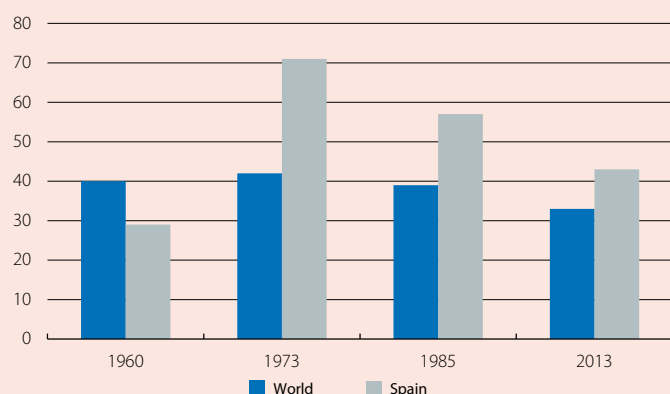


The Spanish economy and oil: a close relationship

The slump in oil prices is turning out to be a real boon in consolidating Spain's economic recovery. As the country has hardly any oil reserves of its own, it has to import almost all it consumes and this is a very large amount since the country's energy model depends largely on crude oil, representing 41% of all its primary energy.¹ Cheap oil is therefore clearly a positive factor for the Spanish economy as a whole. This article analyses the impact such a reduction in the country's oil bill is having on some of its key macroeconomic variables (current balance, GDP and inflation) and the expected trend based on our forecast of a moderate rise in oil prices over the coming quarters. As we will see, the Spanish economy is more sensitive to the trend in crude oil than most other developed countries, a situation which can largely be explained by energy policies that have not managed to replace oil with alternative sources over the years. Let us start, then, with a brief look at the past.

Spain and the world: use of oil

(% of total primary energy)



Note: A primary energy source is one that is available in nature before being transformed into final energy.

Source: CaixaBank Research, based on Economy Industrial no. 394, Ministry of Industry, Energy and Tourism (2014).

In 1960, within a context of incipient industrialisation and an economy that was relatively closed to other countries, oil accounted for just 29% of Spain's primary energy compared with 40% at a global level. However, between 1960 and 1973 there was a sharp rise in oil consumption as a result of unprecedented economic development, the gradual opening up of the economy internationally, low oil prices and government policy. The cumulative annual rate reached 15%, much higher than the 8% growth recorded in the demand for primary energy. Consequently, by 1973 oil actually represented 71% of the total energy consumed, far higher than the global average which had remained stable at around 40%. During this time the government believed the energy sector was strategic and energy policy focused almost exclusively on guaranteeing an external supply of crude oil.

This upward trend in the share of oil consumption was cut short after the huge shock to the international oil market in 1973. The first National Energy Plan in 1975 promoted the development of coal and nuclear energy as substitutes for oil, thereby gradually reducing the latter's relative share to 57% by 1985. In the following five years, between 1986 and 2001, oil prices remained low and stable but oil continued to lose share in Spain's energy mix due to the spread of the gas network, allowing greater diversification in energy sources in favour of natural gas. The boom in renewable energy plants (especially wind and solar power) came with the change in millennium thanks to growing environmental concern and, most notably, a compensation policy that guaranteed a return on investment under very favourable terms. The production of renewable energy therefore grew by 94% between 2004 and 2014 and currently contributes 15% to the total primary energy. In the meantime oil has continued to lose share, falling to today's figure of 41% although this is still noticeably higher than the world average of 33%. Gas (21%), coal (10%) and nuclear energy (13%) complete Spain's sources of primary energy.

In spite of the path taken to diversify energy sources, the country is still very dependent on imported oil.² Consequently a fall in its price results in significant savings in the energy bill paid every year to other countries. To quantify these savings, we need to look at the trend in Spain's energy balance.³

1. A primary energy source is an energy form found in nature that has not been subjected to any conversion or transformation process (e.g. electricity is a secondary energy source but not primary).

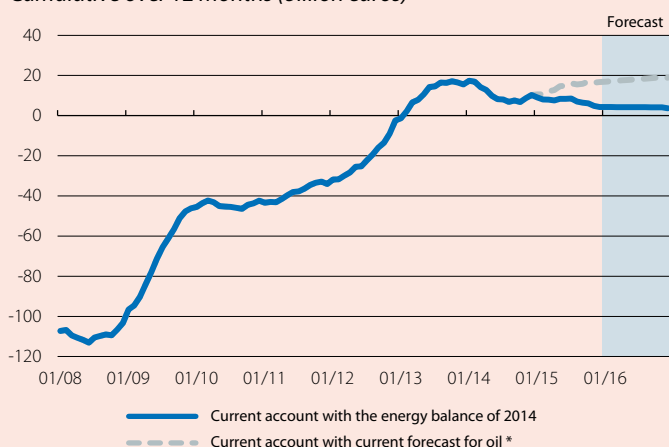
2. According to the OECD energy balance, the self-sufficiency index (ratio between the production of primary energy sources and consumption) in Spain is 0.30 while the OECD average is 0.78. The gap in the self-sufficiency index for oil is even wider: 0.01 in Spain and 0.57 for the OECD.

