

OIL

Macroeconomic effects of lower oil prices

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Summary

Oil prices have fallen almost 40% since end July on downward revisions to expected demand and upward surprises in supply

Supply and demand drivers were more prominent during July-November. Excessive supply concerns have come to the fore since end-November, after OPEC's non-response in its November 27 meeting. Uncertainty about oil prices has surged and volatility will remain very high, reflecting significant upside and downside risks to prices.

The current baseline scenario calls for prices around 70 USD/b (Brent) on average in 2015, rising gradually as investment in oil dries up (Table 1).

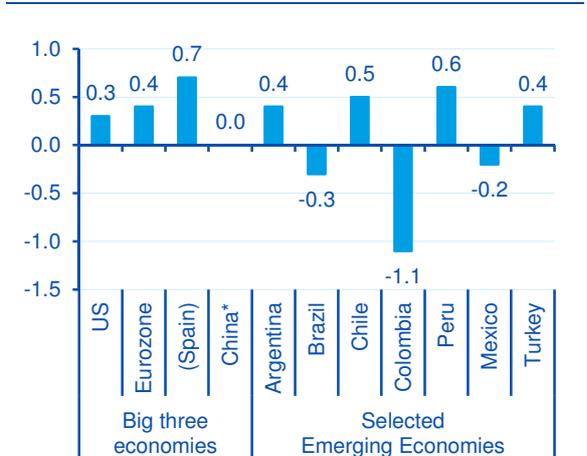
Uncertainty is compounded by new elements, mainly high geopolitical uncertainties and the break-even price for shale-oil producers. In any case, volatility is expected to be very high, in the short and medium run.

The drop in oil prices could increase global growth by 0.4 pp in 2015-16

For advanced economies we expect a positive effect on growth in the US (0.3pp) and Europe (0.4pp), with a higher effect on Spain (0.7pp) (Chart 1).

For emerging countries, we expect no effect on Chinese growth as the positive impact (around +0.3 pp in 2015-16) will reduce the need for stimulus policies with side effects in terms of financial vulnerabilities. **In Latin America, there will be a positive impact on Chile, Peru and Argentina, and a negative effect in Colombia. But the biggest economies in the region (Mexico and Brazil) will see a negative effect.** Note that, in any case, these results just include the effect of lower expected oil prices and associated policy responses. The forthcoming update on our macro forecasts would need to include also other relevant shocks seen since October.

Figure 1
Impact on growth of new oil price path, relative to October's path (pp difference, average 2015-16)



(*) We assume the Government will reduce other demand stimulus in the face of lower oil prices. Source: BBVA Research

Table 1
Forecasts for Brent oil price (USD/b, annual average)

	Forecasts oct-14	Forecasts Dec 2014
2014	105	99
2015	105	69
2016	106	75
2017	107	88
2018	108	90

Source: BBVA Research

Oil prices kept on falling since end-November, on OPEC hands-off approach. Current baseline scenario points to 69 and 75 USD/b in 2015-16, with very high volatility

Oil prices have fallen almost 45% since end-July on downward revisions to expected demand and upward surprises in supply (Chart 2). Oil prices have adjusted since the third quarter on a combination of

- (i) financial drivers, such as a strong dollar;
- (ii) downward revisions to expected demand growth, especially in 2014, in line with lower forecasts to global growth; and
- (iii) upward surprises in supply, including a steady growth in the US shale-oil industry and unusually scant effects on production of geopolitical and social unrest in key producing areas (Libya, Iraq, Syria).

