the case of Ireland and Spain, government services in Greece, and government construction in Portugal, but in each case the most desirable investment was clearly in non-tradable goods or services.

The Spanish case has unique features due to the size and diversity of the country, but also due to its prior economic and financial history. We examine first how the Spanish participated in the common response of low-income countries to higher rates of inflation than in the rest of the euro-zone, first by increasing employment and then by indulging in a housing bubble until the global financial crisis of 2008. We note the common response after the crisis by financial markets, which then began to price explicitly the country risk for the bonds of each peripheral country. To determine how likely contagion is to spread to Spain, we explore the unique features of the Spanish experience that emerge from Spain's regional diversity and disparities. Lessons from each region may be applicable to smaller countries, and overall lessons are to be learned for larger countries, such as Poland, still not a member of the euro-zone seven years after becoming a member of the European Union, or Turkey, still not a member of the European Union much less of the euro-zone.

The most obvious theme is that the weaker a country's fiscal condition was before entry into the euro-system, the greater was the government's incentive to join. Once a country was a full member of the euro, with no exchange rate flexibility against the other member countries, the European Central Bank was committed to loan euros against collateral consisting of any member country's central government debt. As a direct result, the effective yields on the standard ten-year bonds issued by each government converged to essentially the level of the German government's bonds. The larger the amount of outstanding government debt already incurred by a country, the greater was the nearly immediate reduction in interest expenses. All parties recognized this, so the officials of the

European Central Bank were consistent in stating that countries with weaker fiscal regimes had to begin making fiscal reforms and structural reforms in their labor and capital markets so that they could converge toward meeting the Maastricht criteria of sustainable long-run debt and deficit levels (taken as Debt/GDP of 60% and Deficit/GDP of 3%). But the moral hazard problem arose throughout the euro-zone for all governments whose leaders felt it was imperative to meet other, more pressing political problems before confronting reforms in labor and capital markets (Neal, ch. 5).

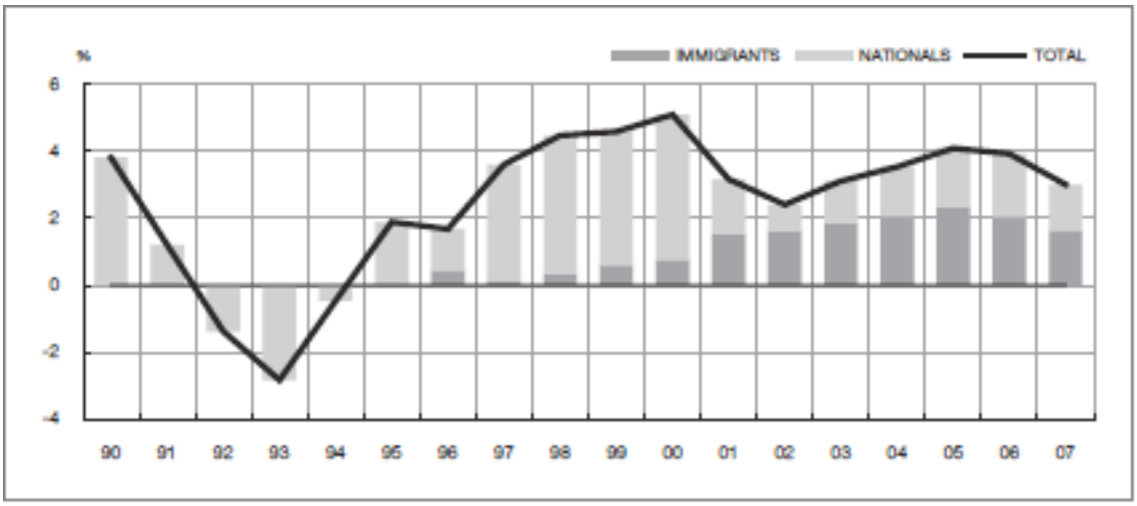
The Spanish economy during the "ten good years" of the sovereign eurobond regime

In the Spanish case, full advantage of the lower interest rates on government bonds was taken to help resolve regional conflicts, the intensity of which was evident in separatist movements in the Catalan and Basque regions. These also happened to have the major industries that were hurt most when their real exchange rate with the rest of the euro-zone economy appreciated. As the economies expanded throughout Spain, so did employment, but economists noted with increasing alarm that productivity did not rise. Figure 5 shows that increased immigration, especially from Latin America, provided much of the additional labor but native Spaniards entered the formal labor force as well, increasing their participation rate in the labor force from a European-wide low level of 48.0% in 1989 to 65.6% in 2007, almost exactly the average level for all 12 countries then in the euro. (Eurostat) In this sense only, convergence to the levels of more advanced trading partners did occur.

