2 THE COMPETITIVENESS OF THE SPANISH ECONOMY

1 Introduction

Competitiveness is a primary objective of the euro area…

Over the course of the crisis, improving competitiveness has become a primary economic policy goal for a good number of euro area countries. The principal reason for this is that the scenarios of a recovery in growth have as their centrepiece a boost in external demand, especially in those economies where over-indebtedness constrains the responsiveness of domestic demand. But beyond this relatively general pattern of recovery, the importance of competitiveness in a monetary union is considerably amplified by the fact that only changes in the relative prices of tradeable goods between member states can bring about the real exchange rate realignments needed to redress the current account imbalances between them. And adding to this is the need to resolve the excessive external debt problems some of these economies have incurred, the correction of which requires redressing the current account balance. Unsurprisingly, then, the analysis of competitiveness has become a priority in the new strengthened framework of macroeconomic surveillance and supervision of European and international institutions.

… that is crucial for the ongoing adjustment of the Spanish economy

The arguments set out above are particularly pertinent in the current situation facing the Spanish economy. As explained in Chapter 1, the difficulty is to restore the momentum of economic activity while furthering the correction of excessive debt under very strong constraints on macroeconomic demand-side policies, derived from the high budget deficits run and the widespread climate of mistrust owing to the sovereign debt crisis. The deleveraging of the private sector and the restoring of sustainability to public finances limit the role domestic demand can play as a driver of economic growth in the short term, thereby shifting the centre of gravity of recovery towards external demand. Monetary policy has maintained low interest rates and exceptional liquidity-providing conditions, which have diminished the intensity of the external financing constraint. But the Spanish economy still has high financing needs, since despite the strong contraction economic activity has undergone, the balance of payments deficit on current account stood at 3.5% of GDP in 2011, while there were sizeable financing flows abroad, which were only offset by a substantial increase in the external liabilities of the Banco de España. A recovery in competitiveness therefore has a key role to play both in external demand standing in for the lack of support from domestic demand to activity and also to boost growth from the supply side.

The analysis of competitiveness calls for numerous facets to be taken into account…

The concept of competitiveness is used with different meanings and there is no single indisputable measurement of it. The usual practice is to associate competitiveness with the real exchange rate, i.e. with the price of tradeable goods and services produced domestically vis-à-vis those of the rest of the world. Under the assumption of perfect competition, prices are chiefly determined by unit labour costs (ULCs), whereby the analysis of competitiveness is often conducted on the basis of an international comparison of ULCs. However, the perfect competition model is not very suitable for characterising many international markets, in which differentiated varieties of products competing on price and quality are traded, and which, therefore, are closer to a situation of monopolistic competition.

Occasionally, the concept of competitiveness is confined to an external component, associating it with the behaviour of national companies on international markets, and obviating the degree of penetration of foreign companies in the domestic market. And this when, as regards the capacity to generate economic activity and employment, both components are significant. Accordingly, indicators of competitiveness based on changes in a country's share of exports in the world total or import penetration in the domestic market also offer

useful information for the analysis of competitiveness, which does not always point in the same direction as developments in relative prices, for several reasons. One is the extensive sectoral and corporate heterogeneity existing in relation to the capacity to export and compete on international and domestic markets, meaning that the aggregate changes in shares may, occasionally, respond to composition effects arising from changes in the sectoral distribution of employment or of output. Another is the fact that relative world demand for goods of a specific country may change not only on the basis of their relative price, but also due to changes in their quality or other factors that may affect consumer preferences. For companies to gain market share frequently depends – more than on relative prices – on other aspects relating to the technical specifications of their products, to their ability to gain access to appropriate distribution channels and, in short, to their innovative capacity and the human capital of their workforce.

Consequently, other more comprehensive approaches to the concept of competitiveness are also widely used. These tend to present competitiveness as a synonym of productivity. As a result, when it comes to approximating a country's competitive potential it would, apart from production costs, be necessary to bear in mind other factors that influence companies' innovative capacity and ability to compete in areas other than relative prices, such as the composition of human capital, the efficiency of their infrastructure, the regulatory framework in which they operate and their degree of integration into global production chains.

.. which also have to be considered in the design of economic policy measures to boost gains in competitiveness

As what is involved is a multi-faceted concept, it is therefore appropriate to address the analysis of competitiveness, and the policies needed to promote it, from different approaches. This should be done combining the habitual macroeconomic indicators of relative prices and costs with attention to export shares and, also, domestic market import penetration, and also with microeconomic information allowing corporate heterogeneity in this respect and its consequences to be analysed. Only with an approach of this nature would it be possible to make an accurate diagnosis and a complete analysis of its determinants, and to design the economic policy measures that provide for improving it and which, therefore, reduce the costs of possible macroeconomic adjustments within the monetary union to achieve higher growth.

This chapter offers some bases for the analysis of the Spanish economy's competitiveness taking into account this broader approach to the concept. Firstly, emphasis is placed on the importance of gains in competitiveness for the recovery of the Spanish economy, in circumstances such as the present marked by strong constraints for domestic demand-boosting policies and in which a series of imbalances between the member countries of a monetary union needs to be corrected (section 2). The macroeconomic indicators habitually used for the analysis of competitiveness are then discussed (section 3) and, set against recent developments in the Spanish economy, its determinants are identified and analysed (section 4). The corporate heterogeneity existing in relation to productivity, costs and exports is then documented (section 5), and the macro- and microeconomic policies that can contribute to boosting competitiveness are reviewed (section 6).

2 The role of competitiveness in the adjustment of the Spanish economy

Gains in competitiveness are vital for overcoming the crisis

Drawing on the habitual indicators used, the Spanish economy underwent a considerable loss of competitiveness during the 1996-2007 period. Low interest rates and excessive optimism about growth expectations and asset prices (chiefly real estate prices) prompted a substantial boost in domestic demand which, given the limited responsiveness of supply, translated into persistently higher growth in prices and costs than that in the euro area as a whole, and than that of the core countries with the most dynamic exports in particular. In turn, the unfortunate behaviour of relative costs and

prices was accompanied by very low productivity growth, as a result, inter alia, of supply-side rigidities, insufficient headway in the liberalisation of goods and services markets, and, above all, the continuing and notable inefficiencies in labour market workings. As a consequence, the deterioration in competitiveness and the increase in debt led to a sizeable widening of the external deficit and to a substantial build-up of net debt vis-à-vis the rest of the world.

The serious downturn in the worldwide financial situation and the bleaker growth expectations associated with the global economic crisis exposed the presence of a worrying external imbalance in the Spanish economy. To correct it, a substantial improvement in competitiveness was now unavoidable, and would have to be articulated simultaneously with the necessary reduction in the high levels of debt of the Spanish economy's various institutional sectors.

At the same time, improvements in the functioning of the euro area should be able to prevent the build-up of mismatches in competitiveness…

When asymmetric economic shocks occur in a monetary union, that gives rise to inflation differentials which the common monetary policy cannot correct. If these inflation differentials are persistent, they may generate deviations from equilibrium in member countries' real exchange rates , the correction of which requires changes in relative prices between domestically produced goods and services and those produced in the rest of the area. If price and cost-formation mechanisms are sufficiently flexible, the nominal adjustments needed take place at greater speed, thereby avoiding the need to correct the imbalances through activity and employment, with the subsequent rise in unemployment. The flexibility of the markets for goods, services and factors is therefore essential for bringing about appropriate adaptation to the functioning proper to a monetary union.

The experience of the first 10 years of EMU has clearly shown that the importance of this flexibility and the consequences of its absence were underestimated when the euro area governance mechanisms were designed. It was known then that persistently higher inflation rates led to excessively low real interest rates which, in the absence of sufficiently flexible supply, refuelled expansions in demand, which were the source of the inflationary tensions.[1] There was confidence, however, that a positive inflation differential and the subsequent appreciation of the real exchange rate would lead to a reduction in external demand enabling the behaviour of domestic demand to be offset. But this channel has proven clearly insufficient as an adjustment mechanism and, as a result, external imbalances have built up, the correction of which is finally coming about through changes in output and employment more than through a nominal adjustment.[2]

… which has led to the introduction of new surveillance procedures within the European governance rules

Acknowledgement that the accumulation of external and internal macroeconomic imbalances has exacted a very high cost during the current crisis has led to the introduction of far-reaching changes in European governance arrangements. More specifically, the new framework envisages a macroeconomic surveillance procedure that complements the fiscal block already in place (which is also reinforced in his new framework) and which attempts to prevent the occurrence of macroeconomic imbalances not of a fiscal nature and to ensure the rapid adoption of corrective measures should such imbalances occur. This

1 With regard to the European Monetary System, Sir Alan Walters put forward the idea that this divergence in real interest rates usually occurred under fixed exchange rates; accordingly, the term "Walters critique" was coined to refer to this source of divergence in a monetary union.

2 See O. Blanchard and P.A. Muet (1993), "Competitiveness through disinflation: an assessment of the French macroeconomic strategy", *Economic Policy,* vol. 8, no. 16, April, pp.11-56. The propensity of the euro area to a series of episodes of these characteristics is known as the theory of "rotating slumps".

"early warning mechanism" is fed by a scoreboard of 10 indicators selected on the basis of four principles: i) they should be centred on the most significant dimensions of the macroeconomic maladjustments and of the losses in competitiveness; ii) they should provide clear signals of the potential for accumulation of imbalances and losses in competitiveness at an initial stage of their occurrence; iii) they should act as an instrument of communication, and iv) they should be constructed using statistical criteria that provide for frequent availability and international comparisons.[3] The indicators on which this *Macroeconomic Imbalance Procedure* is based, and the indicator values on the basis of which a maladjustment may be considered to exist, are detailed in Table 2.1. In the last surveillance exercise conducted with indicators related to 2010, Spain exceeded these thresholds in three of the five indicators that refer to external imbalances and to competitiveness: current account balance (-6.5% of GDP on average in the period 2008-2010), net external debtor position (89.5% of GDP) and changes in export shares (a cumulative figure of -11.6% in the period 2006-2010).

The adjustment in competitiveness must combine nominal adjustments in costs, margins and prices with productivity gains…

In a monetary union there is no possibility of an exchange rate devaluation against the other countries in the area. Under these conditions, internal devaluation, i.e. the adjustment of costs and prices together with productivity gains arising from a better management of work and a more efficient allocation of productive resources, is the alternative available for restoring competitiveness. The misalignment of the relative prices of domestic goods and services can only be corrected if there is sufficient flexibility in price and wage-formation; it thus depends crucially on the effectiveness of structural measures on the functioning of the relevant markets. If, moreover, the recovery in competitiveness must run in parallel with a correction of the excess private debt that weighs on the possibilities of a recovery in domestic demand, it is vital that the nominal adjustment should be accompanied by a lasting increase in the growth rate of productivity that lays the foundations for sustained growth in the medium and long term. This all illustrates the importance of supply-side and structural reform policies to kick-start competitiveness so it may be the chief factor in overcoming the crisis.

In principle, fiscal policy could contribute to the adjustment of relative costs and prices through a change in the composition of tax revenue that helped make exports cheaper. This is what the so-called "fiscal devaluation" consists of, combining a reduction in social security contributions with an increase in the VAT rate. However, the impact of such a measure would be limited, both over time and in terms of its potential scope; the measure could not act as a substitute for the necessary flexibility in cost and price-formation and, above all, it may prove counter-productive if the public sector faces imperative re-balancing needs and is weighed down by significant implicit liabilities as a result of the potential effects of population ageing on the Social Security financial balance.

In any event, for the nominal adjustment to take place, labour market regulations must not hamper the resort to changes in wages and employment conditions as response mechanisms to the decline in demand. Also needed will be a competition-promoting policy that prevents cost adjustments being absorbed by a widening of business margins (see Box 1.3). Productivity growth also needs well-regulated factor and product markets that allow for an efficient allocation of resources and that promote improvements in employee professional skills and investment in productive capital.

3 See European Commission (2012), "Scoreboard for the surveillance of macroeconomic imbalances", *European Economy,* Occasional Papers, 92, February.

