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Opinion and Discussion Group on Political Economy

Economic growth with an external trade balance: A new scenario for the Spanish economy

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1. Introduction

By year-end 2017, the Spanish economy had posted three consecutive years of growth at a rate of more than 3% per annum while recording significant surpluses both in its current and capital account balances and in its balance of foreign trade in goods and services, the latter showing a tendency to increase in real terms. More significantly, the trade in goods deficit, a characteristic feature of Spain's foreign accounts, is currently the lowest it has been in fifty years, equivalent to 1.9% of GDP in terms of current values.

The situation is largely unprecedented given that not since the period 1970-1973 has the Spanish economy managed to string together three consecutive years of annual growth above 3% without incurring a sizeable external deficit, the rectification of which typically required a currency devaluation combined with measures to moderate aggregate spending.

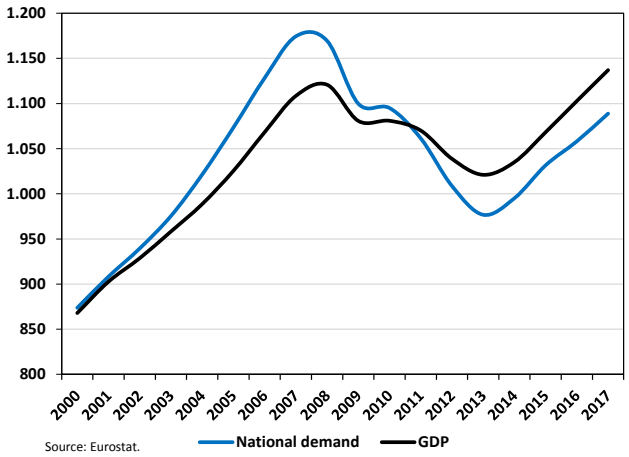
Precisely because this situation is so novel, it is particularly interesting to know if it can be prolonged any further and whether it will usher in a pattern of economic growth quite distinct from that which prevailed until only a few years ago. This is undoubtedly the greatest challenge facing the Spanish economy today. Indeed, for an economy characterised by such a high unemployment rate, sustaining GDP growth at or above 3% a year will be critical, because it should enable the job rate to increase appreciably without having to renounce a significant rise in productivity. But this new pattern of growth will have to rest on the balance of the country's external accounts if it is to be sustained over time, especially given the magnitude of the country's external debt.

Reflecting this concern, this brief evaluates the sustainability of Spain's external balance within the framework of an average GDP growth of 3% per year. In other words, it seeks to evaluate the capacity of the country's economy to face the not undaunting challenge of growing without generating imbalances in its external accounts. To do so, this brief first examines the recent evolution in the balance of goods and services and highlights their singular nature. It then undertakes a long-term analysis of the two values that determine this balance, that is, exports and imports, so as to establish a firm foundation on which to base future forecasts about the evolution of the external balance of goods and services in the coming years.

2. Economic recovery and the external balance

The early years of the present century, especially those between 2002 and 2007, were characterised by a notable rise in national demand, which production failed to keep pace with, resulting in a marked increase in imports and leading to a sizeable imbalance in foreign trade in goods and services. In fact, in 2007, national demand, measured at 2010 prices, exceeded the value of GDP by 5.9% (Figure 1). In current values, this percentage was only slightly higher, but if we add to it the income, transfers and all the other components of the balance of payments on its current and capital accounts, it accounted for no less than 10% of GDP.

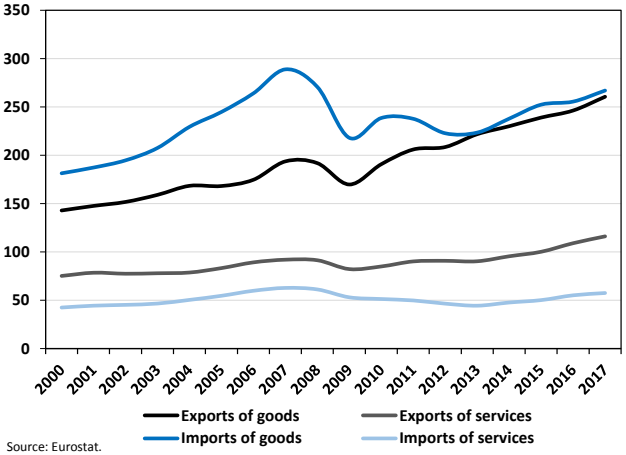
Figure 1. GDP and national demand in Spain (billions of euros, 2010)



Source: Eurostat.

With the onset of the 2008 economic crisis, national demand fell dramatically, slashing imports, while accelerating growth in exports. As a result, just a few years later, in 2011, the external account balance changed sign. Throughout that year, the value of exports almost equalled that of imports in current values, any difference being barely perceptible. But in the years that followed, the value of the former further and further outstripped that of imports, without this causing any great disruption to the Spanish economy, which had by then begun to come out of the recession and was, buy 2015, recording a notably high rate of production growth. In 2016, the goods and services trade balance reached 3% of GDP, its highest level yet at current prices. And this figure was to remain high at 2.9% in 2017. Moreover, this trade balance continued to contribute positively to the increase in real GDP up to 2017, albeit in a decreasing manner since the onset of economic recovery.

Figure 2. Spanish exports and imports (billions of euros, 2010)



Source: Eurostat.

The growth in exports since 2011 has been underpinned almost equally by trade in both goods and services, despite the outstanding upturn in tourism revenues, which have increased in volume at rates above 5% since 2011, accelerating to reach a rate of 6.1% per year between 2013 and 2017. Similarly, the slowdown in imports has been recorded in both the trade of goods and services (Figure 2).

3. The surprising evolution of exports

The recent growth in Spain's exports has caused considerable surprise among analysts and policy makers alike. This section begins by identifying those aspects that account for this surprise and goes on to show how this growth in exports forms part of a long-term expansionary pattern, which cannot be understood solely in terms of demand factors, as macroeconomic analyses typically seek to demonstrate.

