



Universitat Jaume I

THE INFLUENCE OF OIL PRICE IN SPANISH AND EUROPEAN TOURISM

Title: The influence of oil price in spanish and european tourism

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1. Introduction

The economy of our country has been marked for decades by being immersed in a great economic crisis, and, on the other hand, by the variation of oil price indexes, which promises to be the main topic of headlines in the mass media for much longer. However, the correlation between oil and the economy has been essential from the 21st century to this day. Since then it was a topic that only concerned the specialists of the subject, but from its constant development, driven first by the production of kerosene for lighting and then by the demand of fuels for the internal combustion engines, it has become the essential protagonist of the economic development of the Importing and Exporting Countries in the World, and particularly for Spain and Great Europe.

Oil has been one of the main economic drivers of the Spanish economy. It has been a silent catalyst for consumption and investment, since its impact is barely noticeable on a day-to-day basis, but its added relevance has been fundamental. Economists were expecting that the price would rise slowly in the coming years, but this scale has surprised everyone and leaves Spain in a complicated situation.

In crude oil prices, demand is picking up in the recent months as a result of the acceleration of economic activity in developed countries. The combination of higher demand with lower supply can only have one result: the rise in prices. Which is the worst possible news for the Spanish economy.

Tourism is one of the sources of growth in the Spanish economy, and one of its main pillars. It is a strong and growing sector and a great opportunity for a country like us, since we represent a big part of the it. In Spanish and European tourism we did an investigation on the Air and Hotel Sector to measure the Influence that the Unstable Price of oil has caused in these sectors.

In the progression we will see the risks that Spain and Europe have gone through in the Tourism Industry. Nowadays, the magnitude of the rise in the price of crude oil is being less intense, to which we must add the strength of the euro against the dollar. The price of the euro / dollar remains around 1.20. Therefore the Industrial aspect of it will be less vulnerable compared to that of the family aspect, since the consequences that it could have on the travel decisions of tourists will be reflected mainly in the tickets of airplanes and lodgings, as well as in the power of consumer purchases in Spanish tourist destinations.

Tourism is a key sector of economic activity both for its size and its dynamism and for its ability to influence other areas of Spanish economy, despite the great instability that the price of oil has kept, studies point out that the tourist economy does not show signs of slowing down despite the high costs in the sectors used to move around the Spanish territory.

2. Objectives to achieve

The main objective of this work is to analyze the evolution of the price of oil throughout history in Spain and Europe and analyze its influence in the tourism sector.

We can also see the Influence that the oil price has had on the Oil Industry and on the Spanish Economy; and the impacts that the Importing and Exporting Oil Countries have suffered because of this instability.

In addition to these general aspects, this work is completed with some specific objectives that help in achieving the main goal. They are the following:

- ✚ First: Analyze the evolution throughout the history of the Oil Price in the economy and its influence.
- ✚ Second: Influence of the Price of Oil in the Air sector.
- ✚ Third: Influence in the tourist and hotel sectors.
- ✚ Fourth: The Impact of the Oil Price on Inflation; Price, Offer and demand in Spain and Europe.
- ✚ Fifth: Price Variation repercussions in European Oil Companies and Industries.
- ✚ Sixth: Impact in the Oil Importing and Exporting Countries undergoing price changes.
- ✚ Seventh: Index of the Oil Movement in the European Union, and how it has affected Southern and Northern Europe.
- ✚ Eighth: Oil Price estimation during 2018.

3. Theoretical framework

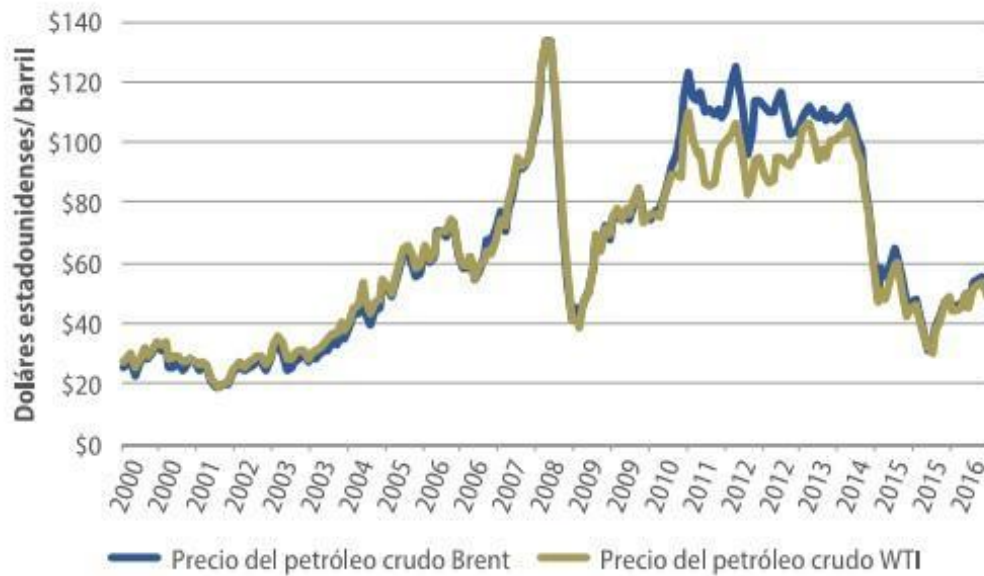
At this point, as its name indicates, an analysis of the theoretical framework will be carried out in relation to the Influence of the Price of Oil in Spanish and European Tourism. Starting from History to the present, the causes and consequences that it has experienced, and the impact it has had on the Economy.

3.1 Influence of the price of oil.

A brief History of Oil: The economy of the 21st century is shaken by the fluctuations in the price of crude oil, which promises to be the mass media headliner for a long time. But there was a time when the correlation between oil and economic development was essential, since until then its price was a subject that only concerned specialists in the field. A retrospective look shows that the oil industry grew from 1860 until the mid-twentieth century, driven first by the need of kerosene for lighting and then by the demand for fuels for internal combustion engines. And so, the Oil Industry became an essential pillar of economic development¹.

Oil prices experienced temporary increases during the 1950s but during the 1960s they fell to values lower than those of 1950. In the BP² Statistical Review of World Energy 2015, historical prices are calculated in 2014 dollars. According to this estimate, 1.90 current dollars paid in 1949 were equivalent to 20 dollars in 2014, while 1.8 in 1970 were equivalent to 11 dollars in 2014. In this scenario, the Organization of Petroleum Exporting Countries, from now on OPEC³, was formed in 1960. Originally formed by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela it grew later by adding exporting countries from the Middle East and North Africa. The objective was to strengthen the negotiation with the companies, attain greater participation in production decisions and find new mechanisms for determining prices.