INDICATORS OF THE EUROPEAN COMMISSION'S MACROECONOMIC IMBALANCE PROCEDURE TABLE 2.1

	Data source	Indicative threshold	Threshold calculation period	Additional indicators
EXTERNAL IMBALANCES AND COMPETITIVENESS				
Three-year moving average of the current account balance (% of GDP)	Balance of Payments statistics, Eurostat	+6/-4%	1970-2007	Credit balance or net debit balance vis-à-vis the rest of the world of the sum of current and capital account balances (% of GDP)
Net international investment position (% of GDP)	Balance of Payments statistics, Eurostat	-35% lower quartile	First year available (mid-1990s-2007)	Net external debt (% of GDP)
Three-year change in the real effective exchange rate, based on the HICP relative to 35 industrialised countries (%) (a)	DG ECFIN indicator from the database on competitiveness in prices and costs	+/-5% euro area +/-11% non-euro area lower and upper quartiles of the euro area +/- standard deviation of the euro area	1995-2007	Real effective exchange rate with respect to the rest of the euro area
Five-year change in the value-based export market share (%)	Balance of Payments statistics, Eurostat	-6% lower quartile	1995-2007	Export share based on volume of goods; labour productivity; trend TFP growth
Three-year change in nominal unit labour costs (%) (b)	Eurostat	+9% euro area +12% non-euro area upper quartile euro area 3 pp	1995-2007	Nominal ULCs (changes 1, 5 and 10 years); effective ULCs relative to the rest of the euro area; other measures of productivity
INTERNAL IMBALANCES				
Year-on-year change in deflated house prices (%) (c)	Eurostat's harmonised house price index, completed with ECB, OECD and BIS data	+6% upper quartile		Real house prices (changes over 3 years); nominal house prices (changes over 1-3 years); residential construction
Flow of credit to the private sector (% of GDP) (d) (e)	Eurostat for annual data and quarterly sectoral accounts (QSA), and ECB for quarterly data	+15% upper quartile	1995-2007	Indicator of change in the non-consolidated financial sector's financial liabilities; debt-to-equity ratio
Private-sector debt (% of GDP) (d) (e)	Eurostat for annual data and quarterly sectoral accounts (QSA), and ECB for quarterly data	+160% upper quartile	1994-2007	Private-sector debt based on consolidated data
Public debt (% of GDP) (f)	Eurostat (Treaty definition-excessive deficit protocol)	+60%		
Three-year moving average of the unemployment rate	Eurostat	+10%	1994-2007	

SOURCE: European Commission.

a The HICP is considered for EU trade partners, and for non-EU partners the deflator is based on a CPI similar to the HICP in respect of methodology.
b The ULCs index is defined as the ratio of nominal compensation per employee to real GDP per person employed.
c Relates to changes in house prices in relation to Eurostat's consumption deflator.
d The private sector is defined as non-financial corporations, households and non-profit institutions serving households.
e This is the sum of loans, securities other than shares and non-consolidated liabilities
f The sustainability of public finances is not assessed in the context of the macroeconomic imbalance procedure, as this matter is already addressed in the Stability and Growth Pact. However, this indicator is included in the procedure because public-sector debt contributes to the country's total debt and, therefore, to the country's overall vulnerability.

SIMULATIONS WITH BEMOD (a)

TABLE 2.2

Cumulative level differences

	GDP			Employment			Contribution of net exports to GDP			Nation's lending (+)/ net borrowing (-) (% of GDP)		
Scenarios	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Nominal adjustment (b)	0.4	0.7	0.5	0.6	0.7	0.4	0.0	0.0	0.1	0.0	-0.1	0.0
Reduction in ULCs (c)	0.5	0.7	0.5	-0.5	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0
Euro devaluation (d)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Increase in the export base (e)	0.5	0.6	0.4	0.5	0.5	0.3	0.1	0.2	0.2	0.2	0.3	0.3
Improvement in productivity (f)	1.3	2.2	2.0	0.6	1.5	1.3	0.2	0.3	0.4	-0.1	-0.2	-0.1

SOURCE: Banco de España.

a The price elasticity of exports has been calibrated at two.
b Calibrated so that ULCs fall 1% on average in the first year. The first-order autoregressive coefficient has been set at 0.25.
c Only in the tradeable sector. Calibrated so that ULCs fall 1% on average in the first year. The first-order autoregressive coefficient has been set at 0.8.
d 1% depreciation in the first quarter.
e Increase in the weight of Spanish exports in the consumption basket of the rest of the euro area. Calibrated so that Spanish exports increase by 1% in the first year.
f Sum of three very persistent but not permanent shocks (the first-order autoregressive coefficient is 0.9); improvement in productivity, reduction in wages and reduction in margins. With the last two shocks, wages do not grow in real terms and prices fall as much as ULCs do.

… whose effects on GDP and employment may be substantial, even in the short term

Gains in competitiveness increase GDP and employment through different mechanisms, depending on what the sources of the gains are. In the case of a wage adjustment that reduces the production costs of domestic goods with constant profit margins, the mechanism works through the export impulse induced by the decline in their relative prices. The scale of the increase in exports will depend, however, on the resilience of international demand, whose strength in the current recessionary environment is low, and on the price-elasticity of the goods. But this price-competitiveness transmission channel is not the only one, nor perhaps the most important one. If, as is to be expected, the greater adaptability of wages results in greater stability in employment, that will also translate into improved expectations of future income, which will contribute to boosting domestic demand. This latter variable, in turn, will be met in a greater proportion by the output of domestic companies with lower relative prices.

If the gains in competitiveness arise from an increase in productivity, with this originating either in technological progress or in a better allocation of resources leading to greater specialisation in the production of tradeable goods, the effect on activity and employment will depend, in the short run, on the degree of inertia of wages and prices and on the degree of real rigidity of wages, i.e. on their reaction to changes in prices and in demand, in the medium and long term. If, as is to be expected in a situation of high unemployment and slack demand, the moderation of wages and profit margins continues, the increase in the relative demand for domestic products induced by the reduction in prices or by improvements in quality would lead to a more marked increase in GDP and in employment than in the previous case. This will be so because Spanish companies' gains in market share will be the result of a broader set of factors than the mere lowering of relative prices, and because the improved expectations of future income would also be greater. Nonetheless, it should be borne in mind that productivity gains may require more time, meaning that the improvement in competitiveness by these means will only be operational over a medium-term horizon.

The results of the simulations performed with the Banco de España general equilibrium model of the Spanish economy (BEMOD), which incorporates all these transmission channels, confirm that the improvement in competitiveness may have a significant impact on activity and employment in the short and medium term (see Table 2.2). Thus, for instance, a 1% reduction in ULCs, prompted by a reduction in wages of the same order, would boost

GDP growth and employment by around 0.6 pp on average over a three-year horizon, while an increase in the weight of Spanish exports in the consumption basket of the rest of the euro area ensuing from a 1% increase in exports would do so by 0.5 pp on average over the same horizon. This effect would be even greater if the reduction in ULCs were caused by an increase in productivity in the tradeable goods sector that did not feed through either to nominal wages or to margins. In any event, given the low price-elasticity of the current account balance, in order to obtain a positive significant effect on the economy's financing capacity, it would be necessary to generate an increase in the export base, this being broadly understood to include both the number of companies that export and the diversification of export products and markets.

3 Approaches to analysing competitiveness

The relative price and cost indicators showed a relative rise in the cost of domestically produced goods, which only began to reverse as from 2010…

The standard analysis of competitiveness is usually based on an international comparison of aggregate price and cost indicators, which show the ratio at which goods and services of one country can be traded for those of other countries.[4] These indicators can be readily calculated and are available with a high frequency for most countries, which makes them particularly attractive for monitoring conjunctural developments and for the diagnosis of elements that are key to the discussion of macroeconomic imbalances, chiefly the balance of payments deficit on current account. Thereafter, other factors can be incorporated into the analysis that are not so susceptible to measurement in short periods of time. The recent changes in these indicators for Spain shows that, as from 2010, the rise in the costs of domestic products recorded since the mid-1990s has begun to be corrected slightly. As to ULCs, the correction has been swifter and, across the whole of the economy at end-2011, they were only 1.7% higher than 1999 Q1 in relative terms vis-à-vis the group of reference countries, although in the manufacturing sector they were still 12.3% above the levels at that date (see Chart 2.1).

… which is consistent with the deficits recorded on the current account balance

The current account balance began to worsen in 1997 and its deficit climbed to 9.4% of GDP in 2007-2008. This deterioration was essentially due to the behaviour of the trade balance and, under this heading and at an initial stage, to the non-energy goods component, although since 2007 the deficit has been corrected to the extent of disappearing in 2011, while the energy goods trade balance worsened from 2005 and has since held at around 4% of GDP (with the exception of 2009). The surplus on the balance of services stood in 2011 at around 3% of GDP, 1 pp higher than the deficit on the incomes balance (see Chart 2.2). Competitiveness in the services sector is of growing importance for the economy as a whole, as reflected by the improvements recently recorded in the balance of commercial exchanges in this sector.[5]

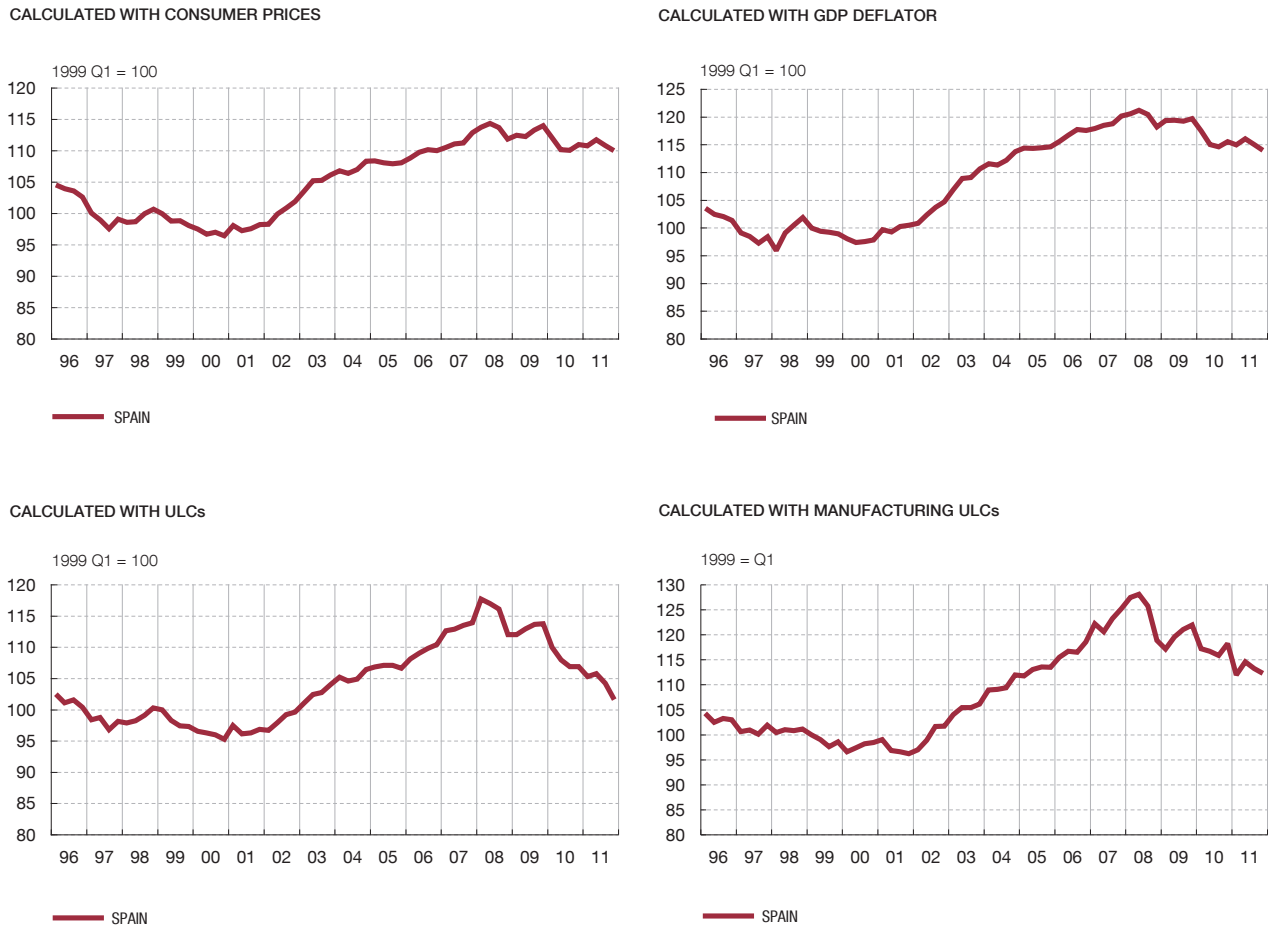
Thus, during the crisis there has been a rapid reduction in this deficit, to 3.5% in 2011, following a pattern of adjustment similar to that seen in other countries. International evidence[6] shows that, since 2008, external deficits have fallen more in those countries that had previously posted higher deficits relative to their growth potential. It is also confirmed that what lies behind this reduction is the decline in these countries' domestic demand, rather than the depreciation of their real exchange rate. This is what has happened in Spain. And it indicates that the correction to date in the external imbalance has a significant cyclical component,

4 Of relevance as regards the measurement of the real exchange rate is the selection of countries with which the comparison is made and the relative weight of each of them, along with the heterogeneity of exported products, depending on whether services exports are included or not. See T. Bayoumi, H. Faruqee and J. Lee (2005), *A Fair Exchange? Theory and Practice of Calculating Equilibrium Exchange Rates,* IMF Working Papers 05/229, and H.Z. Bennett and Z. Zarnic (2008), *International Competitiveness of the Mediterranean Quartet: a Heterogeneous-Product Approach,* IMF Working Papers 08/240.