3.1. The reasons for the surprise

Since 2011, exports of Spanish goods and services have grown in volume at an average rate of 4.6% per annum, higher than the 3.9% registered in the expansionary period of 2001 to 2007 prior to the crisis, considered at the time as being quite unprecedented figures. This increase has occurred moreover against a backdrop of a general slowdown in the volume of international trade, which saw the growth rates of 7% recorded in the years prior to 2007 fall to slightly lower than 4% after 2011. In 2015 and 2016, these rates slumped to their lowest level, with an average growth of just 2.6%, lower than that recorded by world GDP, something that had only ever happened in recent decades in a handful of years (1982, 1983, 1985 and 2001). This shift in the pattern has been attributed to various causes, in addition to the effects of the crisis, but in particular to the fact that the creation of global value chains seems to have run out of steam and the demand for service activities has change, with there now being fewer import requirements (Jääskelä and Mathews, 2015; Timmer *et al.,* 2016).

The evolution of Spain's sales abroad is even more surprising if we consider that more than 60% are made within the European Union, an area hit especially hard by the crisis, above all in its early years. And this surprise is all the greater when we confirm that the increase in Spanish exports has exceeded that of all other European economies, including Germany (Figure 3), well known for its orientation towards foreign

markets and its broad ranging deployment within Asian markets.

With their strong orientation towards foreign markets, Spanish firms have recovered part of the share in world trade that they lost before the crisis, after achieving a high and prolonged increase in their trading figures in the years following Spain's accession to the European Economic Community (Figure 4). Since 2011, Spain, together with Germany, stands out in terms of the size of that quota, and also for only suffering a smaller reduction in this share since the beginning of the century.

Figure 3. Export of goods and services by volume (annual rates of variation)

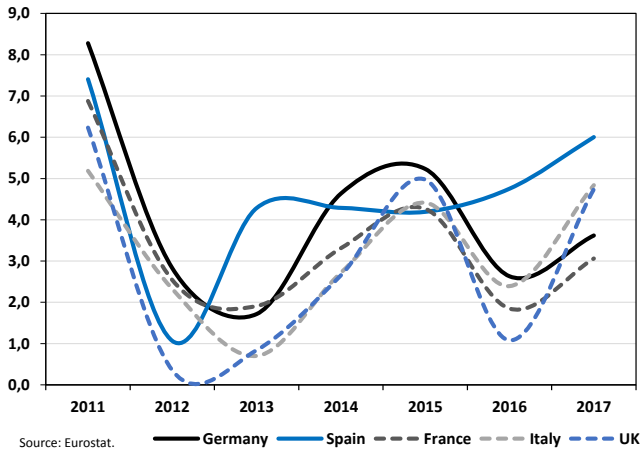
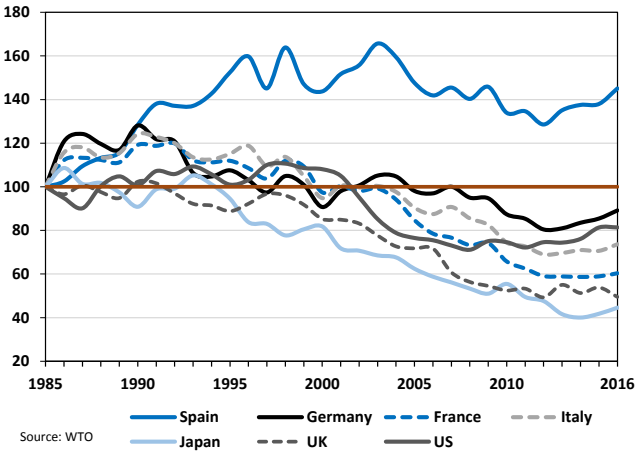


Figure 4. World goods trade quotas (index numbers, 1985=100)

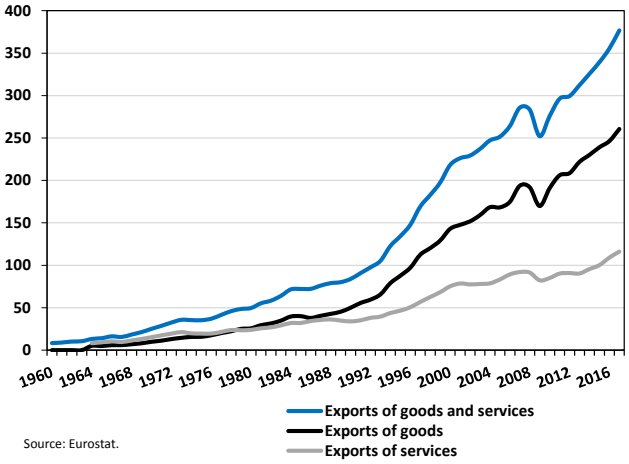


Finally, undoubtedly, some of the surprise at the health shown by Spanish exports is linked to the widely held idea that the country's products are uncompetitive, a belief that seemed to be confirmed by the huge foreign trade deficit recorded in 2007, and apparently confirmed by various official reports, when in reality what these figures clearly show was the excessive increase in aggregate spending, driven by highly favourable monetary conditions.

3.2. Determinants of the growth trend in exports

Any rigorous forecast of export growth for the coming years requires an in-depth analysis of the determinants of its evolution, especially in the long term. Figure 5 plots the dynamics of Spain's foreign sales since 1960. It highlights their overall sluggishness until Spain joined the EEC. But, since the end of the 1980s, the growth curve has risen appreciably. Between 2002 and 2007 this growth slowed somewhat, before picking up again after 2011. All in all, the export of goods has dictated this evolution, while the role played by services has been less intense.

Figure 5. Spanish exports by volume (billions of euros, 2010)



The mean annual increase in Spain's foreign sales by volume since 1985 is 5.3%, which is slightly lower than that of world trade, recorded at 5.8%. But, in the case of goods, the annual rate stands at 6.3%, which is higher than that of international trade (6.1%), explaining why between 1985 and 2017 there was an increase in the Spanish quota of goods exports worldwide (as discussed above in reference to Figure 4). However, this rise has not been linear, rather it has occurred by means of various oscillations in growth.

The demand-side perspective

The most frequent approach to the quantitative study of the sales of goods and services to the rest of the world requires the estimation of an export function that

adopts a demand-side perspective. The two determinants of trade flows abroad are external demand (world trade), and prices, measured in a common currency (real exchange rates). At times other factors may be added to these determinants, such as those measuring supply variables or those which serve as an indicator of the rate of domestic demand, in order to capture the possibility that the sluggishness of the internal market may be the cause of greater sales in foreign markets.

