# Spain

## 4.1 Introduction

Spain has suffered a lot from the current crisis and is the first large economy that may find itself in need of fiscal rescue. If this happens it may prove quite damaging to the euro. Yet, since the mid-1990s, Spain was a champion of growth and fiscal stability; its unemployment had fallen rapidly to the levels that prevailed in the rest of the European Union. This chapter discusses the reasons why such a virtuous initial situation deteriorated so sharply since the start of the crisis. Was this just bad luck or were the booming years just a mirage?

## 4.2 The Golden Decade, 1995–2007

The 12 years before the financial crisis could be labelled the "Golden Decade" for the Spanish economy, with growth exceeding the European average (see Figure 4.1; see also Chapter 2, Figure 2.1).

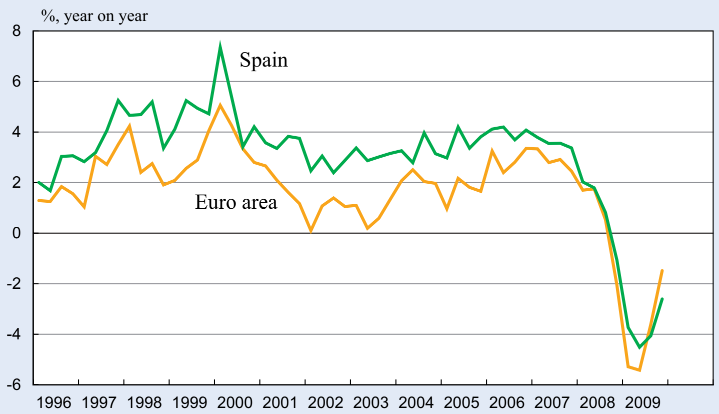
Spain had traditionally been a leader in unemployment, its economy had been plagued by restrictions to competition and its growth experience had been chaotic at best. The Golden Decade was a period of strong growth during which unemployment declined from the pathological level of 20 percent to levels much more aligned with the European average. This is illustrated in Figure 4.2, where we see a 14 year fall starting at the end of the 1990 recession and abruptly ending with the current crisis.

One out of three jobs created in the EU-15 in the period 2000–2007 was in Spain.

At the end of the 1990s Spain joined the European Monetary Union, which gave it a fiscal windfall in the form of a very rapid convergence of interest rates to the European levels. Like other peripheral countries, Spain benefited from the fact that it no longer had to pay a premium for the inflation and depreciation risk in the form of higher interest rates (see also Chapter 2, Figure 2.1). Moreover it benefited

**Figure 4.1**

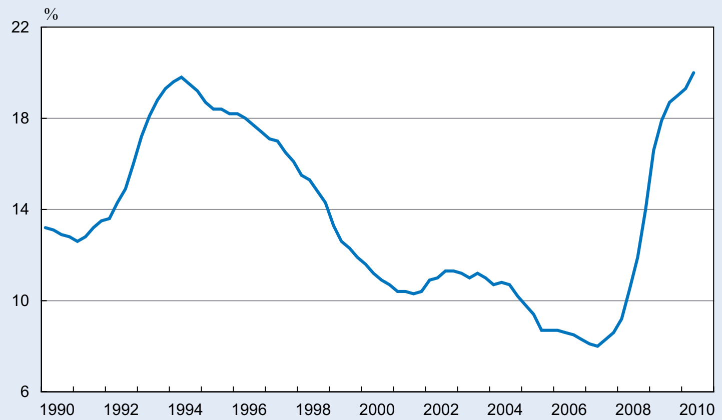
Real growth rates of GDP




Source: Eurostat: Quarterly national accounts (namq), GDP and main components (namq_gdp), volumes (namq_gdp_k), option "I2000 Index, 2000=100", data extracted on 13 December 2010.

**Figure 4.2**

Unemployment rate in Spain

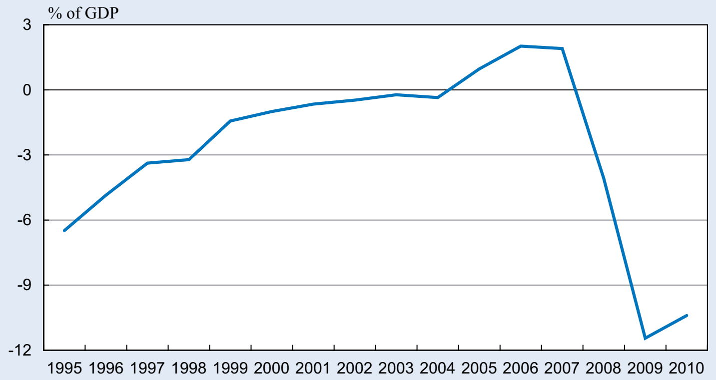



Source: OECD: StatExtracts, Labour, Labour Force Statistics, Labour Statistics (MEI), Harmonized Unemployment Rates and Levels (HURS), data extracted on 11 January 2011.

from the euro insofar as a long-term capital market was established on which it was possible to get mortgage loans with a long duration (say 20 years).

**Figure 4.3**

Net government lending in Spain




Source: IMF: General government net lending/borrowing, percent of GDP, World Economic Outlook Database, April 2010, www.imf.org/external/pubs/ft/weo/2010/01/weodata/weorept.aspx?sy=1995&ey=2011&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=53&pr1.y=18&c=184&s=GGXCNL_NGDP&grp=0&a=, data extracted on 11 January 2011.

Spain has caught up with the European Union, since joining the Community in 1986. However, the catching-up process was not smooth. There were crises between 1992 and 1994 which were dealt with by competitive devaluations. Income per capita (in PPP terms) went from about 80 percent of the EU-15 level in the mid-1990s to more than 90 percent by 2007. The joining of the euro in 1999 implied low interest rates, which were negative in real terms in the period 2002–2005. This contributed to a huge boom in construction and real estate accompanied by the expansion of financial intermediation.

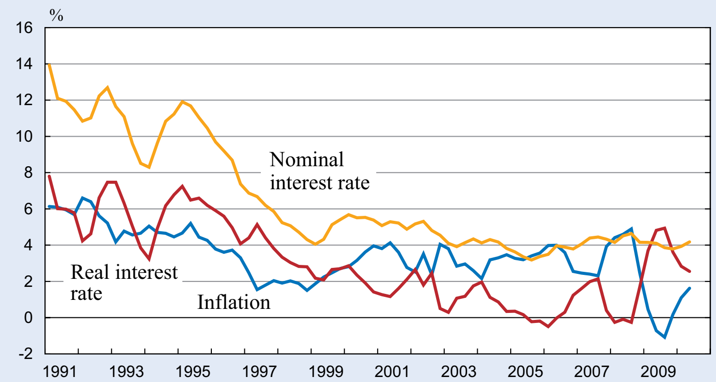
Spain has typically had a more pronounced economic cycle than the European Union on average. Historical reasons were a sectoral composition with a larger (albeit declining) weight on agriculture, low and medium technology industries and tourism, and a more procyclical economic policy until 1994, when a phase of orthodox macro-management was implemented. The latest long boom was driven mainly by construction, with Spain managing to do better than the EU-15 even in periods of economic deceleration. This is set to reverse in the present recession.

Growth, coupled with the reasonable fiscal policy that prevailed during the period, implied that there was no major problem with the public budget. As illustrated in Figure 4.3, Spain entered the Golden Decade with large budget deficits (6 percent in 1995) that were inherited from the sharp recession of the early 1990s and further reinforced by its high unemployment rate; but throughout the Golden Decade it managed to reduce those deficits and eventually run a moderate budget surplus in the mid-2000s, thanks to the strength of the economy and the downward trend in unemployment. As the recent crisis set in, though, the surplus quickly degenerated into an severe deficit, as has happened in other EU countries where the recession has been particularly severe.

Figure 4.4 depicts the evolution of inflation and long-term interest rates over the relevant period. In the early 1990s Spain had to pay a large risk premium for its inflation risk: although inflation was just 6 percent, long-term nominal rates amounted to 14 percent. Thereafter, inflation fell in the context of the convergence criteria of the transition period to the euro and so did nominal interest rates, as markets anticipated that Spain would join the European Monetary Union and that its bonds would be nearly as good as German ones. Nominal rates remained low during the Golden Decade, but inflation picked up somewhat.

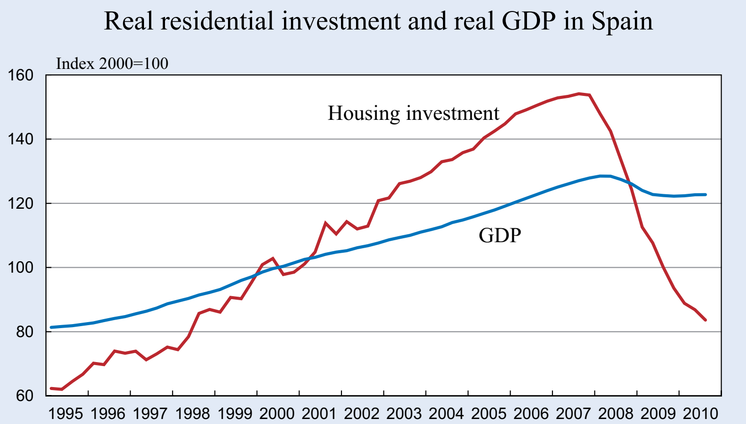
**Figure 4.4**

10-year real and nominal interest rates and inflation in Spain



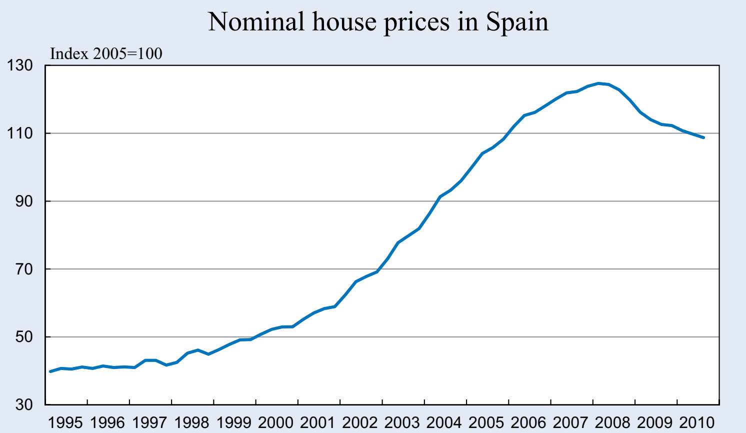

Source: OECD: StatExtracts, Labour, Finance, Financial Indicators (MEI), Financial Indicators, Long-term interest rates, data extracted on 11 January 2011; OECD: StatExtracts, Prices and purchasing power parities, Prices and price indices, Consumer prices (MEI), Consumer price indices (MEI), data extracted on 11 January 2011; own calculations.

