Since end-2012, inflation in Spain - which is approximated by the year-on-year growth rate of the consumer price index (CPI) - has decelerated sharply (see Panel 1). The overall CPI decreased by 0.1% in March 2014, compared with the rise of 3.5% in October 2012. This was partly due to temporary factors such as those linked to the stripping out of the direct effect on prices of previous fiscal consolidation measures (increase in VAT in September 2012 and rises in regulated prices in the second half of that year) (see Panel 2), but also to other factors like weak demand and the slowdown of unit labour costs.

Focusing on the first group of factors, various estimates put the impact on the CPI of the VAT increase at between 0.7 pp and 0.8 pp in terms of the change in the CPI in October 2012, representing a degree of pass-through of approximately 40% of the total potential impact.<sup>2</sup> This impact is similar to that estimated following the VAT increase of 2010, but is considerably lower than those corresponding to the rises in this tax introduced in the 1990s (1992 and 1995). The small pass-through reflects the acute weakness of household spending which would have led firms to absorb part of the tax increase in their margins. The biggest effects relate to non-food components and the impact on food prices is very limited.3 It is estimated that the effect on the CPI of the regulated price rises implemented in the second half of 2012 (which affected a wide range of goods and services such as

The change in services price dynamics - clearly seen since 2009 - is particularly notable and more durable in nature. In the boom period, services prices in the Spanish economy had increased

pharmaceutical products, travel fares and university fees)

amounted to 1.1 pp of inflation in 2012 Q4.

by around 4%, were highly sticky and not very sensitive to cyclical conditions. However, in the period of crisis, the contraction of household spending and the decrease in unit labour costs is estimated to have prompted a substantial change in the trajectory of services items, which are particularly labourintensive. This led to the lowest variation in the time series in March 2014 (-0.3%), although Easter-related effects had some impact on this specific figure.

Services price dynamics changed across the board. Panels 3 and 4 depict this, showing the percentage of items accounted for by non-energy industrial goods and services components in terms of the interval of the year-on-year rate of change of each of their items, with the darker colours relating to smaller changes in prices. The percentage of sub-indices with price increases of above 2.5% year-on-year are shown in light blue, whereas the percentage of items with price decreases of more than 1% are shown in dark blue. In 2007 and 2008 practically all the services items increased in price by more than 2.5% per annum and virtually none of them decreased in price. Conversely, in the most recent period, a noticeable percentage of headings posted decreases in price, most notably telephone communications. The growth rate of the prices of other items has declined substantially, such as housing rents and restaurants, bars and cafés. There are almost no headings with noticeable price increases; most such headings relate to the prices of different types of insurance. By contrast, the distribution of the price variations of non-energy industrial goods experienced smaller changes.

### 1 CONTRIBUTIONS TO THE YEAR-ON-YEAR RATE OF CHANGE IN THE CPI

### 2 CONTRIBUTIONS TO THE YEAR-ON-YEAR RATE OF CHANGE IN THE CPI



SOURCES: INE and Banco de España.

<sup>1</sup> Note that in September 2012 the standard rate of VAT increased by 3 pp to 21% and the reduced rate by 2 pp to 10%, whereas the super-reduced rate held at 4%.

<sup>2</sup> Based on the information on the consumer price index at constant tax rates, the tax effect using the assumption of a full pass-through of the VAT change would have been 1.96 pp.

<sup>3</sup> This shows, to a certain degree, that a portion of these goods is subject to the super-reduced VAT rate (which was not changed) and almost all of the other goods are subject to the reduced rate (which only rose by 2 pp).

The different services price dynamics are also seen when compared with the euro area. For instance, in 2013 Q4 the rate of increase in services prices in Spain was 0.6 pp higher than that of the euro area, whereas in the early months of 2014 it was 1.4 pp lower than the euro area as a whole, an unprecedented occurrence since the onset of monetary union. The shift in the distribution of prices of various items towards lower growth is likely to have also been recorded in the euro area as a whole, although less pronounced. Thus, in the most recent period, the prices of a substantial share (69%) of the items in the HICP show lower growth in Spain than those of the euro area.