Many export function estimates are available, but here only three of the most recent will be briefly examined. The first is provided by the Bank of Spain (Garcia *et al.*, 2009), and is based on quarterly data for the period 1980-2006. The authors report an income elasticity of exports of 1.08 for goods and of around 2.7 for services, and a price elasticity in the region of one for both goods and services (albeit above one in the case of the former and below one in the case of the latter). The values obtained for exports to the euro area do not differ significantly from those obtained for the whole world. Based on this estimate, the variations in Spain's share of world goods exports can be accounted for either by the changes in the exchange rate (the 1992 and 1994 devaluations of the peseta, and, in the opposite direction, the appreciation of the euro during the period 2002-2008), or by changes in the dynamics of the different markets.

On the grounds that this model failed to provide an adequate explanation of the recent rise in exports, the Bank of Spain recently proceeded to update it in part by extending the database up to 2013, although limiting the model solely to goods, and without distinguishing between markets of destination (Prades and García, 2015). The main difference detected with respect to the previous model is a significant fall in the price elasticity of exports when using 1995 as the base year, a result that could be due, among other factors, to the more stable behaviour of the exchange rate since that date. Yet, the surprise caused by the rise in exports in recent years is also evident in these estimates, specifically in the existence of an unexplained residual factor, of certain importance, which on average could explain almost one whole point of the annual growth rate between 2011 and 2014. The authors, in fact, manage to reduce this slightly by incorporating the domestic demand variable, which would have been of some importance in 2012 and 2013.

According to this new model, the gains in competitiveness derived from the wage devaluation and the reduction in the exchange rate play only a minor role in accounting for the recent growth in exports. Similarly, the evolution in prices in common currency fails to account for the period of expansion prior to the crisis, during which, the Bank of Spain itself warned of the loss of competitiveness that was likely to result from the rise in labour costs. However, the results of the new estimates are consistent with other Bank of Spain studies that conclude that the increase in business margins represented the main inefficiency affecting Spanish markets (Estrada, Jimeno and Malo de Molina, 2009). It is easy to deduce that this increase contributed to raising wages, which basically represented an attempt to recover the workers' purchasing power, although the efforts proved unsuccessful. This points to the endogenous nature of wage increases, which makes it difficult to attach much importance to unit labour costs when measuring external competitiveness in terms of prices (Wyplosz, 2017).

A third study, of recent publication, whose main objective is to evaluate the effects of the internal devaluation that has taken place in recent years (Crespo and García Rodriguez, 2015), also offers estimates of income and price elasticities for exports of both goods and services. Similarly, it is based on quarterly data, but covers the period 1995-2015. The authors report an income elasticity of 1.03 for Spanish exports to the euro area, which is higher than that corresponding to the exports of Germany, France, Italy and Portugal. Likewise, Spain's income elasticity is higher than that of these four countries in the case of exports to EU countries outside the euro area, although their value falls to little more than a quarter. However, exports to the rest of the world are negative in the case of Spain while the elasticity is highest for Italy, no doubt due to the greater geographical diversification of trade in that country. In contrast to these values, the price elasticity is low (0.004), reflecting the reduced impact of increases in labour costs on exports in the years preceding the crisis, and the small effect of wage devaluations in recent years, two findings with which the most recent estimates of the Bank of Spain concur (Prades and García, 2015, Banco de España, 2017).

Yet, the recent rise in exports is not readily explained by this last estimate. The low income elasticities obtained with respect to countries outside the euro area, where almost half of Spanish exports are sold, constitute the main obstacle. Likewise, including domestic demand in the estimates does not resolve the problem. While it is

of short-term relevance, the authors believe that the model is sufficiently robust without it. Its movements, on the other hand, appear to be associated in the short term with unit labour costs, so that cuts in these are accompanied by more significant reductions in domestic demand (Crespo and García Rodriguez, 2015).

In short, the aforementioned estimates differ in their results and fail to offer a sufficiently firm basis on which to predict the dynamics of exports in the coming years. What they indicate most clearly is that, in the absence of major changes in the exchange rate, exports will tend to grow at rates very similar to those of international demand.

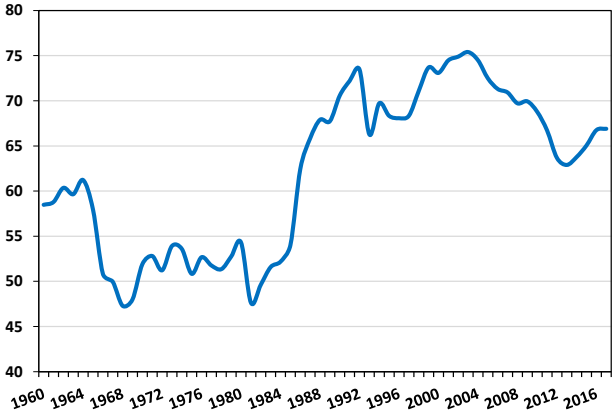
The reason for the limited usefulness of these export demand models –obstacles that they have striven to overcome by incorporating supply equations (Buisán *et al.,* 2004)– derives from the fact that the estimated income and price elasticities represent averages for different periods in which changes occurred in the growth of trade depending on the area of destination, which affect the capacity of a country's firms to respond to advances in world trade, and above all, in which the supply directed abroad is continuously transformed, as regards the number and characteristics of the firms, their degree of implantation in the different international markets, and the nature of their products and their quality. These changes cannot be adequately captured by an aggregate demand model. The implantation of firms in foreign markets is a complex process, characterised by great uncertainty and high sunk costs, which means the only way to make progress is by means of trial and error. It is a long-term strategy that has to respond to a country's openness to greater international competition and to achieving greater globalization.

This means that understanding the evolution of exports is more complex than we would wish, and that it is not something that can be predicted with any great econometric precision. The same is true of a country's quota of world exports, which depends not only on its relative costs, but also on how well its products match external demand, on the nature and quality of these products, on the positioning of firms in the different markets, on the differential growth of these markets, as well as on the increase in the number of firms that dedicate part of their production to exports, a variable strongly influenced by policy to promote foreign sales.