Figure 4.5



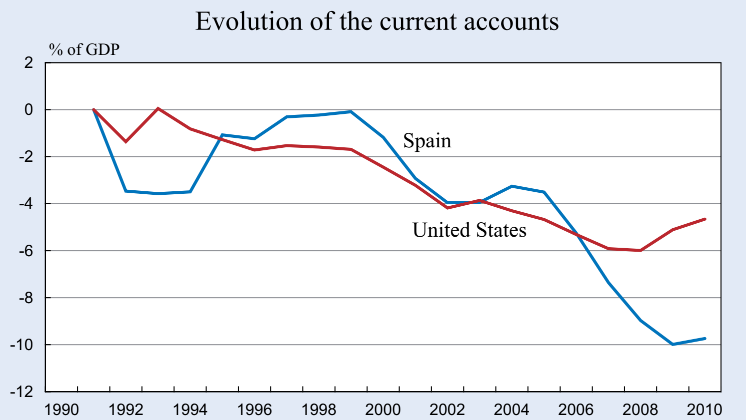

Source: Instituto Nacional de Estadistica (INE), ES CHAIN-TYPE QTY INDEX OF GDP (CONSTANT) VOLA, ESGDP..VE, data extracted on 15 January 2011; Instituto Nacional de Estadistica (INE), ES CHAIN-TYPE QTY INDEX OF GFCF - CONSTRUCION & HOUSING VOLA, ESGFCCHVE, data extracted on 15 January 2011.

Figure 4.6




Source: ECB: Spain, quarterly residential property prices, new and existing dwellings, residential property in good & poor condition, whole country, neither seasonally nor working day adjusted, government agency (other than NSI/NCB), Series Key RPP.Q.ES.N.TD.00.0.00, Unit 2007=100, http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=129.RPP.Q.ES.N.TD.00.0.00, data extracted on 11 January 2011.

Figure 4.7




Source: IMF: Current account balance, percent of GDP, World Economic Outlook Database, October 2010, www.imf.org/external/pubs/ft/weo/2010/02/weodata/weorept.aspx?sy=1990&ey=2010&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=76&pr1.y=7&c=184%2C111&s=BCA_NGDPD&grp=0&a=, data extracted on 18 January 2011.

Where did the strong growth come from? As is well known, an important driving force for the economy was the construction sector. Residential investment was boosted by very strong increases in house prices. As illustrated in Figure 4.5 it rose faster than GDP throughout the Golden Decade, only to experience a brutal fall during the crisis.

As shown in Figure 4.6, house prices trebled during the Golden Decade – and in that respect only a fraction of this rise has been reverted during the crisis. As is well known, this pattern has emerged in other countries as well, but Spain is one of the countries where it has been most salient. (While many analysts interpret this as evidence of an asset bubble, there is in fact a debate about this, to which we return below.) Regardless of whether high asset prices emerge due to their fundamental values or due to rational or irrational speculation, they generally boost investment in those assets; conversely, one expects such investment to collapse should there be a sharp fall in prices, regardless of its cause. It is true, though, that falling prices are more likely to happen if the rise is due to a bubble rather than the fundamentals, since one typically expects that bubbles cannot last forever.

Because of the key role of construction, high growth was associated with a strong demand for goods and services. As a result, the Spanish economy started accumulating current account deficits mainly via rapidly growing imports. The creation of a common capital market that eliminated the interest spreads in the euro area induced a strong capital flow to

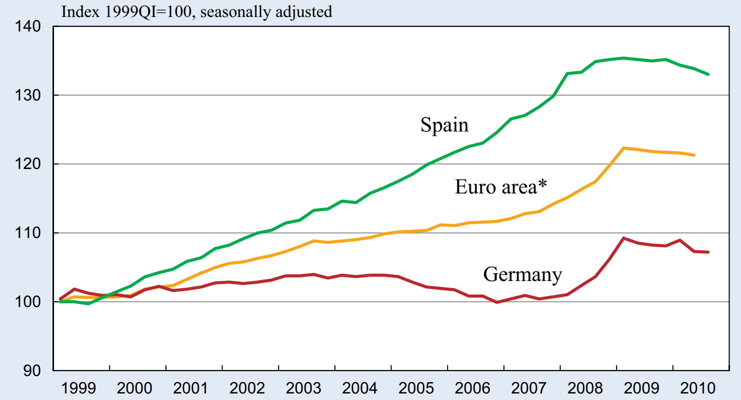
Spain which impacted the Spanish economy by facilitating a credit-driven boom in the construction industry and the resulting current account deficit. In the last years of the Golden Decade the current account deficit and capital imports in relation to GDP became extensive, even exceeding those of the United States. This is illustrated in Figure 4.7.[1]

The boom was also accompanied by a persistence of high inflation, which remained consistently higher than the average of the euro area throughout the period (see Chapter 2, Figure 2.6). One possible reason for this is that GDP remained higher than its potential for several consecutive years, which generated upward pressure on prices and led to an accumulating inflation differential between Spain and its main trading partners. As a result, Spain suffered an aggregate loss of competitiveness, which possibly added to the worsening of the trade balance. This is illustrated in Figure 4.8, which shows that unit labour costs in Spain grew faster than the average of the euro area and in particular faster than in stagnating Germany. Reversing this loss of competitiveness through price and wage moderation is likely to prove a painful process in light of the fact that, as discussed below, real wages in Spain are quite rigid. This may be compounded by the fact that inflation may be very low in the average of the euro area as long

[1] The situation was similar in Greece, Portugal and Ireland, but the exact opposite in Germany, which suffered from strong capital exports leading to export surpluses via a difficult period of real depreciation and economic slump. An overview of this development is given in Chapter 2.

**Figure 4.8**

Unit labour costs growth

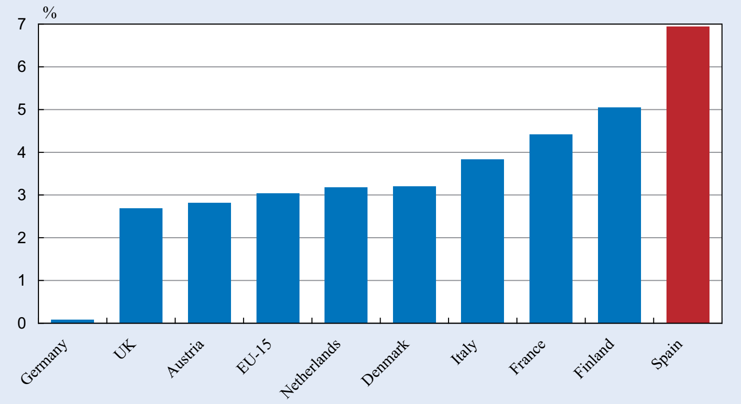



* changing composition

Source: Eurostat: Nominal unit labour cost, seasonally adjusted and adjusted data by working days, namq_aux_ulc-Unit labour cost - quarterly data, data extracted on 13 December 2010.

**Figure 4.9**

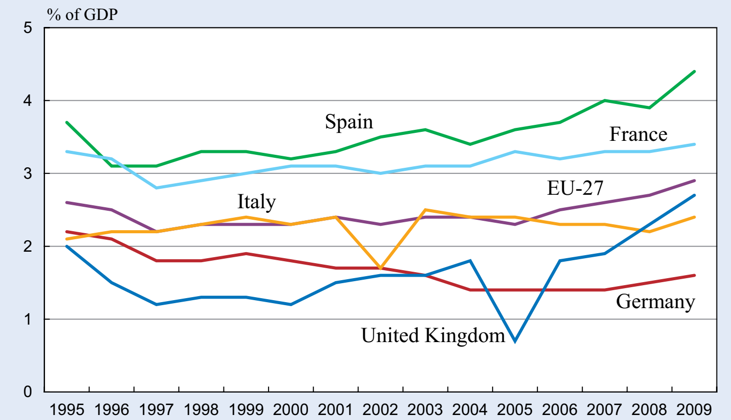
Average growth of investment in equipment between 1995 and 2009




Source: Eurostat: Gross fixed capital formation by private sector, Millions of euro (from 1.1.1999)/Millions of ECU (up to 31.12.1998), nama_gdp_c-GDP and main components - current prices, data extracted on 9 December 2010, own calculations.

**Figure 4.10**

Public investment




Source: Eurostat: General government, gross capital formation, percentage of GDP, gov_a_main-Government revenue, expenditure and main aggregates, data extracted on 2 December 2010.

as the recession prevails, so that negative inflation would in principle be needed in Spain to restore its competitiveness.

It must be noted that the expansion period went together with a substantial increase in investment in equipment as well as public investment (see Figures 4.9 and 4.10). The amount of public investment in Spain is remarkable. For example, Spain, in 2010, ranked second only to China in the kilometres planned for the extremely expensive high speed trains. Public infrastructure has improved dramatically but this raises doubts about whether the social cost-benefit analysis' result is positive in many important projects. Nevertheless, these developments contributed positively to productivity and thus mitigated the negative effects of the boom years on competitiveness.

