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Competitiveness and growth in EMU: The role of the external sector in the adjustment of the Spanish economy

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Competitiveness and growth in EMU: The role of the external sector in the adjustment of the Spanish economy[1]

By: C. Martinez-Mongay[2] and L.A. Maza Lasierra[3]

Abstract

This paper assesses the relevance of the competitiveness argument in the debate on the current situation of the Spanish economy. We estimate error-correction models for exports and imports. Econometric analyses suggest that external demand and domestic activity are the more important determinants of net exports in the long run. However, where competitiveness is concerned, its impact on export growth in the short run appears to be higher than in the longer term. Moreover, during major downturns, the recovery of the Spanish economy has systematically been led by exports, which, in turn, has been associated with strong and rapid competitiveness gains, brought about by competitive devaluations. Since the exchange-rate instrument is not available anymore at national level, there is a case to assess the respective role of fiscal and structural policies in underpinning the recovery of the Spanish economy at the current juncture. The paper concludes that the room for manoeuvre for fiscal-policy stabilisation is currently very limited. In contrast, reducing the weight of distortionary taxes and/or increasing the weight of productive expenditures in a budget-neutral way would have positive impacts on potential growth. Boosting net-export growth crucially depends on the implementation of a comprehensive reform programme, within the framework of a broad social agreement, aiming at recovering competitiveness throughout enhancing competition, improving the functioning of labour and product markets, including the housing rental market, increasing physical, human and knowledge capital accumulation, promoting wage moderation and avoiding price-wage spirals. A pro-active role of the Spanish government in the social dialogue would provide guidance in the process and promote the agreement.

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[3] Bank of Spain and European Commission.

Summary

Three years ago, the Spanish desk of DG ECFIN published in the series of the European Economy Occasional Papers a Country Study on Spain entitled *'Spain in EMU: a virtuous long-lasting cycle?* The study concluded that Spain was enjoying a virtuous economic cycle of high growth, outstanding job creation and relatively low inflation. However, a note of caution had to be sounded. A series of imbalances of the Spanish economy were highlighted. According to the Country Study, *'rapidly increasing housing prices and a massive acquisition of dwellings are fuelling household indebtedness, which now* [in 2005] *represents almost 100% of gross disposable income, twice as much as in the mid-1990s. This is becoming a major cause of concern, since any significant shock on interest rates might have a negative income effect on consumption'.* It was stressed that *'the current bias of capital formation in favour of residential construction is unlikely to provide an adequate foundation for sustained high growth in the long run'.* In addition, a warning was sent on the fast-growing current account imbalance, which had attained 6% of GDP by 2005.

The study also showed that growth was exclusively coming from domestic demand, especially household spending, including housing investment. In parallel, the widening of the external imbalance was closely associated with a persistent negative growth contribution of net exports. On the supply side, growth was mainly accounted for by outstanding job creation, whereas productivity growth had experienced a sharp slowdown and was well below the euro area average. The 2005 Country Study on Spain concluded that an inflation differential vis-à-vis the euro area of about 1 percentage point per year, combined with sluggish productivity growth, was *'a drag on the competitive position of the Spanish economy'.*

This paper discusses the relevance of the competitiveness argument in the debate on the current situation of the Spanish economy, when the steady widening of those imbalances accumulated over the last decade has prompted an unavoidable adjustment, which would be being aggravated, but not provoked, by the financial crisis. While acknowledging that empirical evidence seems to point to the dominance of external demand and domestic activity over competitiveness in determining net exports, this paper suggests that after major recessions/slowdowns, the recovery of the Spanish economy has systematically been led in the past by the external sector. High export growth in recoveries has been associated with strong and rapid competitiveness gains, brought about by competitive devaluations. In EMU, where the exchange-rate instrument is not available anymore at national level, there is a case to assess the room for manoeuvre for economic policy to bring a fast, high-growth recovery in Spain.

The paper looks first at the role of fiscal policy and, in particular, at the effectiveness of an expansionary fiscal policy beyond automatic stabilisation. Given the structural and idiosyncratic nature of some of the shocks currently hitting the Spanish economy, and the pervasive effect of public borrowing on private investment and the external imbalance, the room of manoeuvre for fiscal policy might be limited. Fiscal authorities could in turn facilitate the adjustment by enhancing the quality and efficiency of public finances, through a less distortionary tax system, and more productivity-oriented expenditures. Specifically, the tax shifting away from low-skilled labour, which is highly exposed in the current slowdown, to indirect taxes could help the unemployed from the housing sector to find a job. However, although a general tax shift away from labour to less distortionary taxes could have a positive impact on competitiveness -the so-called fiscal devaluation-, there are risks of free riding,

with pervasive effects on inflation and public finances, while the impact on activity might be limited. On the expenditure side, productivity spending should be given a priority. Nevertheless, additional expenditures on physical (infrastructures), human (education and vocational training) and knowledge (R&D and innovation) capital should be financed through cuts in less productive expenditures, which would maximise the efficiency effects of the restructuring of public expenditures.

The time of social partners and structural policies seems to have come in order to underpin the adjustment and enhance competitiveness. The role of the government seems decisive in the social dialogue, not only by accompanying the agreements with adequate public policies, but also, and perhaps more important, by playing a pro-active role. Reviewing the regulatory framework would help tackle the structural factors underlying inflation. In particular, improving the regulation of the rental market would facilitate the adjustment of the housing sector. Labour market institutions, including segmentation, should be assessed and corrected. Encouraging mobility and providing vocational training would underpin a swift transition of the unemployed into employment. In addition, there is a need to avoid the possibility of price-wage spirals in a context of highly volatile commodity markets. General indexation clauses should therefore be applied consistently with productivity growth. Fostering productivity-enhancing expenditure items, such as R&D, infrastructure and education will be paramount to underpin a smooth adjustment of the economy. Finally, the effective implementation of education reforms would enhance the efficiency of public investment in human and knowledge capital.

1. Introduction

At the current juncture, when the Spanish economy is immersed in a deep adjustment process, the room for manoeuvre of economic policy depends on the causes at the origin of the correction. Two alternatives could be considered. In the first one, albeit also reflecting the contraction of the housing sector, the slowdown would mainly be the result of external, transitory shocks, such as the financial crisis. Consequently, potential growth might not have been significantly affected, and the economy would return close to past growth rates once the financial markets would stabilise. In the second alternative, albeit also reflecting the impact of external shocks, the adjustment would mainly reflect the correction of the imbalances that the Spanish economy has accumulated over the last decade. In this case, potential growth would remain low even after the external shocks would have faded out. This is the alternative advocated in this paper.

After 13 years of an apparently never-ending expansion, the accumulation of external imbalances, large household indebtedness, an oversized housing sector and persistent competitiveness losses have prompted a structural adjustment of the Spanish economy towards a lower potential growth path. The disinflation process that took place in the road to EMU led to a steady reduction of interest rates, coincidental with a rapid and effective international integration and domestic liberalisation of the financial market, which significantly eased financial conditions and fed household spending, including housing investment. While, from the demand side, the bulk of the Spanish growth recorded during the last decade came from household spending, from the supply side, it came from labour-input accumulation, mainly reflecting an unprecedented immigration shock on working-age population and massive incorporation of women to the labour market, which rose participation. In parallel, as witnessed by almost stagnating total factor productivity, Spain experienced a negative productivity shock in the late-1990s and early-2000s, largely reflecting the raising weigh of low-productivity sectors, including housing. This negative productivity shock would be the result of a series of structural weaknesses, ranging from lack of competition, especially in non-tradable markets, to low investment in R&D and innovation, or insufficient utilisation of the existing human capital. Such structural weaknesses combined with a highly dynamic domestic demand put pressure on inflation, leading to a persistent inflation differential vis-à-vis the euro area, and to the appreciation of the real effective exchange rate. On the back of a strong credit impulse, household indebtedness soared to about 130% of disposable income, the bulk of which consisted of mortgages at variable interest, while the external deficit attained 10% of GDP, which, at about 100 billion €, was the second largest in the world in nominal terms[4]. Therefore, the Spanish economy was particularly exposed to the much tighter credit conditions brought about by the financial crisis. In parallel, Spain was also particularly exposed to the effects of the volatility in oil markets, due to a relatively high energy intensity and dependency of its economy. Such external shocks are aggravating, rather than provoking, the effects of the ongoing correction of the imbalances of the Spanish economy. Consequently, the end of the financial crisis and other external shocks would not forcefully bring the Spanish economy back to the previously recorded high growth path. The financial crisis would have aggravated rather than provoked the adjustment. In a world without financial crisis, the imbalances accumulated by the Spanish economy would still be there.

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[4] European Commission (2006a) and Martinez-Mongay (2008), among others, provide more detailed analyses of the Spanish economy in the first decade of the euro area.

Diagnoses emphasising the imbalances of the Spanish economy are not new. For instance, about four years ago, the Spanish desk of DG ECFIN published in the series of the European Economy Occasional Paper a Country Study on Spain entitled *'Spain in EMU: a virtuous long-lasting cycle?* (see Ayuso, de Castro, Gómez and Martinez-Mongay, 2005). It was argued that although Spain was enjoying a virtuous economic cycle of high growth, outstanding job creation and relatively low inflation, a note of caution had to be sounded. A diagnosis of the Spanish economy should also highlight a series of imbalances, which were already sizeable by the time of the preparation of the study. According to it, *'rapidly increasing housing prices and a massive acquisition of dwellings are fuelling household indebtedness ... This is becoming a major cause of concern, since any significant shock on interest rates might have a negative income effect on consumption'*. The study stressed that *'the current bias of capital formation in favour of residential construction is unlikely to provide an adequate foundation for sustained high growth in the long run'*. In addition, a warning was sent on the fast-growing current account imbalance, which had attained 6% of GDP by 2005.

The 2005 Country Study on Spain also showed that while growth was coming from domestic demand, especially household spending, including housing investment, the widening of the external imbalance was closely associated with a persistent negative growth contribution of net exports. In parallel, on the supply side, growth was mainly driven by outstanding job creation, whereas productivity growth had experienced a sharp slowdown and was well below the euro area average. In addition, the inflation differential vis-à-vis the euro area was about one percentage point, which, together with sluggish productivity growth, was *'a drag on the competitive position of the Spanish economy'*.

Four years after the publication of the Country Study, the key issue is how to offset the pervasive effects on output and employment of the correction of the accumulated imbalances, including a shrinking housing sector. Within a framework of tighter credit conditions and mounting unemployment, household spending and investment are sluggish and, consequently, returning to past high-growth rates largely depends on net-export growth.

This paper assesses the performance of the external sector in Spain and its determinants. It also discusses policies adequate to boost net exports in the absence of the exchange rate as an instrument to recover competitiveness. Next section sets the scene by discussing the performance of the Spanish external sector and shows developments on domestic activity, competitiveness and the external demand. Section 3 presents econometric analyses of the determinants of trade performance. After analysing the role of the external sector in past recoveries of the Spanish economy in section 4, section 5 discusses policies aiming at improving competitiveness. Section 6 concludes.

2. The performance of the external sector in EMU
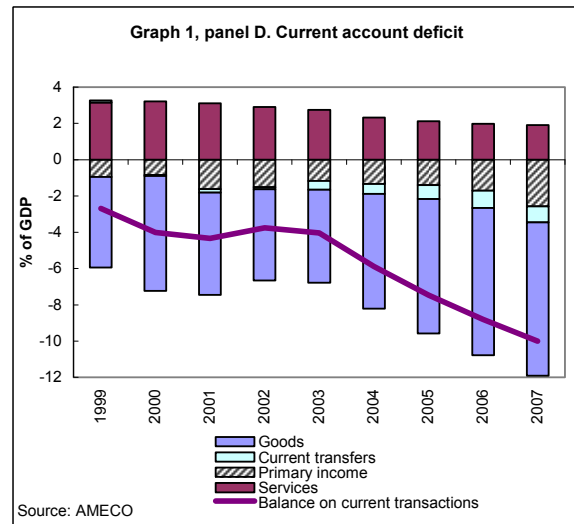

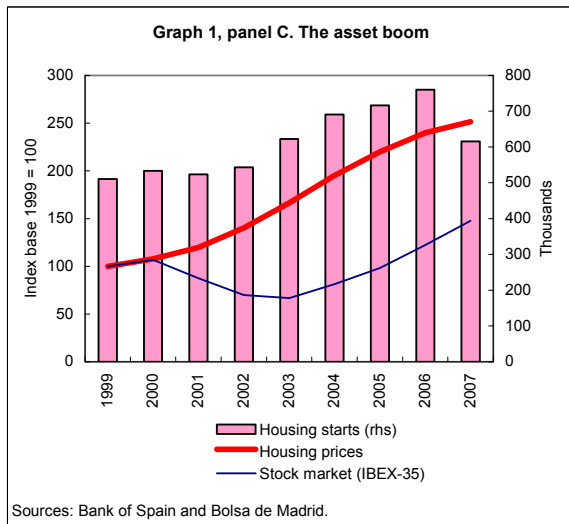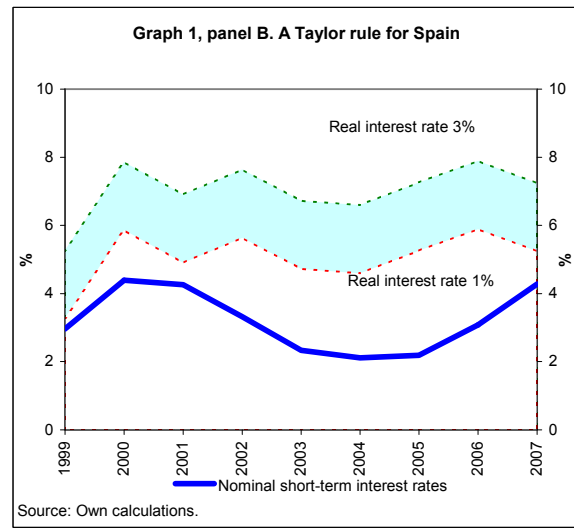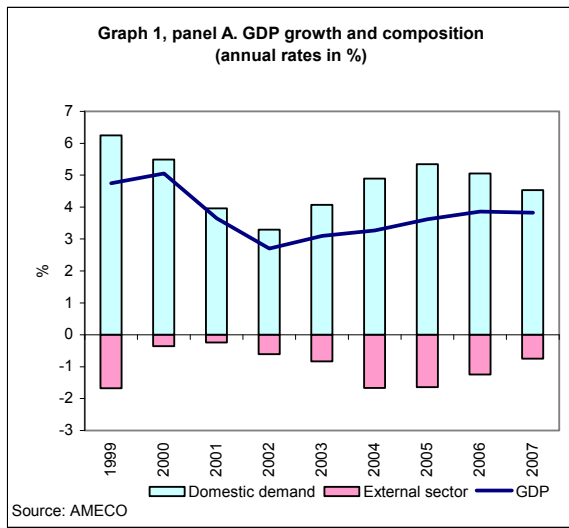2.1. A snapshot of the Spanish economy in the euro area

Between 1999 and 2007, Spain grew at an annual average rate of 3.7% (Graph 1, panel A), which compares with a rate slightly above 2% for the euro area as a whole. This impressive performance of the Spanish economy took place after the strong disinflation process of the nineties and the concomitant fall in nominal interest rates, which generated a credit impulse

that lasted well beyond the dawn of EMU. Nominal interest rates declined from the peak of 15% in the early nineties to below 3% in 1999 and remained so until very recently. Although monetary conditions had been overall tight during the nineties, nominal interest rates would have been below the lower band of a standard Taylor rule since the early 2000s (Graph 1, panel B). Moreover, real interest rates were negative over most of the EMU period[5].