The supply-side perspective

It is a stylized fact of economic growth that the weight of exports in GDP tends to increase with the rise in per capita income (Romer, 1989), but increasing economic openness also favours this process, as does the integration of countries in supranational areas such as the European Union. Spain increased the weight of its exports in its GDP gradually and moderately until it acceded to the EEC, which resulted in a new framework of high-level international competition for its firms. The reaction of Spanish firms to this change in the competitive scenario was to focus their efforts on foreign markets, particularly on EU markets (Figure 6). The process was led by the country's large firms, and the 1990s proved a key period, during which these leading firms increased their export intensity, while their medium and smaller counterparts also shifted their orientation towards foreign markets (Myro, 2015).

Figure 6. Spanish exports of goods to the EU (as % of total)

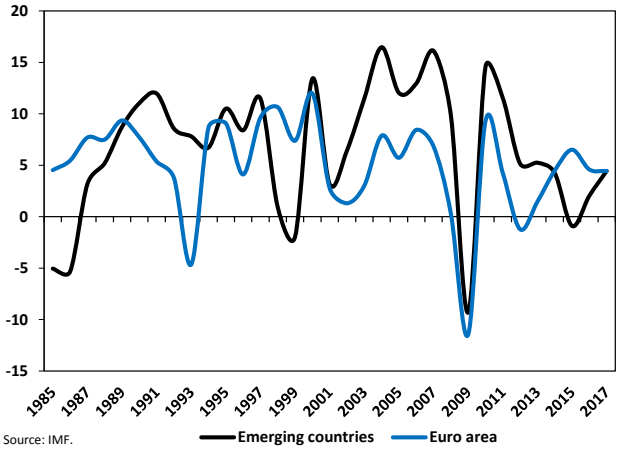


Source: Eurostat.

This preference for the EU markets was justified by their geographical proximity, and above all, by their greater openness, following the raising of all tariff and non-tariff barriers that had previously hindered access to them. At the beginning of the present century, 75% of Spanish exports were sold in these markets. Yet, it was precisely this high concentration in the EU market that would be a key factor in the slowdown suffered in the years of expansion prior to 2008. In fact, since 2003, a shift has occurred in the composition of external demand, with a deceleration in that originating from the EU and a consolidation of that originating from the emerging countries, with China at the head (Figure 7). This shift wrong footed most Spanish firms, as they had very few footholds in non-EU markets. The demand for imports from the EU went from an average growth rate

of 9% between 1995 and 2000 to just 5% by 2007. At the same time, the demand from emerging countries rose from 7 to 11%. The problems faced by Spanish exports were attributable not solely or primarily to the loss of price competitiveness and, in fact, the country's exports continued to grow at a faster rate than those of both France and Italy (Myro, 2015), despite the higher increase in Spanish costs and prices. In contrast, Germany, with a considerable presence in the emerging countries, recorded marked increases in its foreign sales.

Figure 7. External demand by volume (annual rates of variation)



Source: IMF.

In response to this situation, Spanish firms began to diversify their export markets, gradually reducing the concentration of their sales in the EU to 62.9% of the total in 2014. This new strategy allowed them to meet increased demand from emerging countries when the crisis broke out, and explains the somewhat surprising evolution taken by exports in recent years. In turn, the continuing economic growth of the emerging countries during the early years of the crisis stimulated the diversification of Spain's export markets. However, the recent deceleration in their economic growth and the recovery of the euro area has once more led to the concentration of foreign sales in Europe and today, according to Eurostat data, they account for 67% of the total.

The chain of events is quite normal for a country that has only recently acquired an export vocation – corresponding as it does to the well-known learning process described by the Uppsala School. The Spanish exporters first targeted the most favourable markets, before turning to more distant and less well-known ones.

This diversification is quantitatively visible in the importance of the *extensive margin* compared to that of the *intensive margin* in the expansion of foreign sales. The latter includes the sales made by the same firms and of the same products in the same destinations by product. The *extensive margin*, in contrast, corresponds to new firms, products and markets, and includes products already being exported but now directed to new markets as well as new products directed to old markets. A recent study shows the evolution of both margins during the period 1997-2015, using the database of the Customs Registry (Esteve-Pérez *et al*., 2017). Table 1 below summarizes its findings. Of the total value of exports in 2015, 73% originates from increases in the extensive margin, when taking 1997 as our reference. In other words, the value is the product of firm-product-market relationships that did not exist in 1997. A sizeable proportion of these exports corresponds to new companies, but the value of new products, new destinations, new product-destination pairs and new combinations are also appreciable. Some of the relevance of the extensive margin is due to changes in the names of the firms, which in part result from mergers and takeovers, thus creating the false impression that we are dealing with new firms.

Table 1. Breakdown of the value of exports into their intensive and extensive margins, 1997-2015 (percentages)

	Annual mean 1997-2015	1997-2015	2002-2007	2010-2015
INTENSIVE MARGIN	**87**	**27**	**51**	**54**
EXTENSIVE MARGIN	**13**	**73**	**49**	**46**
Including:				
New firms	3	42	21	16
New products	3	8	7	9
New markets	3	10	9	10
New product-destination pairs	1	6	4	4
New combinations	3	7	8	7

Source: Minguez *et al.* (2017).

This specific perspective can be complemented by others that examine the nature of Spanish foreign trade by product, quality and geographical destination (Myro *et al*., 2013), highlighting its growing adaptation to the evolution in world demand, as well as the notable levels of sophistication and quality achieved by Spanish products.