5 Unfortunately, the shortage of available information prevents an in-depth treatment of this matter; accordingly, it is not addressed explicitly in this chapter.

6 See P.R. Lane and G.M. Milesi-Ferretti (2011), *External Adjustment and the Global Crisis,* NBER, working paper 17352.

COMPETITIVENESS INDICES (a) CHART 2.1



SOURCE: ECB.

a Competitiveness is measured vis-à-vis the other euro countries and vis-à-vis a broad group of 20 countries: Australia, Canada, China, Denmark, Hong Kong, Japan, Norway, Singapore, South Korea, Sweden, Switzerland, United Kingdom, United States, Czech Republic, Hungary, Latvia, Lithuania, Poland, Bulgaria and Romania. Increases (decreases) in the index denote losses (gains) in competitiveness.

meaning that the correction should still be considered as insufficient. Indeed, the estimates available of the structural component of the current account deficit in Spain show that the correction since 2009, when the deficit peaked, has so far been modest (see Chart 2.2).

Spanish export shares in the world total have held relatively constant, although their composition evidences certain vulnerabilities…

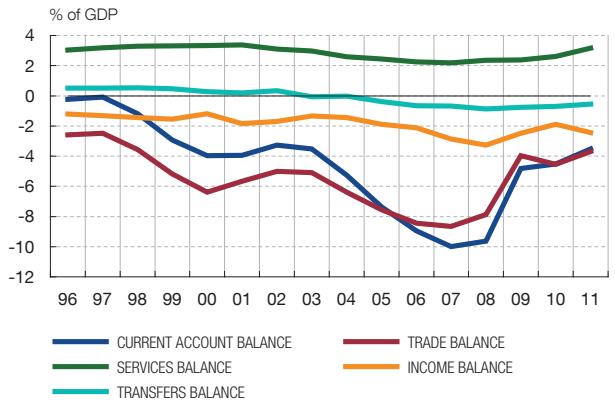
During this period the exports/GDP ratio has moved on a rising trend, although it slowed during 2011 Q4 as a result of the decline in demand across the EU. The weight of imports in domestic demand has also grown significantly. As a result, the two ratios habitually used to measure trade openness have, in recent years, attained similar values to those of France, Italy and the United Kingdom, although they are still below those of Germany. The greater presence of Spanish companies in international markets has allowed them to uphold their share in world trade, both in real and nominal terms, despite the emergence on these markets of China and other emerging economies. But the level is lower than that of other EU countries, such as Germany, France, Italy and the United Kingdom, even after adjusting for the different size of these economies (see Chart 2.3).

The sectoral specialisation of Spanish exports shows, firstly, the high share of low-technology products, meaning exports are particularly sensitive to pressures from low-cost competitors; and, secondly, an excessive dependence on the automobile sector, which accounts for around 20% of total exports. Geographical composition also reveals vulnerabilities, as

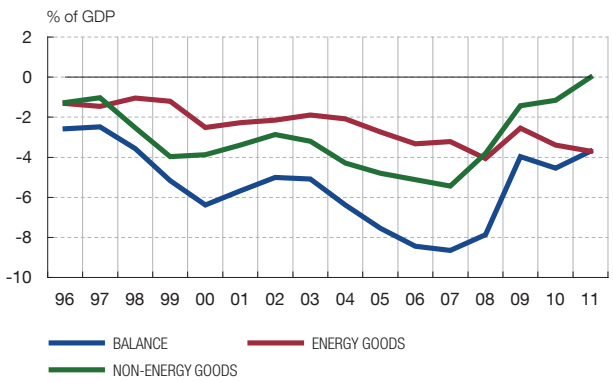
CURRENT ACCOUNT BALANCE

CHART 2.2

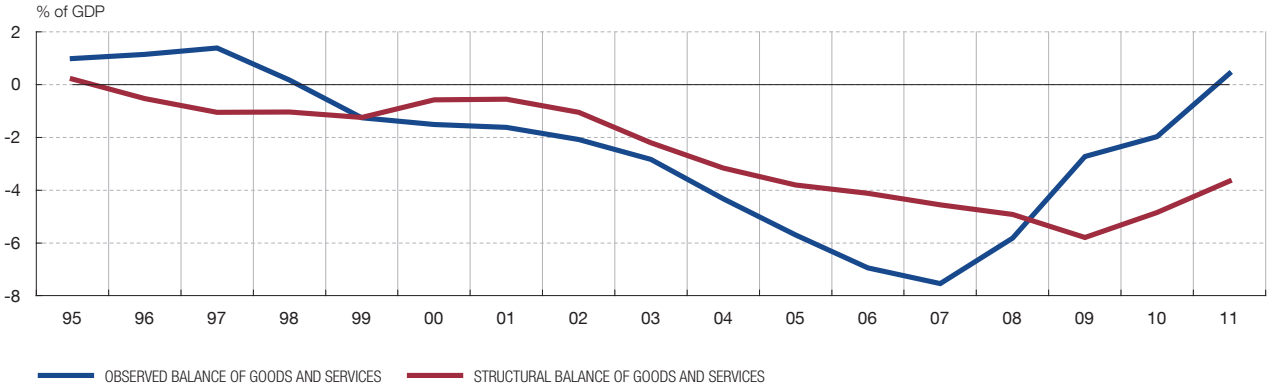
CURRENT ACCOUNT BALANCE AND ITS COMPONENTS



TRADE BALANCE



GOODS AND SERVICES BALANCE (a)



SOURCES: INE, Customs Department and Banco de España.

a Real data 2008.

exports are highly concentrated in European markets and their presence is limited in emerging markets, which have greater growth potential.

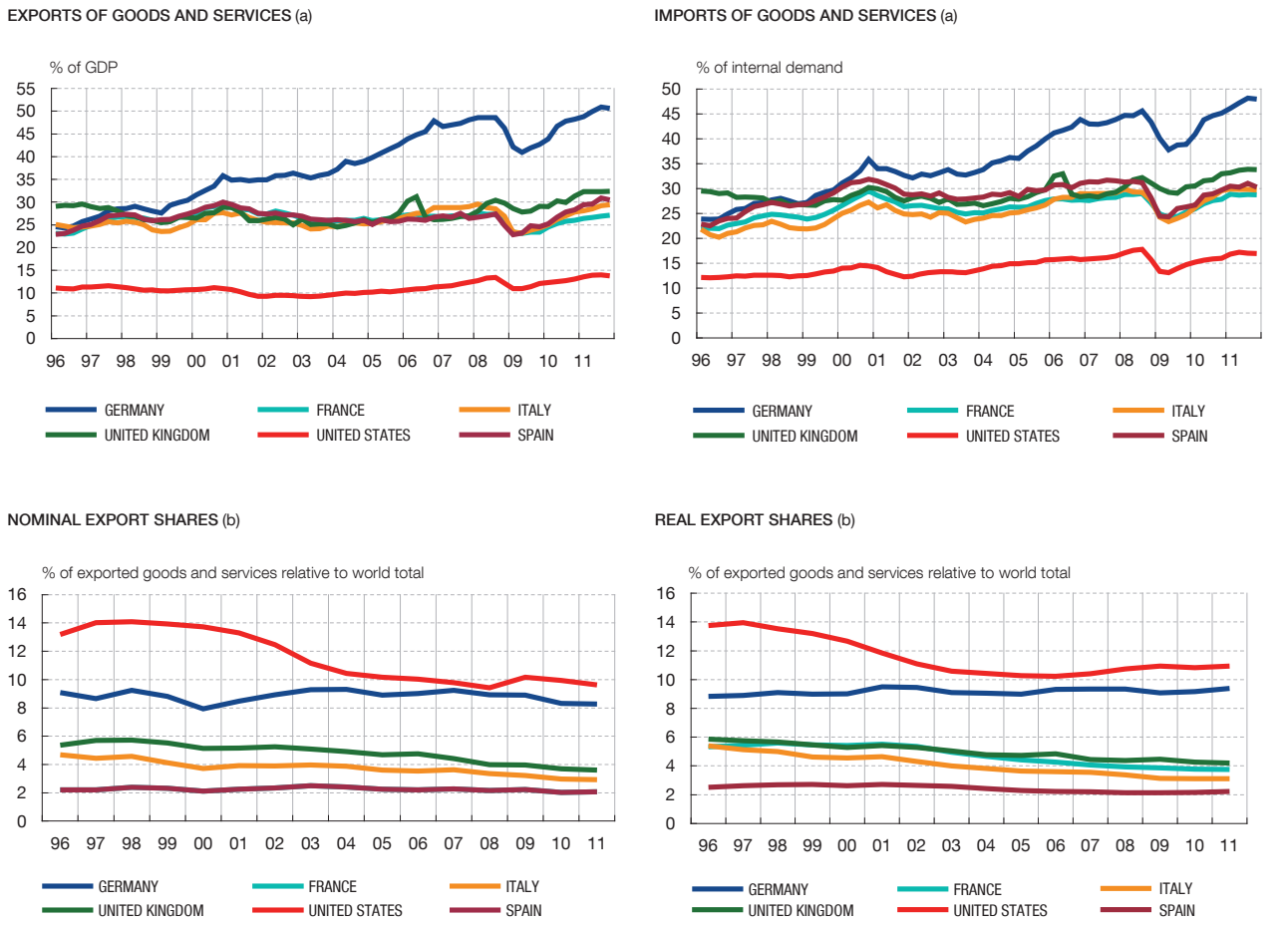
…while import penetration on the domestic market continued increasing until very recently

Any analysis of competitiveness would be incomplete without also envisaging Spanish companies' capacity to withstand competition from foreign companies in the domestic market, especially following the progressive internationalisation of the emerging economies, whose products have gained growing market shares in the industrialised countries over the past decade (especially in consumer goods, given their lower prices, and non-energy intermediate goods, given the international fragmentation of productive processes). In Spain, the increase in the degree of import penetration in final demand was, until halfway through the past decade, sharper than in the main euro area economies, although it has eased recently owing to the economic crisis.

Goods and services imports also show a high sensitivity to the Spanish economy's cyclical position (the income elasticity of imports is around 2, against 1.5 in Germany, France and Italy), which is essentially due to the high dependence on high-value-added and imported-technology goods and services, as the principal means of incorporating the latest technological advances, and on intermediate energy inputs. The Spanish economy's input-output tables illustrate the high import content (in final products and in inputs) of investment in equipment and of goods exports, followed by private consumption and investment in construction.

TRADE OPENNESS BY COUNTRY

CHART 2.3



SOURCES: Eurostat and IMF.

a Seasonally adjusted quarterly data.
b Annual data.

