

Spain's internal devaluation and export growth

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Spain's exports have performed favorably throughout the economic crisis. While the impact of internal devaluation has not been passed on to final export prices, it has improved cost competitiveness, boosting profitability of Spain's export industry and encouraging the sector's growth.

Spain's exports grew sharply during the crisis, outpacing growth by the other main EU economies. It is usually assumed that the internal devaluation – i.e. drop in unit labour costs – in Spain over this period has allowed Spanish exporters to improve their price competitiveness. However, export prices have actually increased in relation to developed countries, partly offset by the depreciation of the euro, and the overall effect on price competitiveness has been almost negligible. Nevertheless, the impact of the internal devaluation has affected exports through the cost competitiveness channel – making Spanish industrial activity more profitable and subsequently a more attractive destination for domestic and foreign productive investment.

Introduction

Spanish exports have behaved relatively well during the years of the economic crisis, with the process of internal devaluation – i.e. the reduction in unit labour costs – under way over the period often being pointed to as one of the key factors underlying this performance.

This article sets out to elucidate the role internal devaluation has played in the progress made by exports between 2009 and 2013. To this end, after briefly describing how exports have performed in recent years, trends in export prices will be examined, in order to determine whether the drop in unit labour costs has effectively been passed on to them. Then, an export function will be estimated in

which a variable representing cost competitiveness is used as the explanatory variable, rather than a price competitiveness variable, as is usually the case, in order to explore whether it is possible to establish the existence of a relationship between the reduction in unit labour costs and export growth.

Spanish exports during the crisis

Spain's exports have performed well since the start of the crisis, buffering the impact of plummeting domestic demand on GDP. According to national accounts figures, between 2009, when sales abroad dropped sharply due to the slump in international trade following the collapse of Lehman Brothers, and 2013, Spain's exports of

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goods and services grew by 28.7% and exports of goods alone grew by 37.4%. As a consequence, the weight of exports in GDP rose from about 18% in the pre-crisis years to 23.6% in 2013.

International comparisons made using World Trade Organisation figures show Spain's goods exports to have grown by 38.8% during the period, while global exports rose by 49.6%. The export growth posted by the main EU economies was significantly lower than Spain's: 29.7% in Germany, 19.6% in France, and 27.2% in Italy. The majority of developed countries lost share in the world export market during the period, primarily as a result of the strong expansion of China's overseas trade –China's exports grew by 84%, placing its market share at 11.76%– although Spain was one of the country's losing least market share: dropping from 1.81% to 1.68% (Table 1).

Internal devaluation and export price trends

The favourable performance of Spain's exports is often attributed to the improvement in price competitiveness resulting from the internal devaluation the Spanish economy has undergone since 2010. This process basically consists of gaining competitiveness vis-à-vis the exterior, not through a currency devaluation, as this mechanism is no longer available now that Spain has adopted the euro, but by cutting internal costs, specifically the cost of labour per unit of output.

In 2013, unit labour costs in the manufacturing industry had fallen by 14% from their peak in 2009, due to rising productivity, which grew by 23.9% over the period, while remuneration per employee –measured in full-time equivalent terms–rose over the period by 6.5%– a rate that

Table 1

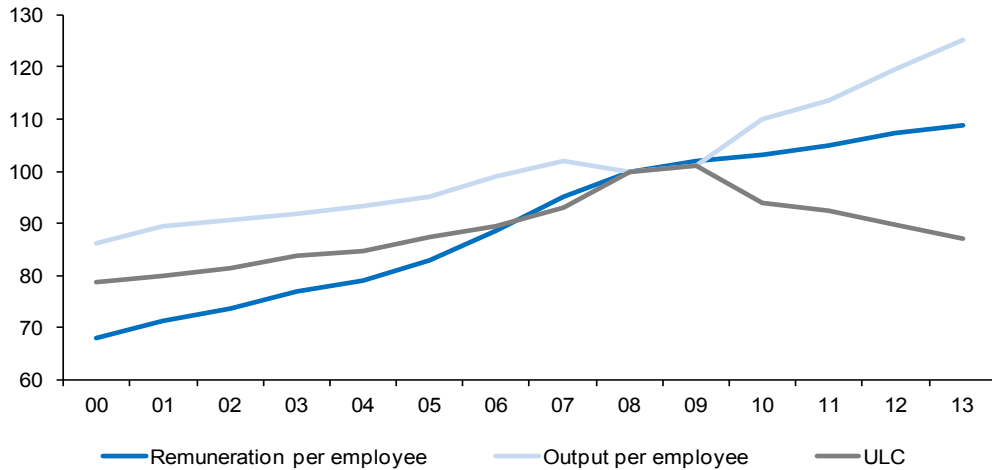
Share of world goods export markets (Percentage)