Seen in this light, the key characteristics of the expansion of Spanish exports can be summarized as follows:

a) A product supply made up of a highly diverse technological content, increasingly adapted to the structure of global demand. Among its products of high technological content, medicines stand out;

among those of medium content, we find automobiles, chemicals and mechanical machinery; and among those of low technological content, Spain specializes in the basic metal industries, and above all, the agri-food sector. All these sectors, with the exception of automobiles, have gained weight in global demand since the beginning of the present century (Myro *et al*., 2013).

b) The growing sophistication of its export products. If the degree of sophistication is evaluated in line with Ricardo Hausmann and Cesar Hidalgo's criteria, then half of Spanish exports can be classed as being of medium-high and high sophistication (Álvarez and Vega, 2016).

c) The quality of the goods offered, especially in relation to their price, and the large range of goods, differentiated in terms of their specific characteristics with respect to those of their rival firms. Oliver (2016) points to the recent improvements in the quality of Catalan exports as a cause of the increase in intra-industrial trade of horizontally differentiated products and vertically differentiated high-quality products.

d) A good combination of old and new markets. While it is true that Spanish exports still have only a small foothold in Asian countries and in North America (despite the efforts of recent years), the weight of the traditional EU markets has often exerted a positive effect on sales abroad.

e) A large group of leading firms, with high comparative efficiency, which has already embarked on the most advanced phase of internationalization, that is, the establishment of subsidiaries in a large number of countries. This process has also contributed to stimulate exports, and not solely by promoting greater intra-firm trade (Esteve and Rodríguez, 2014).

f) The growing ability and capacity of Spanish firms to join global value chains, which has provided their foreign sales with greater stability (Gandoy, 2015).

The expansion of Spanish exports has not only had beneficial effects on the country's external deficit. It has also increased the size, human capital and productivity of its exporting companies, improving their competitive capacity (Eppinger *et al*., 2015, Serrano and Myro, 2017)

3.3. The growth potential of Spanish exports

If we accept an elasticity for goods exports of around 1 (which is one of the most frequent values obtained in the export function estimates described above) and assume moderate annual growth in world trade (as predicted by the IMF for the next five years at an average of 4%, distributed equally between the EU and the rest of the world), Spanish goods exports should grow at slightly above the annual volume of 4%. Moreover, if a good rate of growth in exports of services can be maintained (albeit not as high as the 4.6% by volume achieved since 2011, but a rather more moderate figure of around 3.6%), total Spanish exports would grow at 4% per year. Note, however, that this is a minimum estimate, because even with the forecasted fall in tourism (given the high levels already reached), trade in services today tends to expand at rates higher than that of goods.

However, since 2011, Spanish goods exports have increased in volume by an annual 4.6%, while external demand has risen by just one point less at 3.5%. If this difference were to be maintained, with a constant increase of the Spanish quota in international trade, Spanish goods exports could increase at a rate of 5.1% (assuming, that is, that external demand grows at 4% per year). Moreover, if Spanish exports of services maintained the rate of increase recorded since 2011 (that is, an annual mean of 4.6%), total Spanish exports would grow by 5% in volume.

This is, as such, a fairly plausible estimation. There are sufficient reasons to expect that Spanish goods exports will grow at a rate higher than that of world demand. Spain still has a number of highly competitive industrial sectors that remain relatively closed to the export market –most notably the food sector– and it still has many markets to conquer, in particular those of Asia, North America and northern Europe. Spanish firms, moreover, still have great potential to penetrate global value chains. Yet, they still have to increase the number of products they export and raise their value per product, if they hope to match the mean for EU countries, since they concentrate their sales in a comparatively small number of products (Easterly, 2000). As for the forecasts for exports of services, the growth rates of the last three years have been 6.7%, which suggests it should not be difficult to achieve or better the aforementioned figure of 3.6%.

These forecasts could be even higher if more active industrial policies were adopted together with measures to further promote exports. In line with the analyses offered by Melitz (2003) and Helpman (2011), the key to entering the export market lies both in a firm's level of productivity, as this gives it the capacity to face the fixed and variable costs of exports, and in its management capacity, which helps it to calculate and avoid the risks involved in penetrating foreign markets (Serrano and Myro, 2016). The key does not, however, lie in unit labour costs, and even less so in low wages, as shown in Table 2, which compares (frequent and non-frequent) exporting companies with their non-exporting counterparts, using the *Encuesta sobre Estrategias Empresariales* (Business Strategy Survey, henceforth ESEE) for the years 2009-2013, a period for which the management quality variable is also available. In the estimates shown in Table 2, each variable is considered individually and separately, while controlling for the effect of various factors (firm size, human capital, sector and year). The first thing to be calculated is the bonus that the (frequent and non-frequent) exporting companies obtain from the variable studied. This is shown in the first two columns, measured both in logarithms and percentage values. The third column records the effect of these same variables on the probability of a firm being an exporter. The industrial exporting firms are the ones that achieve the highest productivity and which are best managed. Thanks to their high relative productivity, they also have lower unit labour costs, despite the fact they remunerate their workers better (Myro *et al*., 2013).

Table 2. Export bonus and probability of exporting (2009-2013)

	Estimated mean difference between exporters and all other firms		Probability of exporting
	log	%	
Wages	0.077*** (0.011)	8.00	2.373*** (0.450)
Unit labour costs	-0.094*** (0.023)	0	-0.515*** (0.169)
Productivity	0.166*** (0.024)	18.05%	1.011*** (0.192)
Management quality	0.315*** (0.024)	37.02%	2.663*** (0.212)
Human capital control	Sí	Sí	Sí
Size control	Sí	Sí	Sí
Sector control	Sí	Sí	Sí
Year control	Sí	Sí	Sí

Note: Robust standard errors in parentheses
*,**, and *** indicate significance at the 10, 5 and 1% levels of confidence, respectively
Source: Based on the ESEE.

An additional guarantee of the growth potential of Spanish exports can be derived from the empirical evidence obtained from the ESEE: in 2014 and 2015, 9% of the industrial firms included in the survey reached the median productivity of exporting companies but did not actually export. Among the firms with the greatest export potential are those in the food sector, graphic arts, non-metallic mineral products and metal products.