Of particular significance is the weight of imported inputs, which is considerably higher than in the core euro area economies, even if the influence of the energy branches is excluded. Behind this feature lies the greater propensity to import of the high and medium-high technological-content industrial sectors in Spain, and not only the presence of differences in productive structure, or the fact that the Spanish economy is of smaller size, which might warrant a greater degree of external openness. As a consequence, the knock-on effect of the increases in final demand on the other domestic productive sectors is relatively low.[7]

Finally, the international competitiveness rankings place Spain in a low position relative to other euro area countries

Other, broader approaches to competitiveness seek to encompass the main determinants of a country's capacity to provide its citizens with high levels of welfare. From this rather general vantage point, competitiveness depends on the effectiveness with which a country uses its available resources. And here, a broad set of institutional factors relating to the overall working of the economic system and, ultimately, to the economy's productivity will exert an influence. Specifically, competitiveness indices combining a high number of indicators, obtained both from objective data and from subjective evaluations of the aforementioned institutional factors, are usually used. One of the most frequently used indices here is that constructed by the *World Economic Forum*, which in its latest report for 2011-

7 See A. Cabrero and M. Tiana (2012), "The import content of the industrial sectors in Spain", *Economic Bulletin,* April, Banco de España.

2012 ranked Spain in 36th position. This was the result of a favourable evaluation of Spain's infrastructures, offset by a less positive assessment of institutional quality and a very negative view of the efficiency of its labour market.

4 The behaviour of the Spanish economy's competitiveness

A correction of relative prices and costs began in 2010

In 2010 a slight correction of the costs and prices of domestic goods and services relative to those of the rest of the world began. This was due to the lower growth of ULCs which, across the economy, posted an annual average rate of 3.3% during the 2002-2007 period and of 0.4% in the past four years, while the growth of the profit margin, obtained as the difference between the growth rate of the value added deflator and of ULCs was, respectively, 1.1% and 1.5% (see Chart 2.4). The growth of ULCs from 2002 to 2007 was essentially due to higher growth in wages than in the productivity of small and medium-sized enterprises (SMEs) and in that of a broad segment of firms with intermediate productivity growth. Meantime, the companies that posted higher productivity growth held their ULCs approximately constant. This led to significantly different company-by-company wage and productivity growth distributions than those in Germany, France and Italy (see Table 2.3 and Chart 2.5).

The easing in price growth from 2010 has come about as a result of different patterns of behaviour across the main sectors of the economy, with higher increases in value added deflators in the energy and industrial sectors than in the rest, and with lower increases in ULCs in the construction and industrial sectors, where even negative growth rates were posted. However, the lower aggregate growth of ULCs stems not so much from the easing in labour costs as from rising productivity growth, arising from severe job destruction. This has translated into an increase in average productivity, not so much due to greater productive efficiency on the part of surviving companies as to the disappearance of lower-productivity companies.

Nor do other determinants of competitiveness indicate that significant gains have come about through other channels

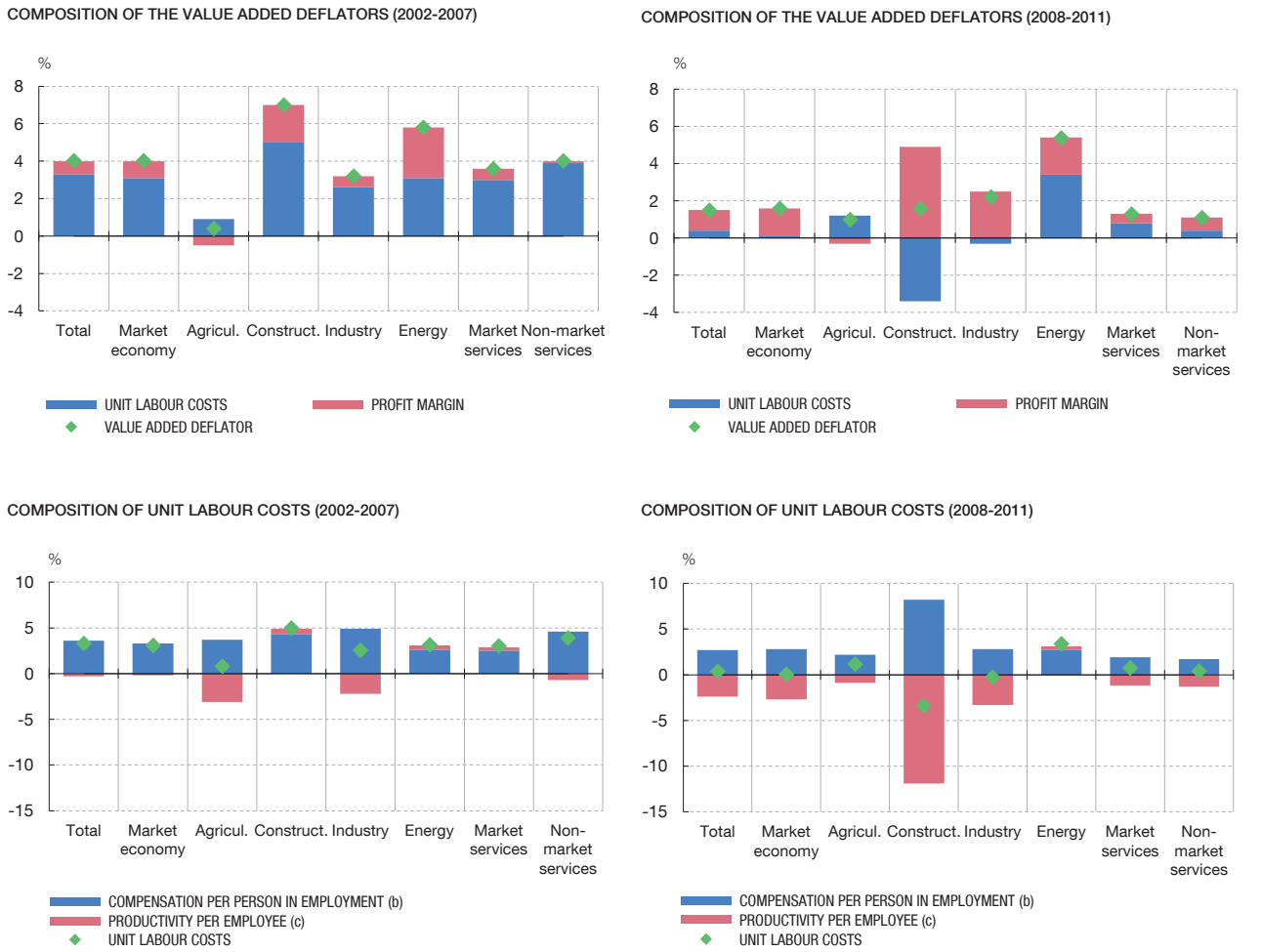
Apart from relative prices and costs, competitiveness depends on other factors related to the quality of products such as technological advantages, efficiency of production processes and distribution networks, post-sales service, etc. These determine whether consumers' evaluation of the products of a specific country or company is more or less positive. As a result, an increase in the prices of domestic goods may not necessarily entail a deterioration in competitiveness if, at the same time, there has been an increase in the quality of such products. There have been proposals for quality-adjusted price indices, but the information needed to construct them is not always available. Empirical research on this matter uses information – highly detailed by product – from price indices and from the attendant trade balance to deduce the relative position of each country as far as the quality of its exports is concerned. The intuition behind this type of exercise is that, given equal export prices, those countries whose products are of greater equality should also enjoy a bigger trade surplus on those products. The results obtained for Spain indicate that the quality of their export products ranks in an intermediate position among the 43 countries with the biggest export volumes and that such quality is estimated to have declined in relative terms during the 1989-2003 period[8], while in recent years no major changes in the quality of Spanish exports have been detected, such quality being estimated to stand below that of the exports of the major euro area countries.[9]

Given the empirical problems of constructing quality-adjusted price indicators, it is more usual to complement the information offered by international comparisons of prices and costs with information on the factors of the country in question and the efficiency of its productive system. All other things being equal, improvements in these indicators would

8 See J.C. Hallak and P.K. Schott (2011), "Estimating Cross-Country Differences in Product Quality", *The Quarterly Journal of Economics,* 126, pp. 417-474.

9 See E. Gordo and P. Tello (2011), "Diversificación, precios y calidad de las exportaciones españolas: una comparación a nivel europeo", *Cuadernos Económicos de ICE,* 82, pp.31-62.

SECTORAL ANALYSIS OF THE VALUE ADDED DEFLATOR AND OF UNIT LABOUR COSTS (a) CHART 2.4



SOURCES: INE and Banco de España.

a Percentage changes, yearly average.
b Proxied by compensation per employee.
c Refers to the average change in productivity with reverse sign.

be indicative of gains in quality. Under this approach, the indicators most used are total factor productivity (TFP), the stock of technological capital, labour skills, investment in R&D and the production of patents. None of these variables shows significant improvements in Spain's case. Changes in TFP relative to the euro area as a whole show a slight rise in the most recent stage which, however, is not sufficient to recoup on the continuous decline recorded during the 1996-2007 period. The diminishing trend in relative human capital does not appear to have halted, while progress in R&D and in the accumulation of technological capital to 2007 has not continued in recent years (see Chart 2.6).

The efficient reallocation of resources across sectors and among companies within each sector is also a significant factor for gaining competitiveness…

A country's productivity and, therefore, its export capacity depend not only on average productive efficiency across the economy as a whole, but also on how productive resources are allocated across sectors and among companies within the same sector.[10] For example, if as a result of specific distortions in the factor markets (for capital and labour) there are certain activities of companies that can access these resources under more

10 Regarding the productivity differences between companies and their dynamics in terms of business demographics, see P. López-García, S. Puente and Á.L. Gómez (2007), "Dinámica de la productividad en el ámbito empresarial en España", *Boletín Económico,* July-August, Banco de España.

AVERAGE ANNUAL GROWTH OF WAGES AND PRODUCTIVITY BY FIRM SIZE 2002-2007

TABLE 2.3

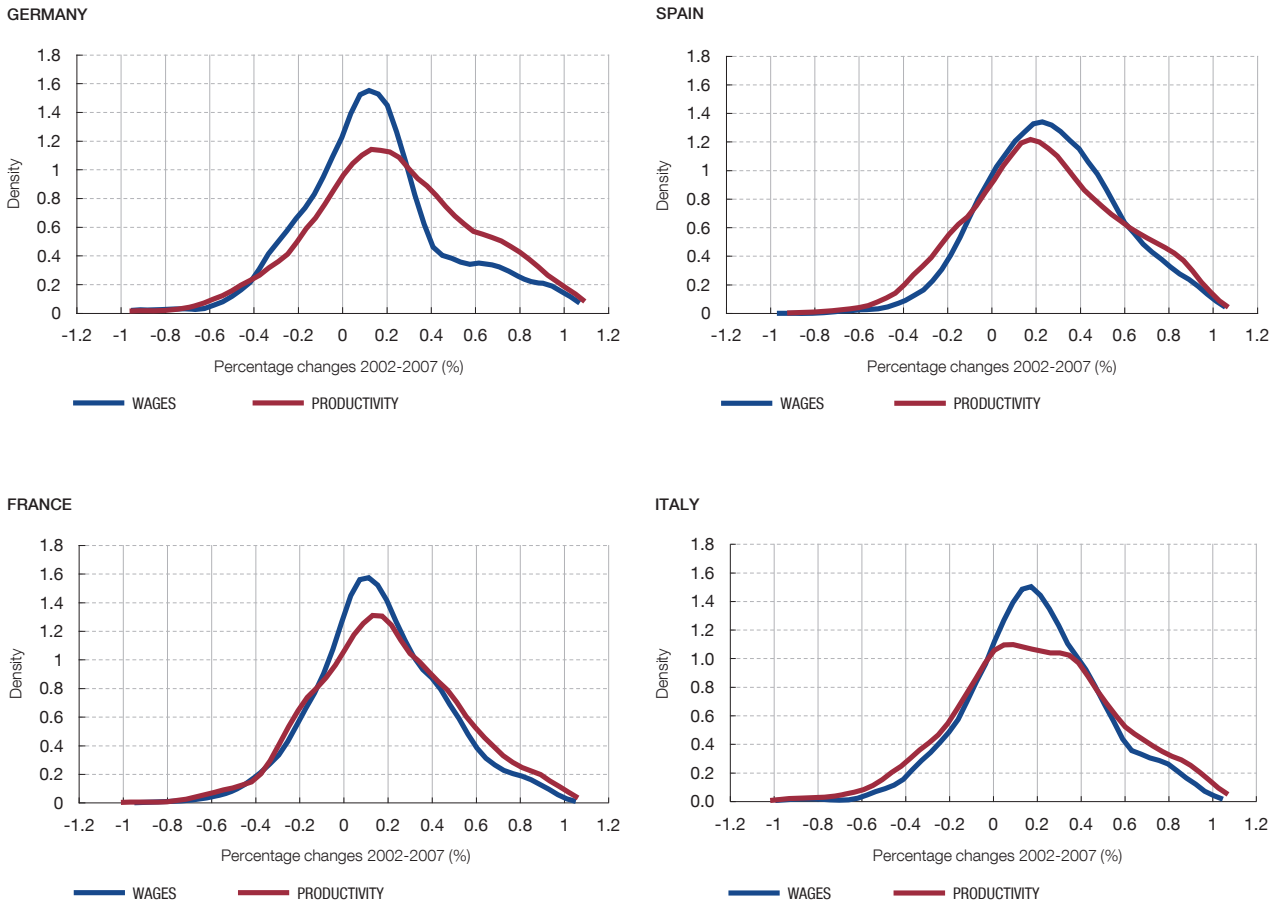
Changes in nominal wages and productivity, annual rate (average for the period, %)

	France		Germany		Italy		Spain	
	Wages	Productivity	Wages	Productivity	Wages	Productivity	Wages	Productivity
TOTAL	**3.3**	**3.8**	**2.4**	**4.0**	**3.8**	**3.9**	**5.3**	**4.9**
1 to 50 employees	3.4	3.8	4.5	4.9	3.8	3.8	5.4	4.8
51 to 250 employees	3.9	3.1	0.0	2.4	4.3	4.6	5.1	5.6
Over 250 employees	2.3	3.5	2.8	4.7	4.7	5.7	4.0	5.3

SOURCE: Banco de España.