	2009	2010	2011	2012	2013
Germany	8.92	8.23	8.04	7.63	7.73
Austria	1.09	1.00	0.97	0.91	0.93
Belgium	2.95	2.66	2.60	2.42	2.50
China	9.57	10.31	10.36	11.13	11.76
Denmark	0.75	0.63	0.61	0.57	0.59
Spain	1.81	1.66	1.67	1.60	1.68
United States	8.41	8.36	8.08	8.40	8.41
Finland	0.50	0.45	0.43	0.40	0.39
France	3.86	3.42	3.25	3.09	3.09
Greece	0.16	0.18	0.18	0.19	0.19
Netherlands	3.97	3.75	3.64	3.55	3.53
Ireland	0.92	0.76	0.69	0.63	0.61
Italy	3.24	2.92	2.86	2.72	2.76
Portugal	0.35	0.32	0.33	0.32	0.33
United Kingdom	2.83	2.72	2.76	2.57	2.88
Sweden	1.04	1.04	1.02	0.94	0.89
Japan	4.63	5.03	4.49	4.34	3.81

Source: WTO.

Exhibit 1

Unit labour costs in manufacturing in Spain (2008=100)



Source: INE (National Accounts).

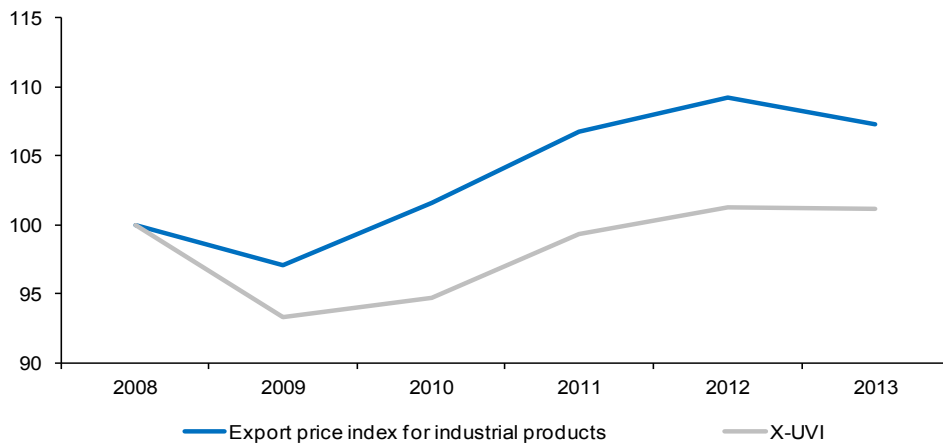
is significantly lower than that observed between 2001 and 2008. As a consequence of this process, unit labour costs in 2013 were approximately back to their 2005 levels (Exhibit 1).

It is usually assumed that this drop in unit labour costs has allowed Spanish exporters to cut the

prices they charge on foreign markets, thereby boosting their sales. However, changes in export prices have not been consistent with this hypothesis. Indeed, export prices have moved upwards throughout practically the whole of the period considered (Exhibit 2). According to the export unit value index (X-UVI), after falling sharply

Exhibit 2

Export prices of Spanish goods (2008=100)



Sources: Ministry of the Economy and INE.

in 2009 in line with the slump in world trade, export prices in the three subsequent years rose continuously, such that although there was a slight drop in 2013, the level that year was 8.4% higher than in 2009. Another indicator is the export price index for industrial products, which has followed the same trend, although the drop in 2009 was smaller than that in X-UVI, and growth in the three following years was greater. On this indicator, price levels in 2013 were 10.4% higher than in 2009.