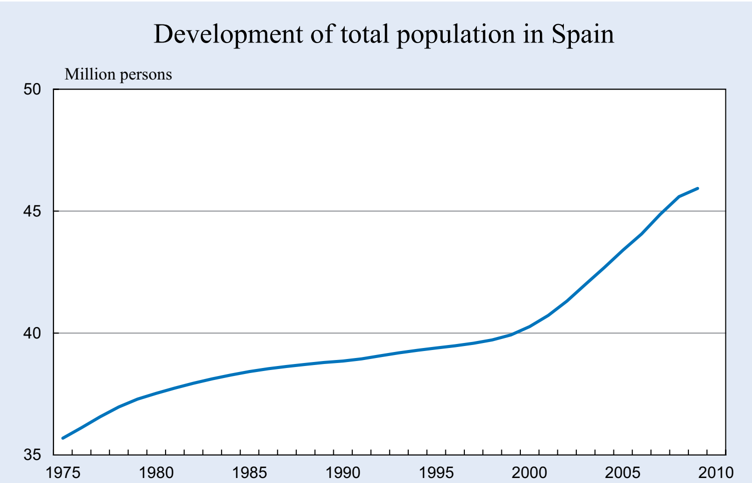
Another important aspect of the Golden Decade has been the surge in immigration. While Spanish fertility rates have been extremely low since the mid-1970s, the country began to attract a large number of immigrants during the Golden Decade, primarily because of many new jobs in construction. As a result, the population rose very rapidly from 40 to 45 million in less than 10 years (see Figure 4.11).

The immigration wave was driven by both push and pull factors; in particular, the strong economy drove up the demand for labour and because of the role of construction and services a large share of that extra demand for labour was for the unskilled. This is illustrated in Table 4.1. In relative terms, immigrants are twice more represented in unskilled occupations than native-born workers, and even more when considering only services to households and construction.

At the same time, and somewhat paradoxically, the country was heavily investing in higher education, and the share of the workforce with university degrees was rising rapidly. This, in spite of the fact that, due to the construction boom, the structure of the Spanish economy was being modified in favour of unskilled-intensive sectors.

Immigration policies were relatively liberal because of the low fertility rates of the natives and because migrants helped to tame wage inflation, which benefited employers and kept CPI inflation under control. It also fuelled the demand for residential investment, but this may have been unfortunate in light of the fact that there was widespread agreement that such large flows would have to subside eventually, implying that the economy would have to reallocate resources towards other sectors.

**Figure 4.11**



Source: OECD: StatExtracts, Labour, Labour Force Statistics, Annual labour force statistics, ALFS Summary tables, Population, data extracted on 11 January 2011.

### 4.3 The crisis

If one looks at aggregate GDP data, the experience of Spain during the crisis has been similar to that of the rest of Europe; in 2009 Spanish GDP contracted by 3.6 percent. On the other hand, the employment situation has deteriorated considerably more than in the rest of Europe, where it has risen from around 7.5 percent in 2008 to 10 percent (see Chapter 1, Figure 1.10). In Spain, the unemployment rate has, during the same period, risen very rapidly from 11.4 percent to 20 percent, that is, it is back to its pre-Golden Decade pathological level. This evidence suggests that there has been virtually no labour hoarding in Spain during the recent recession: In normal times firms tend to retain their workers during downturns, because it is costly to rehire and retrain them during the following recovery. As a result, the burden of a recession typically does not fall entirely upon employment. Hours worked and work loads tend to decrease as well. The relationship between employment and output over the cycle

**Table 4.1**

**The occupational composition of native-born and foreign-born in Spain (in %)**

| | | Foreign-born | Native-born |
|---|---|---|---|
| Legislators, senior officials and managers | | 6.8 | 8.1 |
| Professionals | | 9.4 | 12.4 |
| Technicians and associate professionals | | 8.3 | 11.0 |
| Clerks | | 6.7 | 9.9 |
| Service workers and shop and market sales workers | | 16.8 | 14.7 |
| Skilled agricultural and fishery workers | | 2.4 | 3.7 |
| Craft and related trade workers | | 15.3 | 17.2 |
| Plant and machine operators and assemblers | | 7.6 | 11.0 |
| Elementary occupations | | 26.3 | 11.2 |
| | Sales and services elementary occupations | n.a. | n.a. |
| | Street vendors and related workers | 1.3 | 0.7 |
| | Shoe cleaning and other street services elementary occupations | 0.1 | 0.0 |
| | Domestic and related helpers, cleaners and launderers | 11.9 | 4.1 |
| | Building caretakers, window and related cleaners | 0.4 | 0.5 |
| | Garbage collectors and related labourers | 0.3 | 0.4 |
| | Agricultural, fishery and related labourers | 6.0 | 1.8 |
| | Labourers in mining, construction, manufacturing and transport | n.a. | n.a. |
| | Mining and construction labourers | 4.8 | 2.0 |
| | Manufacturing labourers | 0.6 | 0.6 |
| | Transport labourers and freight handlers | 0.8 | 0.8 |
| | Elementary occupations, n.e.c. | n.a. | n.a. |
| Armed forces | | 0.4 | 0.7 |
| All occupations | | 100.0 | 100.0 |

Source: OECD: StatExtracts, Demography and Population, Migration Statistics, Database on Immigrants in OECD Countries (DIOC), Immigrants by detailed occupation, data extracted on 11 January 2011.

is usually referred to as Okun's law (see Box 4.1). Okun's law captures the extent of labour hoarding during a typical cycle. In Spain, the fall in employment is under-predicted by Okun's law; instead it is quite well predicted by a standard production function that relates output to the amount of labour and capital input and implicitly assumes that these two factors are entirely employed, or at least that their utilization rate does not vary.

There are presumably two reasons why we do not observe labour hoarding in Spain. First of all, a lot of jobs have been destroyed permanently, as the economy undergoes restructuring away from the construction sector. Firms do not expect these jobs to come back and therefore have no incentives to retain their workers. Second, the two-tier structure of the Spanish labour market where workers who hold temporary contracts are used as a margin of adjustment makes employment more reactive to the cycle (see Box 4.2). While this margin of flexibility allows for rapid job growth during booms, as during the late 1980s and the Golden Decade, it also means that unemployment may go up extremely rapidly as firms stop renewing short-term contracts. This was observed during the recession of the early 1990s and it is even more salient now.

A by-product of the severity of the crisis is the sharp deterioration in public finances that we have documented in Figure 4.3. It is somewhat of a puzzle that budget deficits in Spain are comparable to those in Greece, since the initial situation was much sounder in Spain. It appears that even controlling for the role of GDP growth, the government fiscal balance in Spain is very sensitive to the unemployment rate. Thus, according to our estimates, a 1 percentage point increase in the unemployment rate triggers a deterioration in the government net fiscal balance of 0.8 percent of GDP. Since unemployment has risen by 10 points since 2010, its contribution alone explains 8 points of deficit.

**Box 4.1**

**Spain and Okun's law**

Okun's law, often referred to as "Okun's rule of thumb", is used by economists to assess the response of unemployment to output over the business cycle. In its simplest form, it is a mechanical relationship between the change in the unemployment rate and the change in GDP growth:

$$\Delta u = -c(g - v),$$

where $\Delta u$ is the change in the unemployment rate, $g$ the growth rate of GDP, $v$ the trend growth rate of productivity, and $c$ is called the Okun coefficient. Typical estimates of $c$ range from 0.3 to 0.5. Typical estimates of $v$ range around 2.5 percent, although as we point out in Figure 4.14 total factor productivity growth in Spain has been essentially zero since 2000. With $c = 0.5$ and $v = 1\%$ a contraction of GDP of 4 percent, which is about the cumulated GDP contraction in 2009 and 2010 according to IMF estimates, is associated with a rise in the unemployment rate by 0.5*5 = 2.5 points. Instead, however, unemployment rose from 11.4 (in 2008) to 20.1 percent (in 2010), i.e. an increase of 8.7 points. Thus net job destructions were far higher than predicted by this "law".

Instead, production functions give us a more structural relationship between inputs and outputs. A typical production function used in models is the Cobb-Douglas one:

$$Y = K^{\alpha}(AL)^{1-\alpha},$$

where one can show that the exponents are equal to the share of the corresponding factor in national income, implying that $\alpha$ is about 0.3. Furthermore, $A$ is interpreted as the technological level. The long-term growth rate of GDP per capita would be equal to that of $A$ absent any short-run fluctuations.

Assuming a secular growth rate ($\Delta A/A$) of 1 percent, the above formula implies that if GDP falls by 4 percent (again cumulated 2009 and 2010 figures), then employment should change by

$$\frac{\Delta L}{L} = -\frac{\Delta A}{A} + \frac{1}{1-\alpha}\frac{\Delta Y}{Y} = -1 - \frac{4}{0.7} = -6.7.$$

Relative to Okun's law, the production function approach predicts a relationship between employment and growth instead of unemployment and growth. Furthermore, the response of employment to growth has a coefficient $\frac{1}{1-\alpha}$ which is about 1.4 and thus much larger than the corresponding one in Okun's law.

With an initial unemployment rate of 11.3 percent in 2008 and no change in participation, the change in the unemployment rate, calling $\bar{L}$ the total labour force, is:

$$\Delta u = -\frac{\Delta L}{\bar{L}} = -\frac{\Delta L}{L}\frac{L}{\bar{L}} = 6.7 \cdot (1 - 0.113) = 5.94.$$

This is closer to (but still smaller than) the observed increase of 8.7 points, suggesting there is no labour hoarding in Spain in the current recession.