INTERNATIONAL COMPARISON OF DENSITIES OF CHANGES IN PRODUCTIVITY AND WAGES (a)

CHART 2.5

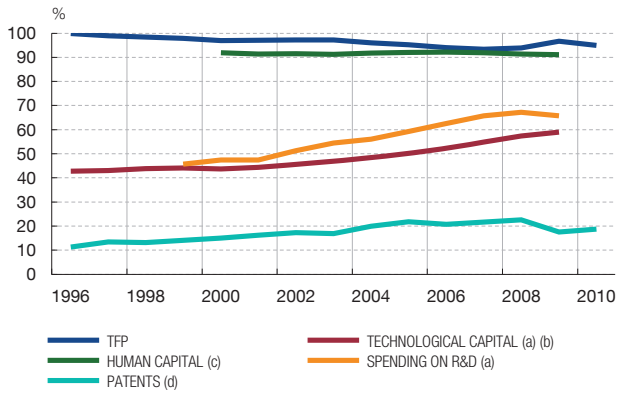


SOURCE: EFIGE.

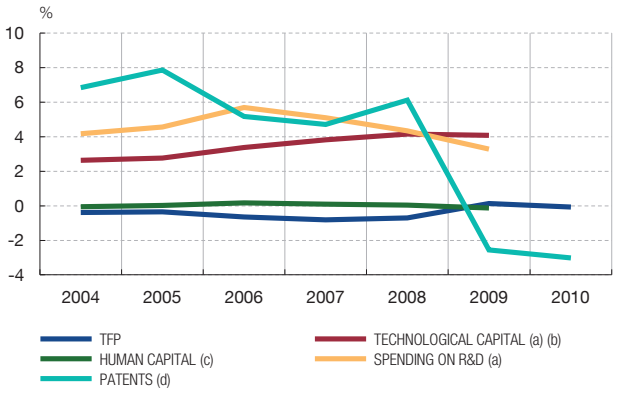
a Distributions proxied by estimating the kernel density of each variable by means of the Epanechnikov function.

favourable conditions, it will be these sectors and companies that attain most weight within the economy, even if their productivity is lower. And since there are institutions and economic policy measures that can generate such distortions, improving productivity does not only require technological advances to be incorporated, employee skills to be enhanced and the stock of productive capital to be increased (actions which, moreover, take time to come about); it is also vital to promote the efficient allocation of resources by means of the elimination of these distortions. Empirical results show that the gains in productivity achievable through an efficient allocation of resources can be quite sizeable,

TOTAL FACTOR PRODUCTIVITY, STOCKS OF CAPITAL AND OTHER
Indices for Spain in relation to EMU (EMU = 100)



TOTAL FACTOR PRODUCTIVITY, STOCKS OF CAPITAL AND OTHER
Spain relative to the euro area: spread in annualised five-year rates of change.



SOURCES: Eurostat, Ameco and Banco de España.

a In relation to GDP.
b Calculated on the basis of accumulation in R&D spending according to the perpetual inventory methodology.
c This is the stock of human capital adjusted for quality using the PISA report results.
d Resident patent applications per million inhabitants.

amounting to up to around 50% in the manufacturing industry of emerging countries.[11] In Spain's case, the inefficient allocation of resources between 2002 and 2007 might have caused losses in competitiveness, measured in terms of relative ULCs, of around 10% relative to Germany.[12] Similar calculations suggest that, if labour shares in output with similar distributions across sectors and by firm size to those of Germany were attained in Spanish manufacturing industry, productivity might increase significantly. This result responds fundamentally to a relative insufficiency in capital in small Spanish firms and, above all, to a lesser elasticity of output with respect to labour in large corporations.

… especially if the volume of exports is determined by a small group of firms, which is that of the firms with the highest productivity

The latest developments pay increasing attention to analysing the characteristics of exporting firms and to their role in changes in aggregate competitiveness and in a country's trade transactions (see Box 2.1). There is abundant empirical evidence supporting the idea that changes in the aggregate competitiveness indicators depend closely on corporate composition, and in particular on the behaviour of the sub-group of high-productivity firms. Exporting firms are usually a small and non-random percentage of firms belonging to a single sector. And they generally coincide with larger-sized firms, they have higher levels of productivity and they are more innovative. The evidence in these papers also tends to find that the direction of causality appears to run fundamentally from productivity to export propensity, and not so much vice versa.[13]

The results of this new branch of literature point to two significant consequences. Firstly, aggregate indicators may provide an incomplete view of the situation, meaning it is essential to identify the characteristics of each country's business base that influence the propensity to export (extensive margin) and the proportion of output that is exported (intensive margin). Secondly, confirmation that productivity generates export capacity reinforces

11 See C.T. Hsieh and P.J.Klenow (2009), "Misallocation and Manufacturing TFP in China and India", *The Quarterly Journal of Economics,* CXXIV, 4, November, pp. 1403-1448.
12 See A. Crespo, G. Pérez-Quirós and R. Segura (2011), "Indicadores de competitividad: la importancia de la asignación eficiente de los recursos", *Boletín Económico,* December, Banco de España.
13 See A.B. Bernard, J.B. Jensen, S.J. Redding and P.K. Schott (2011), *The Empirics of Firm Heterogeneity and International Trade,* CEP Discussion Papers, 1084, and P. Antrás, R. Segura-Cayuela and D. Rodríguez-Rodríguez (2010), *Firms in international trade, with an application to Spain,* mimeo.

The use of indices of relative prices and costs between countries to analyse competitiveness is warranted by the observation that there is a trade-off between the relative price of a good and the market share of the country or firm that produces it. However, for this relationship to exist for exports as a whole, certain conditions relating to the determinants of international trade, the type of technology and market structure must be met. Specifically, for this result to hold, international trade must be generated by technological comparative advantages or by the relative abundance of factors of production, and firms must produce – under constant returns to scale – homogeneous goods that are sold on perfectly competitive markets.[1]

Subsequent advances have relaxed some of these assumptions and analysed their consequences for measuring competitiveness. First, models were developed with imperfect competition, increasing returns to scale and product differentiation, ingredients that gave sense to the notion of the firm, that enabled an industry and its size to be well defined, and that provided grounds for two similar countries to trade with one another.[2] In this new theoretical framework, the aggregation of microeconomic relationships requires that the different elasticities of each product be taken into account and that profit margins be assumed to be constant for the relationship between relative costs and demand to continue to exist. For these reasons information at the aggregate level is usually supplemented with information at the sectoral level. In any case, this new approach leads to two significant predictions. First, in relation to a country's propensity to export, only "corner solutions" exist, i.e. either all firms export, or none of them do. Second, trade liberalisation would have a similar effect on all firms. However, in recent years the availability of more and better databases has enabled us to appreciate that, even within a sector, the level of firm heterogeneity is very high, principally as regards size and productivity, that only a percentage of firms export and that this minority is very different from the rest, since it is made up of firms that are much larger and more productive, even before they begin to export.

These empirical observations have led to the development of the "new" theory of international trade, which stresses the importance of firm heterogeneity, basically in terms of the size and productivity of firms, and of the presence of fixed exporting costs.[3] These two ingredients are the basis for a selection effect in exports, whereby only the most productive firms export, and for an explanation of how trade liberalisation, through the reallocation of resources towards the most efficient firms in a sector and the forced exit of the least productive, leads to productivity gains. Moreover, recent studies show that for certain firm size distributions – regularly observed in most sectors and countries – the changes in a country's exports are explained mainly by the behaviour of the exports of the largest firms.[4] Thus, if the productivity or costs of these firms behave differently to those of the rest of their sector, the aggregate price and cost indices do not adequately capture the change in the competitive position of a country. In addition, sectoral aggregation in the presence of increasing returns to scale and differentiated goods gives rise to difficulties, insofar as, among other things, the sector's competitive position is not adequately represented by the sector average.[5]

As evidence of the importance of firm heterogeneity to an understanding of aggregate relationships, other studies show that persistent deviations in purchasing power parity (PPP) can be generated through the entry and exit of firms with different levels of productivity from those of the established firms,[6] and that when profit margins vary across firms and over the business cycle – as confirmed by the data – the patterns described above can be explained.[7] Specifically, the size of a country, its competitive structure, the existence of geographical barriers and trade integration are determinants of profit margins, so that there is a non-linear relationship between costs and prices. In this situation, for example, liberalisation of international trade would not necessarily eliminate the difference in profit margins across countries. In consequence, the aggregation of costs and prices to construct the relevant competitiveness indicators proves complicated.

1 See R. Dornbusch, S. Fischer and P.A. Samuelson (1979), "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods", *American Economic Review,* vol. 67 (5), pp. 823-839.

2 See P. Krugman (1979), "Increasing returns, monopolistic competition, and international trade", *Journal of International Economics,* vol. 9 (4), pp. 469-479, November.

3 See M.J. Melitz (2003), "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity", Econometrica, vol. 71 (6), pp. 1695-1725, November.

4 See J. di Giovanni and A. Levchenko (2009), *International Trade and Aggregate Fluctuations in Granular Economies,* working paper 585, Research Seminar in International Economics, University of Michigan.

5 See C. Altomonte, G. Barba Navaretti, F. di Mauro and G. Ottaviano (2011), *Assessing competitiveness: how firm-level data can help,* Bruegel policy contribution 2011/16.

6 See F. Ghironi and M. J. Melitz (2005), "International Trade and Macroeconomic dynamics with Heterogeneous Firms", *The Quarterly Journal of Economics,* vol. 120 (3), pp. 865-915, August.

7 See M. J. Melitz and G. I. P. Ottaviano (2008, "Market Size, Trade, and Productivity", *Review of Economic Studies,* vol. 75 (1), pp. 295-316.

the need to prioritise measures to boost productivity and to reallocate resources when designing competitiveness-boosting policies.

5 Competitiveness from a microeconomic corporate perspective

The internationalisation of Spanish companies has intensified in recent decades…

The number of goods-exporting firms totalled 122,987 in 2011, 40% up on the start of the past decade, and was around 35,000 in the case of non-tourist services-exporting firms in 2007, 50% higher than at the start of the decade.[14] Other means of participation in international markets, such as the externalisation of certain phases of the productive process, either through agreements with third companies located abroad, or through maintaining control in the same company, or of production in its entirety [horizontal foreign direct investment (FDI)], have also increased significantly, with around 17,000 resident companies undertaking FDI operations during the 2003-2011 period. These activities affect trade flows, exports and imports, in several ways. For instance, locating initial or intermediate phases of the productive process abroad generally entails an increase both in exports and in imports. However, when the entire productive process is located abroad and another country is used as a direct export platform, exports diminish.