But employment grew mainly in construction and services, not in manufacturing or in more high-tech sectors, so that total factor productivity remained stagnant over the period 1999-2007. Meanwhile, total factor productivity in the euro-zone grew at an average annual rate of 0.5% and in the US at 0.9% (Eurostat). The focus of growth in labor

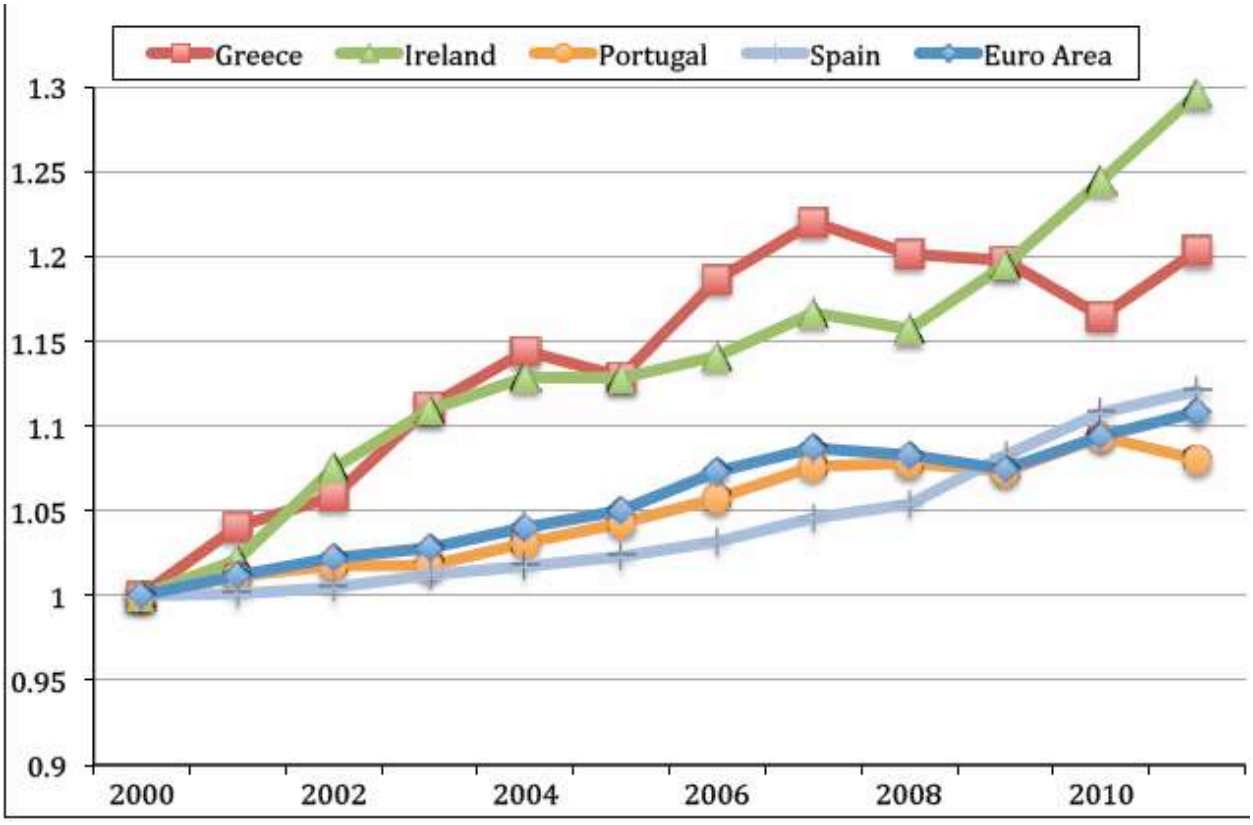
force participation was on the non-tradable sectors of the economy, diverting investment from areas where advanced technology was needed to maintain Spanish competitiveness in international trade.

Figure 5. Sources of employment growth in Spain.



Source: Juan F. Jimeno, ed., *Spain and the euro: the first ten years*, Bank of Spain, 2009

Figure 6. SWEP Productivity Levels Compared, 2000-2011.



Source: OECD, *Economic Outlook*, No. 90, October 2011.

Figure 6 above shows how badly Spain lagged in labor productivity even in comparison to the other periphery countries, and to the average level for the euro-zone as a whole. The slight improvement since 2008 is at the expense of stunning increases in unemployment.