As predicted by state-of-the-art models (see, for instance, Fagan and Gaspar, 2007 and 2008, and Gaspar and St. Aubyn, 2008), the adjustment dynamics to the credit impulse in Spain was dominated by the private sector. The international integration of the Spanish financial sector and an intense domestic liberalisation of the credit market added to the fall of risk premia and fed asset markets, especially real estate (Graph 1, panel C), which played a paramount role in underpinning domestic demand (European Commission, 2006a and 2008a, and Martinez-Mongay, Maza and Yaniz, 2007). Financial integration and domestic liberalisation brought capital costs down, and, consequently, investment played an important role in sustaining domestic demand, with construction in general, but especially housing, being particularly buoyant (European Commission, 2008a, and Regling and Watson, 2008). In the specific case of Spain, domestic demand contributed to GDP growth about 4.7 percentage points per year between 1999 and 2007 (Graph 1, panel A), with private consumption and investment contributing 2.2 and 1.6 percentage points, respectively. Total investment grew at an average growth rate of over 6% per year and the investment-to-GDP ratio jumped by 8 percentage points up to 31% in 2007. Housing investment contributed almost 2 percentage points per year to total investment growth, rising from 5% to 9% of GDP. Therefore, housing investment accounted for half of the total increase recorded by the investment ratio during the first decade of EMU.

In contrast with this exuberant domestic demand, the external sector recorded negative contributions to growth, the external position of the Spanish economy deteriorated and its real effective exchange rate appreciated (see section 2.2). Net exports detracted one percentage point per year to growth (Graph 1, panel A). Total real exports of goods and services grew at an annual average rate of 4¾%, while real imports soared at 7% per year. As a result, exports in constant prices rose from about 28% of GDP in 1999 to just above 30% in 2007, which compares with the increase of 10 percentage points of GDP recorded by import volumes. Trade openness (the sum of import and export volumes as a share of GDP) increased from about 58% of GDP in 1999 to over 70% in 2007. The opening of Spain to international competition actually follows a long-run trend, dating back from the early seventies, which has strongly accelerated after the accession to the EU. In parallel, the current account deficit rose from 1% of GDP, recorded in 1998, which could be considered small by historical standards, to an unprecedented record of 10% in 2007 (Graph 1, panel D). Although this mainly reflects a steady increase of import penetration and the concomitant widening of the trade deficit, in the most recent past, net outflows of primary incomes, particularly linked to the burden of the Spanish debt, and of immigrants' transfers abroad are also contributing to the current account deficit.

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[5] An assessment of the monetary policy stance of this period based on a monetary conditions index (MCI) would support the same conclusions. Developments of a standard MCI, weighting 80% the change in real interest rates and 20% the change in the REER vis-à-vis the industrialised countries (see below), would show a monetary loosening until 2005. This loosening would be mainly driven by the fall in interest rates, only partially offset by the tightening induced by the appreciation of the REER. However, in 2006 and 2007 the MCI would point to a tightening of the monetary conditions, reflecting further REER appreciation combined with raising interest rates.

Graph 1, panel A. GDP growth and composition (annual rates in %)

Source: AMECO

Graph 1, panel B. A Taylor rule for Spain

Source: Own calculations.

Graph 1, panel C. The asset boom

Sources: Bank of Spain and Bolsa de Madrid.

Graph 1, panel D. Current account deficit

Source: AMECO

The possibility of snowball effects led by interest payments should not be ruled out. Between 1999 and 2007, the gross external debt soared from 75% to 220% of GDP[6]. The associated gross burden of this debt amounted to 8.5% of GDP in 2007. To be sustainable, a steady accumulation of gross debt requires high productivity growth and/or low inflation rates, which would ensure a permanent depreciation of the effective exchange rate. None of these conditions seems to be fulfilled by Spain during the first decade of EMU, when productivity has almost stagnated and the inflation differential with the euro area has hovered around one percentage point per year.

Economic developments during the first decade of the euro area actually conceal a turning point in late-2006/early-2007. Already some quarters before August 2007 when the financial crisis became apparent, credit growth in Spain was showing unambiguous signs of fatigue. Albeit still at low levels, real interest rates started to rise in 2006, while the fruits of the

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[6] External debt developments mirror those of private agents'. Specifically, household's indebtedness amounts to 85% of GDP, while non-financial corporations accumulate a stock of debt of 130% of GDP.

financial integration and liberalisation processes had been fully reaped by that time. The Spanish economy entered a steady adjustment path since the second half of 2006, when housing investment started to decelerate. The size of the housing market, 9% of GDP, which reflected the construction of more new dwellings than in Germany, France and Italy together, had become clearly unsustainable. The contraction of the sector was unavoidable. Furthermore, the demand for housing had become less buoyant on the back of rising interest rate expectations and the high level of household indebtedness (about 130% of disposable income), which, together with high housing prices, increased the annual effort needed to buy a house, the so-called affordability ratio, to 46% of the household income, compared with 28% in 1999. Household debt accumulation and higher interest rates ended by imposing a toll on private consumption, which entered a decelerating path in 2007, also on the back of the pervasive effects of unexpected inflation on household income. Yet, in this latter year, the Spanish economy still grew at about 3¾%, which suggested that the unavoidable adjustment might be relatively slow and soft, and this in spite of the financial turmoil that burst in August.

However, the adjustment of the Spanish economy is being deepened by the persistence of the financial crisis, and economic prospects are sharply worsening. GDP grew around 1¼% in 2008. The contraction of the housing sector, worsening confidence and tightening credit conditions, with an obvious impact on domestic demand, are behind this sharp slowdown. Specifically, housing investment fell by around 10%, while investment in equipment stagnated. Total investment contracted by 1½%. Private consumption grew below 1%, compared with 3¾% in 2007. In contrast, the contribution of net exports was positive, especially reflecting a sharp slowdown in imports. All in all, the bulk of growth in 2008 came from the public sector on the back of a strong fiscal expansion in which the surplus of 2¼% of GDP recorded in 2007 has turned into a deficit close to 3% in just one year. Public consumption and investment are set to grow at about 4% and 1½%, respectively, accounting for 60% of the growth projected for 2008.

Prospects for 2009 are gloomier. The Spanish economy will continue the undergoing structural adjustment, the speed of which will depend on its capacity to smooth out the direct effect of the downsizing of the housing sector and its impact on other activities.[7] GDP is projected to contract in 2009 and remain subdued in 2010. Domestic demand is projected to contribute negatively to growth for the first time since the early 1990s, reflecting the contraction of both private consumption and investment, including equipment. The external demand would offset part of the contraction of domestic demand, no so much because of buoyant exports but because a sharp contraction of imports, consistent with the fall in consumption and, especially, of equipment investment. The 2009 Budget sets public consumption and investment growing at 1¼ % and 1%, respectively, which would add ¼ of a percentage to growth. On the other hand, the fiscal stimulus adopted by the government at the end of November 2008, amounting to 1.1% of GDP, is projected to contribute to growth by around ½ percentage points. The public deficit would further worsen well beyond 3% of GDP. Specifically, the worsening in structural terms would be of more than 2% of GDP. For the first time in EMU, the Spanish economy will destroy jobs and the unemployment rate might go up close to 17% by 2010.

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[7] According to the input-output tables of the Spanish economy, the intermediate consumption of the construction sector represents more than 40% of the total value of production. This is higher than, for instance, the intermediate consumption of the tourist sector, retail trade, or, albeit to a lesser extent, the motor-vehicle sector.

In spite of such a sharp downturn, the imbalances of the Spanish economy are not projected to improve in a significant way. The inflation differential with the euro area was at around ¾ of a percentage point in 2008, then, reflecting the ongoing fall in oil prices, it should close in 2009, to rebound again in 2010. Although productivity growth accelerated, the REER with respect to industrialised countries appreciated by more than 2% in 2008. Nominal wages grew at 5%, partially reflecting the activation of wage indexation clauses.

In spite of the downturn, the current account deficit might remain at high levels. In 2008, the current account deficit was about 10%, roughly the same level as in 2007, and it is projected to ease only slightly in 2009. The slow correction of the current account deficit mainly reflects the sharp fall in public savings, which offset the increase in household and corporate savings.

These medium term prospects seem to be consistent with simulations of the impact of credit impulses carried out based on intertemporal models (Gaspar and St. Aubyn, 2008, and Gaspar and Fagan, 2008). In other words, recent developments and prospects of the Spanish economy would suggest that the current downturn would also be the result of the accumulation of large and persistent imbalances, aggravated by the financial crisis, rather than reflecting the impacts of a series of external shocks. Once the credit expansion has faded out, and in the absence of further shocks, the Spanish economy could be confronted to a slow adjustment process toward a new steady state, where housing and private consumption would contribute much less to growth. In this context of sluggish private demand, for growth prospects to become brighter the external demand has to take the lead.
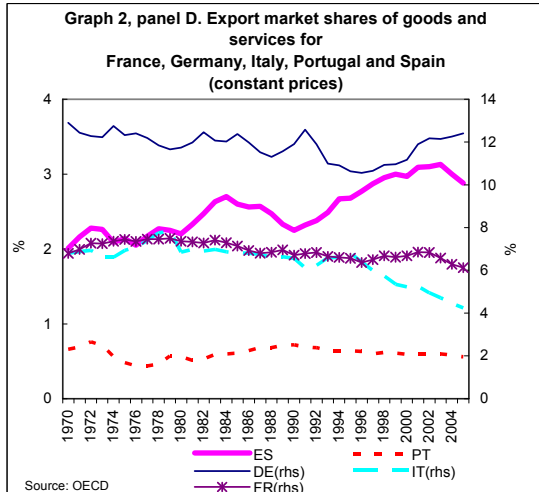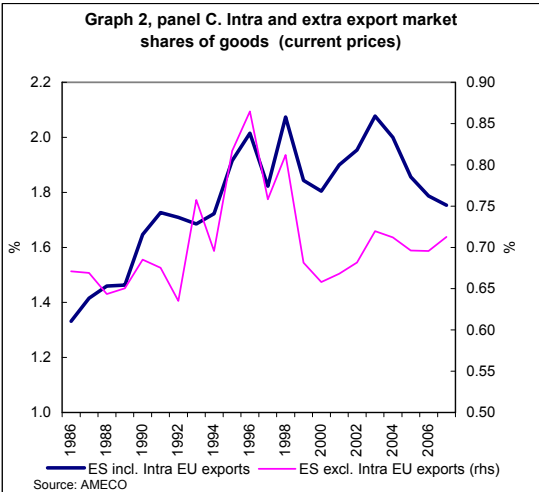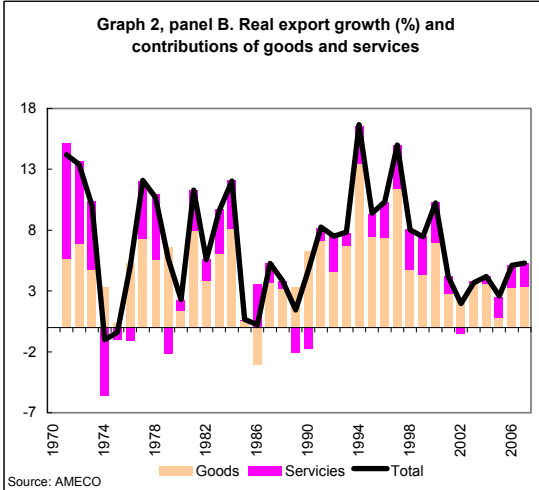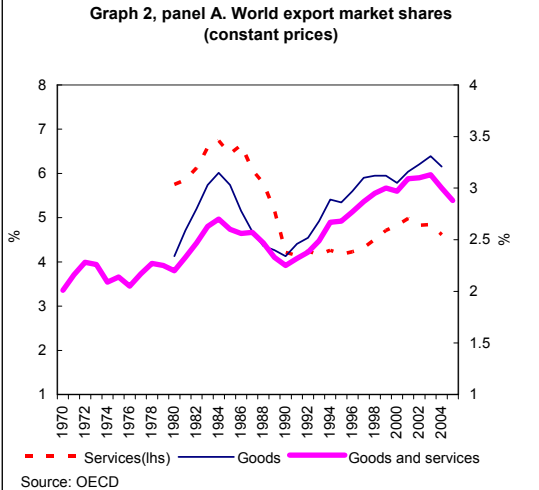
2.2. Export performance

Export market shares are the most common indicator used in the literature to measure export performance (see, for instance, European Central Bank, 2005). Export market shares express the exports of one country in terms of the exports of a geographic aggregate. Consequently, there is not a unique way to calculate export market shares, which can differ in terms of the aggregate chosen. In addition, export market shares can refer to total exports of goods and services or to sub-aggregates, such as, for instance, exports of goods. Export market shares can also differ in the way exports are measured, whether in values or volumes.

Panel A in graph 2 shows the series of total export market shares of Spain in real terms over the last four decades and decomposes it between goods and services. Linked to the progressive opening of the Spanish economy, as well as to its rising size, market shares have exhibited a global upward trend over the last four decades. While the Spanish exports represented in volume terms 2% of the world exports in 1970, they had peaked at over 3% in 2003. The bulk of this increase took place since 1990, when the indicator bottomed out at 2¼%. In the most recent past, however, total export market shares seem to be on a declining path. Also, note that the relative importance of Spain as an exporter is greater in services than in goods, which reflects the high weigh of the Spanish tourist sector in the world market.

In standard international trade models, as those discussed in next section, export performance is measured as export growth in real terms. As shown in graph 2, panel B, developments in export market shares during the first decade of the euro area actually reflect sluggish export growth, especially from 2002 onward. Between 1999 and 2007, exports grew in real terms by about 4% per year. This contrasts with 9% in the pre-EMU decade and the seventies, while

real export growth was around 5½% during the eighties. Where the composition of exports is concerned, with the exception of the early seventies, the bulk of total export growth has historically come from exports of goods, with export of services contributing marginally in a number of years, especially in the most recent past. Since Spain does not export energy goods, panel C in graph 2 highlights the importance of exports of manufactured goods for export growth.[8]

Graph 2, panel A. World export market shares (constant prices)

Graph 2, panel B. Real export growth (%) and contributions of goods and services

Graph 2, panel C. Intra and extra export market shares of goods (current prices)

Graph 2, panel D. Export market shares of goods and services for France, Germany, Italy, Portugal and Spain (constant prices)

The nominal export market shares for goods computed by the European Commission (AMECO), and displayed in panel C of graph 2, distinguish between intra-EU and extra-EU exports. While AMECO series seem to be overall consistent with the series in panel A, taken from the OECD, they suggest that the recent fall observed in export market shares is almost fully attributable to a sharp decline in intra-EU exports. The relative weigh of Spain in extra-EU exports has actually been on a rising path during the EMU decade. In the same line, the 2007 Annual Report of the Bank of Spain (see Banco de España, 2008) concludes that exports have been geared in the recent years to countries outside the euro area, especially to other EU Member States, Russia, the CIS and China, the imports of which have been much higher than total world trade. Yet, compared with the Spanish total exports, the size of such trade flows remains relatively small. The Bank of Spain also highlights that the product distribution of the Spanish exports has been somewhat shifted to products where the demand is more dynamic

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[8] Although Spain is an important producer of agricultural products, the value of this type of exports is dwarfed by that of industrial goods, especially manufacturing.