… although this has not been a widespread phenomenon, and Spanish export firms continue to account for a minority share of the total

In Spain, export firms account for a minority share of the total: from 2001 to 2011, 12% of Spanish firms exported goods and, as regards exports of non-tourist services, the proportion was 9%. In other countries the percentage of exporting firms is also low, although the proportion of Spanish manufacturing companies that export continues to be lower than that of other countries with a similar level of development.[15] There is also a high degree of concentration of the export total in a small number of firms: in 2011, 1% of goods exporters with a higher volume of exports made around 67% of all exports, while the percentage relating to 10% of the firms that most export is 93%.

Exporting firms are bigger and more productive than non-exporters, and a higher proportion of them belong to multinational groups and have access to more sources of financing…

Spanish exporting firms are generally larger, they have a higher-than-average level of productivity, their labour force is more skilled and they evidence greater technological intensity (see Table 2.4), which also occurs in other countries. The detailed information available on the internationalisation activities of a representative group of European manufacturing firms[16] shows that productivity and export propensity increase with the size of the firm, and there is a very wide gap between small firms (10-19 employees) and larger corporations (over 249 employees).[17] It can also be seen that firms of a similar size in different countries have similar productivity levels and that their probabilities of exporting and their exporting intensities are not very different.

In light of these observations, and given that in the larger Spanish corporations wage growth has more closely followed productivity gains than in small-sized companies,

14 According to figures from the Spanish Customs and Excise Duties Department of the Tax Revenue Service and from the Banco de España Balance of Payments, respectively. The terms "other services" and "non-tourist services" are used interchangeably. In any event, tourism is always understood to be excluded, along with financial services, insurance and government services.

15 The percentage of manufacturing firms with more than 10 employees that exported in 2008 accounted for 61.1% of the total firms in Spain, according to the EFIGE database, compared with 64.4% for Germany, 57.9% for France and 77.2% for Italy. See G. Barba-Navaretti, M. Bugameli, F. Schivardi, C. Altamonte, D. Horgos and D. Maggioni (2011), *The global operations of European firms. The second EFIGE policy report,* Bruegel Blueprint series.

16 This information is from the project "European Firms in a Global Economy: Internal Policies for External Competitiveness", the description of which is available in www.efige.org.

17 There are, however, significant aggregate cross-country differences in size and in productivity per employee. Thus, for instance, in 2008 the average size of Spanish firms in the sample was 49 employees, compared with 77 employees in the case of Germany, 79 in France and 42 in Italy. As regards employee productivity, the standardised figures were 102 in Spain, 156 in Germany, 114 in France and 153 in Italy. See G. Barba-Navaretti, M. Bugameli, F. Schivardi, C. Altomonte, D. Horgos and D. Maggioni (2011), *The global operations of European firms. The second EFIGE policy report,* Bruegel Blueprint series.

CHARACTERISTICS OF SPANISH EXPORTING AS OPPOSED TO NON-EXPORTING FIRMS (a) TABLE 2.4
Median for the period 2001-2011

		Size (b)	Labour skills (c)	Temporary employment ratio (d)	Physical capital per employee ratio (e)	Innovative intensity (f)	Debt ratio (g)	Market listing (h)	Foreign capital stake (i)	Outward FDI (j)	Productivity (GVA/ employment) (k)
Total	Exporters (l)	12.0	16.3	7.8	15.0	2.7	30.2	0.2	3.0	1.9	50.4
	Non-exporters	2.0	12.1	3.5	9.2	1.4	29.8	0.0	0.6	0.3	36.6
Goods	Exporters (m)	14.0	15.6	8.3	17.3	2.8	30.0	0.2	2.8	1.9	50.8
	Non-exporters	2.0	13.4	3.5	9.2	1.4	29.9	0.0	0.7	0.4	37.4
Non-tourist services	Exporters (n)	10.0	20.6	6.2	10.2	2.9	31.6	0.3	4.5	3.0	56.9
	Non-exporters	2.0	12.2	4.0	9.5	2.3	29.7	0.0	0.7	0.4	39.3
Total number of firms in the sample		1,140,788	5,474	887,454	884,882	983	22,335	248	35,272	16,509	21,099

	% of total	Degree of concentration of exports		
		TOP 1%	TOP 5%	TOP 10%
Goods and/or non-tourist services exporting firms (l)	16.7	64.3	83.4	90.4
Goods exporting firms (m)	12.0	67.4	86.5	92.9
Non-tourist services exporting firms (n)	8.6	74.5	91.3	95.9

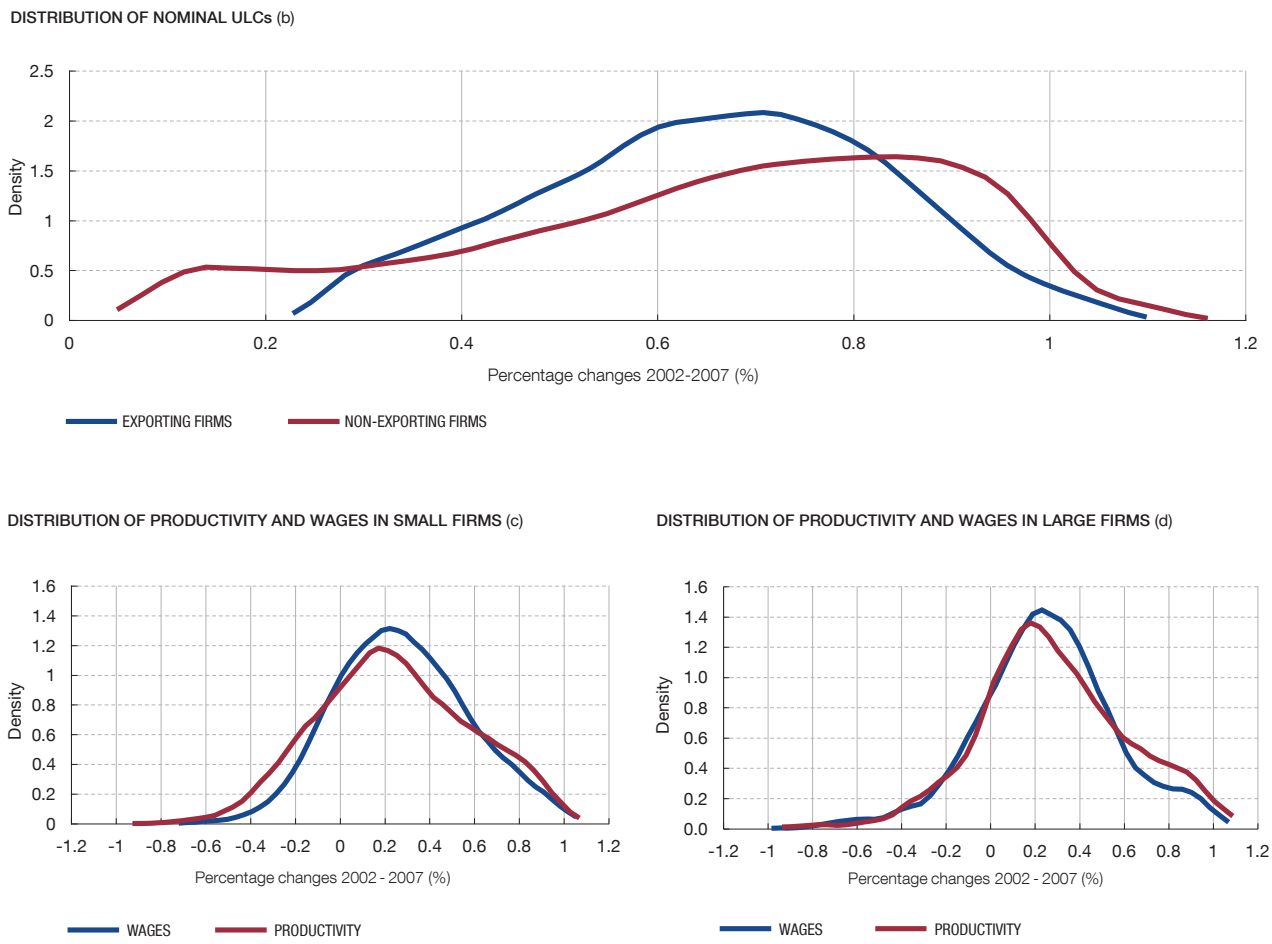
SOURCES: Banco de España, drawing on Balance of Payments, Central Balance Sheet Data Office and Mercantile Register statistics.

a The database comprises 6,085,857 observations relating to 1,243,550 firms.
b Proxied by the number of employees.
c Calculated as the percentage accounted for by directors, company managers, professionals, specialists and similar relative to total employees.
d Calculated as the percentage accounted for by non-permanent employment relative to total employment. Firms with total employment equal to zero have been excluded.
e Calculated as the ratio of tangible fixed assets to the number of employees.
f Calculated as the percentage accounted for by spending on R&D relative to gross value added.
g Calculated as the percentage accounted for by interest-bearing borrowed funds relative to remunerated liabilities at current prices.
h Calculated as the percentage of market-listed firms. The sample average is given.
i Calculated as the percentage of firms with a foreign capital stake. The sample average is given.
j Calculated as the percentage of firms engaging in outward FDI during the period 2003-2011. The sample average is given.
k Calculated as the ratio of gross value added to the number of employees
l Goods and/or non-tourist services exporting firms.
m Firms exporting goods, or goods and non-tourist services.
n Firms exporting non-tourist services, or non-tourist services and goods.

Spanish exporting firms have lower ULCs than their non-exporting counterparts (see Chart 2.7). Consequently, these firms appear to have a greater capacity to accommodate an adverse competitiveness shock, such as a reduction in the prices of foreign competitive firms. This suggests that an intermediate step in the goal to extend the Spanish economy's exporting capacity will be to raise the average size of companies, which may be restricted by certain factors relating to labour regulations and competition policy.

Exporting firms also have access to more diversified sources of financing (for instance they are listed, they engage to a greater extent in FDI and there are foreign stakes in their capital). The advantages these firms have are linked, among other things, to the presence of economies of scale in production, organisational and institutional advantages, and a better knowledge of foreign markets. Finally, the quality of productive factors and the absence of financial constraints, by means of access to capital markets and a limited level of debt, also tend to raise the propensity to export, albeit generally to a lesser extent than the previous characteristics. The fact that variables such as the firm's degree of internationalisation, FDI abroad and foreign capital holdings in the firm's ownership structure influence substantially

DISTRIBUTIONS OF ULCs, PRODUCTIVITY AND NOMINAL WAGES BY TYPE OF FIRM (a) CHART 2.7



SOURCE: Banco de España, drawing on Balance of Payments, Central Balance Sheet Data Office and Mercantile Registries statistic

a These distributions have been proxied estimating the kernel density of each variable by means of the Epanechnikov function, after removing the firms situated below the 5th percentile and above the 95th percentile.
b ULCs are defined as the ratio of compensation per employee to productivity per employee (defined as GVA divided by the number of employees) in nominal terms.
c Refers to firms with 50 or fewer employees.
d Refers to firms with over 50 employees.

the likelihood of exporting indicates that there is some complementarity between exporting activity, FDI and outsourcing.[18]

As regards the patterns of geographical diversification, exporting firms generally sell to a small number of markets, concentrated in the developed economies, especially in the case of non-tourist services exports. Here, larger corporations that are more efficient and inclined to engage in innovative activities, have access to more diversified sources of financing and are multinationals, are those that most diversify their exports and direct them towards emerging and more dynamic markets. Size, FDI abroad and prior experience in other countries are also associated with a greater probability of exporting to developing as opposed to developed countries.

Accordingly, the Spanish exporting companies most affected by the collapse of world trade in 2008-2009 were the least productive ones, those that made no FDI abroad and those that had less access to alternative sources of financing and a higher level of debt.

18 See C. Martín, A. Rodríguez-Caloca and P. Tello (2009), "Determinantes principales de la decisión de exportar de las empresas españolas", *Boletín Económico,* December, Banco de España.

ENTRY-EXIT DYNAMICS IN THE EXPORT ACTIVITY OF SPANISH COMPANIES (a) CHART 2.8

SOURCE: Banco de España, drawing on Balance of Payments, Central Balance Sheet Data Office and Mercantile Registries statistics.