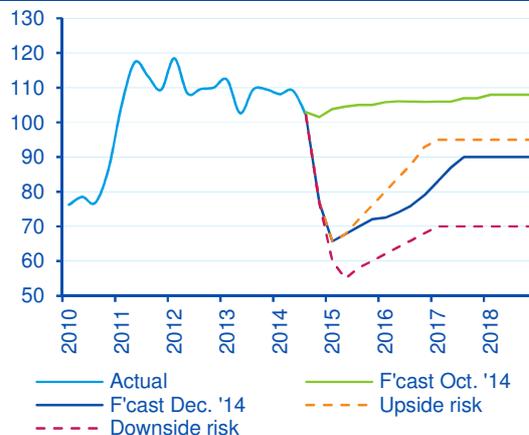
Supply and demand drivers were more prominent during July-November. Excessive supply concerns have come to the fore since end-November, after OPEC’s non-response in its end-November meeting. All in all, we estimate that between 1/3 and 1/4 of the drop in oil prices can be attributed to lower expected demand, and much of the rest to surprisingly strong supply. Oil demand issues were very much at play some quarters ago, although oil prices did not fall then as they were offset by geopolitical concerns, while other cyclical commodity prices were falling. Since July, oil prices have not only caught up but rather fallen by significantly more than other commodity prices. Between July and October, downward revisions to global growth played an important role in bringing oil prices from 105 to around 80 dollars per barrel of Brent oil. However, the fall was also helped by a surge of oil production in geopolitically unstable areas such as Libya. Then, in its November 27 meeting, OPEC decided to leave unchanged its target production (30mb/d), estimated to be about 1mb/d higher than current call on the oil cartel. Subsequent communication by key players like Saudi Arabia and Kuwait have signalled their intention to keep their market share and let prices adjust to new, lower levels. This has pushed prices from 80 USD/b (Brent) at end-November to current lows around 62 USD/b. Although there have also been further reductions in expected demand, we identify strong expected supply as the main driver in the fall in oil prices in the last 6 weeks since the end of November. All in all, we see supply factors having contributed between 2/3 and 3/4 of the fall in oil prices since July.

Chart 2
Brent oil price (USD/b) and implied volatility (OVX)



Source: BBVA Research

Chart 3
Oil price scenarios (Brent, USD/b)



Source: BBVA Research

Uncertainty about oil prices has surged and volatility is likely to remain high (Chart 2), reflecting significant upside and downside risks to prices. The OVX index of implied volatility of oil prices has continued to increase, reflecting uncertainties—which run in both directions—difficult to predict. **Risks to prices on the upside** include (i) increasing geopolitical and social stress in key producers such as Iraq, Libya, Syria and Nigeria; (ii) an agreement by OPEC to cut production before its June meeting; (iii) a sharper-than-anticipated cut of upstream investment, especially in shale-oil. **Risks to the downside** are driven by (i) technological progress and the extent to which it could lower the cost of producing shale-oil; (ii) the removal of sanctions to Iran in June 2015; (iii) a lower demand growth.

The current baseline scenario calls for prices around 70 USD/b (Brent) on average in 2015, rising gradually as investment in oil dries up (Chart 3 and Table 2). This central scenario assumes that current prices discourage new investment and thus production decelerates (especially shale-oil, with fast declining rates). We expect prices to rise in the long run to 90 USD/b (Brent), pushed by the cost structure of the industry, including a higher risk premia for capital willing to enter the shale-oil segment. Also, a better realignment of supply and demand is expected to get rid of the current supply overhang.

Based on the risk factors mentioned before, an upward risk scenario would imply a faster convergence to long-run prices. A downward risk scenario could see prices below 60 for some time (Chart 3) but it is unlikely to last long. Especially in the downward risk scenario, technological developments that reduce operating costs in the shale-oil industry could set a lower ceiling to prices in the long run.

In any case, there will be important bouts of volatility in this expected path in the short and medium run. If oil prices continue to decline, that would be the seed of a steeper dry up in investment, increasing the chance of highly volatile prices in the medium run if it drives a significant reduction in supply, similar to that last seen in the 80s.

Table 2
BBVA Research Forecasts for Brent oil price (USD/b, annual average)

	December 2014			
	Forecasts oct-14	Baseline scenario	Upside risk scenario	Downside risk scenario
2014	105	99	99	99
2015	105	69	70	58
2016	106	75	86	65
2017	107	88	95	70
2018	108	90	95	70

Source: BBVA Research

The drop in oil prices could increase global growth by 0.4pp in 2015-16, cutting global inflation also by 0.4pp

A drop in oil prices driven by increased supply has a net positive effect on global growth, as opposed to price drops driven by lower demand. If the dominant source of the oil price drop is supply (e.g. an increase in US shale oil production or lower impact of geopolitical instability), the impact on growth will be positive, as it increases households' and companies' productivity (lower production costs), favouring consumer spending and investment. On the other hand, if the decline in oil prices is driven by lower global demand (which usually comes with an increase of global risk aversion) the overall results would be negative.