Precio del Petróleo Crudo (WTI + Brent)



Fuente: St Louis Fed; data mensual.

Graph1:

The evolution of crude oil from the year 2000 to 2016.⁴

Source: St Louis Fed, monthly variation.

In recent past, OPEC has ceased to be a major cause of economic fluctuations. There are two reasons why the cartel's macroeconomic influence has diminished.

The first one: OPEC has failed to raise the price of oil as much as before. Although world oil prices have fluctuated, fluctuations have not been as considerable as during the 1970s and the real price of oil has never again reached the highs recorded in the early 1980s. The price of oil, expressed in 2006 dollars, reached around \$100 a barrel at the beginning of that decade. On the other hand, between 2003 and 2005 it was never a cause of great concern, when it rose as a result of the Iraq war and other events. During this period, it remained below \$70 a barrel.⁵

Secondly, energy saving efforts and technological changes have reduced the vulnerability of the US economy and the Eurozone to oil shocks. In nowadays Spain, the economy is based more on services and less on the manufacturing industry, and services usually consume less energy to produce than manufactured goods. The amount of oil consumed per unit of real GDP has decreased by about 40 percent in the last thirty years. This fact leads one to think that even if today's oil prices reached the figure of \$100 a barrel again, the macroeconomic effect would be much lower. In other words, the price of oil would have to vary much more to produce the economic effects that were observed in the 1970s and 1980s.

As of now, the events occurring in the Middle East and Venezuela represent a serious disruptive menace for economies around the world. If the rise in oil prices were sufficiently large, the economic result could very well resemble the stagflation of previous decades.

In mid-2013, the price of Brent Oil⁶ (the most expensive one) was \$110 a barrel. Since then, it has only fallen and reached below \$50 at the start of 2015. Currently, in May 2018, it is at \$75 a barrel.⁷

The increase in the supply of oil in the world market, jointly with the economic weakness that still drags the Eurozone and the strength of the dollar, has been causing a fall in oil prices since 2014. In addition, the countries of OPEC (Organization of Petroleum Exporting Countries) have not been able to reach an agreement to reduce production and thus raise prices.

With these historical conditions we can indicate that in its evolution the Oil has brought a series of economic changes to the countries of Europe, being able to detrimentally affect the Spanish Tourism either by instability and high costs of air, maritime, and terrestrial tickets or expenses in lodging and purchases in different Spanish markets.

3.2 Influence in the Air sector:

The rise in the price of fuel in the current economy results in inaccessible air ticket prices which decreases the possibility that more tourists can choose Spain as their main destination.

The conflict generated by the international increase in fuel prices has determined that the price of oil has no stability, which is why airline and aviation companies have been forced to make increases in tickets, new air rates and the paralysis of investments in new airplanes with more capacity, thus carrying out the frequent use of old aircraft.

The use of old and smaller aircraft is derived from the high cost involved in the investment for modern aircraft technologies.

According to a report provided by the International Air Transport Association (IATA)⁸ the situation in Europe does not seem to be very good either. The strong start in 2017 remained for almost the entire year, supported by a generalized rebound in the global economic outlook. Although the underlying economic outlook remains favorable in 2018, the increase in the cost of inputs, especially fuel, suggests that it will be difficult to see the positive influence of the lower rates we saw in the first half of 2017.

In Europe, the demand for air passengers increased by 8.2% in 2017, supported by a healthy economic outlook. Capacity grew 6.1% and the plane occupancy factor was at the top, with an increase of 1.6 percentage points to 84.4.⁹

3.3 Influence in the Tourism and Hotel Sector:

Nowadays, the Importance of Tourism exceeded Petroleum Exports, the tourism business volume equals or even exceeds that of oil exports. Tourism has become one of the main factors of international trade, and represents at the same time one of the main sources of income for many developing countries. This growth goes hand in hand with the increase in diversification and competition among destinations, with Spain being privileged by its climate in comparison with other European countries.

The rest of companies that are dedicated to tourism will also be benefited by the drop in oil prices. Hotels and restaurants will pay less for their energy bills, which will allow them to earn more. In this case it is difficult for a drop in oil prices to be transferred to the rates charged to the consumer, since hotel prices are very tight and constantly falling to stimulate customer demand. However, if the travel trend between Spaniards and foreigners continues to rise, the decline in oil prices will generate greater benefits for hoteliers, who will be able to reinvest in the creation of jobs, always depending on the tourist demand.

But not everything is good. The drop in the price of oil also means that deflation, that is, that the price of goods falls. In countries with a strong energy dependence, such as Spain or most of Europe, this deflation is more noticeable, since the price of fuel has an important weight in the calculation of this index.

This continued fall in the price of oil can lead to a new crisis, since prices continue their tendency to fall, which decreases companies' income, obtaining less benefits, creating less employment, or firing their workers for not maintaining production levels when there is less demand, and increasing unemployment. The tax revenues of the State decline and the amounts dedicated to public services are reduced. All this leads to a vicious circle that is difficult to break.

Ideally, the price of oil should remain at a low cost, activity in the industrial countries should grow and demand should increase, despite the fact that there was a small deflation in prices. It would be an ideal scenario that would guarantee economic growth, and with it, tourism will once again be at a high level since travelers, being favored with a better economy and offers in different destinations, would be able to choose to travel without so many restrictions or high prices, although it does not seem very likely that this could be attained in the instability and variations of Crude Price we currently face.

Tourism has become an essential source of wealth in the accommodation business, being vital for Spain. Have great attractions for visitors and one of the best climates in Europe would be fruitless without a variety of accommodation offers that adapt to the different needs of the visitors.

In 2017 Spain closes the year with a hotel investment that exceeds 3,700 million euros, setting a historical record in the big chains.¹⁰

4. Inflation in Spain:

The Consumer Price Index is the first indicator that reflects the effects of the rise in crude oil in Spain. For example, the effects of the rise in crude in February 2011 have been associated with an increase in the CPI by 3.6% compared to the same month of the previous year, as shown in the following graph.