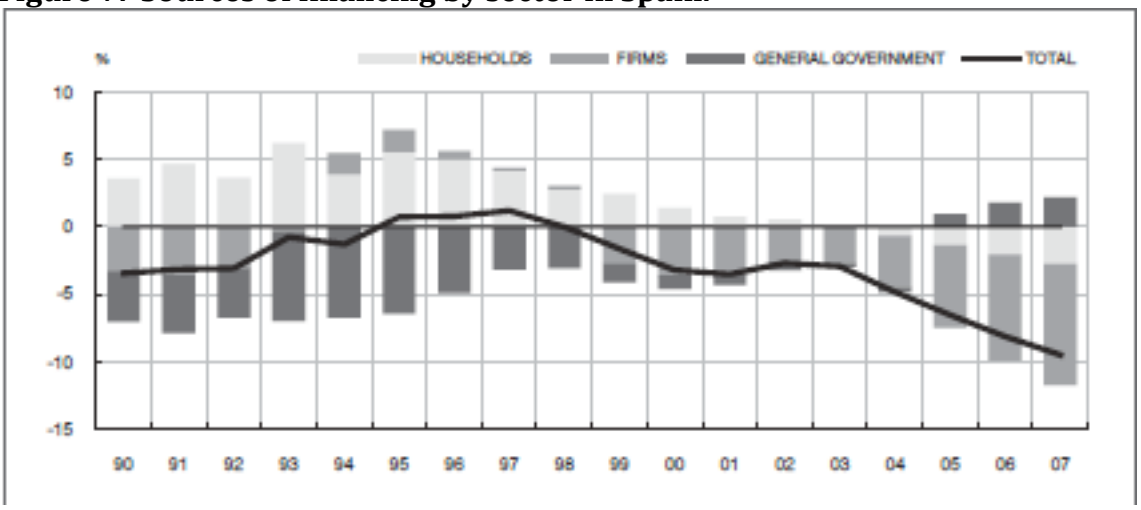
Meanwhile, the generally higher rate of inflation in Spain than in the rest of the euro-zone or the rest of the European Union meant that its real exchange rate kept appreciating relative to the other trading partners in Europe. The higher real exchange rate, combined with lagging total factor productivity in the Spanish economy put even more pressure on the current account. Capital imports generally kept the overall balance of payments equilibrated without loss of foreign reserves, but these came at the price of increasing indebtedness, first for the government, then for Spanish corporations, and finally for Spanish households as the housing bubble came to the Spanish countryside.

Figure 7 shows the changing pattern of indebtedness by sector as Spain financed its extensive growth after the adoption of the euro. From household net savings covering the debts of both firms and the government before adoption of the euro in 1999, financing switched to firms drawing upon foreign savings. The attractiveness of low interest rates on debt that led Spanish firms to see increasing levels of debt eventually drew in households as well, who borrowed heavily to invest in housing, starting in 2005, as shown in Figure 8.

The influx of foreign labor combined with foreign capital were signs that the Balassa-Samuelson effect was showing up as the Spanish economy continued to become more open while maintaining a fixed exchange rate with its major trading partners as part of its commitment to the common currency. After a brief pause in Spain's growing openness when making the adjustments needed to be among the first members of the

common currency in 2000, openness continued to increase right through the crisis until the end of 2011 (Figure 9).

Figure 7. Sources of financing by sector in Spain.



Source: Juan F. Jimeno, ed., *Spain and the euro: the first ten years*, Bank of Spain, 2009.

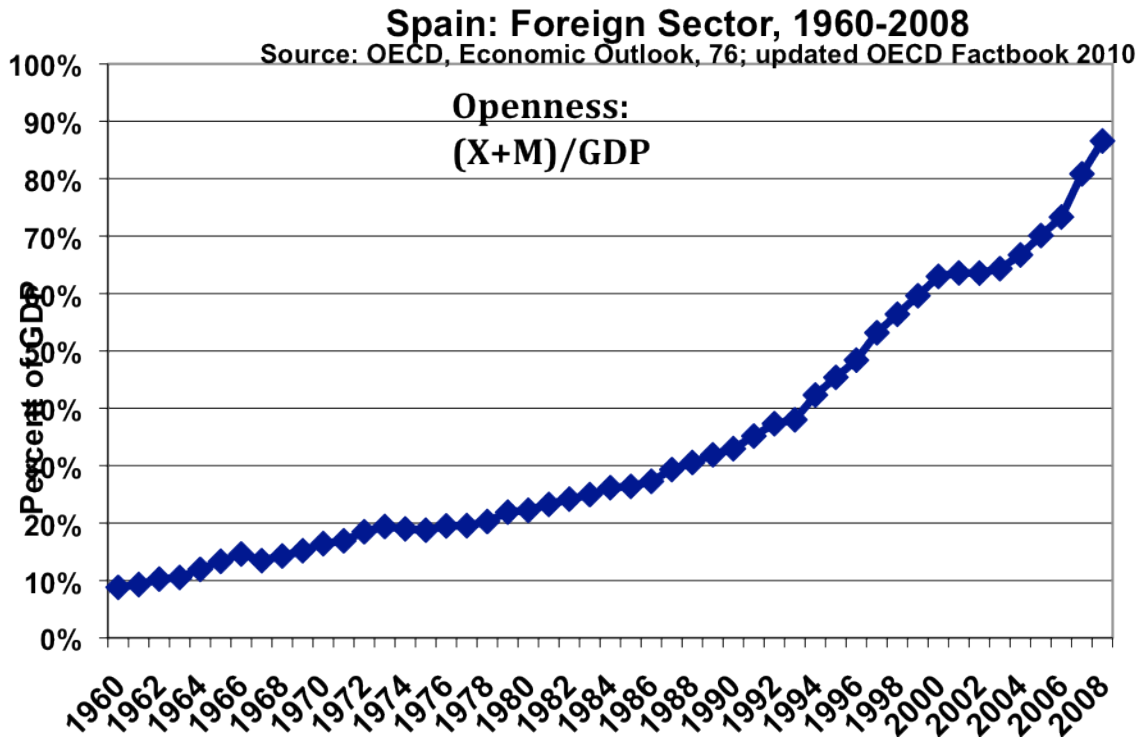
Figure 8. The Housing Bubble in Spain compared to others