(pharmaceuticals, metal semi-manufactures and machinery), while products facing a more moderate demand growth, such as cars, food and textiles have seen their weight to decline.

Compared with other euro area members, the weight of Spain in world export markets in volume terms is somewhat less than 25% that of Germany's, 50% that of France and 70% that of Italy, but overall six times the size of Portugal (Graph 2, panel D). In addition, while the export market shares of Italy, France and Portugal are on a declining path, German exports have been gaining market quota since the mid-nineties, and more strongly during the first decade of EMU, likely on the back of sizeable competitiveness gains (European Commission, 2006a).

Box 1 spells out a methodology to decompose the changes in goods export market shares of Germany, France, Italy, Portugal and Spain since 1999 in three factors: demand intensity, competitive advantage and location. As shown in graph 3, the market losses in France, Italy and Spain mainly reflect an adverse competitiveness factor. In other words, the fall of export shares in these three countries reflect low export growth in sectors where the world demand is more dynamic. However, market losses in Portugal seem to be reflecting a relatively high specialisation in low-demand sectors, while export growth has been lower than the world demand in the branches in which Portugal is more specialised. Finally, market-share gains in Germany seem to be reflecting a combination of both a relative specialisation in high-demand sectors and export growth above world demand, especially in those sectors accounting for the largest share of total trade (competitive factor).

Graph 3. Analysis of export performance in manufactures (average 1999-2006).
Using technological intensity grouping breakdown

Legend:
- Demand intensity
- Competitive advantage
- Location factor
- Total g - g world
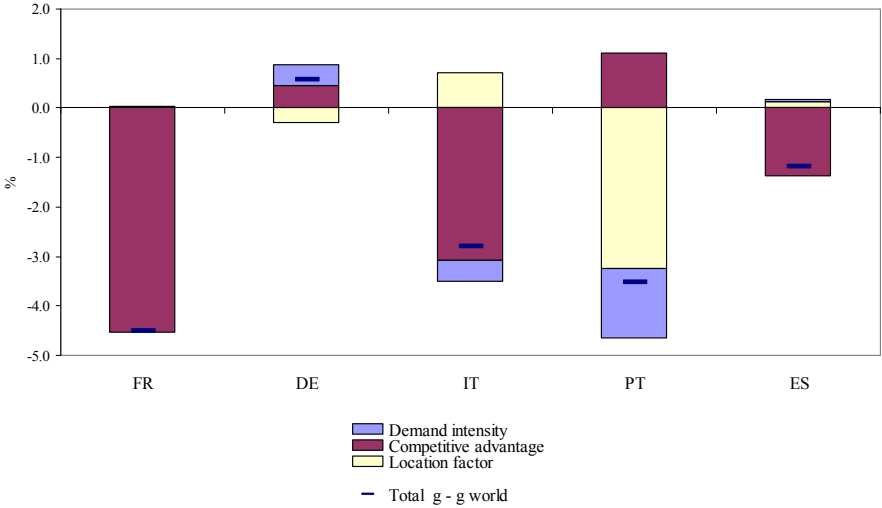
Box 1. Decomposing the changes of export market shares

We apply the shift-share methodology (see, for instance, Bravo and Garcia, 2004) to identify the main drivers of nominal export market shares of manufactures over time. To that end, manufactured goods are disaggregated in function of the so-called technological intensity. Specifically, we consider four groups of goods: high (viz. aerospace, pharmaceuticals, informatics), medium-high (motor vehicles, electric machinery and material, chemicals), medium-low (metallic products, non-metallic materials, oil products) and low technology (textile, clothing, footwear). Since the denominator of the market share is world imports, the changes in the market share of a given country can be expressed in terms of the difference between the nominal growth rate of its exports (g) and the growth of rate of world imports (g^{world}). The country's export growth can be expressed by

$$g = \Sigma_i\, \omega_i \cdot g_i \qquad\qquad (b1)$$

where ω_i (i=1 (high), 2 (medium high), 3 (medium low), 4 (low)) is the share of the country's exports of technological intensity i in total exports of manufactures, and g_i is the growth rate of exports of category i. Analogously, for the world as a whole,

$$g^{world} = \Sigma_i\, \omega_i^{world} \cdot g_i^{world} \qquad\qquad (b2)$$

Also note that g^{world} can also be expressed as

$$\cdot g^{world} = \Sigma_i\, \omega_i \cdot g^{world}\, , (\Sigma_i\, \omega_i =1) \qquad\qquad (b3)$$

Combining (b1), (b2) and (b3) it be shown that

$$g - g^{world} = \overline{\Sigma_i\, \omega_i \cdot (g_i^{world} - g^{world})} + \overline{\Sigma_i\, \omega_i^{world} \cdot (g_i - g_i^{world})} + \overline{\Sigma_i\, (\omega_i - \omega_i^{world}) \cdot (g_i - g_i^{world})}$$

<div align="center"><i>Demand intensity factor   Competitive advantage factor   Location factor</i></div>
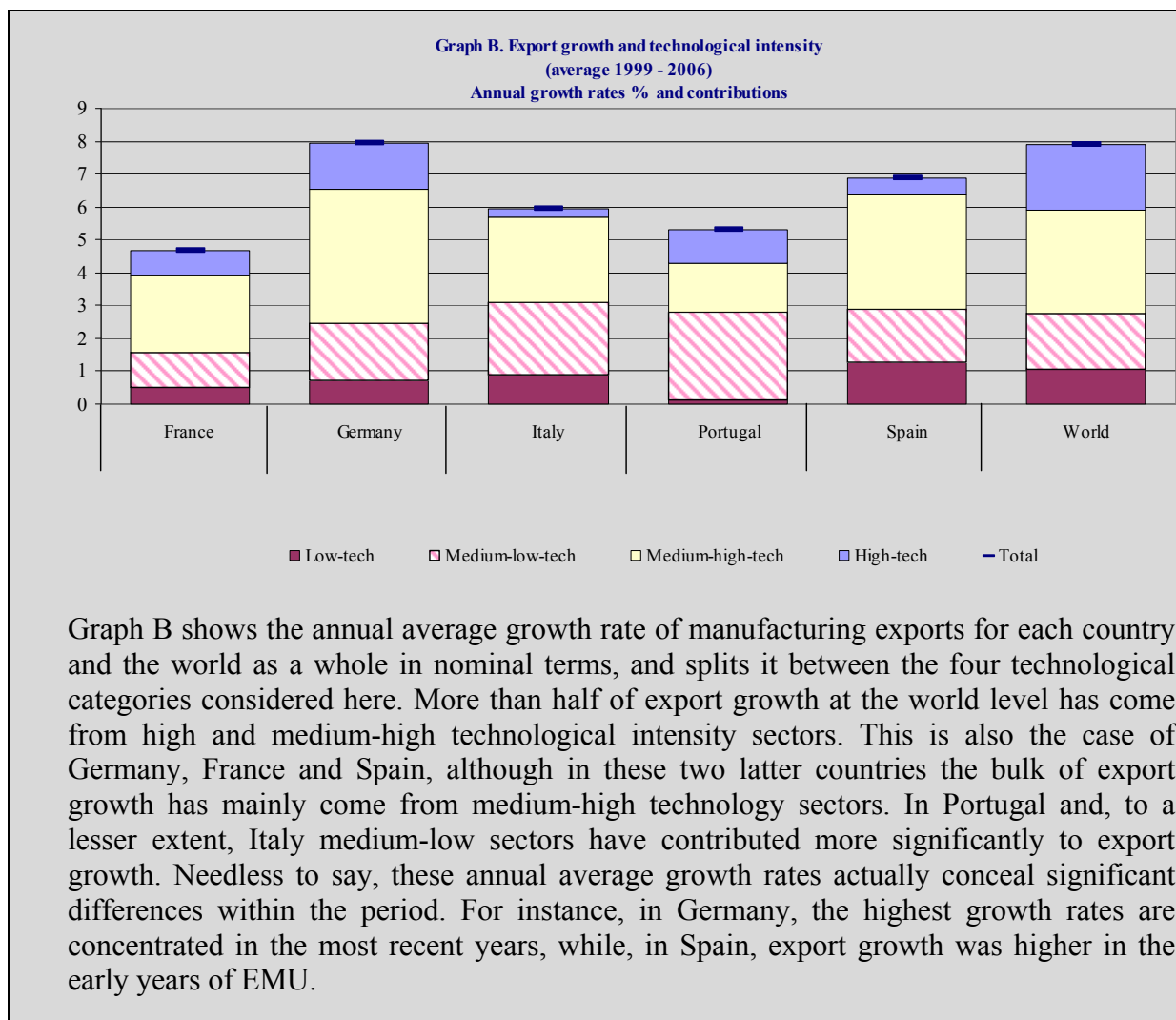
According to which, the change in the export market share of a country, or the difference between the growth of its exports and the growth of world trade, can be expressed in terms of:

1. *Demand intensity factor* is the (country's structure of exports)-weighted sum of the growth differentials between world imports of each branch and total world imports of manufactured goods. The demand intensity factor is higher the higher is the specialisation (ω_i) of the country in high world growth sectors ($g_i^{world} - g^{world} > 0$)..

2. *Competitive advantage factor* is the (worlds structure of imports)-weighted sum of the growth differentials between country's exports and world imports in each branch. Therefore, the competitive advantage factor will be higher the higher the country's export growth, compared with the world import growth ($g_i - g_i^{world} > 0$), in sectors that account a large part (ω_i^{world}) of total trade. Negative sectoral trade growth differentials would point to a deterioration of the competitive position of the country concerned.

3. The residual component, usually called *location factor*, will be positive if the country is relatively specialised ($\omega_i - \omega_i^{world} > 0$) in sectors, the export of which grow faster than the world's imports ($g_i - g_i^{world} > 0$).

Graph A. Technological specialisation of exports (1999 - 2006)
As percentage of total exports

Low-tech ■   Medium-low-tech □   Medium-high-tech □   High-tech ■
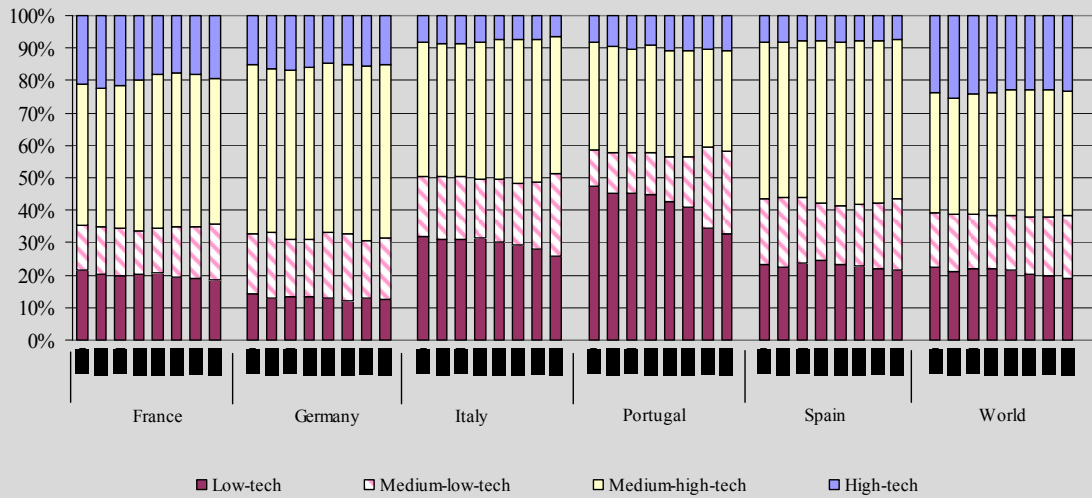
Graph A shows the sectoral breakdown of total export of manufactures in Germany, France, Italy, Portugal, Spain and the world between 1999 and 2006. While the sectoral composition has remained broadly unchanged for the world as a whole, significant changes can be identified in some of the selected countries. There has been a general trend in the other euro area countries to increase the share of medium-tech products. This is particularly so in Germany, France and Italy. However, while in Germany and, to a lesser extent, France the share of low-tech products is relatively low, in Italy it is close to 30%, albeit declining. Interestingly, in Portugal, the increase of medium-tech sectors mainly reflects the increase in goods of medium-low technological intensity, the share of which has risen at the expenses of low-tech products. Finally, in Spain, export specialisation has not changed by much, although there seems to be a marginal shift from low to medium-low technology sectors.

Graph B. Export growth and technological intensity
(average 1999 - 2006)
Annual growth rates % and contributions

■ Low-tech   □ Medium-low-tech   □ Medium-high-tech   ■ High-tech   — Total

Graph B shows the annual average growth rate of manufacturing exports for each country and the world as a whole in nominal terms, and splits it between the four technological categories considered here. More than half of export growth at the world level has come from high and medium-high technological intensity sectors. This is also the case of Germany, France and Spain, although in these two latter countries the bulk of export growth has mainly come from medium-high technology sectors. In Portugal and, to a lesser extent, Italy medium-low sectors have contributed more significantly to export growth. Needless to say, these annual average growth rates actually conceal significant differences within the period. For instance, in Germany, the highest growth rates are concentrated in the most recent years, while, in Spain, export growth was higher in the early years of EMU.