Graph 2: Inflation in Spain and the Average of the Eurozone,

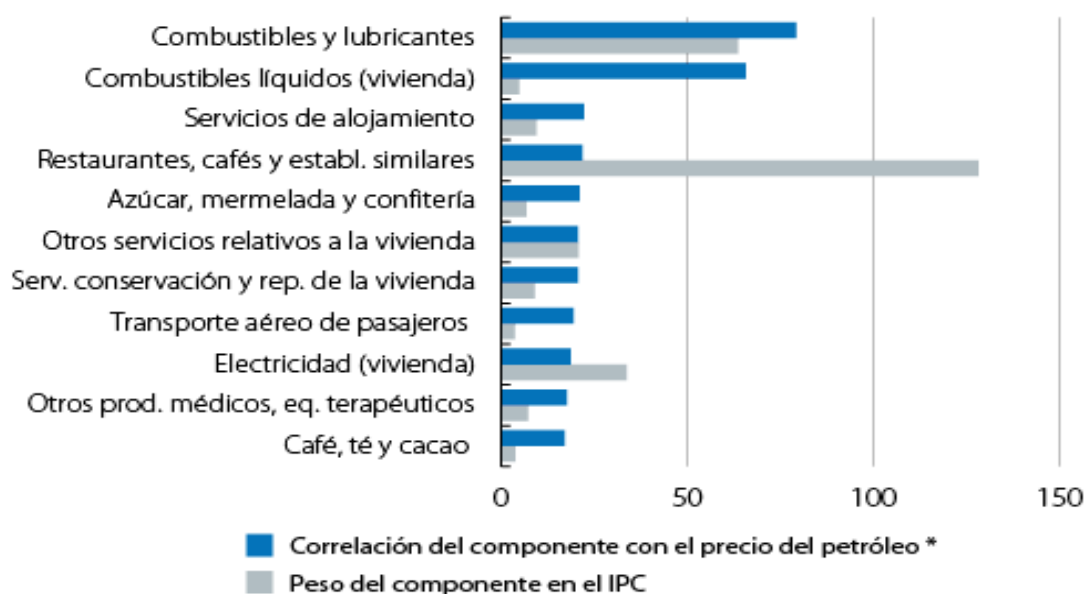
Source: INE and Eurostat.

Something very similar happened in the euro zone for the same reasons, only with less impact due to factors such as unemployment, internal economic policy, other fuel consumption alternatives and less fossil energy dependence.

The rise in oil prices affects inflation in three different ways. Firstly, it has a direct impact on the price of fuels. This effect is more pronounced in Spain than in the eurozone because fuels weigh 7.7% in the Spanish CPI, while only weighing 4.2% in the eurozone, and because the lump-sum taxes are lower in Spain, with which the price of fuel fluctuates more in line with that of oil. Secondly, we can appreciate the indirect effects on other components due to the increase in production costs that are intrinsically linked to oil, for example, transport prices. And thirdly, we must add the so-called second-round effects, which occur as a result of changes in inflation expectations of economic agents and can affect, for example, wage negotiations.¹¹

Componentes del IPC español más correlacionados con el precio del petróleo

Peso en el IPC (%) y correlación (%)



Nota: * Se calcula la correlación de la variación interanual contemporánea y con retrasos de uno hasta cuatro meses y se grafica la correlación máxima (la correlación toma valores de -100 a 100, donde 100 implica una sincronización perfecta).

Graph 3: Correlation of IPC Spain and oil components.

Source: INE and Eurostat.

One way to measure these three effects, both for Spain and for the eurozone, is based on the fragmentation of the CPI into 94 components. For each component, the correlation with the oil price is calculated and the components are classified into two groups, according to whether or not they have a significant correlation. Next, a synthetic price index is built using only the components not correlated with the price of oil, thus the difference between observed and synthetic inflation illustrates the influence of the price of oil on the price of the rest of goods.

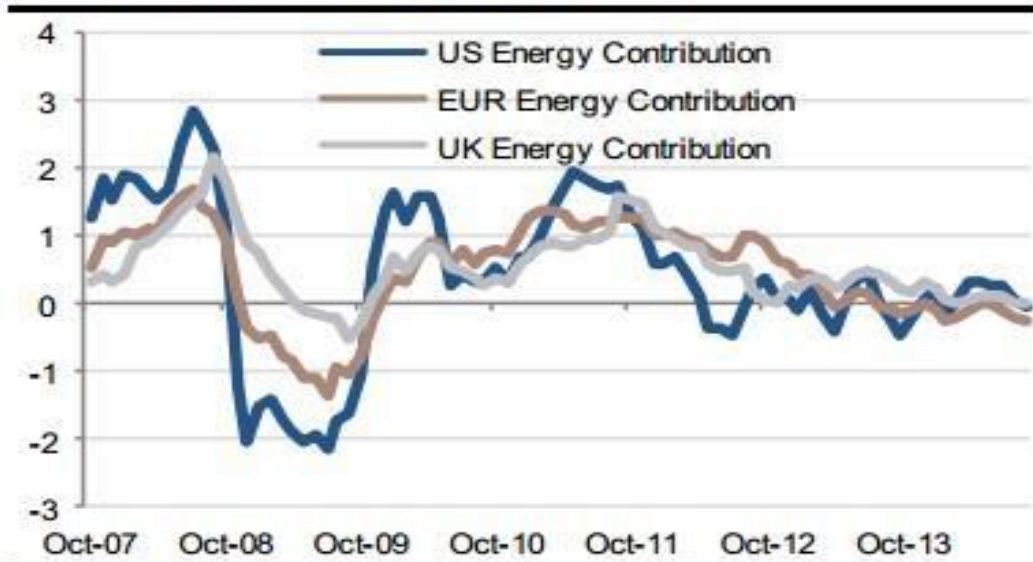
The first result that is extracted from this exercise is that, in the last 15 years, the components correlated with oil in the Spanish CPI weigh more than in the CPI of the eurozone. Specifically, in Spain, the correlated components (which are excluded from the synthetic index) have a joint weighting of 59.1%. This is far above the eurozone, where the excluded components weigh 36.7%. The biggest differences between Spain and the eurozone are in restaurants and accommodation services, with a combined weight of 13.8% in the Spanish CPI. In both cases, the correlation with the price of oil is high in Spain, while in the eurozone it is almost nonexistent.

In the Spanish case, the greater weight of the components correlated with oil, contributes to a higher inflation increase in Spain in comparison with the eurozone throughout an episode of rising oil prices. Thus, in the escalation of oil prices between 2007 and 2008, the effect of this increase on Spanish inflation was 4.1 p. p. (difference between observed and synthetic inflation in August 2008) while in the eurozone it reached 2.3 p. p. in November.¹²

We must acknowledge that the central banks of many countries focus on trying to control inflation, so it is very important to analyze how the price of oil affects it.