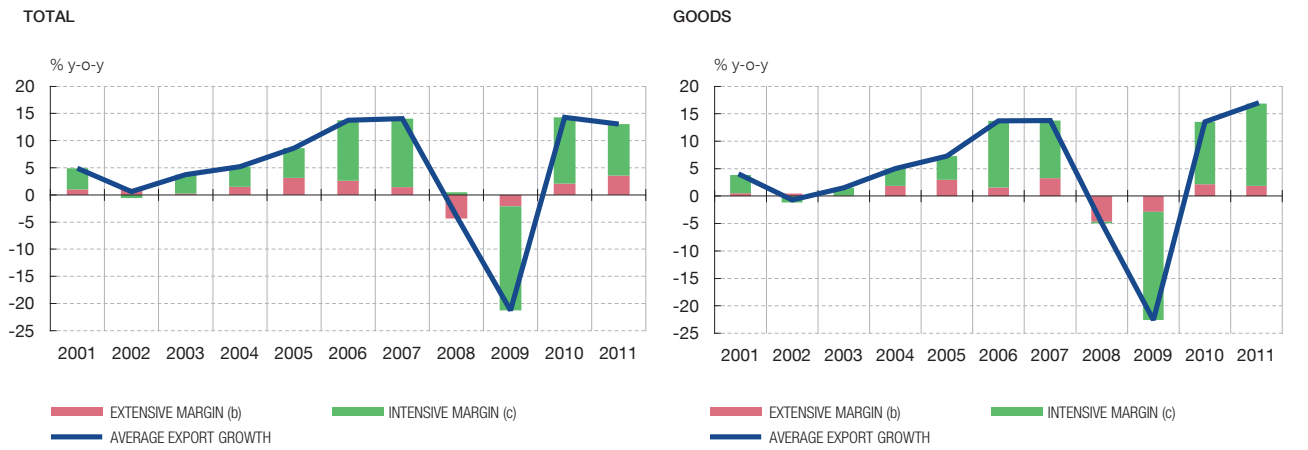
a In 2008 the declaration simplification threshold per transaction-country was raised to €50,000 (from €12,500), affecting the comparability with the period 2001-2007.
b The size of the firm is proxied on the basis of the number of employees. In this way micro firms are those with fewer than 10 employees, small firms have between 10 and 49 employees, medium-sized and large firms are respectively classified as those with between 50 and 249 employees and with 250 employees or more. The information for 2009 was taken for 2010 and 2011. Firms on which no information relative to size is available have been excluded.
c Calculated as the ratio (between exporters) of New $firms_n$ to (New $firms_n$ + Existing $firms_{n-1}$).
d Calculated as the ratio (between exporters) of Exiting $firms_n$ to (Exiting $firms_n$ + Existing $firms_{n-1}$).
e Calculated for the total sample size.

… and a significant portion of those that export do not always do so sustainedly over time

One factor that contributes to explaining the high degree of concentration of exports in a limited number of companies is that those that initiate their exporting activity show a low degree of permanence in international markets. Around 41% of the companies that began to export goods in 2001 continued to do so in 2002, and only 12% did so five years later. These rates of permanence, relating only to exporters of non-tourist services, are, respectively, 36% after one year and 7.5% after five years (see Chart 2.8). The smaller firms are those that show the highest rates of entry and exit, generally conditioning the net change in the number of exporting firms. As a result, the expansion of Spanish exports during the period 2001-2011, in terms both of goods and of non-tourist services, was underpinned to a greater extent by the intensive margin than the extensive margin (see Chart 2.9), and exports to emerging economies are lower than might be expected, according to the traditional gravity models that take geographical distance into account.[19] Over time, firms that manage to stabilise their presence in international markets export a higher proportion of

19 See C. Martín (2011), "Un análisis del destino geográfico de las exportaciones españolas de bienes a través de una ecuación de gravedad", *Boletín Económico,* July-August, Banco de España.

COMPONENTS OF THE GROWTH OF GOODS AND NON-TOURIST SERVICES EXPORTS (a) CHART 2.9



SOURCE: Banco de España, drawing on Balance of Payments statistics.

a In 2008 the declaration simplification threshold per transaction-country was raised to €50,000 (from €12,500), affecting comparability with the period 2001-2007.
b The extensive margin is defined as the contribution to the increase (decrease) in exported value derived from an increase (fall) in the number of countries to which a firm exports, or "firm-country of destination" trade relations.
c The intensive margin is defined as the contribution to the increase (decrease) in exported value derived from an increase (fall) in the amount exported by each firm to each country.

their sales (intensive margin) and direct their products at a higher number of markets (extensive margin).

Raising the Spanish economy's export potential will therefore involve broadening the base of companies that export in a stable fashion. Identifying the characteristics that enable a firm to successfully tackle penetration and permanence in foreign markets is thus of great interest in gearing other economic policy measures to complement those needed to promote the gains in competitiveness that the economy needs to restore a robust and sustained growth rate (see Box 2.2).

6 Policies to promote competitiveness

Competitiveness-promoting measures should be aimed essentially at providing nominal flexibility, increasing productivity and improving resource allocation…

The efficient functioning of the markets for goods and services and for factors is essential for providing nominal flexibility in the economy. This comes about through the adaptation of prices and wages, an increase in productivity and the reallocation of resources needed to expand the tradeable goods sector and to sustain higher growth in the medium and long term under the demanding stability requirements stemming from euro area membership. The institutional rigidities preventing such adaptability foment higher unemployment and its persistence when adverse shocks occur, they restrict productivity gains and hamper the reallocation of resources towards more efficient uses, which translates into losses in well-being. Headway in the agenda of structural reforms outlined in Chapter 1 of this report is thus key to boosting the competitiveness of the Spanish economy.

… which means ensuring that the facilities provided by the recent labour market reform for the internal flexibility of companies and for the decentralisation of collective bargaining are fully operational…

The sound functioning of the labour market is pivotal to improving competitiveness. The recent labour market reform approved by Royal Decree-Law 3/2012 of 10 February 2012 contains certain far-reaching measures. On one hand, these provide for the adjustment of wages and, on the other, they offer firms more extensive instruments to manage the organisation of their labour force, without the limitations imposed by employment contracts or collective bargaining agreements of a sectoral, regional or national scope under economic conditions which may differ greatly from those currently prevailing in different places.

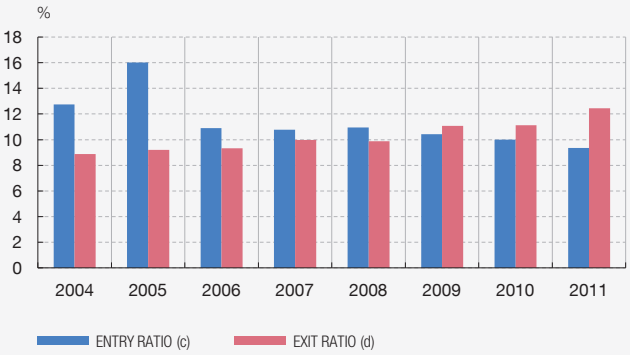
As regards wage flexibility, giving prevalence to firm-level collective bargaining agreements over those at a higher level, the possibility of alleging two consecutive quarters of declines in sales to

According to customs data, around 37% of the firms that exported goods in the 2003-2011 period were stable or regular exporting companies, defined as those that sell their products abroad over four consecutive years. These companies accounted for around 90% of total exports in this period, while the firms that export temporarily or occasionally only represented, on average, 10% of exports. The average number of countries to which stable exporting firms sold goods and services stood at around five countries per year, compared with an average of three countries in the case of all firms[1], with the former having a greater presence in developing countries. Consequently, a firm's

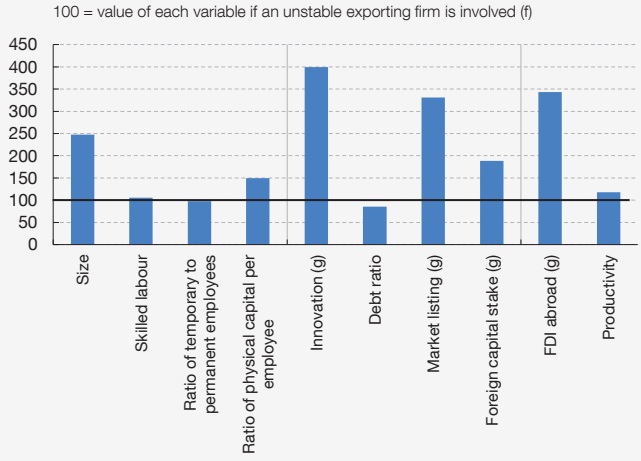
1 According to the database combining information from Balance of Payments, Central Balance Sheet Data Report and Mercantile Registries statistics *(BP-CB-RM)*. The information made available by the Customs and Excise Duties Department of the Tax Revenue Service confirms the existence of a positive relationship between a firm's entrenchment in respect of exports and the number of markets to which it directs its

1 ENTR-EXIT DYNAMICS OF GOODS EXPORTING FIRMSY

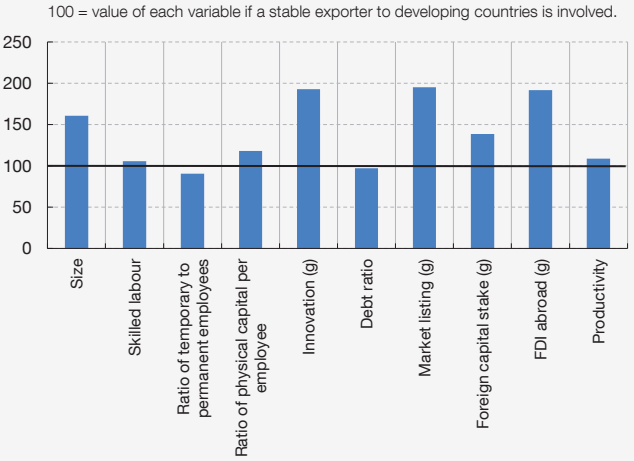
2 ENTRY-EXIT DYNAMICS OF STABLE GOODS EXPORTING FIRMS



3 CHARACTERISTICS OF STABLE AS OPPOSED TO UNSTABLE GOODS/SERVICES EXPORTING FIRMS (e)



4 CHARACTERISTICS OF STABLE GOODS/SERVICES EXPORTING FIRMS IN DEVELOPING AS OPPOSED TO DEVELOPED COUNTRIES (e)



SOURCES: ICEX, based on Customs data, and Banco de España, drawing on Balance of Payments, Central Balance Sheet Data Office and Mercantile Registries statistics.

a Calculated as the New firms n to (New firms n + Existing firms n-1) ratio (among exporters). New firms are considered to be those that have exported in the reference year, but not in any of the four previous years.
b Calculated as the Exiting firms n to (Exiting firms n + Existing firms n-1) ratio (among exporters). Exiting firms are considered to be those that have not exported in the reference year, but have done so in the previous year.
c Calculated as the New firms n to (New firms n + Existing firms n-1) ratio (among exporters). New firms are considered to be those that have exported in the reference year and in the three previous consecutive years, but not in the fourth year.
d Calculated as the Exiting firms n to (Exiting firms n + Existing firms n-1) ratio (among exporters). Exiting firms are considered to be those that have not exported in the reference year, but have done so in the four previous consecutive years.
e Median of the period 2003-2011. Exports of financial services, insurance and government services are not included.
f In the case of the size of stable exporters, for example, this should be interpreted as approximately three times that of unstable exporters.
g For these variables the statistic depicted is the monthly average.

export volume increases over time, meaning that if new trade relations are to contribute significantly to a country's export growth, they must last.[2]

Given that the greater export persistence is, the bigger the amount exported and the larger the number of recipient countries will be, increasing Spain's share in world trade in a significant and stable fashion involves cementing trade relations, once these are initiated. In principle, the high entry costs, some of them sunk, that firms incur when beginning to export would point to greater permanence in foreign markets. Accordingly, the combination of high entry and exit rates in export activity (see panels 1 and 2) might reflect some lack of prior planning (e.g. product selection/country on which the sale is targeted) or other factors that are structural (such as, for instance, the higher relative weight of SMEs), institutional (wage-setting processes, difficulties in diversifying sources of financing or in making and/or receiving FDI) or related to the endowment and quality of productive factors (skilled labour or spending on R&D). It is, therefore, important to identify those characteristics present in stable as opposed to unstable exporting firms. A probit model estimated for the period 2001-2007[3] indicates that, generally, the factors that increase the likelihood of a firm exporting in a stable fashion are size, experience in the internal market, access to financing on capital markets, FDI abroad, foreign capital stakes in its ownership structure, R&D spending and experience as an exporter in other markets.