As a result of these developments, during the crisis the country has suffered from a sharp rise in the spread between its yield on government bonds and German bond yields, as illustrated in Figure 4.12. In that respect it has been lumped with other problematic countries in Europe, such as Greece or Portugal, despite the fact that Spain's fiscal woes are far more recent. The rescue package for Greece implemented in spring 2010 eased the spreads only temporarily and since September 2010 they have been higher than ever before under the euro, though small relative to pre-euro times. This suggests that the markets do not entirely discount a scenario where the deficit remains high for a while and the debt-to-GDP ratio continues to grow to problematic levels such that insolvency cannot be ruled out. This may happen either through a deflationary spiral or a continuation of the recession.

### 4.4 Was the Golden Decade unsustainable?

At face value, the Golden Decade had a number of features that were unsustainable, at least in the sense that they could not go on forever.

**Box 4.2**

**The two-tier structure of the Spanish labour market**

In the aftermath of Franco's death, Spain quickly adopted a system of wage setting institutions similar to those prevailing in the rest of continental Europe. Collective bargaining played a key role in the formation of wages, and the prevalence of sectoral negotiations along with the scope for additional wage increases being agreed upon at the firm level led to a labour market plagued by structural wage inflation and a high equilibrium level of unemployment. At the same time, the generous employment protection provisions that characterized the paternalistic industrial relations of the Franco era were retained. These developments resulted in a very rapid rise in unemployment, which rose from under 5 percent in 1976 to 21 percent in 1985, making Spain the most pathological example of euro sclerosis. In 1984, in a desperate move to exit this situation, the Gonzalez government inaugurated what could be labelled the Southern European path to flexibility. It tackled employment protection legislation (which was decried by employers as a major barrier to job creation) by making it more flexible for new hires, while preserving the conditions of existing contracts. More specifically, the use of temporary labour contracts was liberalized, while employment protection legislation for permanent contracts was left unchanged.[1]

In the second half of the 1980s, this policy appeared to be a success: employment growth picked up, and unemployment fell to 16 percent. In effect, temporary contracts allowed employers to bear the risk of hiring a worker while retaining the option of dismissing him should he prove unproductive or should the firm's economic outlook become unfavourable. Since this logic specifically applies to the new workers being hired, its effect is as large, everything else equal, as if the reform had applied to the whole workforce.[2] Indeed, during this period, as much as 95 percent of new hires were under fixed-term contracts, and the share of existing employees under temporary contracts quickly rose to more than 30 percent of total employment. Thereafter, the Spanish labour market reached a sort of equilibrium: while temporary contracts were much criticized, their conditions of use and their share in employment and hires were basically unchanged.[3]

Economists have criticized this model of the labour market on different grounds. First, it is not appealing to treat identical people differently, although the evidence suggests that many temporary workers end up with permanent jobs,[4] more so certainly than the unemployed. Second, it is frequently argued that there is excess turnover, which reduces the employers' incentives to invest in their workers' human capital. Part of the problem is that the legal limits on the use of temporary workers tend to make it impossible to renew a contract on temporary terms, and instead leave the employer with the choice between dismissal and conversion of the contract into a permanent one. Third, the use of temporary contracts may further reduce the exposure of permanent employees to job loss, which leads them to ask for higher wages.[5] This may eventually lead to a higher equilibrium rate of unemployment. Here the issue is that collective bargaining sets the wages for both permanent and temporary workers, while the workers who do negotiate typically are under permanent contracts. The effect would disappear if temporary workers had a different wage from permanent ones.

Despite these shortcomings, the system remains and there seems to be little scope for a reform that would unify the terms of labour contracts throughout the economy. This may be because such a two-tier structure is a stable outcome of the political game played by the various interested parties.[6] For example, consider a single employment contract that would be more flexible than existing permanent ones but less than existing temporary ones. Such a contract would be objected to by both the incumbent "insider" employees who have permanent contracts, and by employers, who rely on temporary contracts at the margin to adjust their workforce.[7]

[1] A precise account of the use of temporary contracts in Spanish labour market reform can be found in Bentolila et al. (2008).
[2] See Bentolila and Saint-Paul (1992).
[3] See Toharia (1999).
[4] See Güell and Petrongolo (2007).
[5] See Bentolila and Dolado (1993).
[6] See Saint-Paul (1993, 2000).
[7] Since temporary workers are dismissed first, the employers would lose more from the greater restrictions on their adjustment margin than they would gain from having more flexible terms for workers that are inframarginal and unlikely to be part of an adjustment.

- The positive inflation differential vis-à-vis the rest of the euro area remained high. Thus competitiveness had been deteriorating over the years.
- House prices grew faster than the economy, suggesting there was an asset bubble, as in the United States.
- High house prices boosted both residential investment and consumption through their effect on household wealth. To the extent that house prices were too large, these two variables were also too high, and the collapse in the housing bubble should lead to a rapid drop in these two components of GDP.
- Very large trade deficits were due to both the persistent lack of competitiveness and the high level of domestic demand. As a result the net foreign

Figure 4.12


Source: Reuters Ecowin, Government Benchmarks, Bid, 10 year, yield, close, 24 January; own calculations.

asset position of the country quickly deteriorated and adjustment had to take place sooner or later. Because of Spain's membership in the European Union and the euro area, these deficits could be financed by capital inflows at low interest rates.

There are two narratives that we may consider to interpret these facts.[2] One considers that the Golden Decade resulted from overly soft budget constraints due to the rapid interest convergence and the associated capital imports, which overheated the economy. The economy was plagued by mispricing and a misallocation of resources, and this was bound to end brutally as the housing bubble burst. The other considers that these developments were transitory, that they were an optimal response of the economy to its fundamentals and that the economy would gradually re-balance itself as it converges to its long-run growth path.[3] Let us develop these two conflicting interpretations.

Both interpretations have in common that Spain enjoyed low interest rates from its participation in the euro area. The low interest rates increased the demand for credit for construction purposes and triggered a housing boom. The housing boom boosted the whole economy via a rise in employment and subsequent consumption of construction workers as well as capital gains that made owners of real estate property richer, providing them with the equity they needed to borrow and invest more in the real economy.

The difference in these interpretations is whether or not this process turned unhealthy. According to the first interpretation, it was mistakenly believed that the observable price and wage increases would continue indefinitely. Consumers and real investors had an incentive to over-borrow, and banks were generously and imprudently providing excessive credit with funds they borrowed abroad. The country enjoyed a period of overly soft budget constraints, which overheated the economy and caused a bubble that ultimately burst. Interest rates were too low in relation to Spain's macroeconomic situation: despite the expansion of capacity via real investment, output remained consistently above potential and as a result inflation was higher than in the core of Europe. Competitiveness was deteriorating and trade deficits kept accumulating boundlessly as the capital inflow seemed to be available forever. The forces for self-correction were weak, because for a given interest rate, the greater the inflation rate, the smaller the real interest rate and the larger the incentives to invest. As the construction sector is more sensitive to interest rates and credit conditions than other types of investment, the high level of activity was especially driven by construction. Low interest rates are also likely to lead to inflated asset values, even in the absence of a bubble. And while the economic conditions that may lead to the emergence of an asset bubble are not well understood, there are reasons to believe that they are more likely to arise, the lower the interest rate. Hence it is plausible that the housing bubble was caused by the inadequate monetary conditions and the excessive capital inflow that necessarily came with the euro. The monetary conditions were appropriate for the euro area as a whole but not for Spain. They could not continue forever; as foreign debt accumulated, consumers had eventually to reduce their expenditures. As competitiveness keeps on deteriorating because of inflation inertia, while the capital flow stalls due to convergence in rates of return and investors becoming aware of a default risk, the economy eventually experiences a slowdown. This process could be gradual but would be much more drastic if it was triggered by the bursting of the bubble. Such a brutal adjustment scenario is indeed consistent with the observed behaviour of the Spanish economy since the onset of the financial crisis.

[2] See Sinn (2010) for a theoretical view of the two interpretations.
[3] See Sinn and Koll (2001).

Under the second scenario, the imbalances would just be a natural feature of Spain's convergence path to the GDP levels of the richer EU countries. Given that before the euro Spain's capital market was separated from the core of Europe by exchange rate risks, there was an abundance of profitable and unexploited investment possibilities in Spain, offering higher rates of return than the projects available in the core when Spain entered the euro area. Thus the capital flow from the European core to Spain was welfare enhancing for Europe as a whole, because it resulted in more GDP in Spain than was lost against the trend in the core. As the capital investment in Spain boosted labour demand and wages, the prices of non-traded goods like construction services, where productivity gains were small, rose rapidly. Given that traded goods had the same price in Spain and elsewhere, this meant that inflation was larger in Spain (the so-called Balassa-Samuelson effect). The price increases of non-traded capital goods such as real estate resulting from this effect were part of the true, own rate of return to capital in Spain that investors correctly foresaw and included in their investment decisions.[4] Furthermore, it was optimal for consumers to anticipate their future income increases by increasing consumption immediately and financing such an increase by borrowing abroad with the aid of their banking system. This explains the large trade deficits of the Golden Decade. Finally, house prices were high not because of a bubble but because of fundamental factors, such as the low interest rates, the strong growth prospects of the economy and the large expected increases in the demand for housing due to the rapid population growth. The construction boom was in turn just the normal reaction of the economy to these forces.[5]

The brutality of the crisis and the unusual magnitude of the net capital import as measured by the current account deficit suggest that the first scenario is more plausible. But the forces described in the second scenario may also have played a role in the initial phase of the Golden Decade. After all, given Spain's initial situation, there was ample room for catching-up in terms of human and physical capital, technology and infrastructure. Given stable market institutions and openness to trade and international capital movements, it was to be expected that Spain would grow faster than the EU average. The issue has more to do with growth being excessive rather than there being growth as such.