A drop in the price of oil from the current levels in the Brent market would imply a considerable decrease in the global CPI, which would entail a sudden impact on the inflation linked to the bonds. Inflation curves would accentuate in such a case. The greatest impact would be on US Treasury securities protected against inflation, since its CPI would fall to a greater extent than that of Europeans. Among other aspects because the taxes associated with oil in the EU are greater than those associated in the US, hence there is not as much impact on the decline of oil compared to the US, as the following graph shows.¹³

Chart 3: Contribution from energy inflation shows largest swings in US CPI



Source: SG Cross Asset Research

Graph 4: Contribution of energy inflation shows the biggest changes in US.

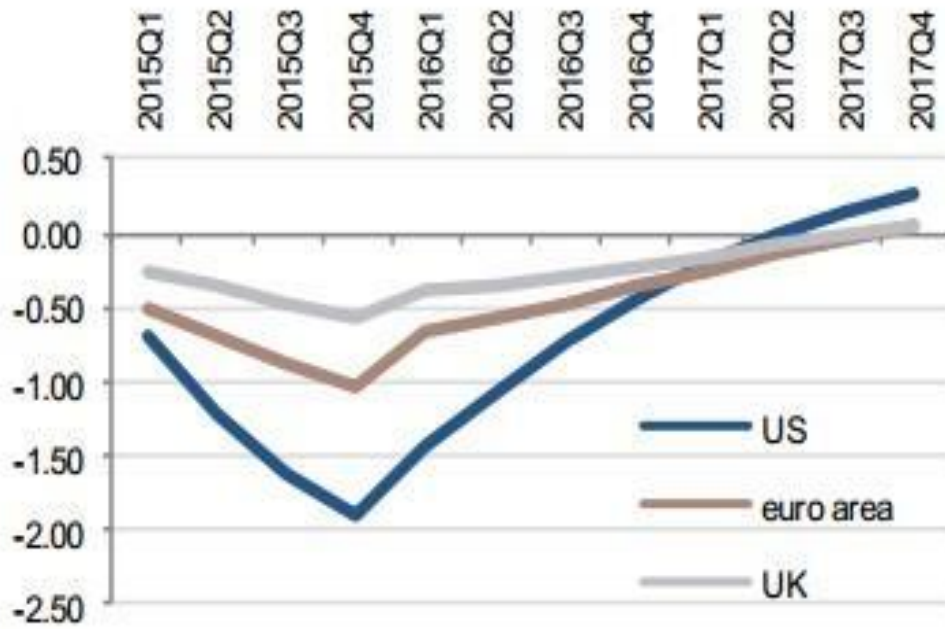
Source: SG Cross Asset Research.

The impact of gas prices on the CPI is key to understanding how inflation linked to assets will be affected.

If we assume the Brent at \$70 / bbl, the US will be the most affected country, followed by the eurozone and then the United Kingdom. If we see the impact on the shopping cart, the US CPI will decrease by around 1% for 2015, but only 0.40% in the eurozone and 0.30% in the United Kingdom.

Analyzing it more deeply, using a macroeconomic model, it shows that the impact is greater than the one mentioned above. As it reduces the US CPI by 2% at its maximum impact point, which is one year after the impact. The eurozone is affected by 1% and the United Kingdom decreases its CPI by around 0.5%. The economic impact diminishes as time advances.

Chart 4: Cumulative impact on CPI using a NIGEM macroeconomic model



Source: SG Economic Research

Graph 5: Impact on the CPI through the use of a macroeconomic model of NIGEM.

Source: SG Economic Research.

5. Price, Supply and Demand of Oil in Europe.

In case there is a decline in the price of oil, it has a positive impact on the world economy. More abundant oil at lower prices increases the disposable income of households and consumer companies, which favors spending on consumption and investment.

At the same time, the decrease of energy prices also changes the structure of production costs, increasing the expected profitability of investment projects, which can also lead to a reduction in the goods and services produced that strongly rely on oil in the production or transport process.

There are two possible effects associated with a drop in oil prices:

- ✚ The drop in crude oil prices may be the result of a change in demand (the world economy consumes less oil, so the price decreases). Throughout history, the decrease in the price of crude oil has been caused by a change in demand. Under this scenario, the drop in the price of oil implies a weakening of the world economy, which is reflected in the negative values of the FII (fixed income instrument), for oil importing countries.
- ✚ The other type of oil price variation may be caused by a change in supply. The recent decreases in the price of crude oil have been a consequence of the demand for shale (shale gas) from the USA. Consequently, a drop in the price of oil should not be considered as an indicator of the weakening of the global economy.¹⁴

5.1. Oil Importing Countries

With regard to oil importers, supposedly, a decline in oil should benefit their stock market. On the other hand, the FII (fixed income instrument) for the oil-importing countries is negative, a fact that is assumed to be a contradiction. This is because a cheaper oil price, for the importing countries, begins to be reflected after some time, not immediately.

The countries that would be most vulnerable to the impact of a decline in the economy will be those whose economies are extremely focused on exports. But as we have said, the recent decrease in the price of crude oil is not conditioned by the contraction of the economy, but by a change in supply.

5.2. Oil Exporting Countries

A decrease in the price of crude oil will imply a negative impact on the stock indexes of the oil-producing countries. For example, Russia would suffer it the most, while Canada is the least affected.

In brief, in a scenario like the one we face, with low prices caused by the shale, Russia will be the most affected country, of those analyzed, while the most positive effect will be reflected in the European market.

Mayores países exportadores de petróleo

Valor de exportación de petróleo crudo por países en 2015 (miles de mill. \$)



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Fuente: World's Top Exports

statista

Graph 6: Largest oil exporting countries.

Source: World's Top Exports.