SOURCES: Ministerio de Vivienda and Banco de España.

The mounting pressures of the housing bubble, largely financed by the 45 regional savings and loan banks, (*Cajas de Ahorros)* and mostly in the coastal regions to provide second, vacation homes for both Spanish and foreign households, mimicked in many ways the housing bubble in the US that led to the savings and loan crisis of the 1980s. Much as the Resolution Trust Corporation dealt with the insolvent savings and loan institutions in the US, however, so the Spanish authorities established the state-backed Fund for Ordered

Bank Restructuring to oversee the winding up of the under-capitalized and over-committed

Figure 9. Openness of the Spanish Economy, 1960-2008.



local cajas. By September 2011, the original 45 regional cajas had been reduced to 14 and the largest, the *Caja de Ahorros del Mediterráneo,* was taken over by the Bank of Spain after injecting €5.8bn from the Fund for Ordered Bank Restructuring (FOBR). While repeated stress tests indicate continued problems of bad loans on the balance sheets of the re-organized and re-capitalized savings banks, the steps taken by the Spanish authorities to date are working as well as could be expected. It did take the Resolution Trust Corporation three full years before it wound up formal operations, and some of the unwinding positions took several more years to develop.

Unique features of Spanish experience with the euro

Unlike the Irish case, the Spanish government did not and will not assume the liabilities of the failed banks, mainly because the major banks – Santander and BBVA – were not party to the housing bubble and under Spanish regulations were required to

strengthen their capital positions while expanding their operations abroad, mainly in the European Union and Latin America. The third largest bank, Caixabank, is now a retail bank created to absorb the activities of what was the largest savings bank, La Caixa. As a consequence, the ratio of Spanish government debt to GDP is among the lowest of the eurozone countries, although the deficit has risen sharply in response to the financial crisis. As Figure 10 shows, the IMF finds the Spanish sovereign debt situation the best of all the eurozone periphery countries, and the best of all the G-7 countries as well, save for Canada.

The debt problem for Spain lies therefore, not with sovereign debt currently but rather with the heavy indebtedness of both households and nonfinancial corporations. The spending spree of Spanish firms and households has also created dangerously high levels of external indebtedness. The financial reforms of the banking sector taken to date have reduced the overall leverage of the banks to levels now regarded as safe, as have the other three peripheral countries. To sum up, there remains a good measure of policy leeway for Spanish authorities in the central government but they have to deal effectively with the private sector debt problems. While many steps have been taken as of February

Figure 10. Debt Comparisons of G-7 and Eurozone periphery countries

(Percent of 2010 GDP, unless noted otherwise)

	U.S.	Japan	U.K.	Canada	Euro area	Belgium	France	Germany	Greece	Ireland	Italy	Portugal	Spain
Government gross debt, 2011[2]	100	229	83	84	87	97	88	80	152	114	120	91	64
Government net debt, 2011[2,3]	72	128	75	35	67	82	78	55	n.a.	95	101	86	53
Primary balance, 2011[2]	−9.0	−8.6	−5.5	−4.1	−1.7	−0.5	−3.5	−0.3	−0.9	−7.5	0.2	−1.6	−4.6
Households' gross debt[4]	91	74	107	93	72	55	69	62	68	129	50	103	90
Households' net debt[4,5]	−230	−231	−184	n.a.	−129	−204	−131	−130	−56	−68	−178	−126	−74
Nonfinancial corporates' gross debt[4]	76	138	128	n.a.	142	161	157	69	71	278	119	154	205
Nonfinancial corporates' debt over equity (percent)	105	176	89	72	106	43	76	105	218	113	135	145	152
Financial institutions' gross debt[4]	97	188	735	n.a.	148	139	148	95	21	664	99	65	113
Bank leverage[6]	13	23	24	18	26	30	26	32	17	18	20	17	19
Bank claims on public sector[4]	8	76	7	20	n.a.	22	19	25	27	28	32	16	22
Total economy gross external liabilities[4,7]	144	64	696	91	174	417	254	181	194	1,598	153	293	215
Total economy net external liabilities[4,7]	19	−52	14	7	13	−43	11	−39	99	102	20	106	90
Government debt held abroad[8]	32	7	27	20	29	68	64	53	61	59	47	57	50

Sources: Bank for International Settlements (BIS); Bloomberg, L.P.; EU Consolidated Banking Data; U.S. Federal Deposit Insurance Corporation; Haver Analytics; IMF, International Financial Statistics, Monetary and Financial Statistics, and World Economic Outlook databases; BIS-IMF-OECD-World Bank Joint External Debt Hub; and IMF staff estimates.