2.3. Price competitiveness and relative foreign demand

In standard international trade models, developments in export volumes are mainly determined by changes in foreign demand and in home prices of exports relative to the changes in those of the competitors. The latter is considered as an indicator of developments in price competitiveness, or real effective exchange rate (REER), and is largely related to developments in relative unit labour costs (ULC), which compare changes in wages and changes in productivity relative to those of trade partners[9]. Indeed, nominal exchange rates enter price-competitiveness indicators to allow comparisons across countries. Compared with indicators of relative export prices, using an ULC-based REER allows setting a link between competitiveness and the functioning of markets (relative wage growth) and structural policies (relative productivity growth). As with market shares, REER indices can be calculated with reference to different sets of countries. In the Spanish case, two alternative geographic
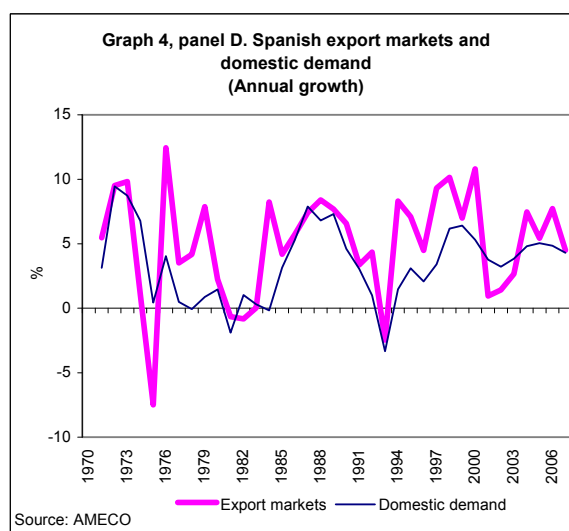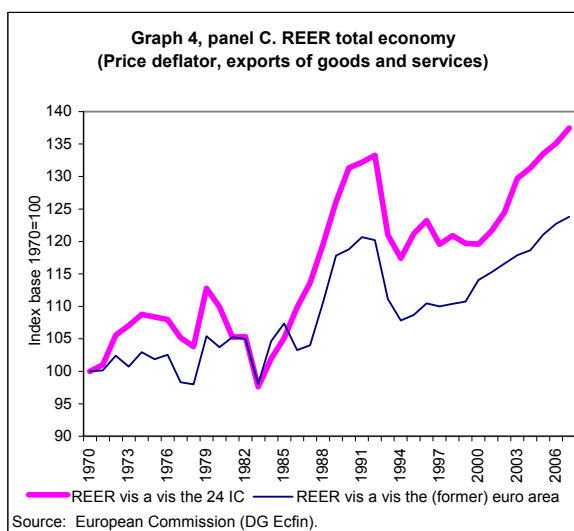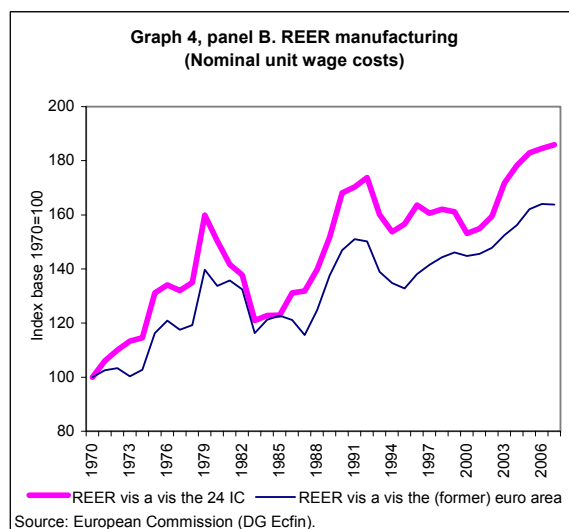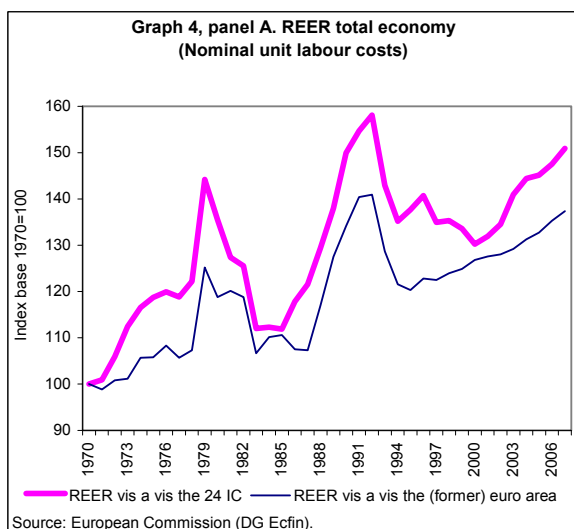
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[9] ULC are a measure of cost competitiveness and does not indeed account for other factors that determine the mark ups set by the exporters in foreign markets. The new theories of trade and the endogenous growth models have highlighted the importance of other export performance determinant such as innovation, product quality, and a series of characteristics of the country, including, among others, the physical, human and knowledge capital, or the regulatory framework. ECB (2005) presents a detailed analysis of such factors, which is out the scope of this paper.

aggregates would appear relevant. Since Spain is an industrialised country, it seems worth gauging price-competitiveness developments relative to other industrialised countries, which account for the bulk of its competitors in world markets. On the other hand, given the high degree of economic integration with the euro area, which represents about 2/3 of the total Spanish trade, price and cost developments relative to the euro area partners are highly relevant to assess total export performance of Spain.

For the total economy, thus including goods and services, the Spanish ULC-based REER shows an appreciation of 37% with respect to the euro area over the last four decades (Graph 4, panel A). The appreciation is of 50% with respect to the OECD as a whole. Where the first decade of the euro area is concerned, the ULC-based REER has appreciated by about 10% (11% with respect to the OECD). These latter developments seem to be consistent with the fall of total export market shares observed in the last years (Graph 2, panel A)). As mentioned above, the REER might appreciate by about 2% in 2008.

Given the observed differences between market shares of goods and those of services, and consistent with the fact that Spain does not export raw materials or commodities, it seems pertinent to look at price competitiveness for manufactures. Based on ULC, the Spanish REER for manufactures has appreciated by about 13% vis-à-vis the rest of the euro area and by 15% with respect to the OECD since 1999 (Graph 4, panel B). This is therefore above the appreciation recorded for the total economy (Graph 4, panel A), and broadly consistent with the deterioration observed in the market shares of goods in real terms (Graph 2, panel A).

Although it can be argued that the ULC-based REER indices do not take into account the degree of pass through of production costs to export prices, according to graph 4 (panels A and C), in the specific case of Spain, the REER based on the deflator on exports would exhibit broadly similar dynamics as the ULC-competitiveness indicator. In particular, the export-price based REER would show an almost 40% appreciation with respect to industrial countries since the early seventies (about 25% with respect to the euro area). Differences between the relative ULC and the relative export prices are more apparent in the short run and the first part of the sample, than in the longer term and the most recent past. For instance, the export deflator of Spain relative to the euro area has increased by about 11½%, since 1999, which compares with about 10% for the ULC-based REER for the total economy and 13% for manufacturing. Section 4 below presents a more detailed analysis of the main factors driving REER developments since 1970, and, in particular, during the first decade of EMU.

Graph 4, panel A. REER total economy
(Nominal unit labour costs)

Index base 1970=100

REER vis a vis the 24 IC — REER vis a vis the (former) euro area
Source: European Commission (DG Ecfin).

Graph 4, panel B. REER manufacturing
(Nominal unit wage costs)

Index base 1970=100

REER vis a vis the 24 IC — REER vis a vis the (former) euro area
Source: European Commission (DG Ecfin).

Graph 4, panel C. REER total economy
(Price deflator, exports of goods and services)

Index base 1970=100

REER vis a vis the 24 IC — REER vis a vis the (former) euro area
Source: European Commission (DG Ecfin).

Graph 4, panel D. Spanish export markets and
domestic demand
(Annual growth)

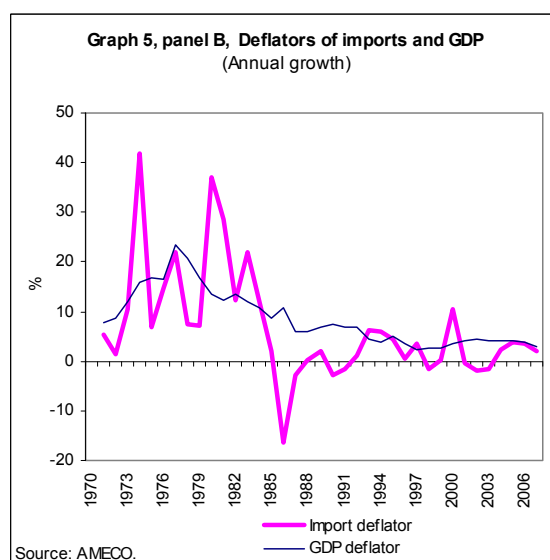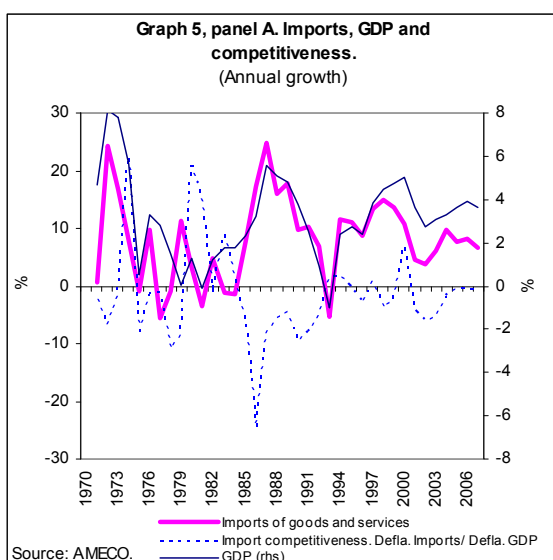%

Export markets — Domestic demand
Source: AMECO

Price-competitiveness is only part of the export-performance story. Leaving aside structural factors, which would include product and geographical specialisation, technology and institutions (see, for instance, ECB, 2005), the external demand of exports and, especially in the short run, the domestic demand are main determinants of export performance. In the long run, exports follow the external demand. However, according to some authors (see Fernandez and Sebastian, 1989), a dynamic domestic demand might lower the incentives to export in the short run, while producers would look for external markets more intensely in downturns. We define the external demand as the potential size of the Spanish export markets, which in turn can be calculated as the real total imports of 35 industrialised countries weighted by the Spanish exports to such countries, which is available in AMECO. The domestic demand is also taken from AMECO and, as usual, is defined as private and public consumption, plus gross capital formation, plus the change in inventories. While the export markets of Spain have been relatively volatile and overall grown below their historical average during the first decade of the euro area, the domestic demand has kept relatively high growth rates (Graph 4, panel D). Consequently, the fall recently recorded in the Spanish market shares might be the combination of a steady deterioration of competitiveness and a moderate external demand compared with the dynamics of domestic demand.

2.4. The demand for imports

Net exports, as well as the current account balance, also depend on imports or, in other words, on the capacity of foreign producers to penetrate domestic markets. This seems to be particularly true in the case of Spain, where the growth contribution of the external sector has been mainly determined by developments in imports, especially during the last decade. Moreover, as highlighted before, the positive contribution of net exports to economic activity in the current downturn is mainly reflecting the deceleration and even the contraction of imports.

According to standard international trade models, imports would mainly depend on developments in domestic activity and on the competitiveness of imports in home markets, which in turn could be represented by the import price deflator, reflecting developments in foreign prices, relative to the GDP deflator, representing home producer prices. Panel A in graph 5 displays the annual growth rates of these three series over the last four decades. Overall, import growth has been higher when import prices have grown below home prices and/or economic activity has been stronger. Import growth in real terms also reflects the steady opening process of the Spanish economy to international competition during the period considered. Imports have grown at 8% per year on average since 1970, which compares with 3¼% for GDP, and results in an elasticity of imports with respect to domestic activity far beyond unit. As it has been documented in the literature (see, among others, De Boer, Martinez-Mongay and Harkema, 2000), the accession of Spain to the EU induced a structural break in the demand for imports, which led to a sharp increase in import penetration, especially from EU partners. Real imports grew at 12% per year between 1986 and 1998, which compares with the annual average rate of 8% recorded since 1999.

Graph 5, panel A. Imports, GDP and competitiveness. (Annual growth)

Source: AMECO.
Imports of goods and services
Import competitiveness. Defla. Imports/ Defla. GDP
GDP (rhs)

Graph 5, panel B, Deflators of imports and GDP (Annual growth)

Source: AMECO.
Import deflator
GDP deflator

The steady increase of import penetration recorded during the last four decades has been coincidental with a persistent positive differential between domestic and import price inflation. As a result, relative import prices have declined by 1¾% per year since 1970. The fall was stronger during the post accession period, between 1986 and 1998. The deterioration of the competitiveness of the Spanish producers in domestic markets has continued in the euro area, when relative import prices have fallen at an average rate slightly over 1½%. As shown in section 4 below, this steady fall of relative import prices has taken place in spite of

successive devaluations of the peseta against other main currencies, which, in principle should have made imported goods more expensive. However, higher domestic inflation has always ended up by sterilising the effects of exchange-rate management policies.

3. The determinants of trade performance

On the basis on the descriptive analyses in the precedent section, we estimate error-correction models (ECM) for the export and import functions of the Spanish economy. Standard trade models identify external demand, price competitiveness, domestic demand and inertia as the main determinants of export growth, while import developments would be associated with domestic income, the relative price of imports and inertia. We compare the Spanish export ECM with those estimated for a large sample of euro area members with a view to identifying possible typologies of countries in terms of the determinants of exports. In the particular case of the elasticity of exports with respect to competitiveness, we establish a relationship between the reaction of exports to prices and the export specialisation in low-technological intensity sectors. The section is split in two sub-sections. The first (3.1) deals with export performance, while the second (3.2) focuses on imports. A detailed discussion of econometric results is carried out for Spain in section 3.1.1., while a summary of the findings for the other euro area countries will be presented in section 3.1.2.

3.1. Export performance in Spain and main euro area partners

This section discusses the error-correction models for export performance of Spain, as well as for 9 other Member States, which joined the euro area in 1999 (Belgium, Germany, France, Ireland, Italy, the Netherlands, Austria, Portugal and Finland). The time span of the sample is 1970-2007 for most countries, including Spain. Based on standard, partial-equilibrium models of international trade with imperfect substitution, as in, for instance, Goldstein and Khan (1985), we assume that the long-run dynamics of real exports are mainly dominated by the demand for exports and price competitiveness. Specifically, following Marsh and Tokarich (1996), Closterman (1998) or Murata (2000), we measure export performance as total exports of goods and services in volume.[10] As in previous sections, the external demand is calculated as the real total imports of 35 industrialised countries weighted by the country's exports (XWM). Developments in relative prices are captured by the real effective exchange rate (REER) with respect to industrialised countries based on nominal unit labour costs. The three series are available in the European Commission (ECFIN) databank AMECO. The long-run dynamics of exports is represented by

$$X = \eta + \lambda \, XWM + \mu \, REER \qquad\qquad\qquad (1)$$

The variables are expressed in levels using the logarithmic scale. Therefore, λ is the long-run elasticity of exports with respect to the external demand and μ is the long-run elasticity of exports with respect to relative prices. As explained in the previous section, it is expected that λ is positive, so that export performance increases with the external demand, and μ negative, with export performance worsening if the REER increases (appreciates). The series in log-levels and in first differences for Spain and the 9 euro area countries are displayed in annex 1. In the particular case of Spain, relevant developments of the three variables have been spelled out in the precedent section (see graph 2, panel B, and graph 4, panels A and C).

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[10] See also IMF (2005) and ECB (2005).

3.1.1. The determinants of the Spanish export performance

The first step consists of testing whether a specification like (1) represents a long-run (partial) equilibrium locus. In order to do that, the integration orders of the three variables have to be identified. Based on the augmented Dicky-Fuller (ADF) test it cannot be rejected that the three variables have a unit root, while the same null can be rejected in the case of first differences (Table 1). This latter finding would imply that the series would not be integrated of order 2 (I(2)).

Table 1. Integration orders (a)

	ADF for null **I(1)**	ADF for null **I(2)**
Real exports	-0.25	-4.13
External demand	0.18	-4.56
REER	-1.63	-3.31
(a) The critical values at 5% level is -2.95.		