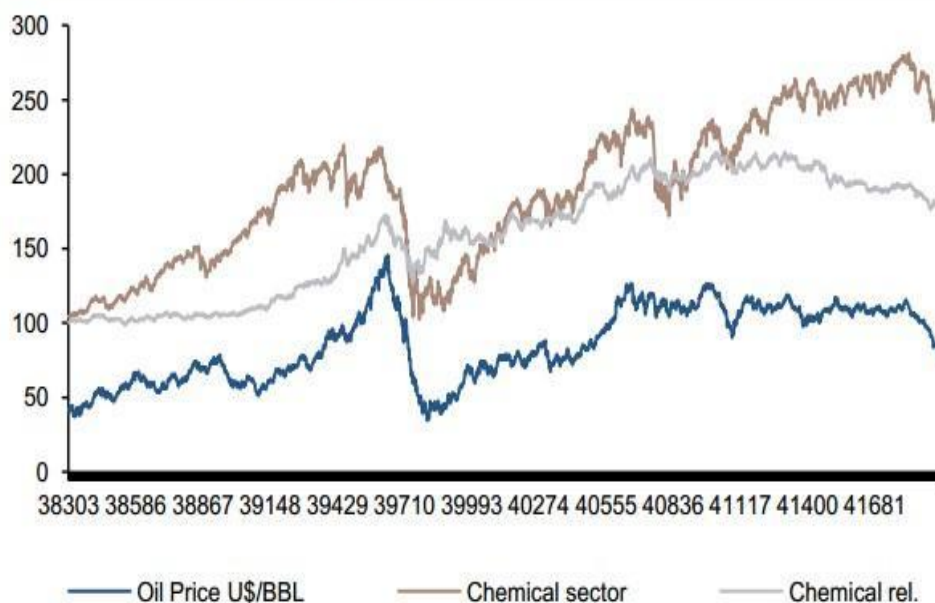
With a production of one million tons during the past year, Spain ranks fifth among European oil producers. The main producer was Great Britain, with forty million tons, followed by Norway (13.6 million), Federal Republic of Germany (5.45 million) and Austria (1.9 million tons). Worldwide, the main producer was the Soviet Union, with 551 million tons, followed by the United States (463 million), Saudi Arabia (453 million) and Iran (276 million).

6. Oil Industry in the European Union

In the European chemical sector, an environment with low oil prices should also be beneficial, theoretically, despite the fact that the impact of the low price of crude oil should be noticeable a year from now, as the effects are not immediate.

Essentially, the chemical industry should benefit because a lower price of oil will result in higher margins, as shown in the chart below, due to the drop in costs. This will inevitably lead to an increase in pressure on sales prices, which will increase the risk of margin contraction. Historically, a deflationary environment has not benefited the chemical sector because it has evidenced a weak macro context.

The oil price and European chemicals sector



Source: SG Cross Asset Research/Equity, DataStream, MSCI

Graph 7: Low oil in the Economy.

Source: SG Cross Asset Research/Equity, DataStream, MSCI.

The chemical companies, such as AkzoNobel, Arkema, Clariant and Solvay, will be the biggest beneficiaries of a weak price of crude oil. These companies have been the affected the most by the previous rises in crude oil, and therefore have tried to improve their mix, to be less subject to oil volatility.

In short, the greater effect that the low price of oil will have will be evidenced in the macroeconomy, since the increase in the supply of crude oil could help GDP growth.¹⁵

7. Oil in the European Union

From 2011 to 2013 the price of Brent oil has remained at \$110 / bbl, the highest price since the data is recorded. But the drop of 25% in crude oil prices has been reflected in a 24% correction in the European Union oil companies. The three oil companies, which have suffered the least from the impact of a low oil price are Shell, Repsol and Galp, which have a long exposure to "downstream", which is the process of refining crude, marketing and distribution of petroleum products.

History shows that in the oil crash of 2009 the only European companies that kept their dividends without cutting them were the renowned Shell, BP and Total. After this, the balance sheets of European oil companies today are stronger, because after the crash of 2009 they have greater liquidity.

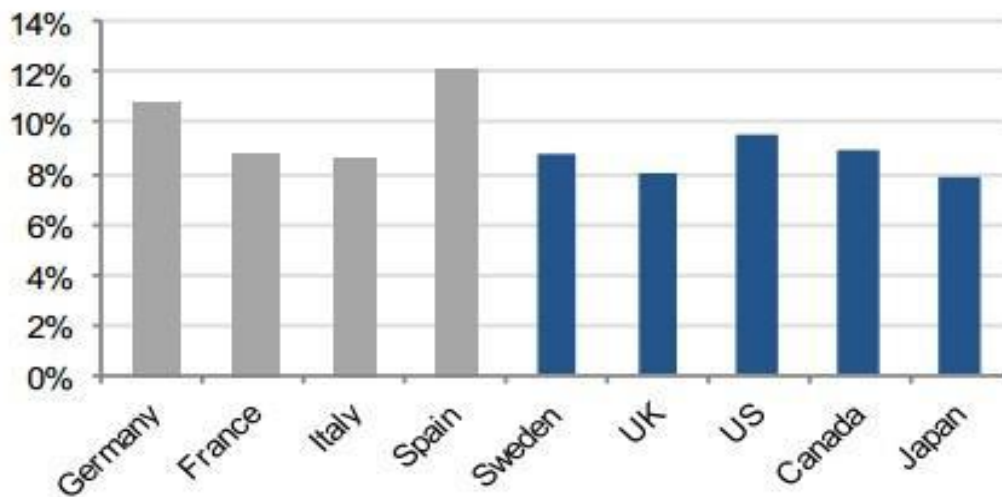
Despite the strengthening of the companies' balance sheets, if oil continues to be around \$70 / bbl during 2015, it is most likely that there will be cuts in investments in capital goods, postponement of projects and more attenuated production growth objectives.¹⁶

8. Energies of the European Union

Although the low price of oil also reduces the costs of extracting energy. A lower oil price will mean that the shale technique is less profitable. In fact, if the price of the barrel were between \$60-70, this technique would no longer be productive.

Energy affects approximately 9% of the consumption basket of the CPI, as shown in the following graph. Among energies, gasoline for transportation is usually the most used.¹⁷

Chart 1: Weight of energy within CPI baskets



Source: OECD; SG Cross Asset Research

Graph 8: Weight of Energy.

Source: OECD; SG Cross Asser Research.

We are going to divide Europe into two parts to see how each one is affected by a low price of oil in the price of energy. With regard to European energies, this continent could be divided into two halves, divided by the Italian Alps. From the mountainous

system downwards, energy market prices are conditioned by gas, while from the Alps upwards they are conditioned by coal.¹⁸

8.1 The southern part of Europe

Italy, Spain, Portugal and to a large extent Greece, (the bottom half), have experienced a massive expansion in gas in the last decade. Which has made the gas act as a normative price of energy, this being one of the reasons why the price of energy is higher. But in some countries like Spain, the price of gas is closely linked to that of oil, so now, it will be more benefited by current prices. While in Italy, the same does not happen as it has developed a more balanced gas market.¹⁹

During 2013, both demand and gas supplies in Spain fell by 8.1% and 6.8%, respectively. At European level, Russia continued to be the main supplier.

In 2013, Spain continued to be the leading importer of Liquefied Natural Gas in Europe.