2012, it remains to be seen how effective they will be within the context of more general measures taken to copy with the pressing problems of Greece, Ireland, and Portugal.

It is clear that solving Spain's problems in the long-run depends on increasing total factor productivity, now that the Spanish economy has reached rough convergence with the average levels of per capita income and price inflation in the rest of the euro-zone. All *economic* analysts agree that this requires further structural reforms in Spain's labor markets, namely to allow firms greater flexibility in hiring temporary workers and firing long-term employees. The new minister for the economy and competitiveness, Luis de Guindos, stated firmly that he knew what had to be done and would see it through. His three structural reforms were: 1) change the wage bargaining system from centralized agreements at the sectoral level to the level of individual firms, allowing small and medium size firms to adjust to changes in productivity; 2) simplify full-time contracts and encourage part-time hiring; and, 3) "to allow the reallocation of human capital to high-value-added sectors." (de Guindos, *Wall Street Journal*, January 19, 2012) De Guindos went on to state that banks would be re-capitalized without public money while "the entire public sector will not be allowed to run structural deficits of more than 0.4% of GDP or accrue debt of more than 60% of GDP. Spain will therefore be among the first EU members to introduce in its domestic legal framework the economic governance agreements just reached at the EU." (*Ibid.)*

But all *political* analysts (other than de Guindos) regard these necessary reforms as increasingly difficult for the most advanced regions within Spain. The relapse of the Spanish labor market toward sharply lower participation rates and higher unemployment rates after 2008 was stunning in its speed and depth. It appears that the convergence process has to begin all over again, but this time without the help of either foreign capital

or immigrant labor. The difficulties that confront the new Spanish policy makers, who took office after the elections of November 20, 2011, are compounded by attempting to implement long-run structural reforms in the labor market while continuing to deleverage the balance sheets of the public, the financial sector, and the governments, both at the central and regional levels. In this sense, the problems of Spain are emblematic of the entire process now underway for all the periphery countries. While German authorities can point, rightly, to the success that they have achieved in making effective such structural reforms in its labor markets while maintaining relatively moderated budget deficits since the reunification shock of 1990, it is worth noting that it took nearly 20 years to accomplish.

Spanish Banks and Regional Housing

Just how well are the Spanish banks and the Spanish governments, both central and regional, equipped to deal with the aftershocks of the collapse of the housing bubble in Spain? Comparing the overall picture of the banks in Spain with those in the other major euro-economies makes it appear that Spain's banks are in relatively good shape in terms of the structure of their liabilities. The higher the importance of deposits, for example, the better situated are banks, and the higher the proportion of unsecured debt owed to other financial institutions, the higher the level of mutual trust within the financial sector. Finally, the greater the proportion of long-term wholesale debt, the less pressing may be the need for additional capital.

Table 1 shows clearly the parlous situation of Greece and Ireland in contrast to that of Spain as of October 2011. Greek banks owed over one-fourth of their liabilities to the European Central Bank and were unable to issue wholesale debt. Irish banks depended on interbank secured loans rather than deposits. Spanish banks actually seemed in better

shape than Italian banks by these measures. Capital, however, is not shown in the BBVA table, probably because it is difficult to compare across the different accounting regimes used by national authorities.

Table 1. Comparative liability structures of European Banks, October 2011

`European Banks Structure by country (BBVA, European Credit Markets: On Thin Ice, October 2011)