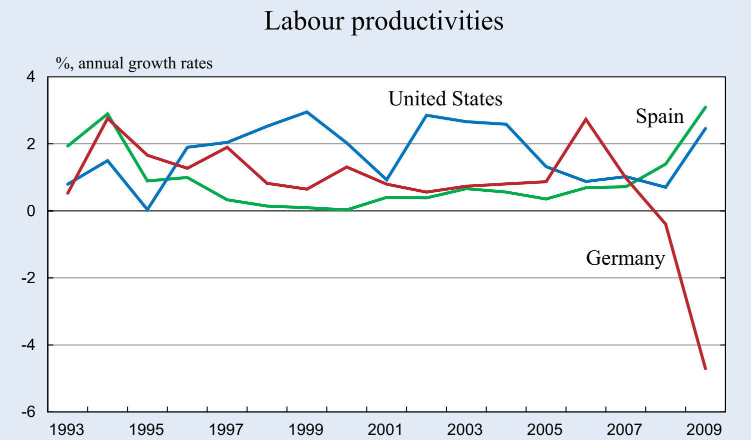
To illustrate the complex interplay between sustainable and unsustainable forces in shaping the aggregate economy, it is instructive to discuss further Spain's competitiveness problem during the boom years. This is what we do in the next section, before returning to the main policy issues facing the country in the current crisis.

### 4.5 Competitiveness and productivity[6]

The Achilles' heel of Spanish growth has been productivity. Spain has had a consistently positive inflation differential with the euro area, up to the recent recession. As we have seen above, Spain lost competitiveness with respect to the EU-15 as measured by the evolution of unit labour costs. Using that measure, Spain's competitiveness with respect to Germany has deteriorated by 30 percent since 1999, a loss of competitiveness similar to that of Italy.

Since the 1990s European labour productivity growth has been lower than the growth of productivity in the United States, and Spain became a laggard in the European Union. In Spain labour productivity growth was near zero between 1998 and 2000, with

Figure 4.13




Source: AMECO: European Commission, Database "Gross domestic product at 2000 market prices per person employed (RVGDE)", http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm, data extracted on 11 December 2010, own calculations.

[4] According to Dorfman, Samuelson and Solow (1958), the allocation of capital to different countries is efficient if the price change of capital goods plus the marginal value product of capital is the same across all countries.
[5] An illustration of these views can be found in Garriga (2010).
[6] In this section, we draw in part from the results reported in Ghemawat and Vives (2009).

positive rates afterwards but only picking up after the destruction of employment during the crisis (see Figure 4.13).

As illustrated in Figure 4.14, total factor productivity (TFP) – a measure of the technological efficiency of the economy – displays basically negative or zero growth rates from 2001, while increases in TFP have been consistently larger in the euro area (although negative between 2001 and 2003 and after the crisis).

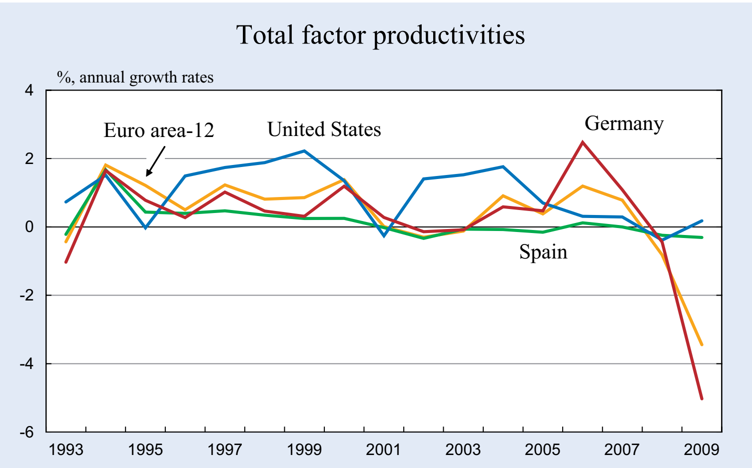
Behind the poor productivity performance of the Spanish economy lie several factors, the central ones being the importance of construction and tourism and an insufficient accumulation of human and technological capital. In other words, the Golden Decade was labour intensive and relied on immigration and on economic sectors with little potential for technological improvements, above all construction. While welfare increased because many unemployed workers found jobs, there was little potential for future welfare gains as Spain attained full employment because of its low productivity growth and its inadequate allocation of economic activity. There may also be other factors behind the poor productivity performance in addition to the structure of economic activity. The level of education in Spain in relation to the EU-27 is low, with a low proportion of high school and vocational training in the economically active population. Spain typically does poorly in the PISA study on secondary education. Somewhat surprisingly, Spain shows a higher proportion of university students but it has a poor performance in terms of the high rate of students quitting – between 30 and 50 percent depending on the field – and with a large number of years required on average to obtain a degree. The university system has improved in its research capabilities but it is highly bureaucratic, universities lack autonomy and have severe problems of governance and financing. In regard to technological capital, R&D spending as part of GDP has shown an increasing tendency, but at 1.35 percent is still well below the EU-15 average at close to 2 percent (2008), not to mention the distance to countries such as the United States, Japan or the Scandinavian countries. Furthermore, R&D policy has tended more to dispersion than to consolidation of critical mass in key areas.

In light of these competitiveness problems and of the country's deteriorating external position during the Golden Decade, it is natural to expect that export performance has been disappointing. In fact, the picture is more complex. Spanish exports to the world have retained their share since the introduction of the euro while, for example, those of France or the United States have fallen (see Figure 4.15). For services, Spain's share in the world market has grown over the past decade, just like Germany's – while again France's, in contrast, fell behind (see Figure 4.16).

What explains this satisfactory performance in a context of aggregate loss of competitiveness? The answer is that there are "pockets" of competitiveness in the export sector, i.e. industries that, for various reasons, have managed to keep productivity growth in line with labour costs, thereby maintaining their positions in international markets.

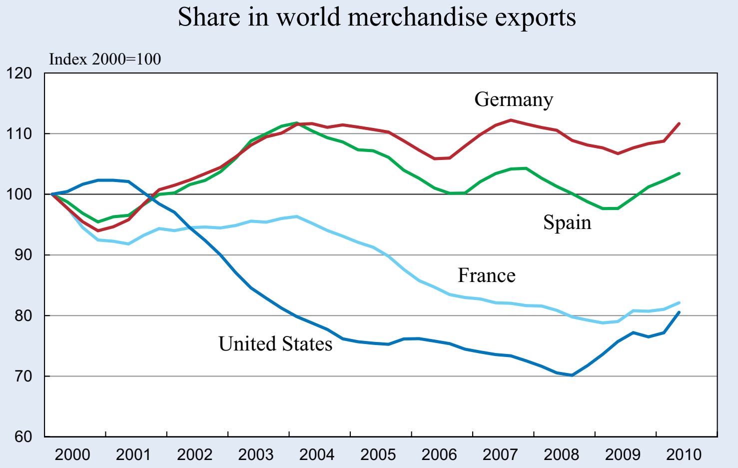
Spain has managed, partially out of the privatization process of state-owned firms in the late 1980s and 1990s, to consolidate outward looking utilities in the energy, transportation and telecommunication sectors, as well as in construction and banking. The financial sector displays two international banks that have come out strengthened from the crisis and at least one strong large savings bank with an ambitious international expansion plan. The competitiveness of Spanish banks, with expansion in Latin America, the European Union, the United States and now also in Asia, derives from the early liberalization process in Spain, which increased competition and fos-

**Figure 4.14**



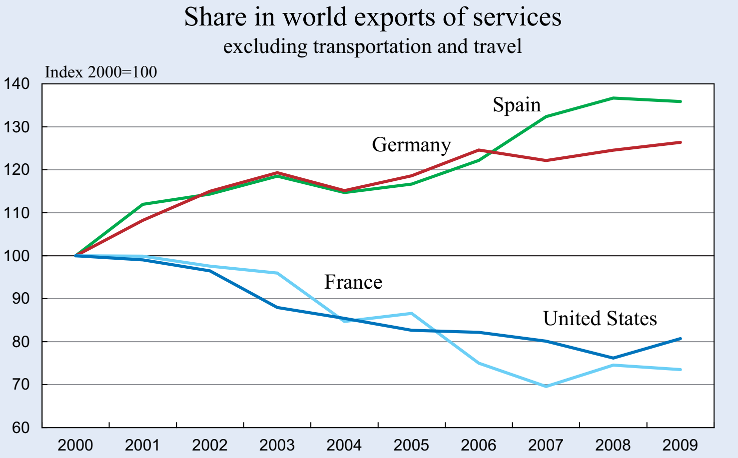

Source: AMECO: European Commission, Database "Total Factor Productivity: total economy (ZVGDF)", ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm, data extracted on 11 December 2010, own calculations.

Figure 4.15



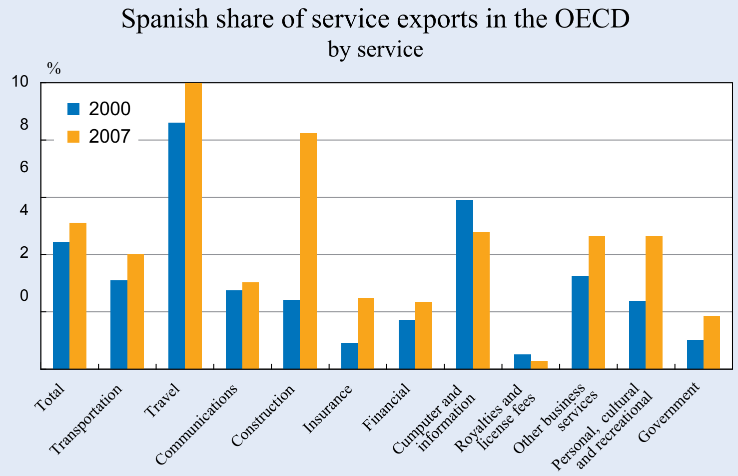

Source: IMF, database accessed through EcoWin Pro, data extracted on 16 December 2010.