In the course of 2013, Russia was again the main supplier of natural gas to Europe. Procurement increased by 24%, to accumulate 139.7 bcm. The following supplier countries to Europe were:

- Norway, with 108.7 bcm (-5%)
- Holland with 70.0 bcm (+ 10%)
- United Kingdom with 34.5 bcm (-9%)
- Algeria with 25.8 bcm (-17%).²⁰

8.2 The northern part of Europe

The price of energy in this area is usually determined by coal. Everything is encompassed around German energy prices. In the Nordic market during the peak hours, the price of the German market is reflected in the other countries of the northern part, while in the non-peak hours, the price is determined according to the national cost of the offer of each country, without German involvement. The price of coal is cheaper than that of gas, and in these countries their energies are not so closely linked to that of oil, so they will not perceive a more abrupt change than that of the southern part of Europe.²¹

Europe, whose natural resources are rapidly depleted, depends on alternative resources. "Coal, oil and gas in Europe are coming to an end, and alternative sources are needed," says the report of the British Global Sustainability Institute.

For more than two decades the European coal sector has suffered a continuous process of decline, especially relevant since the end of 2008, when they began to feel the effects of this continent most recent economic and financial crisis. Therefore, the future that hangs over the mining basins is complicated.

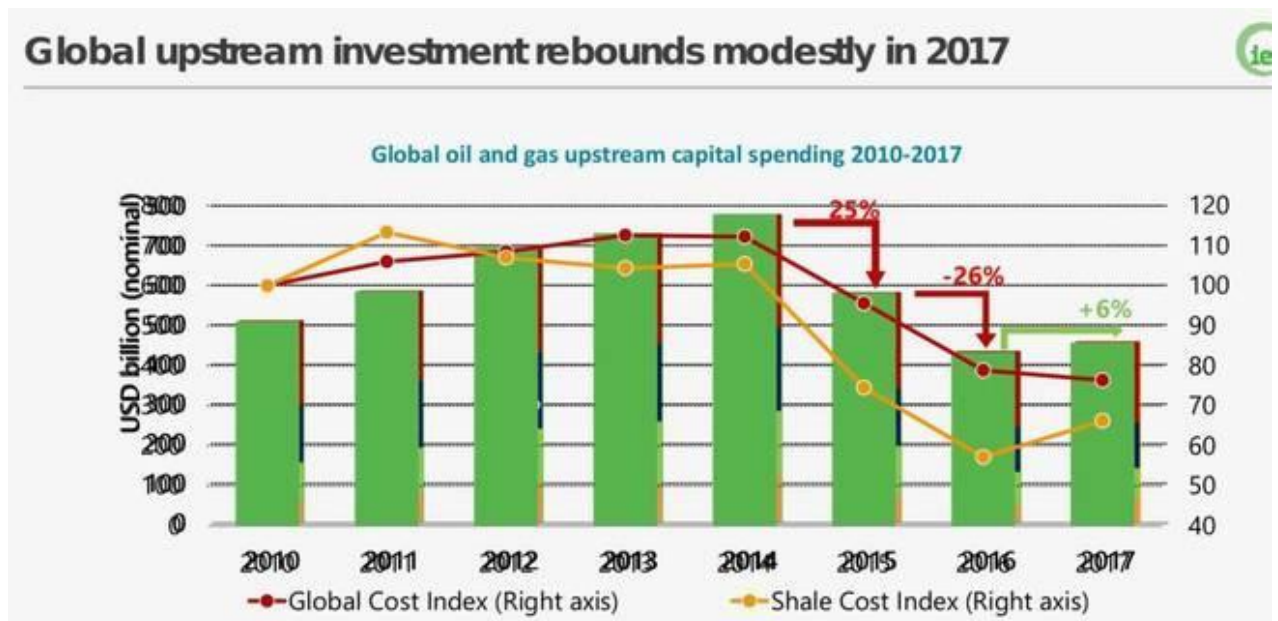
Globalization has implied an exponential outbreak in the demand for energy resources, and minerals have not been the exception because thermoelectric power plants that feed on coal are found all over the world.

In the current economic context it is inevitable to question whether the continuation of subsidies is justified, particularly because today the ton of coal from Russia and Kazakhstan has a cost close to half of that extracted in Germany, a country that has the largest deposits in the European Union.

The EU countries that have coal basins are: Germany, Belgium, Spain, France, Hungary, Poland, the United Kingdom, the Czech Republic and Romania. The socioeconomic situation of these localities and regions is very heterogeneous.²²

9. Oil Estimation in 2018

Oil has started in 2018 with a new price escalation that in many analysts' opinion is due to the investment deficit that exists since 2015. Although the investment in exploration and production of gas and oil in 2017 (CAPEX) (capital expenditures, investments in capital goods) has closed the year (pending definitive data) with a rise of 7.3% according to PWC, (consultancy firms of the Big Four.) According to estimates, this has not even served to prevent the situation of investment deficit from deteriorating further. In the graph we can see the estimates of the International Energy Agency (IEA, for its acronym in English), somewhat lower than those of PWC.²³

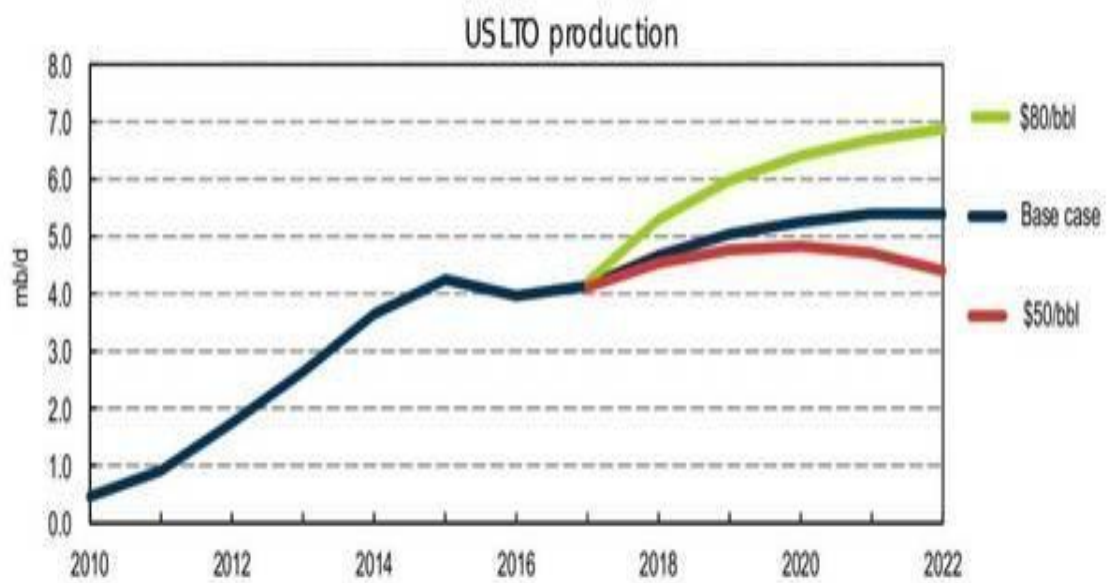


Graph 9: Ascending Global Investment 2017
Source: (IEA) International Energy Agency.