As stated before, we estimate that higher-than-expected supply is the key factor behind the recent decline in oil prices, especially since November. Thus, the new forecast for oil prices is a positive shock for global growth and will support the global recovery in 2015 and 2016, generating additional downward pressures on inflation rates. We consider that the bulk of the effect of a tepid global growth in oil prices (the demand shock) was already incorporated in our last forecasts review in October, so that the upward surprise in the supply of oil constitutes the main differential factor under the new scenario. In any case, the huge uncertainty about the path of oil prices in the short-medium term makes very tentative the size of the estimated impacts on economic growth and inflation.

In particular, global growth will be boosted 0.4pp in 2015 and 2016. Although lower oil prices redistribute income from oil producers and net oil-exporting countries towards consumers and net oil-importers, the aggregate impact on the global economy should be mild but positive. This would be the result of gainers increasing almost immediately their consumption and/or investment but losers deciding to delay the adjustment of expenditure drawing on savings for a while.

A key factor incorporated in our estimations is the margin granted by the fall in inflation rates to central banks as the Fed or ECB. We maintain the timing for the first rate hike by the Fed by mid-2015, and we reckon that in this context it will be easier to communicate and keep a gradual tightening path. Regarding the ECB, the expected impact of oil prices on short and medium term inflation expectations also reinforces our view of QE in the first quarter of 2015.

Positive effect on growth in advanced economies and neutral in China. Oil exporters significantly affected

The new oil price scenario will have a positive impact on global economic growth and will reduce inflation in oil-importing countries (which account for 88% of global GDP). The effect of the price decline will be negative for most oil-producing economies, either through exports or through the negative impact on fiscal receipts and the associated fiscal tightening. On the other hand, oil importing countries are set to benefit from lower prices, with higher disposable income for households and, in some cases, lower external vulnerabilities in countries with sizable external deficits.

In particular, for the G3 economies, as Chart 1 shows, we expect a positive effect on growth in US and Europe (stronger in Spain), and no effect on Chinese growth, as compared with the oil price scenario in October (sustained 105 USD/b). In the US, lower oil prices will be a net positive for growth, as the US is still a net oil importer, with a negative effect on the oil sector compensated by the boost on households' disposable income and a positive effect on oil-intensive industries, although with differentiated impact across states. Growth would increase by 0.3pp on average in 2015-16 for the US. The strongest effect would be felt on inflation, lowered by almost 1pp in 2015-16 (Chart 4). The Eurozone would also see higher growth in 2015-16 (0.4pp) but a smaller pass-through on inflation, tapered by higher tax burdens on hydrocarbons. In particular, in Spain we expect a boost to growth of around 0.7pp in 2015-16, and lower inflation of around -0.5pp. Finally, lower oil prices are also positive for growth in China (around +0.3 pp in

2015-16), but we expect that Chinese authorities are likely to see less need for a policy stimulus to achieve its target of 7% growth, thus reducing the risk of exacerbating financial vulnerabilities.

In Latin America, we expect a positive impact on Chile and Peru, and less so in Argentina. Chile and Peru will see a positive effect on growth (around 0.5pp) as their terms of trade improve. These two countries would see significant reductions in inflation (Chart 4) and lower depreciating pressures as their external sector improves, which could lead—in the case of Chile—to more dovish paths for interest rates in 2015-16. Argentina is also likely to see a positive effect on growth mostly because of higher availability of foreign-exchange as the value of oil imports falls. All in all, the positive effect for oil-importing emerging countries becomes more important the larger the reliance on short-term capital inflows to finance an external deficit, especially as financial conditions are likely to become less favourable when the Fed starts raising interest rates in 2015. In that respect, the reduction in vulnerabilities in countries such as Chile or Peru (where FDI finances a great proportion of their external deficits) is probably lower than that of, for example, Turkey, which combines a high reliance on imported oil and a high current account deficit financed, to a great extent, by short-term capital inflows. In this last case, lower oil prices would shrink Turkey's current account deficit from around 6% of GDP in 2014, to 4.7% in 2015 and boost growth by 0.4pp.

The bigger Latam economies like Mexico and Brazil will bear a significant impact from lower oil prices, as will also be the case with Colombia. The effect in Colombia will be sizable, with around 1pp lower growth in 2015-16 due to the effect on lower exports and lower tax receipts in 2016. The strong depreciating pressure of this shock on the exchange rate would more than compensate the downward effect on inflation coming from oil prices, to leave inflation almost unchanged. In the case of Mexico, the impact is mildly negative on growth (-0.2pp in 2015-16) as the negative effect on fiscal revenue and FDI in the oil sector is partially offset by a stronger US cycle. In addition, the Mexican peso would face some depreciating pressures. Finally, Brazil will not only face a negative shock to its terms of trade but also the impact on investment (especially by Petrobras) is likely to be substantial. We thus anticipate an impact of around 0.3pp lower growth rates on an already depressed economic activity.