In short, Spanish inflation has eased substantially in the most recent period, although the change in the CPI is considerably higher than that recorded in mid-2009. This trajectory is partly explained by the stripping out of the temporary effects which had driven inflation higher in the past, but also due to more durable factors, especially those linked to changes in services prices. In this setting, very low rates of change in the CPI are expected this year which may even be negative from time to time. Nevertheless, the probability of widespread persistent declines in consumer prices is considered remote and, were it to occur, it would be a euro area-wide phenomenon. In fact, the already-discernible trends of a recovery in household spending and lower labour costs point to a slightly upward path for inflation during 2014.

### PROPORTION OF SUB-CLASSES OF CPI WITH YEAR-ON-YEAR RATES BY INTERVAL

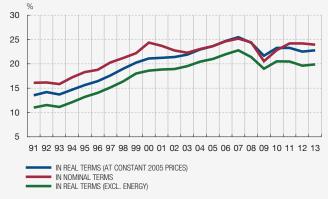
#### 3 SERVICES 4 NON-ENERGY INDUSTRIAL GOODS n 1 TO 2.5 1 TO 2.5

SOURCE: Banco de España

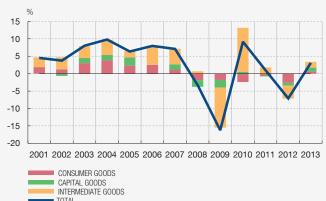
One of the most striking features of the Spanish economy in 2013 was that it was a net lender to the rest of the world, for the first time since 1997, following a sharp contraction in the external imbalance, which had reached 10% of GDP in 2007. Behind this adjustment lie buoyant exports and contracting imports. Some of

the factors that explain the performance of exports in recent years, such as the increase in the number of firms exporting regularly and the increasing geographic diversification of external sales, suggest that a structural change in this component may be occurring, which would presage a persistently higher average level of exports

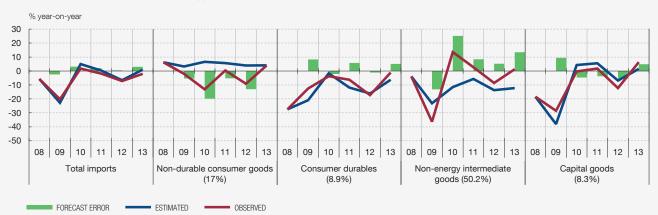
### 1 IMPORT PENETRATION IN FINAL DEMAND (a) Goods and services



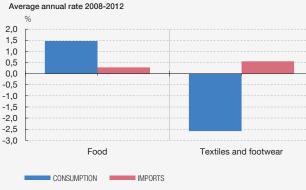
## 2 TOTAL IMPORTS (ANNUAL CHANGE): CONTRIBUTION OF COMPONENTS, IN REAL TERMS



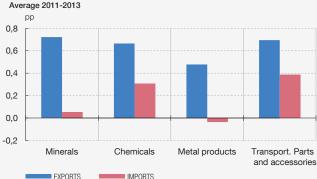
#### 3 ESTIMATED AND OBSERVED GOODS IMPORTS (b)



## 4 IMPORTS AND CONSUMPTION OF NON-DURABLE CONSUMER GOODS, IN NOMINAL TERMS



# 5 IMPORTS AND EXPORTS OF NON-ENERGY INTERMEDIATE GOODS. CONTRIBUTIONS TO THE NOMINAL RATE OF GROWTH



SOURCES: INE, Ministerio de Hacienda y Administraciones Públicas and Banco de España.

- a Import penetration is defined as total imports as a percentage of final demand.
- **b** For total imports as a percentage of final demand, each component has been weighted by its import content. The average weight in total imports for the period 2008-2013, in real terms, is shown in brackets.

in the future. In the case of imports, however, there is greater uncertainty as to the size of the structural adjustment, especially following their rise from the middle of last year, when private domestic demand began to show incipient signs of recovery.

Following the strong growth recorded during the period 1995-2008, the penetration of goods and services imports fell from the start of the crisis. Thus, at the end of 2013 total imports as a percentage of final demand, in real terms, were almost 1.5 pp down from 2008, in spite of the mild pick-up recorded last year (see Panel 1). This fall is consistent with the sharp contraction in domestic demand during these years and the behaviour of its components, especially of those with high import content. According to the latest input-output tables (for 2005, so they may be somewhat out of date), equipment investment was the component with the highest import content (72.8%), followed by goods exports (48.5%) and private consumption (18.3%). Specifically, in real terms, imports of capital and consumer goods fell significantly (by around 6% on average over the period 2008-2013), while those of intermediate goods, closely linked to export demand, behaved more favourably over the same period (see Panel 2).