Figure 4.16




Source: WTO: Trade in commercial services, Other commercial services (Commercial services - Travel & Transport), Exports, US dollar at current prices (Millions), stat.wto.org/StatisticalProgram/WSDBViewData.aspx?Language=E, data extracted on 11 January 2010, own calculations.

Figure 4.17




Source: OECD: StatExtracts, International trade and balance of payments, Trade in Services, Trade in services by service category, data extracted on 11 January 2011.

tered efficiency in the sector. These large firms in regulated sectors are an asset for the Spanish economy. Overall, Spain has built up a solid reputation in architecture, construction and engineering services as well as financial services and tourism (see Figure 4.17).

Furthermore, a segment of small and medium-sized exporting companies, especially from Catalonia and the Basque country, have proven their international competitiveness in the production of industrial goods and advanced services. Catalonia and the Basque country are regions with a more diversified economic structure with less dependence on the construction sector. For example, Catalonia's export share in world markets has been steady at 0.46 percent from 1995 until 2008 despite the pressures of globalization. Catalonian firms have made efforts to become more competitive in terms of reducing costs, investing in human capital, product differentiation and the adoption of new technologies.

Thus we observe that there is a dynamic export sector which, due to its good productivity performance, has coped well with the trend toward real exchange rate appreciation during the Golden Decade. But this does not imply that competitiveness is adequate: To restore the external balance and create jobs at the same time, the Spanish economy needs to export more, i.e. to become more competitive. This must be achieved by a combination of real depreciation and productivity growth in the export sector. The latter will only prevail if structural reforms are undertaken (see Sections 7 and 8); the greater the improvement in productivity obtained thanks to the structural reform, the smaller the real depreciation that is needed to rebalance the economy, and the less painful the adjustment is for workers and consumers.

**4.6 Current adjustment issues**

In some ways, the adjustment that was necessary in order to offset the imbalances of the Golden Decade is taking place during the current crisis: house prices are falling sharply, although only a fraction of the required adjustment has been achieved; the trade balance is recovering; construction and private consumption have fallen sharply.

Some of these developments are cyclical. For example the improvement in the trade balance is chiefly driven by the sharp fall in consumers' disposable income, which is itself a by-product of the recession. According to the Bank of Spain (2009, chapter 5), the structurally adjusted improvement in the trade balance is much smaller than the actual one. Nevertheless, there is an improvement in the trade balance even adjusting for the cycle, and the resulting improvement in the net asset position of the country (relative to the path that would have been followed in the absence of the crisis) will last beyond the recession and help finance future deficits. Other aspects, like the evolution of asset prices or the reallocation of activity away from consumption, are likely to have longer lasting effects.

This is the structural adjustment that is needed, but in order for it to proceed smoothly the economy must be capable of absorbing it without experiencing a protracted recession. Ideally, the resources that are released from the construction sector should be relocated to the external sector; in order to support such a reallocation, the real exchange rate should depreciate in order for export demand to offset the fall in domestic consumption and residential investment. That is, the competitiveness losses that Spain accumulated during the Golden Decade must be undone.[7]

Given the country's membership in the European Monetary Union, this means that prices and wages have to fall or at least increase at a lower rate than in the rest of the euro area (and the lower the overall inflation in the euro area is, the more this means that deflation has to actually take place in Spain). Spain will have to undergo a painful process of real depreciation which mirrors the process Germany encountered under the euro before the crisis.

It is indeed true that presently inflation rates in Spain are lower than in the rest of the euro area. Therefore, during the crisis, part of the competitiveness deficit that was accumulated during the Golden Decade is being reversed. Presumably, to the extent that there is inflationary inertia, these gains will not be purely cyclical and will persist beyond the recession. More worrying though is the lack of wage moderation, which makes us concerned that the adjustment is going to be even more painful than necessary and that the prospect of a "lost decade" during which growth remains sluggish and unemployment stays above 20 percent should not be discarded. In other words, the (slight) improvement in competitiveness is not being financed by slow wage growth but by productivity gains that are achieved at the expense of employment, as the least productive jobs are destroyed and as a rise in the capital/labour ratio makes each job more productive.

Table 4.2 strikingly illustrates this point: Despite the sharp rise in unemployment, wage inflation remains substantial. In fact these numbers suggest that Spain suffered from a large wage shock in 2008, right at the onset of the recession. This can only be partly explained by the lagged reaction to the surge in inflation in 2007. If one looks at real wage growth by subtracting inflation in the preceding year from nominal wage growth, one also gets an acceleration of real wages instead of the moderation that would have been expected in response to the sharp rise in unemployment (see Table 4.3).

The lack of reaction of wages to labour market conditions has long been noted in the literature on

**Table 4.2**
**The lack of response of wage increases to unemployment**

| Year | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| Unemployment rate | 11.0 | 9.2 | 8.5 | 8.3 | 11.3 | 18.0 |
| % increase in nominal wages | 3.0 | 3.7 | 4.0 | 4.5 | 6.1 | 3.7 |

Source: Bank of Spain (2009), Annual Report, Table 1.1, p. 17.

[7] International investors nowadays hesitate to bring their funds to Spain, and if so they require substantial interest surcharges to compensate for the perceived default risk.

**Table 4.3**
**The lack of response of real wage increases to unemployment[a)]**

| Year | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|
| Unemployment rate | 11.0 | 9.2 | 8.5 | 8.3 | 11.3 | 18.0 |
| % increase in real wages | 0.4 | 0.5 | 0.3 | 1.8 | 1.9 | 2.3 |

[a)] Real wage growth is computed as nominal wage growth minus the preceding year's CPI inflation.

Source: Bank of Spain (2009), Annual Report, Table 1.1, p. 17; own calculations.

Spanish unemployment[8] and essentially comes from the rigidity of the labour market. Since most of the adjustment falls on holders of temporary contracts and perhaps on immigrants (including a number of illegal ones), permanent workers are relatively sheltered and continue to demand substantial wage increases despite the poor prevailing economic conditions.

As pointed out by Garicano (2010), this stands in contrast to the experience of other countries, where wages are typically more reactive to labour market conditions. For example, real wage growth in the United Kingdom became negative in the first quarter of 2008, thus showing a quick reaction to the crisis. And as a result of such moderation (and of the fall of the pound sterling), GDP and employment started recovering in the second quarter of 2009.

It is therefore essential, if Spain aims at exiting the crisis on a sustainable growth path, that it implements structural reforms of its labour market so as to increase the sensitivity of wages to unemployment. Otherwise, its economic performance will remain inherently unstable even if growth resumes, since any shock that would need to be absorbed by the labour market, such as a productivity slowdown or a structural shock that would require intersectoral reallocation of labour, may trigger a protracted recession.

While the crisis has partly corrected some of the imbalances of the Golden Decade, it has generated new imbalances, mostly in the area of public finances. These issues have led to a rather quick implementation of reforms that are aimed at restoring the country's fiscal balance. The reason why the government has acted swiftly is that it wanted to prevent a "Greek scenario" under which spreads on government bonds would skyrocket, making the financing of the debt problematic and increasing the likelihood of contagion to the entire euro area. In the extreme case, the government could even find itself incapable of refinancing its debt and would technically be bankrupt. The austerity programme, which is described in Box 4.3, is quite ambitious, and even involves exceptional measures such as a reduction in the wages of civil servants by 5 percent in 2010. According to the Bank of Spain (2010), "the objectives are very ambitious and, in many cases, do not have a precedent, since in the past

**Box 4.3**
**The fiscal austerity package**

The aim of fiscal consolidation is to bring back the deficit to 3 percent of GDP in 2013 with an intermediate objective of 6 percent in 2011 from the projected close to 10 percent deficit of 2010. The fiscal measures approved in late 2009 for the fiscal year 2010 seek to reduce expenditures and increase taxes. On the expenditure side, the following are notable:

- a reduction of the rate of hiring in the public sector to 10 percent of the attrition level,
- no hiring of temporary workers in the public sector.

On the tax side, the following was decided:

- elimination of the deduction of 400 euros from the income tax,
- increase in the VAT rate,
- increase in the taxation of personal capital income.

In May 2010, in the middle of the Greek crisis, further austerity measures were decided:

- a temporary reduction of public wages by 5 percent as of July 2010,
- a freezing of public wages in 2011,
- a reduction of public investment by 6 billion euros over the 2010–2011 period,
- a freezing of pension levels in 2011,
- the elimination of a child benefit (paid at birth) in 2011.

In addition there is a phasing out of fiscal incentives (deduction of mortgage payments) for home ownership from 2011 on.

[8] See Blanchard et al. (1995). Recently Bentolila and Folgueroso (2010) have pointed out that wages are generally unreactive to both labour market conditions and productivity.

one only tried to freeze the growth rate of spending. Their fulfillment will require a rigorous implementation and control which should allow the timely identification of possible deviations". A potential cloud on the horizon of fiscal consolidation is the optimistic growth outlook assumed by the Spanish government for 2011, which at 1.3 percent is above the consensus forecast (the IMF predicts a GDP growth of just 0.7 percent).

The emergency implementation of such a fiscal austerity package illustrates the evils of a "stop-and-go" macroeconomic policy. During 2008 and 2009 there was considerable consensus in political and academic circles for implementing large Keynesian stimulus packages while not paying attention to the long-term consequences of such measures. Essentially governments assumed that they could gradually reduce the deficits once the macroeconomic outlook began to improve and revert to a balanced growth path with a stable debt-to-GDP ratio, albeit at a higher level than before the crisis. Under such an ideal scenario the governments would have smoothed the crisis optimally, and a permanently higher (but manageable) debt level would have been the (worthwhile) price to pay for it. This is somewhat in line with the scenarios we envisaged for fiscal adjustment in last year's EEAG report (see EEAG 2010, p. 89), although we pointed out that to stabilize debt at 100 percent, substantial fiscal restraint should be exerted and growth should proceed at a reasonable pace.