This situation, as stated by the IEA itself, will mean that when the new and necessary investment projects are launched, they will not arrive in time to avoid a new price spike that will cause serious damage to the world economy.

But despite this problem, we can anticipate that in 2018 prices will be relatively controlled, basically due to two factors. The first is the idle capacity of the OPEC, estimated by the IEA at about two million barrels / day. It is foreseeable that, as prices increase, production will be more unconstrained, acting as a stabilizer.

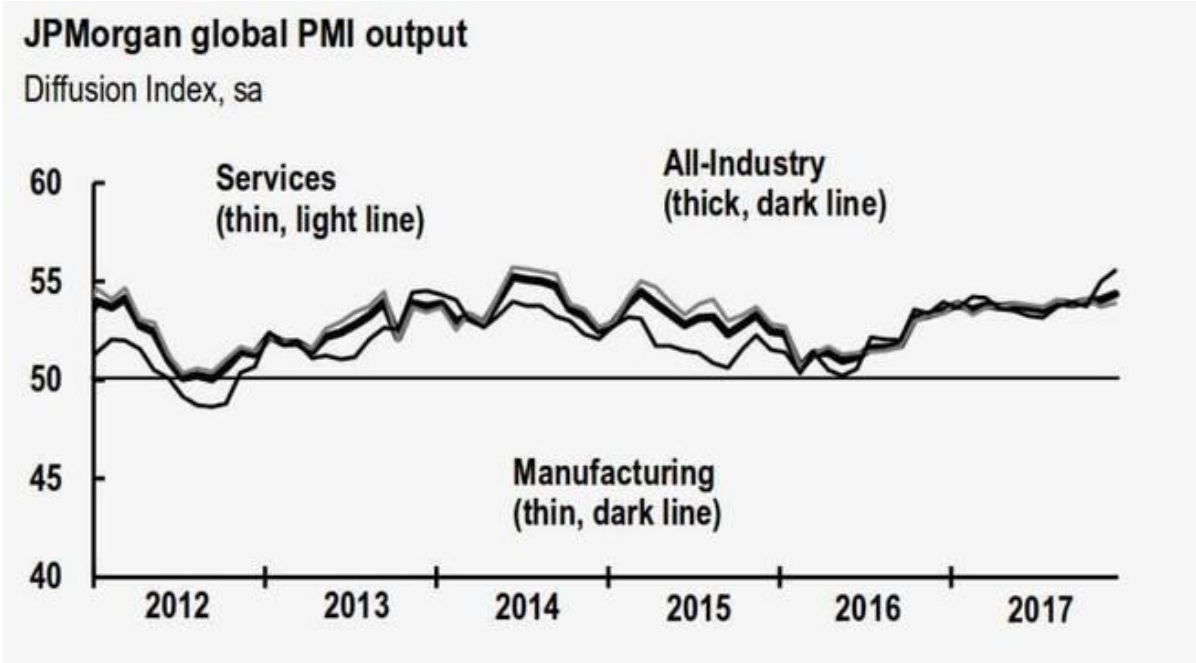
The second factor is the increase in investment in the US, which due to the small size of the wells, is capable of increasing production with great agility. In the graph we see how it is expected, according to the IEA, that production will increase according to the price level. This increase can reach up to three million barrels / day if the barrel reaches 80 dollars.²⁴



Graph 10: Provision of increase in production price level.

Source: IEA, International Energy Agency.

The world economy is now at its best in almost three years, as we see in the global PMI index, in the following graph. The big problems caused by the collapse of raw materials from the summer of 2014 are already a thing of the past, and the world economic machinery, with the notable exception of the US, is working at full capacity. This makes the demand for oil grow strongly, which conjointly with the decline of many fields in production will make this capacity of response of the oil industry run out at some point, probably during the next year.



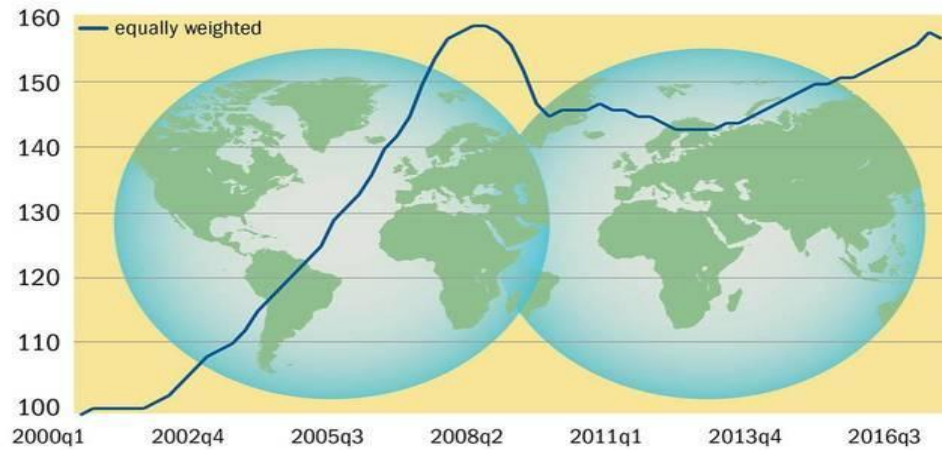
Graph 11: Global PMI Index
Source: PMI, Project Management Institute.

The prospect for oil remains, therefore, very negative for the coming years, which will undoubtedly cause a major economic crisis. Meanwhile, some concerns about inflation begin to appear, something normal considering that in many countries there is a shortage of labor in many sectors, which pressures wages upward. In the US it is already above 2%, and in the United Kingdom above 3%. In the European Union, it is progressively approaching the 2% objective. If an overheating of the world economy coupled with rises in raw materials leads to even greater increases in inflation, the rise in interest rates will be almost inevitable.²⁵

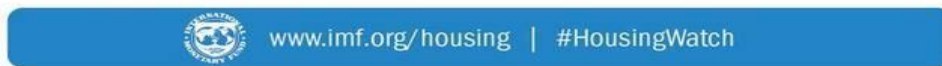
Meanwhile, the concern for the formation of financial bubbles and assets continues to rise. The rise in housing prices globally is worrisome, as we see in the following chart of the IMF²⁶ (International Monetary Fund)

Global Real House Price Index

Global housing markets continue a steady recovery.