Therefore, the hypothesis that the logarithms of real exports, export-weighted world imports and ULC-based REER are I(1) processes seems plausible in the Spanish case. Following standard practice in cointegration analyses, the existence of a long-run relationship between real exports and its two main determinants is established by testing the existence of a unit root in the olsq residuals of (1). As shown in table 2, the null of a unit root of the residuals can be rejected, and therefore a specification like (1) can be interpreted as a cointegration equation describing the long-run dynamics of export performance. The long-run elasticities have the right, expected sign. The elasticity of the ULC-based REER is slightly higher than 0.5, while the elasticity with respect to the external demand is above 1.5, thus consistent with growing market shares in the long run (Graph 2, panel A)[11].

Table 2. Long-term relationship.

	Estimate	t-statistic
Intercept	0.94	1.62
External demand	1.48	32.6
REER	-0.55	-3.4
Statistics		
Adjusted R2	*0.98*	
SE	*8.6%*	
DW	*0.32*	
Cointegration test (ADF on residuals of the log-term relationship)	*-2.09*	*The critical value at 5% level is -1.95.*

The existence of a long-run relationship between export performance, on the one hand, and the external demand and competitiveness, on the other, allows specifying an error correction model (ECM), which captures the short-run dynamics of export growth. The specification chosen is:

$$\Delta X_t = c + \alpha\, ECM_{t-1} + \beta_1\, \Delta XWM_t + \beta_2\, \Delta REER_t + \beta_3\, \Delta X_{t-1} + \beta_4\, \Delta DD_t + u_t \qquad (2)$$

---

[11] Although some authors (viz. Murata, 2000) constraint the elasticity with respect to the external demand to unity and add a deterministic linear trend to accommodate increasing or decreasing market shares, we have followed, among others, Krugman (1989) and, more recently, Ca'Zorzi (2007) and estimated an unrestricted cointegration equation.

This model postulates that the short-run dynamics of real exports, represented by the annual growth rates (first differences of the logarithm of the series in levels), is determined by the lagged deviation from the long-run equilibrium (ECM), estimated by the olsq residual of the long-run equation, depicted in table 2, as well as by changes in the external demand and price-competitiveness, the lagged export growth rate, and the change in the domestic demand. As usual, u is the error term, which is assumed i.i.d. The lagged export growth rate captures the inertia of the series, which, in turn, is pointing to the existence of lags in adjusting production to export orders, as well as to some degree of market power of the Spanish exporters in foreign markets. This market power is usually reflecting product differentiation and other market imperfections, which allow exporters to adjust mark-ups in order to preserve market shares in the short run. The short-run specification also includes the contemporaneous domestic demand growth (ΔDD) to account for its counter-cyclical effect on exports, according to which sluggish domestic demand growth will create incentives to domestic exporters to look for new foreign markets, while a strong domestic demand would reduce the incentives to export.

As shown in table 3, no particularly worrying specification errors are apparent. The explicative power of the model is relatively good and comparable with other results shown in the literature. The coefficient of the ECM has the right, expected, negative sign, with and absolute value lower than unit (-0.23). The short run elasticities of the external demand and competitiveness are lower in absolute value than their long-run counterparts, while the short-run dynamics of the Spanish real exports carry significant inertia. Finally, domestic demand seems to have a non-negligible counter-cyclical effect on export performance[12].

Table 3. The short-run dynamics

	Estimate	t-statistic
Intercept	0.04	3.97
ECM_{t-1}	-0.23	-3.39
External demand	0.57	4.03
REER	-0.29	-3.07
Inertia	0.26	2.49
Domestic demand	-0.91	-4.37
Statistics		
Adjusted R²	0.67	
DW	2.17	

---

[12] It is worth noting that the statistically significant and negative short-run relationship between export growth and domestic demand might be sample-dependent. Specifically, while this relationship seems strong in the first part of the sample, the link becomes weaker in models based on more recent time samples (Buisan and Caballero (2003)).

Graph 6. SPAIN. EXPORTS VOLUME AND CONTRIBUTIONS
(annual growth)
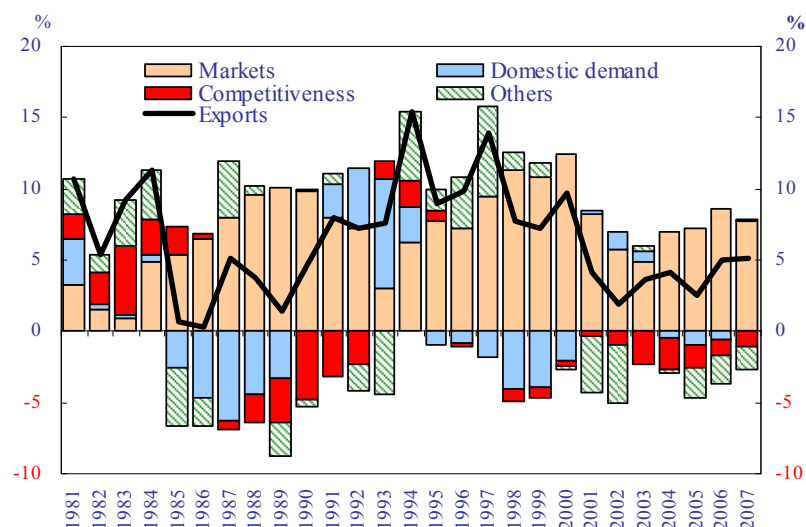
Source: Own calculations.

These estimates can be used to assess the contribution of relevant determinants to export growth. Graph 6 shows the results of a growth-contribution analysis based on the model in table 3. According to (2), three are the factors governing the dynamics of export growth, the external demand, competitiveness and the domestic demand. Indeed, a residual captures the net effect on export-performance of determinants not included in (2). Overall, the external demand seems to be by far the factor contributing the most to export performance, while deteriorating competitiveness has imposed a persistent drag, especially during the last ten years and, to a lesser extent, in the second part of the eighties and the early nineties. However, competitiveness positively contributed during the slowdowns of the early eighties and nineties. Although the negative effect of domestic demand is smaller, it has been significant in many years. Specifically, it has been positive in downturns such as, for instance, 1992-1994 or 2002-2003. Finally, the effect of other factors, not included in the regression, was also positive in the downturns of the eighties and nineties. Overall, in the recessions of the early eighties and early nineties, Spanish exports soared on the back of a recovery in competitiveness, contracting domestic demand and a series of additional factors, also reflecting the reduction of margins by domestic producers and its pass-through to export prices. As discussed in section 4 below, the boost recorded by exports in downturns seems to be closely lined to exchange-rate management policies.

3.1.2. The determinants of export performance in other euro area countries

Models (1) and (2) have been estimated for the rest of the Member States that joined the euro area in 1999 (Belgium, Germany, France, Ireland, Italy, the Netherlands, Austria, Portugal and Finland). Luxembourg is not included in the sample because its trade flows are aggregated to those of Belgium. The modelling approach followed for Spain (testing for integration orders, cointegration and estimation of the corresponding ECM) has been replicated for each one of the nine euro area members here considered. These export performance ECMs are estimated to identify broad patterns in export elasticities across the euro area, rather than to carry out detailed, country-level analyses of trade. The identification of such trade-performance patterns will allow assessing whether there are broad categories of

countries in which Spain can be included. Therefore, the estimates obtained for the various countries should be interpreted as a first approximation to a rigorous export performance analysis for euro area countries, which is out of the scope of this paper.

The baseline model estimated for each country is (2), which is re-specified by dropping statistically insignificant variables in subsequent steps. Therefore, it is assumed that annual export growth in real terms is a function of the lagged deviation from the long-run equilibrium, specified in (1), the changes in the external demand and price-competitiveness, an inertia term and the cyclical effect of domestic demand[13].

Main results are displayed in table 4, which also includes the estimates displayed in table 3 to facilitate direct comparison with Spain. Estimates in the upper panel of table 4 for price elasticities are compared with those available in ECB (2005), which are displayed at the bottom of the table[14]. It is worth noting that long-run price elasticities for Germany, France Spain and, to a lesser extent, Italy and the Netherlands are comparable to those obtained here.

Although the identification of the main factors determining the short and long run elasticities is not straightforward, based on the estimated external-demand elasticities, it would be possible to split the country sample in three categories. First, countries that, everything else constant, would have seen the volume of their exports to grow above the external demand in real terms (elasticity higher than 1), including Germany, Spain, Ireland Portugal and Finland. The second group would include countries that have kept their market shares roughly unchanged, namely Austria and Netherlands. Finally, the third group would encompass countries with an elasticity of exports with respect to the external demand below unit. This latter group would include Belgium, France, and Italy. Indeed, the underlying determinants of demand elasticities may vary from one country to another. Where the first group is concerned, Spain and, to a lesser extent, Portugal have experienced a steady process of international integration and openness, which in the case of Ireland seems to be linked to FDI inflows. As discussed in section 2.2, the high income elasticity of Germany might be reflecting a relatively high specialisation in strong-demand products. The reasons would also vary across countries in the group with an estimated elasticity below one. For instance, declining market shares in Italy might be partially linked to a relatively high sectoral specialisation of trade in low-productivity products.

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[13] The model for Ireland includes a linear trend. Also note that the long-run demand elasticity for the Netherlands has been restricted to unit

[14] Buisan and Caballero (2003) have also analysed export performance in euro area countries. However, their results are not comparable with those in table 4 because the frequency (quarterly) of the series and the sample period are different from those considered in this paper.

Table 4. Export performance in the euro area

	BE	DE	FR	ES	IRL	IT	AUS	NL	PT	FIN
Long-run relationship (log real exports)										
External demand	0.82 (60.71)	1.14 (58.32)	0.84 (19.33)	1.48 (32.66)	1.15 (13.34)	0.80 (33.06)	0.95 (33.77)	1*	1.11 (34.22)	1.11 (23.32)
Price-competitiveness	**-0.17 (-2.93)**	**-0.43 (-3.70)**	**-0.53 (-2.37)**	**-0.55 (-3.36)**	**-0.40 (-8.07)**	**-0.65 (-5.53)**	**-0.17 (-1.00)**	**-0.28 (-3.63)**	**-0.65 (-4.07)**	**-0.18 (-1.48)**
Trend	-	-	-	-	Yes	-	-	-	-	-
Short-run relationship (Δ log real exports)										
Intercept	0.00 (-0.23)	0.03 (4.30)	-	0.04 (3.97)	-	0.03 (3.29)	0.01 (2.05)	0.02 (4.26)	-0.02 (-1.50)	0.05 (1.73)
ECM	-0.22 (-2.27)	-0.38 (-3.85)	-0.25 (-2.57)	-0.23 (-3.39)	-0.16 (-3.30)	-0.18 (-2.26)	-0.28 (-3.09)	-0.24 (-3.44)	-0.19 (2.26)	-0.15 (-2.17)
Δ External demand	0.83 (8.17)	0.67 (6.14)	0.65 (8.69)	0.57 (4.03)	0.63 (4.03)	0.37 (2.56)	0.74 (7.05)	0.85 (12.09)	1.13 (5.02)	1.08 (5.44)
Δ Price-competitiveness	-0.05 (-0.69)	-0.38 (-4.07)	-0.43 (-3.79)	-0.29 (-3.07)	-0.40 (-3.03)	-0.42 (-5.26)	-0.31 (-2.10)	-0.25 (-4.11)	-0.35 (-2.70)	-0.34 (-3.74)
Inertia	-	-	0.30 (4.25)	0.26 (2.49)	0.26 (2.15)	-	-	-	0.27 (2.68)	0.23 (2.01)
Δ Domestic demand	-	-	-	-0.91 (-4.37)	-	-	-	-	-	-
Sample	1970-2007	1970-2007	1970-2007	1970-2007	1970-2007	1975-2007	1975-2007	1970-2007	1970-2007	1970-2007
Dummies						Dum80 Dum99		Dum70-90	Dum04-05	
Statistics:										
R²	0.71	0.70	0.78	0.67	0.52	0.70	0.69	0.86	0.71	0.59
DW	1.61	1.65	2.23	2.17	1.85	1.88	2.00	1.96	1.60	1.63
Memorandum item: Long-run parameters for the Multi-Country Model of ECB:										
Elasticity of price competitiveness	*N.A.*	**-0.42**	**-0.54**	**-0.58**	*N.A.*	**-0.42**	*N.A.*	**-0.35**	*N.A.*	*N.A.*

Turning to the long-run elasticity with respect to price-competitiveness, which exhibits a relatively lower degree of dispersion than income elasticities[15], the reaction of real exports to prices is the lowest in Belgium, Austria, the Netherlands, and Finland, between 15% and 30%. At the opposite end, in Portugal, Italy, Spain and France the price elasticity is higher than 50%. In the middle, the elasticity of exports with respect to the REER is about 40% in Germany and Ireland. There seems to be an overall negative correlation between the long run elasticity of exports with respect to price competitiveness and the weight of low-technology goods (see box 1) on total manufacturing exports (Graph 7). Low-tech products tend to be less differentiated and, therefore, prices and costs are important determinants of trade performance. Consequently, countries relatively specialised in low-tech exports would tend to show a higher absolute value of price elasticity.

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[15] Since the results do not widely differ across countries, a panel regression might be in order. However, this approach has not been followed here, because the goal of this section is to provide some elements of comparison for the estimates obtained for Spain and those for other euro area members, as well as, in turn, with those obtained in ECB (2005).

Graph 7. PRICE ELASTICITY OF EXPORTS AND LOW-TECH INTENSITY
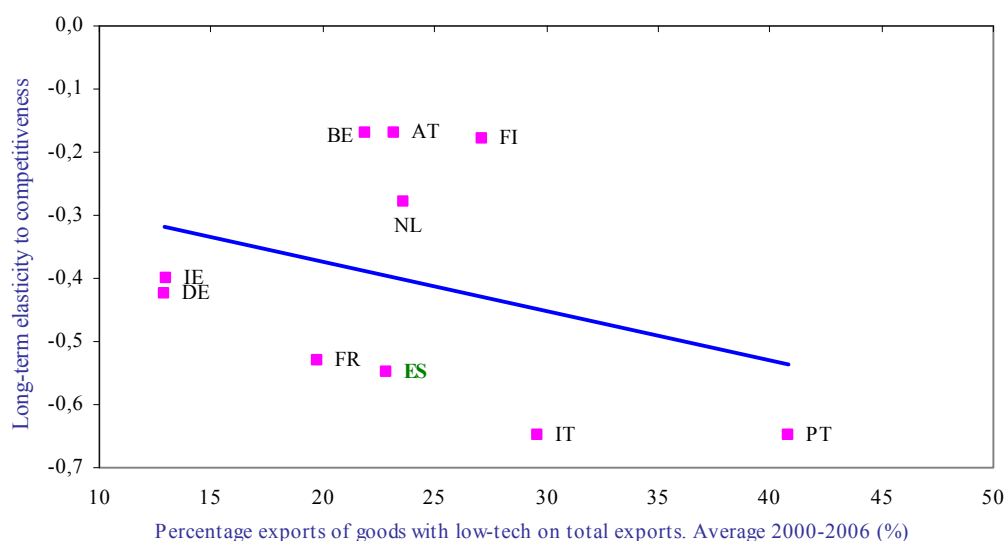
Sources: Own calculations.