		Due to other Financial Institutions			Wholesale Debt		
Country	**Deposits**	**Secured Interbank**	**Unsecured Interbank**	**Central Bank Repo**	**Short-term debt**	**Long-term debt**	**Total Liabilities**
France	1932.5	107.3	378.7	6.0	174.1	743.7	3342.3
Germany	3047.1	973.2	639.5	91.4	188.0	2090.1	7029.3
Greece	1754.5	71.2	73.5	749.4	40.7	97.5	2786.8
Ireland	182.2	152.5	16.5	47.9	13.4	83.9	496.4
Italy	872.8	47.8	133.2	45.4	79.9	418.6	1597.7
Luxembourg	70.6	2.9	11.4	10.0	6.1	36.3	137.3
Netherlands	833.9	6.9	63.2	1.4	24.6	388.0	1318.0
Portugal	176.9	26.8	21.7	4.2	9.9	42.6	282.1
Spain	1251.5	90.4	124.6	43.3	12.2	422.6	1944.6
United Kingdom	2662.3	391.8	346.4	24.7	139.2	841.5	4405.9
	12784.3	1870.8	1808.7	1023.7	688.1	5164.8	23340.4
France	57.8%	3.2%	11.3%	0.2%	5.2%	22.3%	100.0%
Germany	43.3%	13.8%	9.1%	1.3%	2.7%	29.7%	100.0%
Greece	**63.0%**	**2.6%**	**2.6%**	**26.9%**	**1.5%**	**3.5%**	**100.0%**
Ireland	**36.7%**	**30.7%**	**3.3%**	**9.6%**	**2.7%**	**16.9%**	**100.0%**
Italy	**54.6%**	**3.0%**	**8.3%**	**2.8%**	**5.0%**	**26.2%**	**100.0%**
Luxembourg	51.4%	2.1%	8.3%	7.3%	4.4%	26.4%	100.0%
Netherlands	63.3%	0.5%	4.8%	0.1%	1.9%	29.4%	100.0%
Portugal	**62.7%**	**9.5%**	**7.7%**	**1.5%**	**3.5%**	**15.1%**	**100.0%**
Spain	**64.4%**	**4.6%**	**6.4%**	**2.2%**	**0.6%**	**21.7%**	**100.0%**
United Kingdom	60.4%	8.9%	7.9%	0.6%	3.2%	19.1%	100.0%

European banks under the Basel II Accords must mark to market any securities they have on their trading accounts, but if they have them as assets on the bank's general balance sheet with no intention of selling before maturity, they can be marked at book value, or even par. In July 2011, the troika established to oversee the Greek bailout (the IMF, the ECB, and the EU Commission mission chiefs) agreed that Greece's bonds should be marked down 21% even if they are not being traded. The clear implication was that the ECB would no longer accept them as collateral in the repo market at prices higher than that, while it would also take the "haircut" 21% loss on the bonds it held. Much of the furor

over the nominal stress tests performed on European banks by the newly-formed European Banking Authority in July 2011 revolved around whether this also amounted to a guarantee by the ECB that it would maintain the market for Greek bonds at least at that level. With the assumption that the ECB guarantee would hold, or that the bond markets would trust such an implicit guarantee, the Banking Authority estimated the capital deficiency of EU banks to be only €2,5 billion. But more Spanish banks fell below the line than in any other country.

Table 2. *Financial Restructuring of Spanish Banks*, September 30, 2011.

Entity	Recapitalization process in Spain
Bankinter	Capital needs EUR 0.3 bn. Plan to raise capital through convertibles
Bankpyme	Signed an agreement with Caixabank for the sale of its banking business to Caixabank
Deutsche Bank	Capital needs EUR 0.1 bn. Will increase capital through injections from parent companies
Barclays Bank	Capital needs EUR 0.5 bn. Will increase capital through injections from parent companies
BANKIA	EUR 3 bn of capital raised through an IPO which took place in July. Its core capital is now above 8% *BANKIA was created by merger of 7 cajas*
Banco Civica	EUR 0.7 bn of capital raised through an IPO which took place in July. Its core capital is now above 8% *B Civica was created by merger of 4 cajas*
NovaCaixaGalicia (NCG)	Injections from FROB of EUR 2.47bn The stakes acquired by the government are 93% *NCG was created by merger of 2 cajas*
Caixa Catalunya	Injections from FROB of EUR 1.7bn The stakes acquired by the government are 90%
UNNIM	Injections from FROB of EUR 0.5bn The stakes acquired by the government are 100% *UNNIM was created by the merger of 3 cajas*
CAM	This entity submitted a recapitalisation plan on April 2011, including a request for EUR 2.8 bn from FROB which injected this amount through subscription of shares. Intervened by the regulator. Its being privatised. FROB will sell the institution through a competitive procedure. Target day for the auction before end October
Caja-Espana-Duero	With a shortfall of EUR463m, it has resolved its capitalisation needs by merging with the much stronger Unicaja.
Banco Mare Nostrum (BMN)	It has been granted a further 25 days in order to meet the minimum capital requirement. This is because its recapitalising plans, which involve private investment, are at an advanced stage. According to initial estimates the entity needed a total of EUR 0.63bn while private investment would amount to up to EUR 485m. *Banco Mare Nostrum was created by the merger between Cajas Penedes, Caja Murcia, Sa Nostra and Caja Granada*
Liberbank	It has been granted a further 25 days in order to meet the minimum capital requirement. This is because its recapitalising plans, which involve private investment, are at an advanced stage. According to initial estimates the entity needed a total of EUR 0.51 bn while private investment would amount to up to EUR 325m. *Liberbank was created by the merger of Cajastur and CCM, Caja Cantabria and Caja Extremadura*
Banco Caja 3	*Was created by the merger of 3 cajas*
Kutxa bank	*Was created by the merger of 4 cajas*
Caixa bank	*Was created by the merger of 2 cajas*

Source: Spain, FOBR (2011).