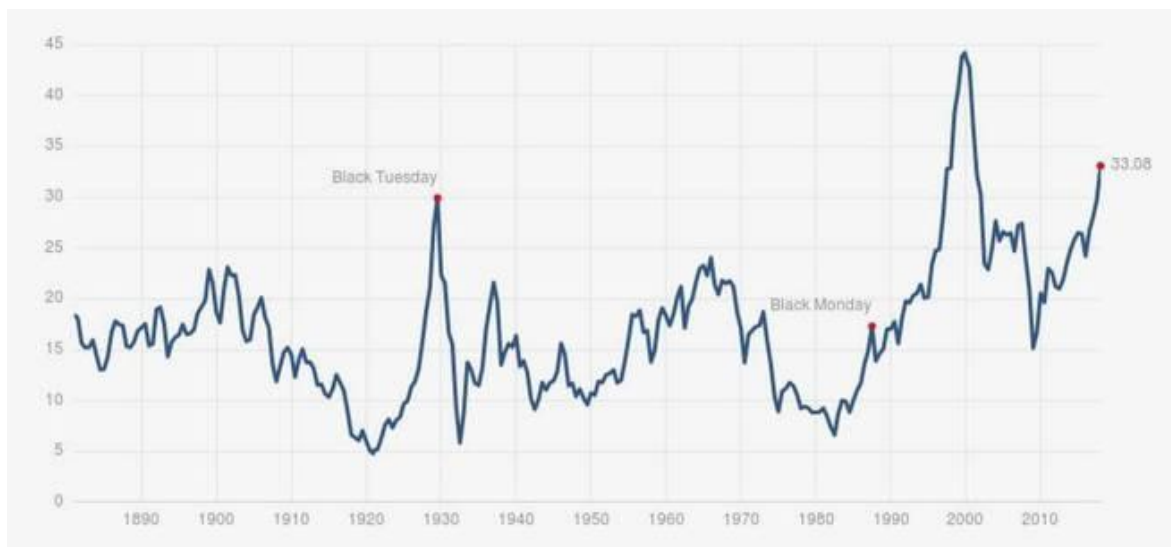
Sources: Bank for International Settlements, European Central Bank, Federal Reserve Bank of Dallas, Savills, and national sources



Graph 12: Global Real House Price Index

Source: IMF, International Monetary Fund.

The prices of the bags are also very high. If we analyze for example the Shiller PE ratio, which measures the relationship between profits and share prices, we see how the S & P500 (The Standard & Poor's 500 index is one of the most important stock indices in the US) is at worse levels than in 1929 , and only surpassed by those of the financial bubble.



Graph 13: Stock Market Index of the US Stock Exchange
Source: S&P, S&P 500 Index

The fact that some of these financial bubbles will burst is only a matter of time. Nobody knows when it will happen, but what is clear is that when that happens the central banks will be put to the test again and they will have to take extremely aggressive measures to control the cascading collapse of the global financial system. According to statistics they will succeed, but that will only lay the foundations for the next crisis.²⁷

10. Conclusions

The energy issue should be a priority for Spain since it suffers from a high dependence on problematic hydrocarbons (oil and gas) and its importation. Therefore, the Spanish economy is quite vulnerable to the volatile changes in international oil and gas prices. Geographically, this dependency is concentrated in countries that are not totally reliable, neither in their supplies nor in their policies. The prospects suggest that the energy scenario will become more complicated in the medium and long term. Therefore, Spain must consider the challenge of diversifying its energy mix and reducing its dependence on hydrocarbons as a national priority.

Analysis: Over the last few years, it has become clear that the energy issue is one of the most central in the strategic landscape for almost all countries on the planet, both in the short and long term. Energy dependence poses strategic challenges to Spain that are no less acute or challenging than for other advanced countries.

The fact that the price of oil rises is bad for Spain. In spite of the researched articles where they point out the different impacts caused by a rise or fall of this oil, Spain needs oil at adequate prices so that the country's economy has a good performance. However, in the Spanish tourism sector, growth increases every year, the number of International Tourists that visited Spain in the first semester of 2017 exceeded 36.3 Million, 11.6% more than in 2016 according to the data collected in the Statistics of Tourist Movements in Frontiers (Frontur) that has been published by the National Statistics Institute (NSI). In the month of June, arrivals of foreign tourists also rose by 11.6% year-on-year, to exceed 8.4 million.

The traditional positive economic shock multipliers may have been reduced by high levels of debt in the global economy. Politicians who believe that the low price of oil emphasizes growth, should reconsider, particularly the leaders of the euro countries, who would do well to hasten the carry out of the structural reforms they are talking about so much. The actions of the government are fundamental to maintain a solid economy where more tourists can travel and not be affected by the variation in the price of oil, thus generating more monetary capacity in the family household and thus being able to take holiday destinations or simply enjoying tourism.

At the same time, lower consumption will result in fewer jobs. According to the stability plan, a rebound of oil from 67 to 75 dollars would subtract 0.8% of

employment, that is, about 150,000 workers. Again, this impact would be less if the price stabilizes at 70. Experts also note that in Spain, households and companies tend to react to a substantial increase in the price of crude oil by decreasing demand and, therefore, lowering these added costs.

In the stability plan, the Government has defended that these increases would be balanced by the appreciation of the euro and greater demand. In addition, Spain exports a lot of refined and petrochemical products. However, it does not seem that the two factors mentioned by the Executive are going to soften the blow much. Ordinarily, part of these rallies are corrected because when the oil goes up, the dollar goes down. That is to say, although the oil became more expensive, it was cheaper in euros. But this time this phenomenon does not occur because the Federal Reserve is raising rates, pulling up the dollar, which increases even the price of oil. And, on the other hand, the countries that sell oil buy little of Spain: they only acquire 5% of the exports of Spanish merchandise.

In any case, it will reduce the external surplus, slowing down the necessary reduction of the debt with the exterior, one of the highest in the world.

Less Consumption: The reduction in the price of oil requires, among other things, a strong and continuous drop in demand worldwide. For this it is necessary to reduce the consumption of crude, which implies a radical change in our way of life (less use of the car and energy sources such as, for example, heating).

Alternative Energies: Starting from the basis that a change in the needs and energy habits of the population is highly unlikely, the solution necessarily involves the development of alternative and renewable energies. However, this goes against the interests of the oil industry, not to mention the difficulty of finding and using sufficiently safe, cheap and mass-use energies, for which a greater commitment on the part of governments is necessary (with more investment in research and development) as well as the sectors involved.

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