The estimates of the error-correction models suggest that the determinants of export performance are more similar across countries in the short than in the long run. The ECM coefficient is always negative and close to -0.25, with the exceptions of Finland and Germany, which exhibit the highest (-0.15) and the lowest (-0.38) values, respectively. At -0.23, the coefficient estimated for Spain is close to the norm of -0.25. The reaction of real exports growth to a 1% increase in the external demand in the short run is the highest in Portugal and Finland, as well as, to a lesser extent, Belgium and the Netherlands. The estimate for Italy is the lowest, while in the majority of countries, including Spain, the short-run export elasticity with respect to the external demand is around 0.65. Short-run price elasticities seem to be overall lower than their long-run counterparts are. Export performance in the short run does not seem to react to price-competitiveness in Belgium. In a majority of euro area countries the response ranges between -0.3 and -0.4. Finally, inertia appears to be significant in France, Spain, Ireland, Portugal and Finland.

3.2. An import function for the Spanish economy

According to standard models of trade, real imports are mainly determined in the long run by the income of the importing country and by the relationship between foreign and domestic prices. This can be represented by the following long-run relationship

$$M = \eta + \lambda\, GDP + \mu\, (MP/GDPD) \qquad\qquad (3)$$

Where M represents real imports, GDP is, as usual, real gross domestic product, which is our proxy representing developments in the Spanish total income, MP is import prices and GDPD, the GDP deflator, is a proxy for domestic prices. The series are expressed in logarithms of the levels. As shown in the table A of the annex, it can be accepted that the series are I(1), while it can be rejected that they are I(2). Table B shows that (3) can be a cointegration equation in the Spanish case. Graph A2 in the annex includes the plots of the three series and their first differences in the logarithmic scale. The upper panel of table 5 shows the estimates of the long-run equation.

Overall, the estimates of the coefficients have the expected signs. The elasticity with respect to GDP is positive. It is also much higher than 1, as discussed in section 2.4, thus reflecting the steady opening of the Spanish economy to international competition over the last four decades. The elasticity of real imports with respect to import prices has also the expected negative sign. Imports fall when import prices grow above domestic prices. Consistent with the empirical literature of the impact of the Spanish EU membership on imports (see, for instance, de Boer, Martinez-Mongay and Harkema, 2000), there is a structural break in the imports function after the Spanish accession to the EU, which reflects the phasing out of tariffs vis-à-vis EU members, the adoption of the common EU external tariff and the dismantling of non-tariff barriers within the EU. According to table 5, this led to an increase (in absolute terms) of the price elasticity, as well as a permanent increase in the (log) level of imports. Another dummy reflects the negative effects of the political transition in the late seventies and early eighties.

Table 5. Import performance in Spain

Long-run relationship (log real imports)	
Gross domestic product	2.15
	(26.6)
Price-competitiveness	**-0.39**
	(-3.15)
Price-competitiveness since 1986	**-0.02**
	(-2.33)
Intercept	-7.18
	(-8.35)
Dummy86	0.03
	(3.05)
Dummy7881	-0.09
	(-2.31)
Short-run relationship (Δ log real imports)	
ECM	-0.21
	(-2.50)
Δ Gross domestic product	1.97
	(7.23)
ΔΔ Gross domestic product	1.31
	(3.58)
Δ Price-competitiveness	**-0.24**
	(-4.60)
Inertia	0.21
	(2.30)
Statistics:	
R²	*0.89*
DW	*1.95*

The existence of a long-run relationship for real imports (3) allows for specifying an error-correction model in which import growth is a function of domestic demand growth, the changes in the relative import prices and the error correction, as well as other variables such as, for instance, inertia. A specification of this sort can be found, among others, in Barrell and Dées (2005). Our selected error correction model is displayed in the lower panel of table 5.[16] Although the income elasticity is lower in the short run than in the longer term, our results suggest that the cyclical position also matters. Given the same growth rate, imports grow faster in upswings than when the economy is slowing down. As with exports, the price elasticity is lower in the short run (in absolute terms). However, there is a significant inertia component, possibly reflecting the market power of importers, as well as rigidities in

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[16] Somme dummies have been introduced to improve the adjustment during the late seventies to and early eighties, which are not shown in the table.

consumption habits. Finally, the correction component has the right, expected sign. Graph 8 shows that the model fits quite well with the data. In addition, results in table 5 are comparable with alternative empirical evidence for Spain, such as Barrell and Dées (2005).

Graph 8. Spanish imports of goods and services
(Results of the specification)

Source: Own calculations.
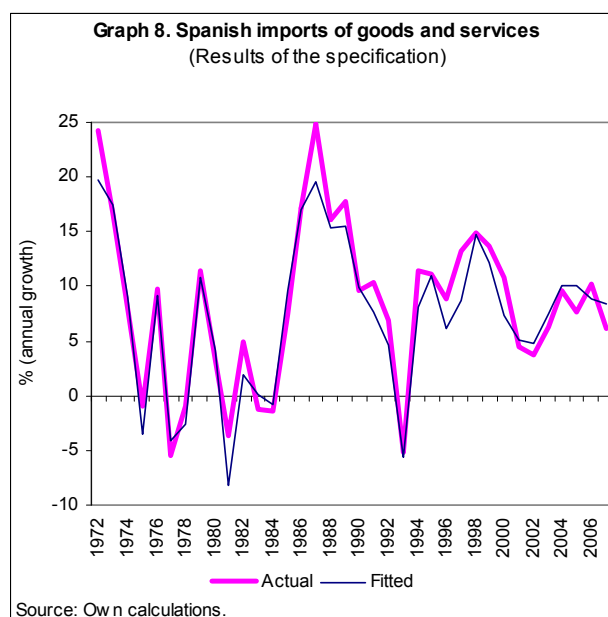
4. Is there a need to recover competitiveness in Spain?

Looking at the econometric results in tables 3 and 5, as well as graph 6, it would seem that competitiveness is important but that what counts is the external demand in the case of exports, and domestic growth and the cyclical position in the case of imports. Therefore, the current slowdown itself would have an automatic positive effect on net exports on the back of low GDP and domestic demand growth. As a result, imports should sharply decelerate or even contract, while exports growth should be higher than in the recent past. Moreover, exports should further accelerate once the external demand recovers. This answer to the question in the heading of the section would be consistent with a V-shaped adjustment. In other words, once the effects of the financial turmoil and the shocks in commodity markets fade out, the Spanish economy could regain a high potential-growth path in the near future boosted by the external sector.

While acknowledging that price-competitiveness may be a less important determinant of export (and import) performance than the external demand (and GDP), the alternative, L-like, view of the adjustment, would emphasise that the relative importance of competitiveness is higher in the short run than in the longer term, especially in the case of exports. The long-run elasticity of exports with respect to competitiveness (-0.5) is in absolute terms 1/3 of the elasticity with respect to the external demand (1.5), whereas the relationship is about ½ (-0.3 against 0.6) in the short run. Furthermore, it seems that in the Spanish history competitiveness has played a key role in recoveries. This is what would come up from graph 6. Although competitiveness has been dragging exports most of the time, its contribution to export growth turned out positive in the recoveries of the first halves of the eighties and the nineties.

In this line, graph 9 compares GDP growth with export growth, showing that recoveries have come hand in hand with rising exports. This particularly applies to the early eighties and nineties. The graph also includes the changes in the nominal effective exchange rate (NEER) with respect to 24 main industrialised countries, so that depreciations are translated into a fall of the index. Graph 9 suggests that export growth would be associated to developments in the nominal effective exchange rate. The peaks in export growth tend to coincide with periods of depreciation/devaluation, while the valleys are in general coincidental with periods of effective appreciation in nominal terms.

No doubt, high volatility in currency markets in some years, as well as more steady changes in the exchange rate of the peseta until 1999, and of the euro afterwards, are behind these developments of the NEER. Yes, true, but not only. Some of the most significant depreciation peaks of the NEER were actually policy-driven. Until the adoption of the euro, the exchange-rate instrument was extensively used in Spain as a means to correct external imbalances. High export growth in the second half of the seventies was supported by two consecutive devaluations of the Spanish peseta with respect to the dollar, amounting to more than 30% between 1976 and 1977. This devaluation had been triggered by a current account deficit close to 4% of GDP in 1976. Higher net exports quickly improved the current account, which attained a surplus of 1% in two years. However, the beneficial effects of those devaluations were short lived, the NEER appreciated and the current account worsened attaining a deficit close to 3% by 1981, which triggered another devaluation of the peseta with respect to the dollar. It was close to 8% this time. The current account improved again and abandoned red numbers in 1984. Since then, price competitiveness steadily deteriorated, and the current account worsened to attain a deficit close to 4% of GDP by 1992. These imbalances were corrected again by using the exchange rate instrument. The central parity of the peseta in the ERM was devaluated in September (5% against the DM) and November (6%) of 1992. Two additional devaluations were decided in 1993 (8%) and 1995 (7%). All in all, the peseta had been devaluated by around 30% against the strongest EU currencies. As in precedent devaluations, exports accelerated and the external deficit had turned into surplus already by 1996. The continuation of the story has been spelled out in section 2. During the first decade of Spain in the euro area, the current account has deteriorated to reach an unprecedented deficit of 10% of GDP, while competitiveness losses steadily accumulated.
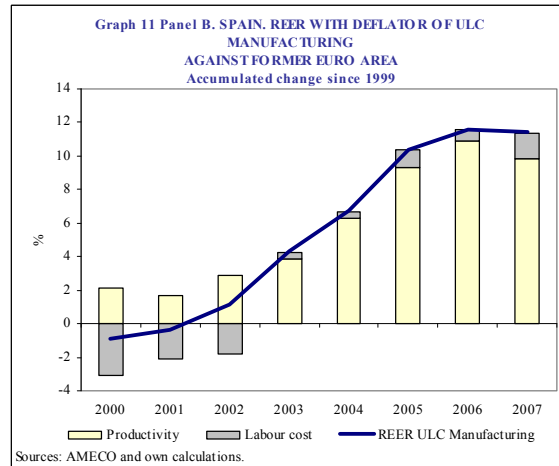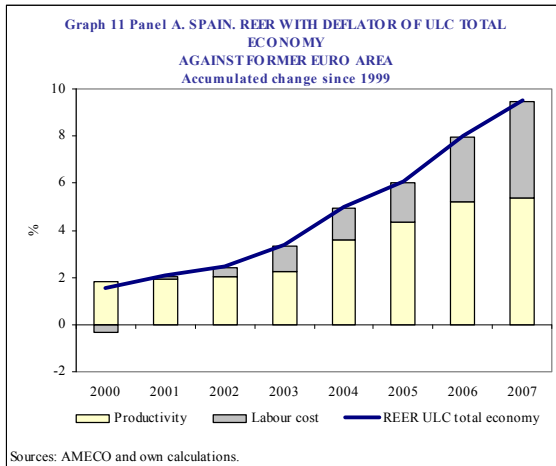
Graph 9. SPAIN. GDP AND EXPORTS
(annual growth rates)

Source: AMECO.

- Strong recoveries of Spanish economy
- Exports
- Nominal effective exchange rates vs rest of IC24
- GDP (rhs)
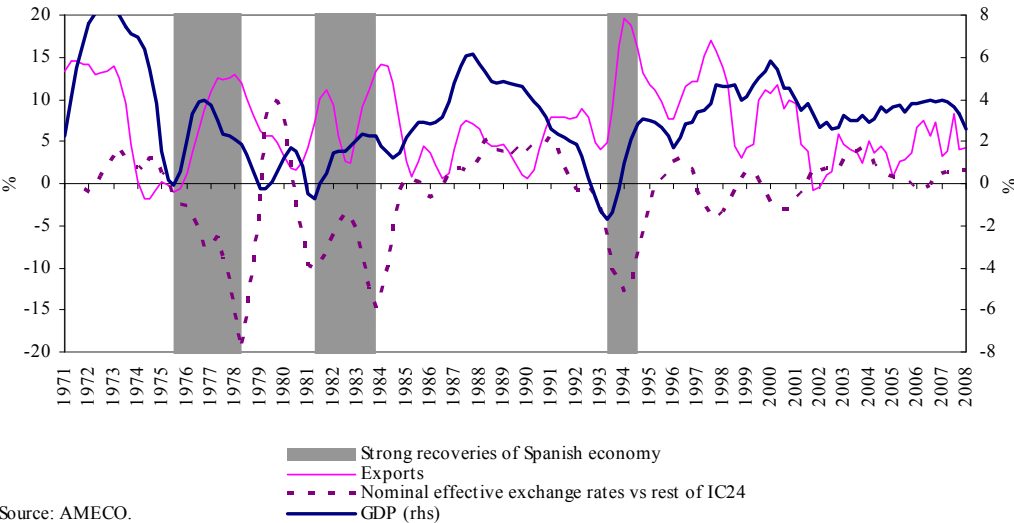
Therefore, the issue would be how to improve competitiveness, thus boosting exports and activity at the current juncture, when the external demand may not be as buoyant as in the recent past, while the exchange rate instrument is not available anymore to the Spanish authorities. To answer this question we first find out the factors behind the deterioration of competitiveness. Since the ULC-based REER reflects the developments in relative wages and productivity, as well as exchange rate fluctuations, graph 10 decomposes the accumulated changes in the REER vis-à-vis the industrialised countries in its three components. Overall, competitiveness losses have been mainly driven by higher nominal wage growth in Spain than in its main trade partners. This was particularly the case until the early nineties. Since then, and especially during the EMU decade, wages in Spain have increased at comparable rates as those of its competitors. The profile of productivity looks like the mirror image of wage developments. While productivity had been growing in Spain by more than in the rest of the industrialised countries until the late nineties, which marginally offset the detrimental effect of wages on competitiveness, the trend has reversed in the 2000s, reflecting the above-mentioned negative productivity shock. Finally, consistent with the messages in graph 9, graph 10 shows that exchange rate policies have been the main factor periodically offsetting the impact of wage growth on competitiveness.

Graph 10. SPAIN. REER AGAINST 24 IND. COUNTRIES
Accumulated change in each period.

Legend: NEER ▪ Productivity □ Labour cost ▪ REER ULC total economy
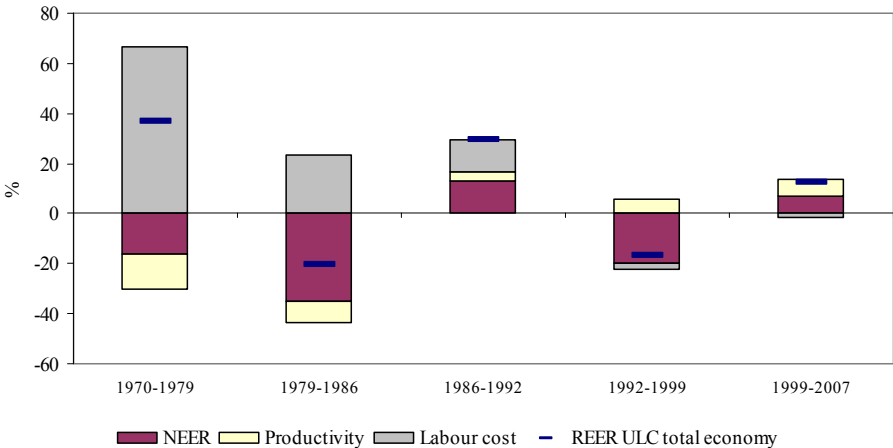
Focusing on the euro area, graph 11 shows that the competitiveness of the Spanish economy vis-à-vis the euro area has been steadily deteriorating since 1999. This represents a break with respect to the trends recorded during the nineties, when, as discussed above, the devaluation of the peseta with respect to the strongest EU currencies led to significant competitiveness gains. In EMU, Spain has been losing competitiveness due to relatively sluggish productivity growth, which accounts for the bulk of the REER appreciation until the early 2000s. In contrast, in the most recent past, the persistent inflation differential vis-à-vis the euro area is being passed through nominal wages, while the productivity differential between the euro area and Spain seems to be partially closing. As a result, the nominal wage differential between Spain and the euro area now accounts for around 40% of the total REER appreciation, and seems to be on a rising path. In the case of the manufacturing sector, in which the bulk of competitiveness losses also reflect the negative productivity gap, only very recently the wage differential has been marginally adding to the REER appreciation, thus reflecting the discipline imposed by strong international competition in the sector.