The problem is that governments discounted an alternative, less rosy scenario, i.e. that the magnitude of the deficits would lead to people being worried about future fiscal problems, with the twin consequences that the recovery is less than satisfactory due to the economic agents' reluctance to invest and spend, and that asset markets quickly react by imposing a large risk premium on the bond yields of the most exposed governments. It is the emergence of this scenario that has compelled the Spanish government to implement its emergency austerity package. Its timing could not have been worse: both an adverse supply shock (due to the tax hikes) and an adverse demand shock (due to the reduction in public spending) are hitting the economy at a time when it is still in recession and unemployment is very high. In retrospect, it would have been better to have been more cautious in 2008–2009 and to have kept an eye on the long-term sustainability of public finances rather than joining the bandwagon of unbridled spending. This is more or less the strategy Germany adopted (in 2009 the German public deficit ran at 3.9 percent of GDP, versus an average of 6 percent for the EU-27), and it may have played a role in the strong recovery of the German economy in 2010. On the other hand, the compulsory contractionary policies implemented by the Spanish government in 2010 will probably harm its recovery and – given the poor performance of the labour market in absorbing shocks – pave the way for another lost decade. The contractionary policies most likely could have been softened had the Spanish government embarked on a programme of reforms early in the crisis. This would have yielded credibility to Spanish economic policy and implied less financing constraints in international capital markets.

Finally, another issue is that the adjustment in house prices is still incomplete. Some analysts believe they should fall further by some 20 to 30 percent. If this happens, another dip into recession may follow, with further financial problems for banks that may spread to the public sector if these liabilities are bailed out, as was the case in Ireland in 2010.

### 4.7 The key issue of labour market reform

The most important issue facing Spanish labour markets today is the inability of wages to fall in response to increases in unemployment even when such an increase is massive. Labour market developments in the current crisis suggest that little has changed since the early 1980s, when Spain suffered from very high unemployment and there was no mechanism for it to return to normal levels. The introduction of flexible labour contracts in the 1980s allowed for an increase in employment while being compatible with the political balance of power. But it did nothing to increase the cyclical sensitivity of wages because it did not increase the exposure of incumbent employees to competition from outsiders in the wage-setting process. The key challenge facing policymakers is how to reform the labour market institutions to increase this competition.

To address this challenge, it is necessary to understand the source of the problem. It is widely believed that an important aspect is the inappropriate level at which wage bargaining takes place (that is, the sectoral level), and the low coordination between sectors. An intermediate level of wage-setting along with low coordination delivers high and persistent unemployment at the aggregate level.[9] One could envisage national wage negotiations that once prevailed in Sweden. However in the end the Swedish approach did not deliver the wage dispersion between sectors needed for an efficient intersectoral allocation of labour and was therefore abandoned. Therefore, the best course seems to be decentralizing wages at the firm level, but this runs into the problem that it is difficult to impede higher level negotiations or to dismantle the current system.

An interesting proposal was made in 2009 by 100 prominent economists (see Abadie et al. 2009). This proposal allows for agreements at the firm level to supersede any sectoral agreement, for example, if the lower level agreement implied lower wage growth than the sectoral one. Thus, sectoral agreements would only define a default option in the case that bargaining does not take place at the firm level.

Another prominent proposal consists in replacing the dual system of employment protection with a unique labour contract under which employment protection would grow progressively with an employee's tenure. It is not obvious to us how this would significantly differ from the current system. It would still be the case, under such a proposal, that workers with low tenure would display a large turnover and would be dismissed before high tenure workers. It is true, though, that temporary workers would not face a deadline at which the employer must either get rid of them or give them full employment protection; but they could still be dismissed preventively in order to avoid the future increases in firing costs. By the same token, if it is the case that the dual employment protection system makes wages more rigid by reducing the exposure to unemployment of the workers who are most influential in wage negotiations, replacing the system with a unique labour contract and progressive employment protection will not change that feature much.

It is impossible to increase wage flexibility without increasing the exposure of insiders to outside competition: this is what a decentralization of wage bargaining to the firm level or a reduction in employment protection for permanent contracts would achieve. This means that there is no politically cheap way to implement such a change. The mid-1980s deregulation of temporary contracts boosted employment at the margin at low political costs, and for this reason it was not able to increase wage flexibility. Nevertheless, such deregulation proceeded in spite of the unions' opposition, who feared its long-term consequences. The reason is that unemployment was very high at that time, which made it easier to extract concessions from the unions. Given the current level of unemployment, there may be an opportunity for a far-reaching reform of the labour market.

Indeed, in July 2010 a labour reform package was approved which goes in the direction of attacking the duality of the labour market but in a timid way, reducing firing costs for firms in poor economic conditions[10] and widening the conditions under which the *contrato de fomento de empleo* (contract of employment promotion; a permanent contract with less generous employment protection provisions) may be used.[11] It also introduces steps towards the "Austrian model" by creating a lifelong individual capitalization fund for workers (the worker will be able to make use of the fund in cases of dismissal, transfer, retirement or for training purposes, to be implemented in 2012). The reform of collective bargaining procedures towards decentralization has started but has basically been left pending for future reform in March 2011.

The reform as it stands is a half-way reform, which depends on judicial review that may compromise its efficiency. It will have to prove its effectiveness when the economy starts growing again. There is some risk that it might be undone if economic conditions improve. Collective bargaining is an unresolved issue that is pending as well as the features of the unemployment subsidy. Efficiency would require having a higher subsidy for a shorter period of time to incentivize job search.[12]

## 4.8 Other key reforms

Reform of the labour market is key but by itself it will not make the economy grow. Without a series of reforms to improve productivity, Spain will face a pro-

[9] See Calmfors and Driffill (1988).

[10] The reduction is to 20 days per year worked instead of 45 days per year in case of a wrongful dismissal. Nevertheless the new measures are plagued by legal uncertainty since they rely on the discretion of judges in determining the circumstances where they apply. Uncertainty in the implementation of employment protection legislation is viewed by many economists as very harmful to job creation and replacing it by a transparent system of unconditional severance payments has often been advocated.

[11] This contract specifies a severance pay of 33 days per year worked in the case of wrongful dismissal, instead of the usual 45 days.

[12] In the extreme, one could abolish unemployment benefits or reduce them to subsistence levels and have workers rely on their capitalization fund to finance their consumption during unemployment spells.

tracted period of low economic activity and high unemployment. Apart from the labour market, at least four major areas need attention: fiscal consolidation and public sector reform, the banking system, human capital and innovation, and competition and regulation.

The Spanish government denied the need for reforms until the pressure of financial markets and the European Union induced a U-turn in May 2010. From then on a series of limited reforms have been passed, including the labour market and the restructuring of a segment of savings banks. But more are in store, such as the proposal to increase the retirement age from 65 to 67 as well as other possible adjustments such as a tighter indexation of pension benefits to an individual's life-cycle contributions.[13]

Thus far Spanish banks have been resilient to the financial crisis due to a combination of not being involved with US subprime mortgages, dynamic provisions which required extra capital on a forward-looking basis and prudential regulations of the Bank of Spain. The strengths of the banking sector up to the crisis lay in its orientation to retail banking, high apparent productivity, profitability and solvency as well as internationalization of the large entities. The weaknesses are related to its dependence on real estate, which has left some institutions with damaged balance sheets, excess capacity and high dependence on external finance which leaves the sector exposed to refinancing risk. This is especially true for a segment of savings banks. Two small savings banks have failed. Spain performed stress tests on its banking system, which were much more comprehensive and tougher than in other EU countries. The result was that four savings banks, on top of the failed institutions, needed more capital. The Fund for Orderly Banking Restructuring (FROB) was set up to help the restructuring process of the financial entities. It provides support to consolidation processes subject to conditions set by the banking supervisor and provides capital in the form of convertible preference shares with remuneration at market levels. Furthermore, in July 2010 the legal status of savings banks changed to help them raise capital and improve efficiency. Now it is possible for them to operate with a commercial bank (controlled by the savings bank/s) or even become a foundation (as in Italy) that only has a participation in the bank. The result so far is that the number of savings banks has gone down from 45 to 17 groups (of which eight have received FROB help), with five integrations setting up a common bank. The average asset size of savings banks has more than doubled, and drastic reductions in the number of branches and employees are foreseen. In fact, it is expected that the process of consolidation and restructuring among savings banks as well as medium-sized banks will continue. Transparency in the recognition of the losses derived from real estate and a quick adjustment of real estate prices would help in restoring the balance sheet of the financial system and would promote economic recovery. The speedy reform of the financial sector after the adverse real estate shock is crucial to provide credit to the real economy to get out of the crisis.

The pressure of debt markets induced the government in December 2010 to announce the privatization of 49 percent of the Spanish airport operator AENA and of 30 percent of the national lotteries, as well as increasing the taxes on tobacco and lowering the profit tax on small and medium-sized firms. The announced privatization of AENA will mostly maintain the obsolete centralized management of all Spanish airports and most likely will not allow them to compete. This is at odds with most other developed countries. The privatization of AENA also poses the more general question of public-sector reform. In Spain public-sector employees have enjoyed the benefits of a soft budget constraint of governments that preferred to allow generous conditions, at taxpayer expense, rather than face any conflict. A paradigmatic example is the case of air traffic controllers, who with extremely high salaries and lax working requirements brought the country to a halt on December 3 and 4, 2010. The tough, unexpected response of the government may signal a hardening of the public budget constraint. More generally, there is room for dramatic improvement in the efficiency of the public sector, given its maze of different levels of government and the lack of correspondence between expenditure and taxation. Indeed, Spain would benefit from a system of fiscal federalism where regions would have to raise income from their own taxes to cover their expenditures and where large transfers between regions would become explicit and limited. On a related front, the administration of justice is slow and inefficiently organized, inflicting high costs on the operation of firms. Administrative procedures are cumbersome and the cost of doing business is high.[14]

[13] To be determined in January 2011.