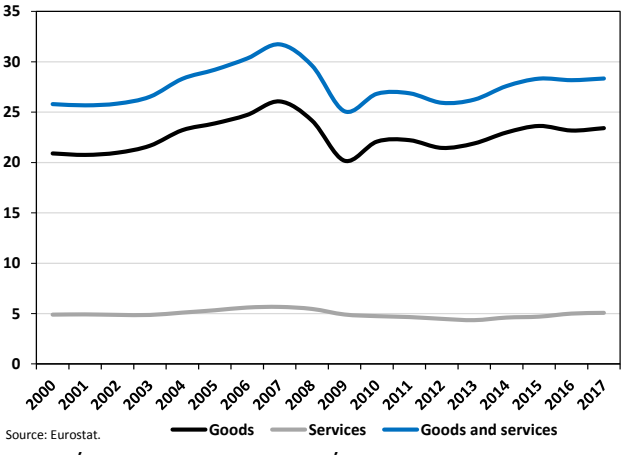
4. The favourable evolution of imports

If the recent evolution of Spanish exports has been surprising, then that of its imports has been no less so, having grown at a lower rate than expected, especially in the last three years. In this section, this evolution is first described; then, an explanation is offered for these dynamics, examining them from a long-term perspective. On this basis, expectations about the evolution of imports for the coming years are reported.

4.1. The recent evolution of imports

Imports of goods and services have increased during the last three years of economic recovery at an average annual rate of 4.3%, slightly more than one percentage point above GDP. This is a significantly lower difference than would be expected from available estimates of the income elasticity of import demand, which point to a value closer to 2.

Figure 8. Real imports of goods and services in Spain (% of GDP)



As a result, the weight of goods imports in Spain's GDP stood at 23.5% in 2017 (Figure 8), slightly higher than that reached in 2004, when the Spanish economy was growing at rates similar to those at which it is growing today yet in a framework of greater price rises. Imports of services are also at a similar level to those of 2004, representing 5.1% of GDP. As such, our surprise

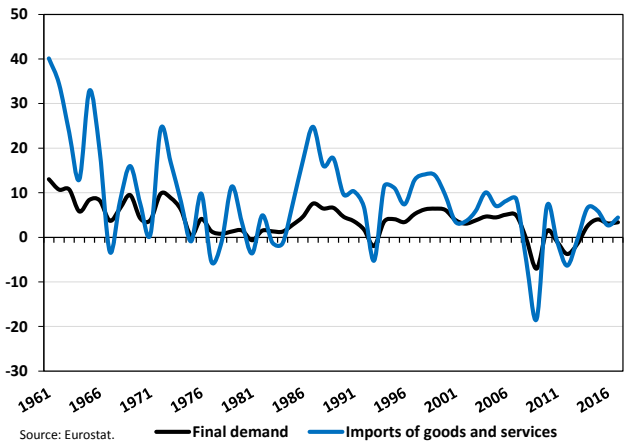
regarding the evolution of imports needs to be qualified. Quite simply, it can be seen that domestic demand is not suffering the same state of turmoil as that experienced in 2005.

4.2. The trend in the evolution of imports

In order to make firm predictions about the progress of Spanish imports for the coming years, the determinants of its long-term evolution must first be understood. Since Spain joined the EEC, its imports of goods and services have grown in volume at a high average annual rate of 6.9%, almost one and a half points higher than that of its exports (5.2%). Goods imports have increased at a slightly higher rate of 7.3%, while imports of services have increased at an average rate of 5.4%. Taking into account that in this period the demand for final goods, including exports, grew in volume by a yearly average of 3.1% in volume, total imports increased 2.2 times more than national demand, a multiple that rises to 2.3 in the case of goods.

These values are closely in line with the income elasticity of imports estimated by García *et al*. (2009) of 2.2 for imports from all areas and of 2.5 for imports from the EU. However, these are mean values, and, in practice, the relations between final demand and imports of goods and services are not as stable as might be inferred from the elasticity indicated (Figure 9). Until Spain joined the EU, import growth remained closely in line with final demand, albeit with greater annual fluctuations. Accession to the European Community seems to have intensified the country's dependence on external goods, particularly in the period of great expansion that followed in the years between 1985 and 2000. But after that date, imports tended to respond more moderately to changes in final demand.

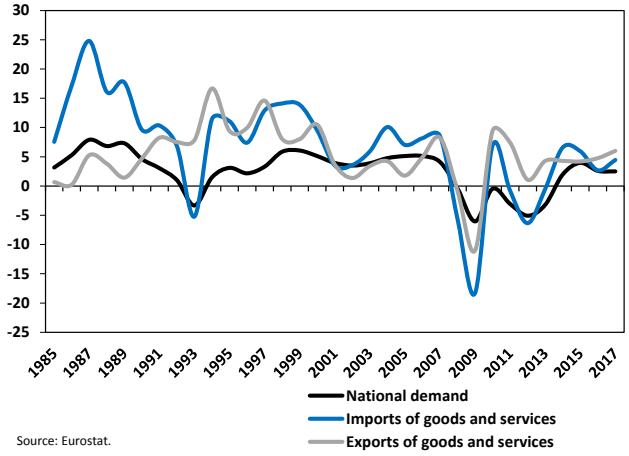
Figure 9. Real imports of goods and services and final demand



The variable response of imports to the evolution of final demand can be primarily related to two factors that acquired a degree of importance in the period 1985-2000. The first was the marked expansion undergone by exports, and the second, the growth up to 2000 of the import content of final demand, as a result of the massive expansion of global value chains (Timmer *et al*., 2016).

The remarkable expansion of exports since 1985, as described in the previous section, led to a notable increase in imports aimed at facilitating the production of these export products. The first available estimates of the import content of exports refer to 1995, when they stood at between 19 and 26% (Cabrero Tiana, 2012; Gandoy, 2017; Bussière *et al*., 2011). This content was higher than that of national demand, although by exactly what amount at that date is unknown, but it would have been between 0.5 and 6 percentage points. It is easy to deduce that an increase in goods exports of 11% per year throughout the 1990s would have had a great impact on imports of goods and services. Therefore, when exports are distinguished in the previous graph, the dynamics of imports is somewhat easier to understand, at least visually (Figure 10).

Figure 10. Imports, national demand and exports (annual rates of variation)



Source: Eurostat.

Following the early years of EEC membership, which caused purchases from this area to increase markedly – much more than the rises in domestic demand and exports would have led the markets to expect– Spain's import dynamics seems to have fallen into line with the evolution of these two variables. The huge growth in imports during the second half of the 1990s may have been related to the similarly huge increase in exports. While the smaller increase recorded in the years prior to the recent crisis may have reflected the deceleration

in exports, which had to face (as explained above) a change in international demand from its main market, i.e. the EU.