The reduction in unit labour costs has, therefore, not been passed on to the price of export products. This should come as no surprise, as Spain has a tiny share of international trade, and Spanish producers act as price-takers, i.e. their prices move in line with those of their competitors, rather than using price competition as a means of gaining market share.

This is confirmed when changes in the relative price of Spanish exports are analysed vis-à-vis international prices. For this purpose, we can use a real effective exchange rate, calculated using the export unit value indices (X-UVI) for Spain in relation to other developed countries prepared

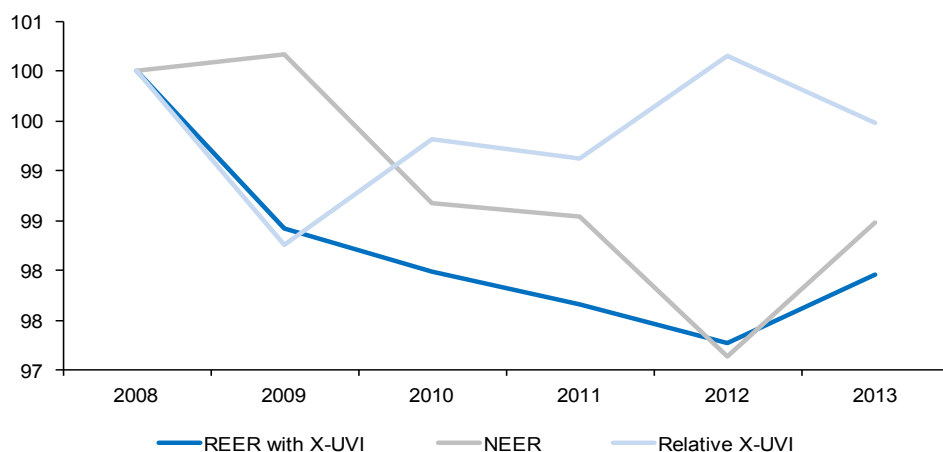
by the Bank of Spain. Exhibit 3 represents the trend in this indicator, and that of its components: relative X-UVI of Spanish exports in relation to the developed countries, and the nominal effective exchange rate of the euro, which measures changes in the value of the euro relative to a reference basket of currencies.

As the exhibit shows, the price of Spanish exports in relation to developed countries followed an upward trend after dropping in 2009, such that in 2013 they were 1.2% higher than in 2009, i.e. between 2009 and 2013 Spain's export prices grew by 1.2% more than those of other developed countries. At the same time, the nominal effective exchange rate of the euro lost 1.7% of its value, so although Spanish prices rose slightly more than those of other developed countries, this was partly offset by a depreciation of the euro, the overall effect being a price competitiveness gain of 0.5% relative to 2009.

Over the period from 2009 to 2013 as a whole, there was a minimal gain in price competitiveness, which came from the depreciation of the euro rather than a reduction in prices, which by contrast,

Exhibit 3

Changes in relative prices of Spanish exports relative to those of other developed countries (2008=100)



Source: Bank of Spain.

rose. In other words, Spanish exporters exploited the devaluation of the euro to raise their prices somewhat more than their competitors, such that there was barely any price competitiveness gain. (This is for the period as a whole: it is possible to observe that in 2013 there was a significant rise in the euro, which forced Spanish exporters to moderate their prices relative to those of their competitors, although not sufficiently to offset the rise in the euro, such that in 2013 there was a loss of price competitiveness that partly counteracted the gains made in recent years).

In short, exporters have moved their prices in line with international prices and changes in the exchange rate, not in response to changes in unit labour costs. But this does not mean that the reduction in unit labour costs, i.e. the increase in competitiveness, has not played a role in export growth between 2009 and 2013. Its influence may have come via a route other than the effect on final prices.