Graph 11 Panel A. SPAIN. REER WITH DEFLATOR OF ULC TOTAL ECONOMY AGAINST FORMER EURO AREA
Accumulated change since 1999

Sources: AMECO and own calculations.

Graph 11 Panel B. SPAIN. REER WITH DEFLATOR OF ULC MANUFACTURING AGAINST FORMER EURO AREA
Accumulated change since 1999

Sources: AMECO and own calculations.

5. Some policy options

In the economic policy framework of EMU, in which neither monetary policy nor exchange rate instruments are available, national authorities have to rely on structural policies and, within the remit of the Stability and Growth Pact, on fiscal policies. Structural policies encompass labour and product market reforms and other policies aimed at raising the capital stock of the economy, be it physical, human or knowledge.

In the V-shaped view of the current economic crisis, according to which the slowdown would mainly be of a cyclical nature, there could be some room for fiscal policy to play a role to help prop up demand. In the alternative, L-shaped view, which emphasises the structural nature of the downturn, the room for manoeuvre for fiscal stabilisation is limited.

Should the slowdown be of a cyclical nature, on top of letting automatic stabilisers to operate fully, possible discretionary fiscal policy measures should aim at enhancing domestic demand. This could be done through lowering taxes, increasing public consumption and/or raising public investment. Overall, countercyclical discretionary budgetary measures should be timely, targeted, temporary, and be framed within comprehensive structural reform packages that strengthen economic resilience and preserve fiscal sustainability. Although countercyclical fiscal policy will worsen the budgetary position, once the effects of the shocks would have faded out, with GDP growth returning to potential, the improvement in the cyclical position and, the discontinuation of the discretionary measures would restore the balance and reduce debt ratios back to the initial levels.

Back to 2007, there seemed to be ample room for manoeuvre to implement countercyclical fiscal measures in Spain, since the budget balance had attained a surplus of 2¼% of GDP and the public debt was about 36% of GDP. However, most of this room quickly disappeared in 2008. The headline balance went down by about 5 percentage points of GDP between 2007 and 2008, while the debt ratio rose by more than 3 percentage points of GDP. This deterioration was partially due to the implementation of discretionary, deficit-financed revenue measures, most of them of a permanent nature. Specifically, the personal income tax was cut across taxpayers by 400€ per person, which represents about half a point of GDP. The impact of the corporate tax reform of 2007-2008 amounted to another half a point of GDP. An additional ¼ of a percentage is the residual impact of the personal income tax cut of 2007. Finally, new birth-support lump sums will amount to 0.1% of GDP. The total impact of these permanent revenue-reducing measures amounted to 1.3% of GDP (about €13 billion). In

addition, the changes in the consolidation regime of the VAT and in the instalments of corporate taxes represented a temporary reduction of revenues of about 0.6% of GDP.

Where the 2009 budget is concerned, and taking into account the stimulus package approved by the Spanish government on 29 November 2008, with effect on 2009, the additional discretionary deterioration of the budget balance might amount to more than 2% of GDP. This, together with the impact of other non-discretionary factors, such as the impact of the cycle[17], might bring the deficit to around 6% of GDP by the end of 2009. Discretionary measures for 2009 include the phasing out of the tax on wealth with an effect of 0.2% of GDP, as well as the 2009 impact of the 2007-2008 corporate tax cut amounting to 0.3% of GDP. An additional half point of GDP is accounted for the generalisation of VAT settlements. On the expenditure side, the investment fund for municipalities amounts to 0.8% of GDP, while an additional 0.3% of GDP will be devoted to sectoral-support measures, including, among others, environment, housing rehabilitation, and R&D.

Is there much more room for manoeuvre for fiscal policy in the near future? The answer seems to be that the remaining room for manoeuvre appears very limited, not to say nonexistent. Countercyclical fiscal policy should also take account of the economic and financial conditions prevailing in Spain, especially the large and persistent current account deficit. Reductions in public savings might come at the expenses of higher private savings (crowding out), thus sterilising the expansionary effects of fiscal policy. In addition, even if the current downturn would be fully cyclical, there are doubts that budget and debt would return to the initial levels, even after reversing the discretionary measures adopted or planned. Interestingly, only less than half of the projected deterioration in the public accounts between 2007 and 2009 seems of a discretionary nature. *Does this mean that the rest (about 4% of GDP) is purely cyclical and, therefore it would come back once the crisis has gone by?* Most probably not, since the current crisis will likely entail a permanent change in the composition of growth, with much less buoyant asset markets, including a diminished housing sector. As predicted by Martinez-Mongay, Maza and Yaniz (2007), and confirmed by current developments in government receipts, a significant part of the increase in tax revenues recorded in the last ten years was linked to growth-composition effects, in particular those associated to the asset boom. Therefore, such extra revenues, especially those from housing transactions (VAT and other indirect taxes) and part of the profits from financial operations (corporate taxes), may not come back after the recovery. The total impact of composition effects was estimated at about 3% of GDP. Therefore, the cyclical and temporary parts of the deterioration in the public deficit are dwarfed by composition and permanent effects, which entail a deterioration of the budget in structural terms. In this context, countercyclical, short-term considerations should not conceal more long-term, sustainability concerns. In this vein, Spain has been invited by the Council (see European Council, 2008), to further improve the long-term sustainability of public finances with additional measures to contain the future impact of ageing on spending programmes.[18]

In the structural-adjustment view of the downturn, fiscal policy has a limited role to play in stabilising output. In the case of a permanent reduction of potential growth, automatic

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[17] For instance, unemployment benefit expenditure could jump above 2½% of GDP in 2009, from 1% in 2007.
[18] The already high deficit levels anticipated for 2009 might eventually trigger the excessive deficit procedure. In such a case, the Commission should start the procedure by preparing the report foreseen in Art. 104 paragraph 3 of the Treaty. Whether the procedure will lead to Council recommendations will depend on considerations about the concurrence of exceptional conditions. In addition, the deadlines for the correction of the deficit will depend on the assessment on the existence of special circumstances as foreseen by the Stability and Growth Pact.

stabilisers would increase headline output only at the cost of higher inflation. Moreover, under lower potential growth conditions the external constraint would be more severe and the risks of crowding out more apparent. Overall, deficit-financed fiscal measures should be kept to the minimum. At the current juncture, the public promotion of housing supply, or a push to housing demand, might prevent the adjustment the sector needs to undergo. *Is there any room for manoeuvre for fiscal policy in the near future?* In line with the recommendations of the European Council addressed to the Member States forming part of the euro area, budgetary policy should aim at improving the quality of public finances by reviewing public expenditures and taxation, in order to enhance productivity and innovation (see European Commission, 2008c).

Fiscal-policy measures can tackle structural problems mainly through changes in the composition of revenues and spending, without resulting in a worsening of the fiscal position. This would include making the expenditure mix more productive by, for instance, raising the share of public investment in R&D, education and/or infrastructures in total expenditures. According to the available empirical evidence, the impact on potential growth of such additional investments will depend on the way they are financed. The growth impact will be higher if the increase of productive spending is financed by a reduction of non-productive spending or by an increase of non-distortionary taxes (Kneller, Bleaney and Gemmell, 1999, European Commission, 2008a). Additional productive public spending might have no, or even negative, effects on growth if it is financed through the deficit, by means of increasing distortionary taxes or by reducing other productive expenditures. Similar arguments apply to tax reforms. Consumption taxes are considered to be less distortionary than social contributions, income taxes or corporate and property taxes. Lowering distortionary taxes on labour and/or capital will have a higher impact on potential growth if it is financed through a concomitant reduction of non-productive spending or through an increase in non-distortionary taxes.

According to Martinez-Mongay, Maza and Yaniz (2007) the Spanish authorities have taken some steps in this direction since the mid-1990s, when the reduction of distortionary taxation was partially financed through increasing less distortionary taxes. Where direct taxes are concerned, two major reforms of the personal income were implemented in 1999 and 2003, aiming to lower tax rates and reduce the number of tax brackets. Much more recently, a new reform was implemented in 2007, in which (i) the marginal top rate was lowered by 2 points, from 45% to 43%; (ii) the number of tax brackets was reduced from 5 to 4; and (iii) the tax savings was set up at a flat rate of 18%. Corporate taxes were also reformed in 2007. The general corporate tax rate will be gradually lowered from the current 35% to 30% by 2011. In the case of small and medium enterprises, the rate will go down from 30% to 25%. Two relevant reforms of social security contributions, which are taxes on labour, were implemented in 1995 and 2006, consisting of increasing contribution rates and broadening the tax base. In parallel, indirect tax reforms, mainly consisting of rising excise duties and other indirect tax rates on alcohol, tobacco, hydrocarbons and cars were implemented. Consequently, discretionary direct tax cuts were financed by both social contributions and indirect taxes. The tax burden of the more distortionary taxes was overall reduced and partially shifted to indirect taxes.

Is there any additional room to shift the tax burden away from distortionary taxes to indirect taxes, and, if so, which taxes should be the target of future tax reforms? Since at 16% normal VAT rates in Spain are among the lowest in the EU, there might be some room to raise VAT (or other indirect taxes) and lower labour taxes. Additional revenues could be used to finance

a reduction of social contributions, which are part of labour costs and, thus, affect competitiveness. If fully passed through gross wages, a reduction of social contributions would ceteris paribus lower the unit labour costs of the country vis-à-vis the rest of world. This possibility is referred to as a fiscal devaluation. Back-to-the-envelop calculations suggest that recovering the 10% competitiveness loses recorded by the Spanish economy between 1999 and 2007 would require a reduction of 4% of GDP in employers´ social security contributions, which might be financed by increasing the VAT receipts by an equivalent amount, from the current 6% to 10% of GDP. Ceteris paribus, this could be achieved by raising VAT rates from the current 16% (normal), 7% (reduced) and 4% (super-reduced) to 28%, 12% and 7%, respectively.[19]

The effects of a shift from labour taxation to consumption taxation can be evaluated quantitatively using of state-of-the-art micro-founded dynamic stochastic general equilibrium (DSGE) models, such as the QUEST III of the European Commission DG ECFIN   (Ratto, Roeger and in't Veld, 2008). According to European Commission (2008b), a tax shift away from labour taxes can have positive impacts on growth and employment, albeit relatively limited. QUEST III simulations suggest that a shift of taxation from labour to VAT equivalent to 1% of GDP in one of the euro area members would increase growth by 0.1% after one year and by 0.2% in the medium term, compared with the baseline of no tax reforms. The impact on job creation would be 0.2% in the medium term. These effects would be magnified if the reform of social contributions were framed in a comprehensive reform of the tax and benefit system (European Economy, 2008b). The effects would also be larger the more elastic labour supply and international demand are, and if transfer payments would not be indexed. In addition, the economic impact of a tax shift can be larger if it is targeted to workers facing the strongest barriers to find a job, as it may be the case of the low skilled.

I should be borne in mind that a measure of this sort does not come without risks, especially if inflationary impacts and possible second round effects are not contained. For the fiscal devaluation to be effective, its implementation should be carried out within a broad social agreement in which social partners commit not to appropriate the reduction of social contributions, while bearing the burden of the possible inflationary effects of the increase in indirect taxes. Otherwise, the reduction of social contributions may not lead to an effective improvement of competitiveness with possibly a negative impact on the budget. More importantly, the effects of fiscal devaluations might be as short-lived as the effects of exchange-rate devaluations. Eventually, wages and margins will recover the wedge with respect to prices, inflation will go up and the competitiveness gains will fade out. Moreover, unlike exchange rate devaluations, the tax shift cannot be applied recurrently, since the room for increasing indirect taxes and/or reducing social contributions will eventually disappear.

Also important to bear in mind, like currency devaluations, fiscal devaluations are inadequate substitutes for structural reform. In other words, a fiscal devaluation in Spain would not tackle the problems underlying weak potential growth and competitiveness losses, which are associated to the functioning of product and factor markets, as well as to the innovative capacity, the speed of technological absorption, and the adaptability of workers and firms to a rapidly changing situation. To effectively address the competitiveness problems of the Spanish economy, policy makers need to focus on the structural causes of the problem. In parallel, productivity growth and, in particular, total factor productivity growth needs to be enhanced. Although limited, fiscal policy can continue playing a role to enhance productivity

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[19] It should be noted that, at 28%, the implied normal VAT rate would be the highest in the EU (the 25% applied in some Nordic countries).

by further shifting public expenditures to increase the share of investment, especially in knowledge and human capital.[20]

The efforts to improve the quality and efficiency of public finances need to be framed within a structural reform programme agreed with the social partners. The time for structural reforms and social dialogue seems to have come in Spain. Priority should be given to actions that promote and steer social agreements to moderate unit labour costs, improve competitiveness and support employment. The role of the government seems decisive in the social dialogue, not only by accompanying the agreements with adequate public policies, but also, and perhaps more important, by playing a pro-active role. Reviewing the regulatory framework would help tackle the structural factors underlying inflation. In particular, increasing competition in services sectors, including the energy sector, retail and professional services, would also boost competitiveness and help correct external imbalances. Moreover, the regulation of the renting market should be improved in order to facilitate the adjustment of the housing sector. Labour market institutions, including segmentation, should be assessed and corrected. Encouraging mobility and providing vocational training would underpin a swift transition of the unemployed into employment. In addition, there is a need to avoid the possibility of price-wage spirals in a context of highly volatile commodity markets. General indexation clauses should therefore be applied consistently with productivity growth. Fostering productivity-enhancing expenditure items, such as R&D, infrastructure and education will be paramount to underpin a smooth adjustment of the economy. The effective implementation of education reforms would enhance the efficiency of public investment in human and knowledge capital, while reducing early school leaving and increasing the graduation rate in upper secondary education.