Over the next three months, however, as the crisis in Greece worsened and the efforts to deal with the successive crises in Ireland and Portugal, the estimates of capital deficiencies rose as high as €200 billion as credit default swaps on other government bonds, especially Italian and even French issues began to rise in price as well. In response, the Spanish authorities did further consolidation of troubled *cajas*, injecting funds from the FOBR in some cases and forcing mergers in others. The total actions are summarized in Table 2 (BBVA, Financial Restructuring, p. 1). €13.4 bn in new capital was injected into Spanish banks, €7.5 bn from the FOBR, the remainder from private offerings.

As the mergers take place and former *cajas* begin new operations as commercial banks, the questions still remain how to value the assets which are mortgages on housing developments, many uncompleted and most unoccupied. How fast and how far will the write-downs go that will have to be made? On this essential issue, outsiders are right to be wary, especially given the efforts by Spanish authorities to convince foreign investors that this is a good time to pick up desirable summer vacation or secondary residences.

In July 2011, the Ministerio de Fomento prepared an evaluation of the housing market in Spain. Comparing the housing bubble in Spain with those in the UK and Ireland from 1996 to mid-2011, they showed that average house values appreciated less in Spain than in either the UK or Ireland up to the peak (2007 in Ireland, 2008 for the UK and Spain), but the subsequent decline has Spanish prices down to levels below the UK and comparable to Ireland (as shown in Figure 8 above). They noted further in support of this optimistic view of the national housing market that there is little public housing in Spain, that 85% of Spanish housing is owner occupied (although 33% of the housing stock are vacation houses) and that the ratio of average rent to average house price has fallen back to

pre-bubble levels. In sum, they argued that most of the adjustment has taken place, so now is a good time for the rest of Europe to pick up their desired vacation home in Spain.

Table 3. Consolidation of local *cajas* with regional housing price declines, 1Q2008 to 1Q2011, and (as of January 2012).

Region or Province	**Price Decline**	**Cajas consolidated**	**Capital (Eur mn)**
Galicia	<15%	**NovaCaixaGalicia** (Caixa Galicia, Caixanova)	76,117
Asturias	<15%	**Liberbank** (CCM, Cajastur, Caja Cantabria, Caja Extremadura)	52,451
Basque Country	-16.3%	**Kutxa Bank** (BBK, Cajasur, Kutxa, Vital)	74,242
Navarra	-16.9% -16.7%	**Banca Cívica** (Cajasol, Caja Navarra, Caja Canarias, Caja Municipal Burgos)	71,566
Aragón	-16% -19.2%	**Banco Caja 3** (CAI, Caja Círculo de Burgos, Caja Badajoz)	20,563
Catalonia	<15%	**Catalunya Caixa** (Caixa Catalunya, Caixa Tarragona, Caixa Manresa)	76,380
Catalonia	<15%	**Caixa Bank** (La Caixa, C. Girona)	273,387
Catalonia	<15%	**UNNIM** (CAM, Caixa Sabadell, Caixa Terrasa, Caixa Manlleu)	100,231
Murcia	-19.6%	**Mare Nostrum** (C. Penedés, C. Murcia, Sa Nostra, C. Granada)	68,061
Andalusia Castilla y León	-15.4% -22.2% -19.2% -15.7&	**Unicaja + Caja España Duero** (Unicaja, Caja Jaén, Caja Duero, Caja España)	79,355
Madrid	-21.5%	**Bankia** (Caja Madrid, Bancaja, Caja Insular de Ahorros de Canarias, Caixa Laietana, Caja Ávila, Caja Segovia, Caja Rioja)	285,479
		Ibercaja	44,906
		Caixa Ontinyent	980
		Caixa Pollença	344

Source: BBVA, "Roadmap to Restructuring" and updates.

Modifying this overall picture in light of the problems of restructuring the regional *cajas,* which financed the housing bubble, is the regional disparity in price declines of housing across Spain after the bubble collapsed. While all regions saw some declines in housing prices, some were especially hard hit. The coastal provinces of Alicante, Murcia and Málaga as well as Madrid and the surrounding provinces of Toledo and Guadalajara all had price declines greater than 20 percent over the three years from first quarter 2008 to

first quarter 2011. It is useful to compare this picture of regional variation in the housing market with the regional variation in the restructuring efforts of the FOBR, shown in Table 3.