But we have still to consider a second and much more relevant element to complete the explanation: namely, the increase in the import content that took place, both in the various categories of national demand, and in the country's exports, between 1995 and 2000, as a consequence of Spain's increasing involvement in global value chains. The aforementioned estimates of this import content reflect very similar increases in national demand and exports of around 7 percentage points –rising from 19 to 26%, according to Gandoy (2017). This shift helps explain the remarkable expansion of imports between 1995 and 2000. It also helps explain the deceleration experienced from the beginning of the present century to the present, there having been a virtual stagnation of the import content since 2000 (this fell again in 2009, recovering in 2011 to a value similar to the one recorded in 2008 and quite similar to that reported for 2000). The import content estimates offered by the Bank of Spain each year since 2000 reflect this same pattern, although they indicate that the import content of exports today would be five percentage points higher than that of 2008, at around 31% (Banco de España, 2017).

The apparent long-term stability of the import content does not mean that it has not undergone small variations in the short term, tending to increase in periods of expansion and to decrease in times of recession. It increased, for example, by more than two percentage points in the period 2003-2007, although it is possible that this was due to a prolongation of the forging of global value chains already alluded to during this period, in keeping with events in other developed countries (Timmer *et al*., 2016).

These import content estimates were made on current values, which means they are transmitted to the real values according to the evolution of the relative prices of exports and imports, that is, according to the terms of trade (TOT). In the period 1995-2003, years characterised by huge growth in import content, the TOT grew, so that the estimates tended to underestimate the real increase in import content of exports. In contrast, from 2009 to 2014, the TOT fell, so that the actual import content tended to be overvalued. This fall was undoubtedly influenced by the rising price of crude oil during this period, which increased the weight of energy imports in the total by five points.

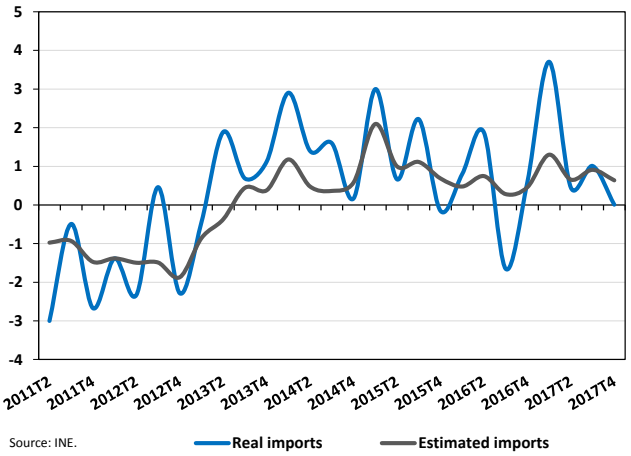
From the preceding discussion, it is evident that the country's exports have had a profound impact on the Spanish economy since joining the EEC, not only in terms of production, but also because of their impact on imports.

4.3. Has an import substitution occurred?

The sluggishness presented by Spanish imports over the last three years raises the question as to whether a process of import substitution might not be occurring. To answer this, the evolution of imports has been simulated, assuming that the import content calculated for 2011 by Gandoy (2017) and by the Bank of Spain (which is significantly greater in the case of exports) remained stable. These outcomes are then compared with their real evolution (Figure 11). The adjustment, with quarterly national accounts data, is good, if we take into account that the import content used is based on current values and that the estimation is based on constant values. The quarterly import data present greater variability than those of final demand, due to the heavy weight that domestic consumption has in them, the latter being much less volatile than exports or gross capital formation (GCF). The calculation of moving averages, aimed at smoothing the series of imports, would reduce the available data for such a short period. There is a significant mismatch in the period in which the recovery started (during 2013 and 2014) that could be related to the increase in vehicle imports in 2014 and 2015 (the import content of this sector is the highest after that of fuel coke, and stands at around 45%). In any case, the simple simulation underestimates the real growth experienced by imports, suggesting that there has been some upward shift in import content in the years of recovery. In fact, the Bank of Spain's estimate detects this shift in the last two years of its series, that is, for 2013 and 2014. This increase would further reduce the possibility of there having been a process of import substitution.

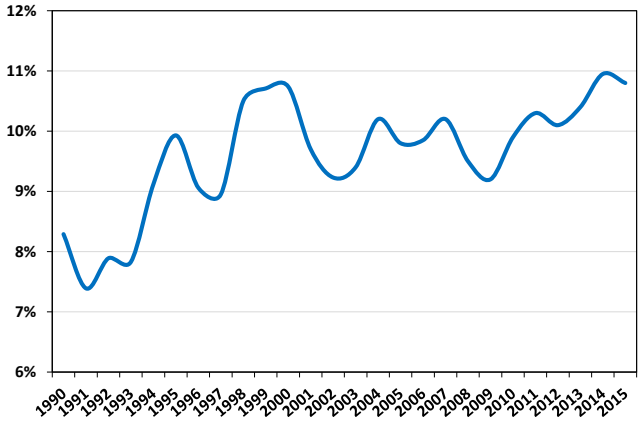
However, in its latest Annual Report, the Bank of Spain detects a reduction in import content, which it interprets as a possible symptom of a process of import substitution (Banco de España, 2017). To examine this possibility, the bank has calculated the import intensity of industrial importing firms, with data from the ESEE, and estimates an increase in the years of recovery (Figure 12), which may be affected by the price dynamics –unlike the estimate made by the Bank of Spain– and also by changes in the sample of firms.

Figure 11. Real imports of goods and services (quarterly rates of variation)



Source: INE.

Figure 12. Import intensity of Spain's industrial firms (median percentage values)



Source: ESEE.

4.4. Forecasts of the evolution of imports and the balance of foreign trade in coming years

In line with the discussion up to this point, it can be deduced that imports appear to depend on the growth rates of both domestic demand and exports, which present variable elasticities, but which, in all circumstances, are not that far removed from one (that is, import content is stable with respect to the demand functions, though it tends to grow in periods of expansion and decrease in times of recession).