This policy strategy would be in line with the recommendations made by the Council within the frameworks of the preventive arm of the SGP (Stability Programme) and the revamped Lisbon Strategy. In the same line, the 2008 Economic Review of Spain, carried out by the Economic Development Review Committee of the OECD[21], highlights the importance of education reforms to boost productivity and job creation and puts the accent on the need to regain competitiveness by enhancing the role that product and service market competition can play in boosting productivity growth. Moreover, the reform of stringent employment protection for existing long-term contracts would lower the substantial barriers for young qualified workers to obtain jobs commensurate with their skills. The OECD report also considers that barriers to competition are still significant in Spain and recommends reforming market regulations in sectors such as electricity, transport, telecommunications, professional services and retail trade. Also consistently with the Council and the OECD, the IMF in its Staff report for the 2007 Article IV Consultation with Spain[22] stressed the importance of fostering competitiveness by significantly eliminating domestic market rigidities. In particular, the IMF Staff report considers that fostering competition in sheltered markets and increasing flexibility in labour markets should be in the high in the policy agenda.

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[20] During the first EMU decade, public R&D expenditures have been increasing by 8¾% per year in nominal terms in Spain, while education expenditure rose by 7½%. In parallel, infrastructure investment grows by about 8¾%.

[21] The full report can be downloaded at http://www.oecd.org/eco/surveys/spain

[22] The full report can be downloaded at http://www.imf.org/external/country/ESP/index.htm

6. Conclusion

The outstanding economic performance of Spain in EMU would be the result of a series of lucky shocks, including a large and persistent credit impulse and strong immigration, underpinned by some right policy choices. In the absence of new positive shocks, the resilience of the Spanish economy to the financial crisis might be weaker than that exhibited in the early 2000s. The credit impulse has ended, fiscal consolidation has stopped, and the competitiveness gains of the nineties have gone long ago. In fact, these three factors seem to be reversing nowadays. Monetary conditions have become much tighter, and the competitiveness of the Spanish economy has deteriorated in EMU. In addition, while women participation is closer to its ceiling than 10 years ago, immigration flows might be slowing down and might even reverse in the coming years, consistently with a context of low growth and less opportunities offered by the Spanish labour market. Finally, fiscal consolidation, which partially contained the worsening of the current account in the past, is now being reversed due to not only the working of automatic stabilisers and the turnaround of growth-composition effects on tax revenues, but also to discretionary measures.

Within this context, this paper has discussed the relevance of the competitiveness argument in the debate on the current situation of the Spanish economy. While acknowledging that external demand and domestic activity can be paramount in determining trade performance, this paper suggests that after major recessions/slowdowns, the recovery of the Spanish economy has systematically been led in the past by exports, which, in turn, have been associated with strong and rapid competitiveness gains, brought about by competitive devaluations. Now, when the exchange-rate instrument is not available anymore at national level, there is a case to assess the room for manoeuvre for economic policy to bring a fast, high-growth recovery in Spain.

The paper looks first at the role of fiscal policy and, in particular, at the effectiveness of an expansionary fiscal policy beyond automatic stabilisation. Given the structural and idiosyncratic nature of some of the shocks currently hitting the Spanish economy, and the pervasive effect of public borrowing on private investment and the external imbalance, the room of manoeuvre for fiscal policy might be limited. Fiscal authorities could in turn facilitate the adjustment by enhancing the quality and efficiency of public finances, through a less distortionary tax system, and more productivity-oriented expenditures. Specifically, the tax shifting away from low-skilled labour, which is highly exposed in the current slowdown, to indirect taxes could help the unemployed from the housing sector to find a job. However, although a general tax shift away from labour to less distortionary taxes could have a positive impact on competitiveness -the so-called fiscal devaluation-, there are risks of free riding, with pervasive effects on inflation and public finances, while the impact on activity might be limited. On the expenditure side, productivity spending should be given a priority. Nevertheless, additional expenditures on physical (infrastructures), human (education and vocational training) and knowledge (R&D and innovation) capital should be financed through cuts in less productive expenditures, which would maximise the efficiency effects of the restructuring of public expenditures.

The time of social partners and structural policies seems to have come in order to underpin the adjustment and enhance competitiveness. The role of the government seems decisive in the social dialogue, not only by accompanying the agreements with adequate public policies, but also, and perhaps more important, by playing a pro-active role. Reviewing the regulatory framework would help tackle the structural factors underlying inflation. In particular,

improving the regulation of the rental market would facilitate the adjustment of the housing sector. Labour market institutions, including segmentation, should be assessed and corrected. Encouraging mobility and providing vocational training would underpin a swift transition of the unemployed into employment. In addition, there is a need to avoid the possibility of price-wage spirals in a context of highly volatile commodity markets. General indexation clauses should therefore be applied consistently with productivity growth. Fostering productivity-enhancing expenditure items, such as R&D, infrastructure and education will be paramount to underpin a smooth adjustment of the economy. Finally, the effective implementation of education reforms would enhance the efficiency of public investment in human and knowledge capital.

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ANNEX
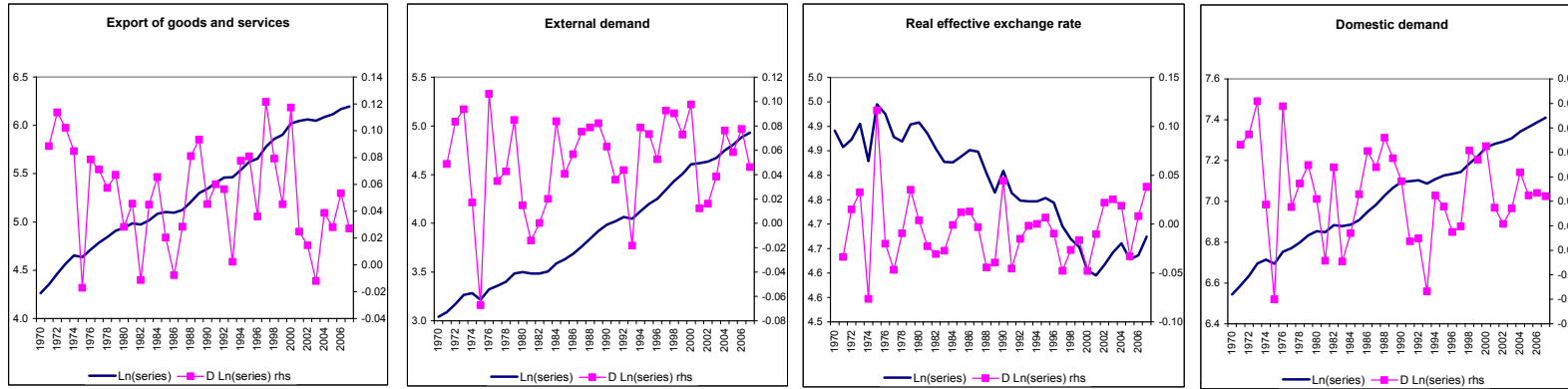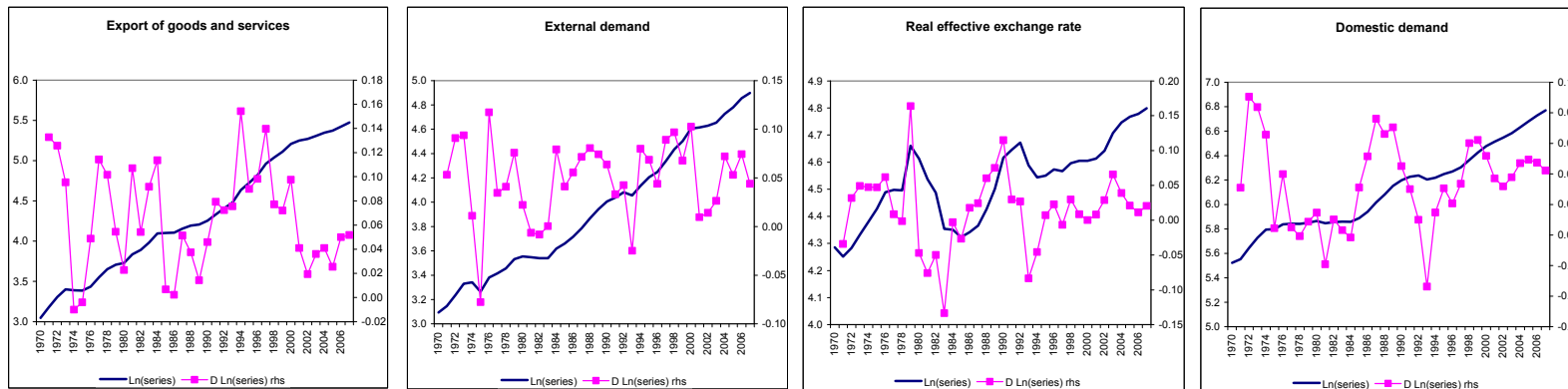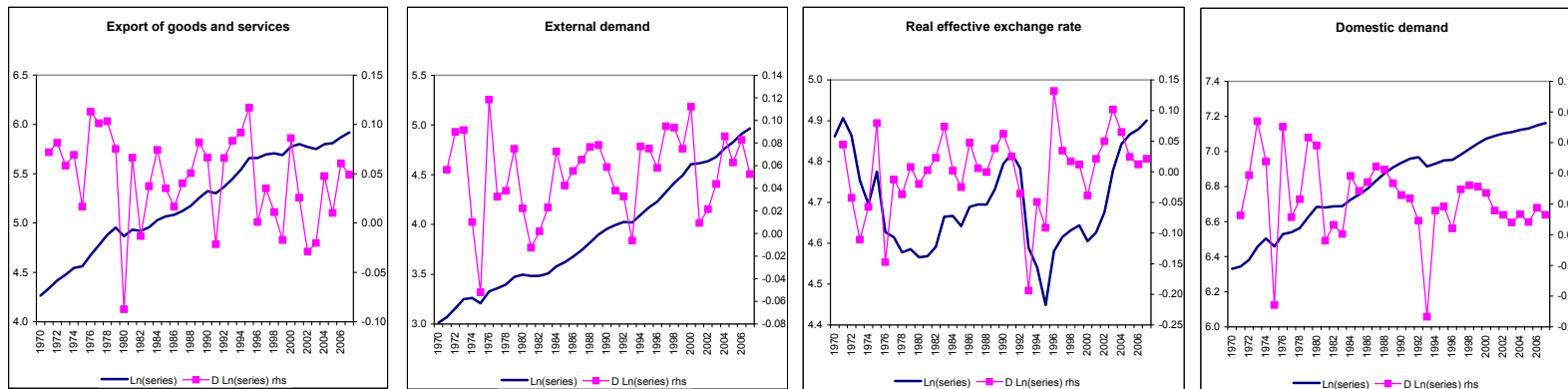Graph A1. Series of exports and determinants.

BELGIUM

GERMANY

IRELAND

FRANCE

Export of goods and services

External demand

Real effective exchange rate

Domestic demand

SPAIN

Export of goods and services

External demand

Real effective exchange rate

Domestic demand

ITALY

Export of goods and services

External demand

Real effective exchange rate

Domestic demand

39

AUSTRIA

Export of goods and services

External demand

Real effective exchange rate

Domestic demand

THE NETHERLANDS

Export of goods and services

External demand

Real effective exchange rate

Domestic demand

PORTUGAL

Export of goods and services

External demand

Real effective exchange rate

Domestic demand

40

FINLAND

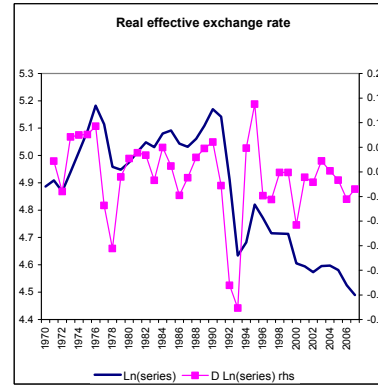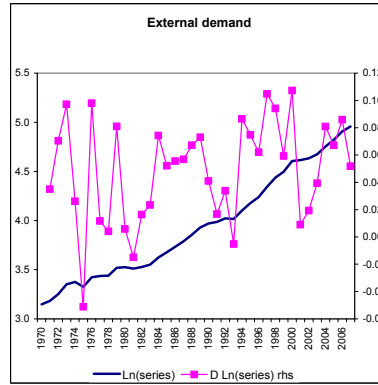| Export of goods and services | External demand | Real effective exchange rate | Domestic demand |

Ln(series) —■— D Ln(series) rhs

Graph A2. Series of imports and determinants in Spain.

SPAIN
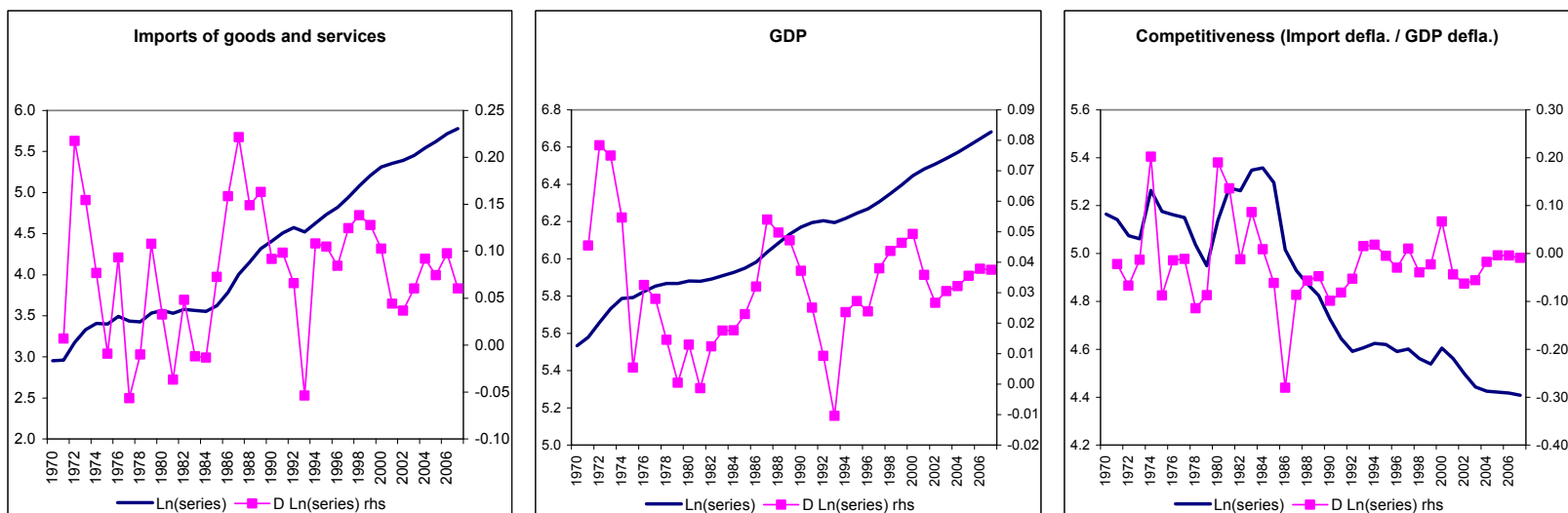
Table A. Spain. Integration orders (a)

	ADF for null **I(1)**	ADF for null **I(2)**
Real imports	-0.14	-4.08
GDP	-0.06	-2.65
Competitiveness (Import defla./ GDPdefla.)	-0.74	-4.67
(a) The critical value at 10% level is -2.60.		

Table B. Cointegration test. Integration order of residuals (a)

	ADF for null **I(1)**
Residuals of long-term relationship.	-3.04
(a) The critical value at 5% level is -2.95.	