[14] Not least because of the complexity and uncertainty surrounding the legal application of employment protection, as pointed out in footnote 19.

Above we have documented Spain's poor performance in total factor productivity. As long as it persists, this means that there is little hope for an improvement in living standards and that the needed adjustment in the external sector must be achieved through a real exchange rate depreciation, which is associated with a reduction in real wages. Furthermore, such a depreciation is long and costly to achieve in the context of European Monetary Union. To exit this conundrum, Spain needs a set of measures to improve productivity and to promote growth and exports. Potential obstacles lie in the organization of the industrial sector: The size distribution of firms is tilted towards small firms with low productivity; a tradition of inter-firm cooperation is lacking; and, most importantly, there are many rigidities in the process of entry and exit in industry which may prove to be an obstacle to overcoming the current crisis. One such rigidity is the malfunctioning of the rental market, which is very narrow because the property rights of owners are not firmly established.

Innovation efforts have been lagging, mostly because of the constraints faced by small firms. Renovation and productivity improvement at small and medium-size enterprises (SMEs) may prove to be the key in getting Spain out of the crisis. A distinction must be made between those firms and segments that are at the world technological frontier, and for which the pressure to innovate is formidable and which need heavy R&D investment, and those that are well inside the frontier, for which a strategy of renovation and adaptation is needed to advance towards the frontier.[15] The crisis may be an opportunity to get rid of the inefficient firms, but for this to happen flexibility is necessary. In the short-term, adjustment will be painful since credit is not flowing to industry due to the financial crisis and lack of solvent demand, and the SME sector is very much dependent on bank credit. This may be a blessing in disguise and provide an impetus for the needed restructuring of the SME sector with renovation and innovation to increase productivity. This restructuring will be successful if no artificial impediments to transfers of resources from declining to emerging sectors are in place. The pressure of lower cost producers combined with the Darwinian selection that the crisis will impose on industrial firms should provide a crucial impetus for the needed productivity improvement. However, protection of declining firms with subsidies may prove to be a barrier to restructuring.[16]

Spain has to privilege brains and not bricks, putting more weight on human capital than on construction and infrastructure. This means fostering human capital formation, openness and internationalization. In education and R&D a change in organization and incentives in the bureaucratic structures is more important than increased public spending. This is the case both in secondary as well as advanced education. In both a culture of excellence should be promoted. Schools need more autonomy to compete for students and teachers with more transparency on performance. In higher education, the universities should have autonomy to select professors and students, with public financing based on results; they must charge fees closer to the real costs and develop a system of fellowships to foster equal opportunity. The university system should move from the bureaucratic mode to an excellence-oriented one. In the crisis period, investment in science and innovation needs to be maintained and special attention should be given to the segment of dynamic firms active in the international market.

Competition should be fostered in services in particular (implementing the EU Services Directive) to lower costs and induce faster adoption of information technology. This may be particularly important in a sector such as retailing. In regulated sectors like energy, an opportunity must be given to the market forces. At present the maze of subsidies and regulations induces an extremely high inefficiency and distorted use of energy sources.[17] Sectoral regulators still have a long way to go to attain the desired independence and technical capability, while the competition authority has shown increasing signs of activism and independence.

The government has taken timid steps to tackle public sector reform and the productivity issue, with some progress on lowering the cost of doing business, education reform and the energy sector. More needs to be done, however.

[15] As discussed in Section 4.5, this distinction explains the paradox that Spain may have competitiveness problems and yet enjoy a dynamic export sector.

[16] See Ghemawat and Vives (2009).

[17] See Ghemawat and Vives (2009), and Federico, Fabra and Vives (2009) and Federico (2010).

### 4.9 Outlook and conclusions

The bursting of the real state bubble has left its mark in Spain, and the level of indebtedness of the private sector, external in an important proportion, suggests that internal demand that was largely stimulated by capital imports will not be an engine of growth for some time. The reduced capital imports will make it necessary for Spain to improve its competitiveness and boost its export sector. This will have to be achieved by real depreciation, given its rigidity in labour and product markets and its membership in the European Monetary Union, although such depreciation in the absence of structural reform will be a long and painful process. The price to be paid will be stagnant growth and, if wages remain as inflexible as they are, a high level of unemployment for years. To mitigate the harm that undoubtedly will come with this process, structural reforms will be key ingredients of any successful adjustment package. The better and more radical they are, the shorter will be the period of slump that Spain will have to live through. The success of the labour market reforms Germany implemented in 2004 to allow for more downward flexibility of wages when it was caught in a similarly painful real depreciation crisis shows that such reforms eventually pay off.

Wage bargaining must be reformed to make wages more sensitive to economic conditions; employment protection must be tackled so as to reduce the bargaining power of insiders and make it easier to reallocate labour between sectors. These reforms would help restore competitiveness and reallocate resources to the export sector more quickly. Other structural reforms in product markets will improve productivity, especially in traded goods, which will reduce the amount of real depreciation needed for adjustment.

While Spain is in a vulnerable position due its level of private debt and the fiscal crisis, if the programme of reforms is carried out rigorously, productivity could be boosted dramatically and growth could resume above the euro area average in the medium run. The crisis offers a unique opportunity to pass a comprehensive reform package. The only question is whether Spanish society and its politicians will take advantage of this window of opportunity.

### References


Abadie et al. (2009), "Propuesta para la reactivación laboral en España", *www.crisis09.es/propuesta/?page_id=37,* 12 January 2011.

Bank of Spain (2009), *Informe Anual 2009, www.bde.es/webbde/SES/Secciones/Publicaciones/PublicacionesAnuales/InformesAnuales/09/Fich/inf2009.pdf.*

Bank of Spain (2010), *Boletin Economico 06/2010, www.bde.es/webbde/SES/Secciones/Publicaciones/InformesBoletinesRevistas/BoletinEconomico/10/Jun/Fich/be1006.pdf.*

Bentolila, S. and G. Saint-Paul (1992), "The Macroeconomic Impact of Flexible Labor contracts, with an application to Spain", *European Economic Review* 36, pp. 1013–47.

Bentolila, S. and J. J. Dolado (1993), "Who Are the Insiders? Wage Setting in Spanish Manufacturing Firms", *CEPR Working Paper* 754.

Bentolila, S., Dolado, J. J. and J. F. Jimeno (2008), "Two-tier Employment Protection Reforms: The Spanish Experience", *CESifo DICE Report* 6, Winter 2008, pp. 49–56.

Bentolila, S. (2010), "Una delgada línea roja: la negociación colectiva", *Nada es Gratis, www.fedeablogs.net/economia/?p=4659,* 12 January 2011.

Blanchard, O., Jimeno, J. F., Andrés, J., Bean, C., Malinvaud, E., Revenga, A., Saint-Paul, G., Snower, D., Solow, R., Taguas, D. and L. Toharia (1995), *Spanish Unemployment: Is There A Solution?,* Centre for Economic Policy Research, London 1995.

Calmfors, L. and J. Driffel (1988), "Bargaining Structure, Corporatism and Macroeconomic Performance", *Economic Policy* 3, pp. 13–61.

Dorfman, R., Samuelson, P. and R. Solow (1958), *Linear Programming and Economic Analysis*, McGraw-Hill, New York 1958.

EEAG (2010), *The EEAG Report on the European Economy,* CESifo, Munich 2010, *www.cesifo-group.de/portal/page/portal/DocBase_Content/ZS/ZS-EEAG_Report/zs-eeag-2010/eeag_report_chap3_2010.pdf.*

Federico, G., Fabra, N. and X. Vives (2008), "Competition and Regulation in the Spanish Gas and Electricity Markets", *Reports of the Public-Private Sector Research Center* 1, IESE Business School, www.iese.edu/es/files/energy%20report_Eng_tcm5-27082.pdf.

Federico, G. (2010), "The Spanish Gas and Electricity Sector: Regulation, Markets, and Environmental Policies", *Reports of the Public-Private Sector Research Center* 5, IESE Business School, forthcoming.

Garicano, L. (2010), "El desempleo en España y el Reino Unido 2007-2010: un sencillo caso de oferta y demanda (con un esclarecedor gráfico)", *Nada es Gratis, www.fedeablogs.net/economia/?p=5085,* 12 January 2011.

Garriga, C. (2010), "The Role of Construction in the Housing Boom and Bust in Spain", FEDEA, *www.fedea.es/pub/papers/2010/dt2010-09.pdf.*

Ghemawat, P. and X. Vives (2009), "Competitiveness in Catalonia: Selected Topics", *Reports of the Public-Private Sector Research Center* 2, IESE Business School, *www.iese.edu/en/ad/sp-sp/CompetitivenessinCatalonia.asp*.

Güell, M., and B. Petrongolo (2007), "How Binding are Legal Limits? Transitions from Temporary to Permanent Work in Spain", *Labour Economics* 14, pp. 153–83.

Saint-Paul, G. (1993), "On the Political Economy of Labor Market Flexibility", *NBER Macroeconomics Annual* 8, pp. 151–87.

Saint-Paul, G. (2000), *The Political Economy of Labour Market Institutions,* Oxford University Press, Oxford 2000.

Sinn, H.-W. and R. Koll (2001), "The Euro, Interest Rates and European Economic Growth", *CESifo Forum* 1, No. 3, pp. 30–1, *ideas.repec.org/a/ces/ifofor/v1y2000i3p30-31.html.*

Sinn, H.-W. (2010), "Rescuing Europe", *CESifo Forum* 11, Special Issue, August 2010, *www.ifo.de/portal/page/portal/DocBase_Content/ZS/ZS-CESifo_Forum/zs-for-2010/zs-for-2010-s/Forum-Sonderheft-Aug-2010.pdf.*

Toharia, L. (1999), "The emergence of fixed-term contracts in Spain and their incidence on the evolution of employment", fundazione Rodolfo de Benedetti, *www.frdb.org/upload/file/copy_0_report1_20maggio99.pdf.*