The new macroeconomic forecasts for the aforementioned economies are not necessarily just our most recently published (November) forecasts plus the impacts described here, as there are additional changes and shocks that have happened since then. This new path for oil prices is certainly one of the most important but not the only new information affecting the economies analysed above since our last forecasts published in November. Note that, in any case, these results shown in this note just include the effect of lower expected oil prices and associated policy responses. The final effect on our macro forecasts would need to include also other relevant information and shocks seen since October, including incoming macroeconomic data (importantly in the US, Brazil, Chile and Peru) and new policies (such as a fiscal stimulus in Peru and a fiscal reform in Colombia).

Table 2
Impact of new oil price path (relative to October's) on growth (pp difference)

Impact on Growth (pp)	2015	2016	Average 2015-16
US	0.2	0.4	0.3
Eurozone	0.2	0.6	0.4
(Spain)	1.0	0.3	0.7
China (*)	0.0	0.0	0.0
Argentina	0.3	0.5	0.4
Brazil	-0.2	-0.3	-0.3
Chile	0.6	0.4	0.5
Colombia	-1.2	-0.9	-1.1
Peru	0.7	0.5	0.6
Mexico	-0.4	0.0	-0.2
Turkey	0.7	0.1	0.4

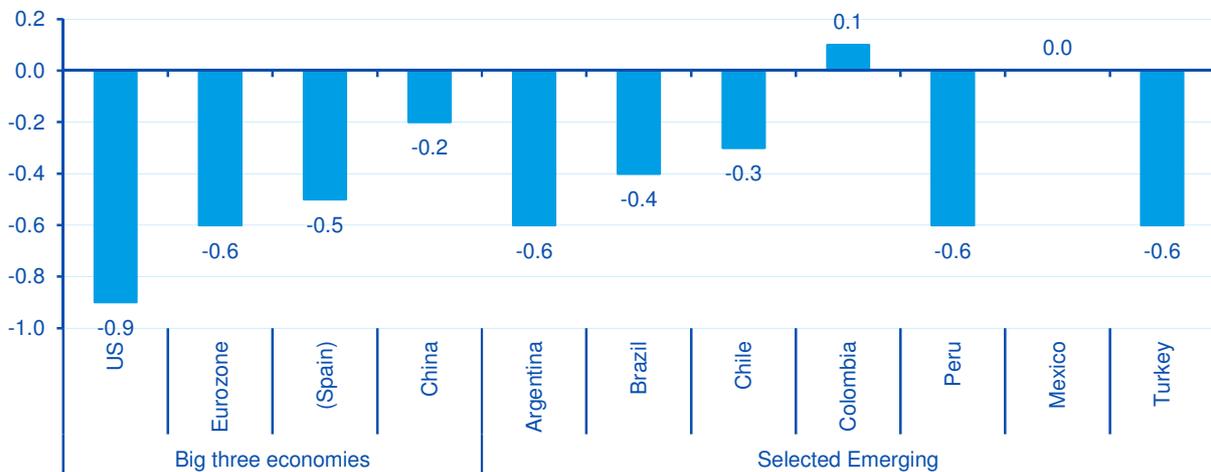
(*) We assume that the Government will take advantage of the positive windfall of lower oil prices to meet its growth objective avoiding the risks associated with an additional loosening of demand policies
 Source: BBVA Research

Table 3
Impact of new oil price path (relative to October's) on inflation (pp difference)

Impact on Inflation (pp)	2015	2016	Average 2015-16
US	-1.3	-0.6	-0.9
Eurozone	-0.6	-0.6	-0.6
(Spain)	-0.7	-0.3	-0.5
China	-0.2	-0.1	-0.2
Argentina	-0.7	-0.4	-0.6
Brazil	-0.4	-0.4	-0.4
Chile	-0.4	-0.1	-0.3
Colombia	0.2	-0.1	0.1
Peru	-0.6	-0.5	-0.6
Mexico	0.0	0.0	0.0
Turkey	-1.0	-0.2	-0.6

Source: BBVA Research

Chart 4
Impact of new oil price path (relative to October's) on inflation (pp difference, average 2015-16)



Source: BBVA Research

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