On this understanding, the evolution of goods and services imports can be simulated in different growth scenarios of final domestic demand and exports, while establishing alternative assumptions about the value of the income elasticity of import demand, on the understanding that real exchange rates are not altered.

Table 3 shows two estimates based on figures for 2017, and in which a minimum 4% increase in exports is always assumed (this being a fairly safe assumption for the reasons outlined above). The first of these estimates, the most favourable, is based on the assumption of constant import content for each of the final demand functions, which implies an import demand elasticity of 1 if all the functions evolve at the same level. Alternatively, a second, less favourable, estimate is presented, based on an import elasticity with respect to the highest final demand of 1.5, which corresponds to the average between that observed for the last three years of recovery (2015-2017) and for the period of expansion prior to the recent economic crisis (2002-2007).

In both estimates, the results of the evolution are shown for one year, since variations in the external balance accumulate over the years. In expansive scenarios defined by an increase in GDP of more than 4%, imports would always grow above this percentage and the balance of foreign trade, measured in terms of GDP, would contract. But for lower growth scenarios, imports would grow less and the foreign trade balance would tend to remain stable or increase.

Table 3. Annual growth scenarios and the foreign goods and services trade

	Assumptions				Estimate 1			Estimate 2		
	Final consumption	GCF	Exports	Final demand	Imports	GDP	Balance of goods and services as % of GDP	Imports	GDP	Balance of goods and services as % of GDP
Scenarios										
High	3,5	6,5	4,0	4,1	4,3	4,0	2,8	6,0	3,5	2,3
Medium	2,5	4,5	4,0	3,2	3,4	3,1	3,1	4,7	2,7	2,7
Low	1,5	3,0	4,0	2,4	2,7	2,3	3,3	3,5	2,0	3,1

Note: Estimate 1 : Constant important content as of 2011; Estimate 2: Income elasticity of import demand equal to 1.5

Even so, if an annual export growth of 4% or more were maintained, the Spanish economy would have to increase national demand at a very high rate, and over a period of several years, before incurring an external deficit in real terms. In contrast, if national demand were to grow at medium-low rate, as is indeed forecast for the coming years, imports would increase slowly and the goods and services trade surplus would rise. Of course, a sharp increase in the import content of consumption or in the GCF could jeopardize the favourable external position achieved, because the greater integration of Spanish firms in global value chains would undoubtedly increase import content in exports, but also the volume of exports. In this sense, it is important to consider the possibility that import content could increase significantly in the coming years. But such a scenario is far from easy to determine. Spain already has a greater import content than either France or Italy (Gandoy, 2017), which suggests that it will not increase significantly. Yet, having said that, it has a lower import content than Germany, the leading exporter in the euro area, and a point of reference for Spanish firms. However, the German case is unusual: its high import content rests on goods that directly satisfy final demand, as opposed to intermediate inputs, a characteristic that seems to be associated with the close ties this country maintains with those of Central and Eastern Europe.

From another perspective, and as noted above, Spain's import content has remained relatively stable since 2000. But, as has also been stressed, the fact that a significant increase is not expected does not mean that the content will remain fixed. In fact, it tended to grow slightly in the expansive phase prior to the crisis, although perhaps pushed by the forging of value chains, and again it seems to have grown in the final years of recovery from the crisis.

In conclusion, there is little doubt that, in the coming years, Spain's net foreign trade position will grow to resemble more closely those of Europe's leading states. It is also quite probable that Spain will manage to increase its GDP at a rate higher than that expected by analysts, thus reducing both unemployment and its external debt, which will accentuate further its real convergence with the aforementioned countries.

However, any analysis of the balance of trade in goods and services needs to consider their value at current prices and, in this regard, it should be noted that the TOT has, according to Eurostat data, been deteriorating since 2011, reaching a value of 94.2 in 2017, having started at 100 in 2010. This deterioration, which is not visible in the data provided by the Secretary of State for Trade, applies to the case of goods, and is even more pronounced in that of services, yet it is not something that has occurred in the other countries of the euro area. Moreover, it is not something that can apparently be attributed solely to increases in the price of oil, and as such requires further study.

5. Conclusions

The goal of this brief has been to evaluate the sustainability of Spain's current external surplus. In so doing, it has examined the long-term determinants of the country's exports and imports, and concludes that the former show great potential for growth, above all if we consider the existence of many firms that are well positioned to begin their sales operations abroad, the presence of a number of productive activities of great individual weight that have only a low export intensity, and, finally, the many markets that Spanish products have yet to penetrate at any great scale. Spanish imports, on the other hand, are going through a period of only moderate growth that seems likely to remain unchanged. This phenomenon, which transcends the specific circumstances of the Spanish economy, appears to be related to the significant slowdown in the creation of global value chains, which peaked in the 1990s.

In scenarios of high GDP growth –situated at around 4%– Spain's external surplus will gradually tend to fall; yet, in alternative, less expansive scenarios it will tend to remain stable or increase. More specifically, an increase in GDP of around 3% per year, which cannot be ruled out if exports continue to show their current strength, could very well be compatible with a stable or growing goods and services trade surplus. As such, it would be sustainable in time and, so, favour the reduction in unemployment and foreign debt.

The favourable outlook for Spain's foreign trade described in this brief is not entirely free of risk. The first of these may well derive from the appreciation of the euro exchange rate, a factor that is already causing some problems in the country's trade with the United Kingdom. Second, rising oil prices constitute a major threat, even though all the signs are that they are merely temporary. Third, Spanish firms may not find it easy to enter more distant and more competitive markets by seeking to accumulate intangible assets, if

they fail to improve their productivity. Fourth, national demand might be reoriented towards more import-intensive goods, as the whole of society begins to enjoy the benefits of economic recovery. Finally, scenarios characterised by turmoil in the credit markets, linked to a new period of expansion in the housing sector, could re-emerge.

As a result, the maintenance of high economic growth accompanied by a favourable foreign trade balance depends on firms adopting strategies aimed at improving the competitiveness of Spanish products, and which ensure their diversification and orientation towards foreign markets. These are not strategies that can or should depend solely on public initiatives. The country's leading entrepreneurs must also promote them by fostering greater cooperation, which needs to include all firms, especially their smaller counterparts, and a strong commitment to innovation and internationalization.

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