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The impact of the internal devaluation on exports through its effect on profit margins

To determine whether the increase in cost competitiveness has indeed had an influence on export growth, and quantify its impact, an export function has been constructed using an error correction method, in which export growth is related to the following explanatory variables:

- Growth in demand from Spain's export markets, measured in terms of the weighted average growth

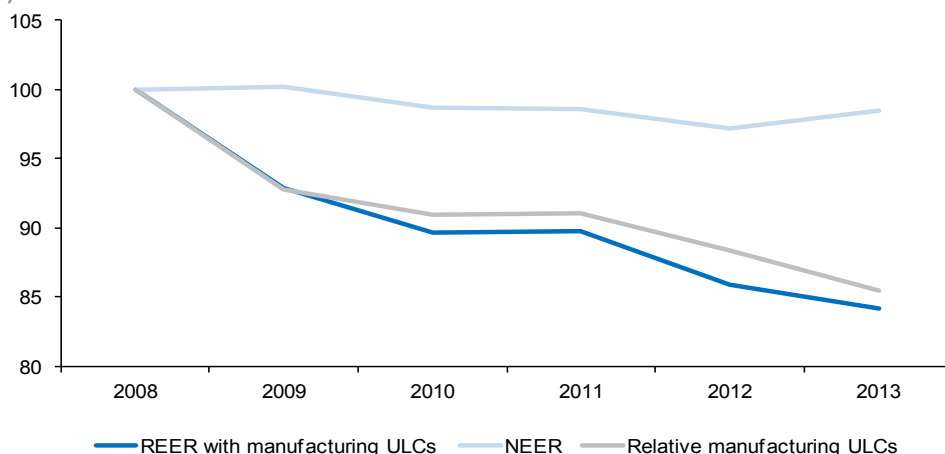
of imports by the countries which comprise Spain's main export markets (EXPMRT).

- Change in domestic demand (DDEM). It is often argued that exports rise when domestic demand drops, as producers try to offset the contraction in the domestic market by stepping up their export efforts. By contrast, when domestic demand rises, producers primarily focus on meeting domestic demand. Introducing this variable in the export function allows us to determine whether its effect is significant, and if so, quantify it.
- Instead of a price competitiveness variable as is habitual in export functions, a variable representing cost competitiveness has been introduced here, namely the real effective exchange rate, calculated using unit labour costs in manufacturing (REERULC). This indicator, which is prepared by the Bank of Spain, relates changes in Spain's unit labour costs to those of other developed countries, valued at the nominal effective exchange rate of the euro (NEER). Apart from the immediate interpretation of this indicator as a measure of Spain's cost competitiveness gain or loss relative to other developed countries, if we assume that international prices tend to align themselves with international unit labour costs, this indicator can also be interpreted as a measure of the margin between these prices and unit labour costs in Spain.

Its progress is shown in Exhibit 4, depicting the change in REERULC and its two components: manufacturing ULCs in Spain relative to other developed countries, and the nominal effective exchange rate of the euro relative to other developed countries (NEER). It can be seen that Spain's relative unit labour costs in manufacturing have fallen almost continuously over the period, all the more so bearing in mind the exchange rate, due to the depreciation of the euro over the period as a whole.

Exhibit 4

Changes in Spain's relative ULCs vis-à-vis those of other developed countries (2008=100)



Source: Bank of Spain.

The resulting short-term export function is:

$$\Delta EXP = -0.43 \Delta REERULC(-1) + 1.39 \Delta EXPMRT$$

$$-0.40 \Delta DDEM - 1.15 ECM_{-1}$$

$$R^2=0.92$$

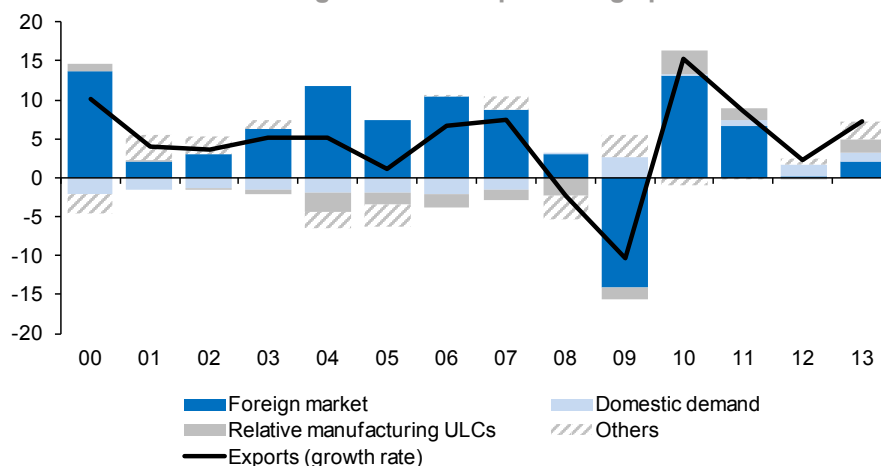
(ECM represents the error correction model).