3. We have analysed the total energy balance and not oil imports for two reasons. Firstly, oil and its derivatives account for 75% of energy imports and gas 20%. Given that the oil price and the gas price are very closely related (gas contracts are generally indexed to the price of crude), it is useful to analyse all energy sources together. Secondly, Spain carries out a significant amount of oil refinement so that, although it does not have any important reserves, it does export refined oil products whose value has also fallen (-28% in 2015).

The country's energy deficit totalled almost EUR 27.42 billion in 2015 (2.5% of GDP) compared with EUR 39.84 billion in 2014 (3.8% of GDP); i.e. the 35% reduction in the price of a barrel of oil in euros (from EUR 74.5 on average in 2014 to EUR 48.3 in 2015) has led to savings of more than one percentage point of GDP. This is a considerable figure which nevertheless has only helped to improve the current account surplus to 1.5% of GDP in 2015 from 1.0% in 2014, due to a simultaneous and notable deterioration in the non-energy balance which has been obscured to some extent. In other words, if the energy deficit had remained at its 2014 level, the current account surplus would have deteriorated to 0.4% of GDP in 2015. With a view to 2016, cheap oil will continue to support the improvement in the current account. Our forecasts assume a price of EUR 39.5 per barrel, 18% lower than the 2015 average, which would lead to additional savings equivalent to 0.3% of GDP. The improvement in the energy balance will therefore be modest, highlighting the fact that, in order for the Spanish economy to achieve a sustainable external balance, it must continue to make gains in competitiveness to improve its non-energy balance.

Current account balance

Cumulative over 12 months (billion euros)



Note: * Oil price forecast of EUR 39.5 per barrel in 2016.

Source: CaixaBank Research, based on data from the Bank of Spain.

The fall in oil prices on the world market since 2014 is largely due to supply factors (shale oil, Saudi Arabia's strategy, etc.) so we can expect a positive and considerable effect on economic activity.⁴ Savings in the energy bill release resources of households and companies which can be used to consume and invest in other goods and services and thereby stimulate economic growth. An approximate calculation, based on the values historically observed in the marginal propensities to consume and invest, as well as on import content, suggests that the reduction in oil prices may have contributed between 0.4 and 0.8 pps to Spain's GDP growth in 2015, which was 3.2%.⁵ More sophisticated econometric techniques such as SVAR models with sign restrictions, which isolate the effect of the fall in oil prices on GDP growth, point to an even greater effect in the long term. For example, a study by Peersman and Van Robays⁶ estimates that, after 20 quarters, the impact of a 10% fall in oil prices on Spain's GDP is 0.5 pps,⁷ a noticeably larger

effect than the average for the euro area (0.3 pps) and only exceeded by Ireland, Finland and Portugal. Consequently, given the time lapse required for the fall in oil prices to affect the economy, the impact on GDP in 2016 could even be more than in 2015.

Lastly, a third macroeconomic variable whose trend has been greatly affected by oil and its volatility is inflation. In fact downward revisions of inflation throughout 2015 have been continuous and substantial as the slump in oil prices exceeded all expectations. For example, one year ago we forecast 0.3% general inflation for Spain in 2015, which ended up being -0.5%, and 1.6% for 2016 when our forecast is now 0.1%. Something similar has happened in the euro area as a whole and with important implications for monetary policy. In principle a downward deviation in inflation (no longer compared with analysts' forecasts but the central bank's target) should not be a cause for concern if this is due to oil prices as it would not suggest the economy is operating below its potential. However, a prolonged period of abnormally low inflation could end up influencing inflation expectations and thereby prolong and accentuate the deviation. Unfortunately these expectations have shifted downwards, a circumstance that largely explains the more accommodative tone shown by the ECB in the last few months.

4. A drop in oil prices associated with a shock in global demand, however, would have a negative effect on the Spanish economy's growth as the impact of the decline in aggregate demand in international markets would exceed the boost associated with lower crude prices.

5. The effect observed might be located in the upper region of this band as the nature of the shock is perceived as permanent and not temporary.

6. See Peersman and Van Robays (2009) «Oil and the Euro Area Economy», Economic Policy.

7. An analysis by demand component of GDP shows that investment is the component that has grown the most (1.60 pps) while the impact on consumption is lower (0.34 pps).

Beyond the macroeconomic impact in the short and medium term (with a more positive than negative effect on the balance), we should not forget that cheap oil also entails certain risks of a different nature, particularly those related to less incentive to improve energy efficiency and to replace crude oil with other, more environmentally friendly sources. Similarly another danger mentioned little in public debate is the complacency observed in adopting measures to improve external competitiveness in structural terms as this deficiency in Spain's economy is being obscured by the exogenous improvement in its energy balance. We should take advantage of the current tailwind offered by cheap oil to carry out reforms that will help to tackle any headwinds in the future.

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