Clearly, the major restructurings of regional *cajas* undertaken to date by the Spanish authorities are the result of exceptional declines in housing prices in their regions, which have led in turn to sharp falls in the value of the mortgages held, if they were to be "marked to market" as is required under Basel II guidelines for securities held on trading accounts by financial institutions. As increasing numbers of these mortgages have nominal values higher than the declining current market prices for the properties that are mortgaged, the new banks will have to write down increasing numbers of the assets they have been forced to acquire. Foreign investors are rightly hesitant about the long-term viability of the new banks that have taken on the responsibility of holding the mortgages against housing stock the market value of which has dropped permanently. Recovery of the housing market in the Spanish case probably does depend upon a buying spree by foreigners, as the unemployment rate in Spain has shot up dramatically and most severely for younger workers, the ones most likely to be first time home buyers. In August 2011, Eurostat reported that Spain's unemployment rate for workers under age 25 was 46.2%, by far the highest in Europe.

Conclusion

Under the federal arrangements of the Spanish constitution, regional governments are responsible for regional housing policies, as well as local services. Throughout the ongoing financial crisis since 2008, regional governments have been forced to run larger deficits, meaning increasing levels of regional government debt. Since 2007, the level of debt incurred by the autonomous regions of Spain has doubled. The central government

does exercise control over the regional budgets through its "Budgetary Stability Law," which established annual deficit targets for each region. If an autonomous community exceeds the target deficit, it has to establish an "Economic and Financial Rebalancing Plan" to recover the deficits. In the meantime, the budget differences between the central administration and the autonomous communities are settled over the next two years. The deficits cumulated by 2011 amounted to approximately €25 billion, which will have to paid back to the central administration in 60 installments starting January 2012. (BBVA, Thin Ice, p. 56)

The overall deficit for the regions amounted to 1.2% of GDP, and most adopted expenditure cuts and tax increases in apparently aggressive measures. Castile-La Mancha cut its 2012 budget by 20% and other regions — Extremadura, Valencia, Canary Islands — followed its example. Nevertheless, BBVA researchers estimate that their combined budget deficit for 2011 will exceed 2%. All of the autonomous regions credit ratings have been downgraded over the past year, however, with negative outlooks for each. (BBVA, Thin ice, p. 54) The planned deficit for the central government of 6% for 2011 is also likely to be exceeded, according to press reports in October (FT, October 13, 2011) and, in fact, the new administration announced in January 2012 that the deficit for 2011 would be 8.2% of GDP (FT, February 16, 2012). While Spanish debt was downgraded by all three major rating agencies, Moody's the last to do so on February 13, 2012, from A3 to A1, the sale of €4bn Spanish bonds later that week was hailed as a sign of "revived investor confidence in its economic reform programme." (Ibid.) Indeed, a three-year bond sold for an average yield of 2.97 per cent, about 2 percentage points lower than the 4.9 per cent yield a similar bond sold for in August 2011.

Nevertheless, the previous three years experience with the budgetary oversight of the autonomous regions of Spain, which was much firmer than that intended or conceived in the budgetary oversight procedures agreed upon by heads of government of the euro-zone countries in January 2012 for its members in the future, does not bode well for the fiscal convergence of the periphery with the core over the near future. It would appear more salutary to craft a specific process for the eventual Greek default, giving full publicity to the resulting public outrage and suffering in Greece that follows, and trust that governments in the remaining and future periphery countries will undertake the necessary structural reforms in their domestic labor and capital markets in order to avoid a similar fate as Greece.

For the longer run in the Spanish case, the few optimists remaining in Spain (national stereotypes sometimes have validity) can point to a number of positive aspects. The spending spree of the first 10 years in the euro was not devoted entirely to second-homes and seaside resorts. Indeed, Spain averaged an investment rate of 28% of GDP over the period 2000-2007, the highest of any euro-zone country. Housing investment accounted for only 8% of GDP, so the other 20% helps account for the extension of motorways, high-speed rail, improved port facilities and airports during the past ten years, which have combined to make Spain one of the most open economies in the world (Spain's Equity Story, pp.8-20). Spain's open-economy strategy, begun as early as 1960 under the Franco regime, continues to expand, especially with respect to Latin America, as those countries have also embarked on open-economy strategies.

The required reforms in public finances, banking structure, labor market restrictions, and pension systems are well underway, as is the commitment to deregulation of the services sector. In the 1990s, Spain had the third *most* tightly regulated service

sector in Europe, after only Greece and Italy. By 2008, it was the third *least* tightly regulated service sector in Europe, trailing only Ireland and the United Kingdom. (Spain's Equity Story, p. 66) If these fundamental market reforms promote entrepreneurial investments while the banking reforms enable financing of new ventures, the Spanish economy may continue the growth path that was interrupted by the financial crisis of 2008. But this will require focus on new sectors where technology advances can sustain increases in total factor productivity, unlike the experience of Spain in the first decade of the euro.

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