One way of analysing possible changes in the relationship between imports and final demand, both at the aggregate level and by component, consists in estimating the respective relationships using historical data and then predicting the evolution of imports over the subsequent period<sup>1</sup>. If the path of imports projected on the basis of the evolution of their determinants (the demand for each type of product and their relative prices), is similar to the observed one, it may be concluded that there has been no relevant change in this relationship. Panel 3 shows the dynamic predictions obtained in this way, both for total imports and for their main nonenergy components (imports of durable and non-durable consumer goods, equipment and intermediate goods) and the forecast errors. As seen in this chart, the behaviour of total imports has been in line with the prediction obtained using the estimated equation, so that according to this type of approximation there have been no significant changes in the historical relationship between imports and their determinants. An analysis of the various demand components reveals other details that help to characterise the recent behaviour of imports and, also, to discern possible future trends.

Imports of consumer goods have basically been linked to changes in private consumption. However, it is worth analysing the behaviour of imports of durable and non-durable consumer goods separately. Durable consumption was the component of final household spending that fell most when the crisis began (by 5.6% on average over the period 2008-2013, as against -1.7% in the case of total spending). This fall was especially steep in the case of certain goods whose demand is covered by imports, such as cars and domestic

appliances, so that, overall, the imports of this type of product behaved in line with what would be expected given the sharp adjustment in the demand for them. By contrast, imports of non-durable consumer goods displayed a larger decline than predicted on the basis of the behaviour of their determinants. This may be indicative of changes in the pattern of consumption of such goods by Spanish households, whose spending capacity has been highly constrained during the crisis, with a shift towards the acquisition of lower priced domestic goods. Food products, which have seen an increase in the demand for own-brands, may be an example of this shift.<sup>3</sup> In the case of other non-durable goods (such as textiles), however, the impact of the crisis has not necessarily led to higher relative consumption of domestic goods (see Panel 4).

The growth rate of intermediate goods imports exceeded that predicted by the estimated equation (the forecast error in this case is positive), possibly as a consequence of the recent significant growth in exports, which are highly dependent on imported intermediate goods.4 By type of activity, those sectors with the highest import content (well above average) are those related to the chemicals and minerals industry, vehicles and transport equipment, and electrical and precision equipment. These three sectors, which represent more than one third of Spanish goods exports, were the ones that contributed most to the growth of imports in 2013 (see Chart 5). In the short and medium term, sectors with high import content are projected to continue to have a significant weight, since globalisation and advances in the reduction of transport and communication costs will enable firms to continue to exploit the cost advantages inherent in international fragmentation of the production process. Against this background, competitiveness improvements and structural reforms have increased the Spanish economy's attractiveness as an investment destination, especially for the car industry, but also for services activities.

Finally, the start of the investment cycle in 2013 has driven the purchase of capital goods which, in general, are not produced in Spain (see Panel 2). Last year purchases of machinery and metal structures, transport equipment and other capital goods increased, especially those from the euro area (which have a higher technological content than those from the rest of the world).

In short, the evidence available, having taken into account changes in demand and relative prices, shows signs of changes in the pattern of imports of certain products, although it cannot be concluded unequivocally that a process of wholesale import substitution is taking place. That said, the size of the adjustments facing the Spanish economy, both on the demand side (income and wealth adjustment) and on the supply side (sectoral reallocation), means that the scope and depth of this import substitution process can only be partially identified at this stage.

<sup>1</sup> The relationship between imports and final demand components is estimated using quarterly data for the period 2000-2008.

<sup>2</sup> According to annual National Accounts data, the fall in spending on furniture, cars and domestic appliances accounted for around 50% of the fall in final household expenditure. Imports of durable consumer goods, which before the crisis represented around 50% of total consumer goods imports, fell by about 10% on average over the period 2008-2013.

<sup>3</sup> See Álvarez, L.J. and Ll. Matea (2011): "La estructura de la distribución comercial y su efecto sobre los precios en el área del euro y en España", Boletín Económico, December, Banco de España.

<sup>4</sup> According to the OECD's Trade in Value Added database, the import content of Spanish goods and services exports, which fell in 2009 to around 20%, owing to the sudden contraction in world trade, recovered in 2011 (preliminary estimate) to pre-crisis levels (around 30%).