All the explanatory variables are significant. Cost competitiveness affects exports with a time lag. The coefficients represent export elasticity vis-à-vis a change in the corresponding variable. Based on these elasticities, the contribution of each of the explanatory variables to the change in each year's exports has been calculated, as shown in Exhibit 5. As the exhibit shows, in the years prior to the crisis,

Exhibit 5

Determinants of export growth

Growth rate and contributions to the growth rate in percentage points



Source: Own elaboration.

export growth was basically explained by the increase in external demand, while domestic demand growth and lost cost competitiveness subtracted growth almost continually.

After the drops suffered in 2008 and 2009, exports returned to growth between 2010 and 2013, all the variables considered to be acting in favour. Specifically, the recovery in cost competitiveness has made a positive contribution to growth in overseas sales in this period, except in 2012, when the contribution was negligible. 19.1% of total registered export growth over these four years is due to improved cost competitiveness. The drop in domestic demand explains 12.4% of this growth –due to its encouraging the search for new markets to make up for the drop in the internal market– and the growth in external demand explains 62.3% – the remaining 6.2% being due to other factors that are not explicitly included in the model.

The recovery in cost competitiveness has therefore had a positive effect on the increase in exports, although via a different route than the reduction in final prices. This route may have been on the supply side, through the improved profitability of export-oriented industrial activities, and the consequent reallocation of resources towards them. In other words, the reduction in unit labour costs, although not being passed on to final prices, has benefited profit margins, making Spain's export industry more profitable and so more attractive in relation to other countries as a destination for domestic and foreign productive investment. One example of this is the choice of Spain by various multinationals as the location for manufacturing new models of cars for export. Thus, Spain's greater attractiveness for industrial activities in comparison with other countries has allowed it to benefit from a larger share of the increase in global demand than it would have done otherwise.

Although this analysis focuses on the effect of internal devaluation on exports, the increase in profit margins has not only made export-oriented

industry more attractive, but industrial activity in general, including that catering to the domestic market. Not only have export prices increased, but prices for industrial output as a whole have risen, as is shown by the Industrial Price Index (IPRI), which rose by 15.8% between 2009 and 2013 (8.6% if energy products are excluded). This growth in the IPRI was greater even than that in import UVIs over the same period.

Thus, the reduction in unit labour costs in the manufacturing sector has not been passed on to final prices in the domestic market either. The domestic-market oriented industry has not tried to wrest market share from imported products by competing on price, preferring, like the export industry, to increase profits. Nevertheless, as in this latter case, the increase in profitability of industrial activity may stimulate the sector's future growth, by encouraging a reallocation of resources towards it, fostering a gradual substitution of imports by domestic production, and consequently, a reduction in the high level of elasticity of Spain's imports vis-à-vis domestic demand. The positive effect of the internal devaluation on exports, in conjunction with this negative effect on imports, would contribute to transforming the Spanish economy's growth model towards one in which industry has more weight, and at the same time, is more sustainable and less prone to generate imbalances.

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Conclusion

The drop in unit labour costs in the manufacturing sector between 2009 and 2013 has not translated

into an increase in the price competitiveness of Spanish exports. Exporters have not exploited the reduction in costs to gain market share by cutting prices; what is more, export prices have even risen during the period. Exporters behave as price-takers, i.e. their prices move in line with international prices and changes in the exchange rate.

Nevertheless, the reduction in unit labour costs has played a significant role in the growth in goods exports registered during the period. According to the elasticities yielded by the export function, it is possible to estimate that this factor accounts for 19% of the increase. The route by which this internal devaluation may have encouraged exports may have been through an increase in the profitability of exports deriving from an increase in profit margins, and the consequent reallocation of resources towards them.

References

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