Indeed, firms that export in a regular fashion tend to be bigger, have higher levels of apparent labour productivity, a bigger stock of physical capital per employee and to spend more frequently on R&D (see panel 3). They also evidence lower levels of debt, although they have access to alternative sources of financing. Stable exporters tend to engage in more FDI operations abroad and the presence of foreign capital in their productive structure is also bigger, in line with their greater degree of internationalisation. If a comparison is made between the characteristics that determine a firm's export status and those respectively shown by Spanish firms exporting in a stable fashion to developed countries and developing countries (see panel 4), it is likewise confirmed that firms exporting to emerging countries are also the biggest, the most productive, those that have a skilled labour force, those that engage in R&D activities and, generally, those that show a greater degree of internationalisation. All these characteristics allow firms to incur higher entry costs in respect of distant markets. At the same time, their entry costs may be lower, since the fact of belonging to a multinational group, through FDI[4], contributes to reducing the information asymmetries of and the uncertainty entailed by initiating sales on distant markets.

The results obtained suggest that policy measures geared to improving firms' productivity and efficiency will contribute to raising the proportion of those that export in a stable fashion and, at the same time, to furthering the geographical diversification of exports and to raising their share in international trade.

products (Observatorio de la Internacionalización, December 2010). J.J. Lucio et al. (2006),"Permanencia de las empresas en la exportación: una mirada a las características de su actividad exterior", ICE, *Tribuna de Economía,* no. 640, find that during the period 1998-2003, stable firms export on average to four countries more than occasional exporters.

2 The findings by J. A. Máñez, F. Requena-Silvente, M. E. Rochina-Barrachina and J. A. Sanchis-Llopis (2011) in "El papel de los márgenes extensivo e intensivo en el crecimiento de las manufacturas españolas por sectores tecnológicos", *Cuadernos Económicos de ICE,* 82, show, first, that the duration of trade relations – defined as the export of a specific product to a specific country – in Spain is half that in Germany, and this difference widens with the technological content of the goods traded; and further, that the limited time of survival of Spanish exports restricted their growth in the period 1991-2005.

3 See C. Martín, A. Rodríguez-Caloca and P. Tello (2009), "Determinantes principales de la decisión de exportar de las empresas españolas", *Boletín Económico,* December, Banco de España.

4 D. Córcoles, C. Díaz Mora and R. Gandoy (2012), "La participación en redes internacionales de producción: un factor de estabilidad para las exportaciones españolas", *Economistas,* 130, find that the biggest rates of survival of Spanish exports are in destinations where the degree of integration in production networks is greater.

initiate an opt-out from a higher-level agreement and the extension of the areas in which the employer can decide not to apply the working conditions agreed in collective bargaining agreements, along with the limitation to two years of the period over which such agreements can be extended, all serve the purpose of achieving a better match of wages to firms' economic conditions. As a result, job destruction is contained when such conditions worsen, unlike what has occurred since the onset of the crisis. As to managing how work is organised, the possibilities of altering individual and collective working conditions are extended; what was a prerequisite under the previous legislation, namely prior legal or administrative authorisation, has been eliminated.

However, for a better allocation of resources across sectors and firms in the same sector, more ambitious measures are needed in respect of active labour market policies. These should provide for the training, integration and guidance of unemployed workers and of

employees at risk of losing their job, and should include an exhaustive assessment of current programs and closer links to unemployment protection policies. It should also be pointed out that overcoming excessive labour turnover and its adverse effects on productivity and resource allocation hinges excessively on the promotion of permanent hiring through rebates, which have proven relatively ineffective in the past, both in reducing the proportion of temporary to permanent employees and in increasing aggregate employment.

… and deepening policies to safeguard and promote competition…

Given the significance of resource reallocation in restoring productivity and, consequently, competitiveness, it is of vital importance to lower the barriers to competition, and in particular those impeding access to specific sectors, and to eliminate the administrative obstacles to business start-ups. The measures envisaged in the Sustainable Economy Law in relation to the involvement of local and regional governments in the procedure for obtaining licences to engage in economic activities should be implemented so that, while preserving the unity of the internal market, they provide for a substantial reduction in the cost and time incurred in setting up a new business. Along with this, it is very important to strengthen the supervisory agency's powers by restricting government intervention to the minimum needed, both at the central and regional government levels.

Given the significance of the size of firms as a determinant of their export propensity, the involvement of local and regional government in regulating competition should be prevented from bringing about an unnecessary fragmentation of the national market that were to limit the growth of SMEs. Finally, competition-promoting measures that may be considered as pressing are those that affect sectors whose functioning has significant consequences for firms' costs, and in particular for those that have a more global activity. These include most notably, as indicated in Chapter 1, those concentrated in the energy, transport, retail and business services sectors. Lastly, measures that improve the efficiency of financial markets will help provide access for a greater number of firms to more diversified sources of financing, a feature that has proven essential in sustaining export activity.

… bearing in mind the recent trends in international trade…

In recent decades tariff barriers have been lowered substantially, in particular in the industrial sector of the advanced economies. But non-tariff barriers (e.g. certain rules arising from national regulations and from customs procedures) remain an obstacle to international trade.[20] International institutions have focused their measures on matters pertaining to services and to FDI; and, as regards the EU, on the coordination and simplification of national regulations in order to deepen the single market, removing obstacles to the growth of companies. The Services Directive was a major step forward here, since the improvement in the efficiency of services contributes to raising the level of efficiency of the productive system as a whole. And that, in turn, raises competitiveness and firms' export propensity.[21] A full and effective transposition of these initiatives to national legislation would be enormously conducive to a comprehensive improvement in competitiveness.

In the important area of exports to emerging markets, it is non-tariff barriers and market failings (information frictions, etc.) that most hamper the initial phases of internationalisation towards these destinations. These obstacles are more significant for SMEs and firms that are initiating their export activity, since they usually lack experienced human capital in the international area and knowledge of consumer preferences, of business opportunities and of the technical quality and requirements demanded in the new foreign markets.

20 See European Commission (2008), *European Competitiveness Report.*

21 See J. Francois and B. Hoekman (2010). "Services Trade and Policy", *Journal of Economic Literature,* 48, September, pp. 642-692.

CLASSIFICATION OF EXPORT PROMOTION PROGRAMMES TABLE 2.5

	Specific policies
Financing of internationalisation projects	**Export insurance** (CESCE). **Reciprocal Adjustment of Interest Agreements (CARI)** run by the ICO (Official Credit Institute). This arrangement offers support to Spanish exports of goods and services by encouraging the granting by financial institutions of long-term (two or more years) export credits at fixed interest rates (agreed rates). Every six months these rates are compared with market rates and the resulting difference, plus a management margin in favour of the financial institution, is regularised between the latter and the ICO. This is called an "adjustment" operation and may give rise to a payment by the ICO to the lending institution, or vice versa. DAF-SMEs facilities (2009), intended to finance the supply of goods and services by SMEs aimed at countries eligible for development aid funds (DAF). Creation of the Fund for the Internationalisation of the Firm (FIEM), under the DAF, allowing operations conducive to the internationalisation of the Spanish economy to be financed.
Detection of export potential and definition of the internationalisation strategy	**External Initiation and Promotion Plan (PIPE),** which comprehensively supports the various phases of the internationalisation of SMEs. This Plan, initiated in 1997, is at the State level. The ICEX, the CSC and the related regional government agencies collaborate in its application. The Plan envisages support for two years to the internationalisation of the firms selected, and comprises three phases: diagnosis of export potential, design of the strategic internationalisation plan and implementation of the plan. **Awareness seminars and conferences** [ICEX, Promomadrid, COPCA (Catalonian Trade Promotion Consortium)]. Continuous support aimed at **cementing presence abroad** (PIPE, ICEX economic and trade offices abroad, ICEX business centres abroad, COPCA).
Promotion of participation in international tenders	**Introduction to international tenders** [CSC (Supreme Council of Chambers of Commerce)]. **Tendering Plan** (ICEX).
Support to penetrating specific markets	**Comprehensive Market Development Plans (PIDM)** of the Ministry of Economic Affairs and Competitiveness. Since 2005 the Spanish government has set in train such plans targeted on Brazil, China, Russia, Mexico, the United States, India, Algeria, Morocco, Japan, Turkey, South Korea and the Gulf countries.
Search for partners in market of destination	ICEX economic and trade offices abroad and business centres abroad. Virtual portals (ICEX, COPCA). Coordination with sectoral groupings [Chambers of Commerce, the Basque SPRI (Industrial Promotion and Regeneration Company) agency, Tecniberia, Promomadrid].
Incentives for business cooperation at source	Overseas Consortia Programme (ICEX). Aimed at SMEs which obtain partial financing for three years for expenses relating to start-up and legal advice, staffing, rentals, external professional services, external promotion services, legal branding safeguards and the official certification of products before official agencies. Virtual platforms (COPCA, SPRI). Promotion of the internationalisation of clusters (SPRI, COPCA).
Human resources development and training	Foreign trade scholarships (ICEX, regional government agencies). External advisers (ICEX PIPE). Training of local staff in market of destination (ICEX PROPEX programme, COPCA, SPRI).
Export promotion through innovation	Co-operation between exporting firms and the research area (more developed in foreign countries; e.g. the British agency UKTI, the Finnish FINPRO and Innovation Norway). Financial support to innovation [CDTI (Industrial Technological Development Centre)].
Improvement of corporate image or branding	**Made in/Made by Spain Programme** of the Ministry of Economic Affairs and Competitiveness. Dissemination of the brand image of a region (e.g. Promomadrid). Virtual platforms of the ICEX, COPCA, SPRI.

SOURCE: Banco de España.

... and reassessing direct export support policies, which already have a broad set of instruments in Spain

The promotion of exports is backed in Spain by a series of private-sector institutions (e.g. CEOE, Chambers of Commerce) and agencies at different levels of government, both central (Ministry of Economy and Competitiveness, ICEX and ICO) and regional (specific export-promoting agencies). Most programmes are aimed at broadening the export base, in particular that of SMEs, although there are also measures that directly foment foreign market penetration, including most notably the support facilities for international tenders, the PIPE (Overseas Initiation and Promotion Plan), directed at SMEs, and the PIDM (Integral Market Development Plans), whose aim is to promote trade and economic relations with specific countries. Some of the export-promoting measures were strengthened in the face of the financial crisis and the collapse of world trade in late 2008. In particular, the

financing instruments for internationalisation projects were boosted and made more flexible so as to alleviate the impact on trade credit of the restricted access to financing.[22]

Studies on the effectiveness of the export-promoting programmes set in train in Spain suggest they are susceptible to improvement. In particular, mention is made of aspects relating to excessive administrative costs and heterogeneous treatment depending on the firm's sector of activity, with the need for agencies to adopt a more proactive role and the advisability of boosting plans that integrate R+D+i and exports, along with the advantages of strengthening initiatives that harness the economies of scale of industrial clusters. Finally, coordination problems among the various agencies that draw up export-boosting policies have been detected.[23]

Finally, it should be stressed that there is widespread agreement that the impact of the export-promotion programmes depends significantly on whether, in parallel, other far-reaching structural reforms are adopted to improve the economy's overall productivity and competitiveness. Consequently, the export-promotion programmes can only complement, not replace, the structural reforms needed to boost productivity, the growth capacity of companies and the overall competitiveness of the economy.

22 See Box 3.2 in *Annual Report,* 2009, Banco de España.

23 To alleviate this situation, the Inter-territorial Council for Internationalisation was set up in 2006. It comprises the Ministry of Economy and Competitiveness, the competent regional government departments, the CSC (Supreme Council of Chambers of Commerce) and the CEOE (Spanish Confederation of Employers' Organisations). The Council drew up in 2011 the Integrated Plan for Strengthened Exports and Foreign Investment, in which it was agreed to integrate information and training systems for exporters, and the provision of export and internationalisation initiation programmes.