Please cite this paper as:

OECD 2011, "The Effects of Oil Price Hikes on Economic Activity and Inflation", *OECD Economics Department Policy Notes,* No. 4.

**ECONOMICS DEPARTMENT POLICY NOTE No. 4**

# THE EFFECTS OF OIL PRICE HIKES ON ECONOMIC ACTIVITY AND INFLATION

Economics Department
Organisation for Economic Co-operation and Development

## THE EFFECTS OF OIL PRICE HIKES ON ECONOMIC ACTIVITY AND INFLATION

### *Background information*

- **Commodity prices have risen considerably since mid-2010**. Oil prices (Brent) have risen by about 40%, with the bulk of the increase having taken place since December (**Figure 1**). Prices of food and agricultural commodities, metals and minerals have risen faster than in the summer of 2008. Higher energy prices have contributed to rising food prices, because energy accounts for over one-third of the costs of grain production.

- **Demand factors had accounted for most of the price hike until geopolitical tensions erupted in North Africa and the Middle East**. Strong demand for energy outside the OECD area is due to robust economic expansion in most emerging-market economies and their comparatively high energy-intensity of production. Other factors also seem to have played a role, including the depreciation of the US dollar relative to pre-crisis levels.

- **Concern about supply disruption (production and transport) has driven oil prices upward more recently**. It appears that spare capacity in Saudi Arabia would suffice to compensate for production losses in Libya. Statements by Saudi officials that the country would compensate for supply shortfalls in Libya have calmed markets to some extent. However, if spare capacity were to be exhausted, there could be further oil price hikes, and price volatility might increase.

### *Estimates of the effects of oil price hikes on activity and inflation*

- **The effects of oil price hikes on activity and inflation can be gauged using the OECD's Global Model**. Accordingly, a $10 increase in the price of oil could reduce activity in the OECD area in the second year after the shock by two tenths of a percentage point and raise inflation by roughly two tenths of a percentage point in the first year and by another one-tenth in the second year.[1] These multipliers exclude dynamic effects, such as the impact of ongoing balance-sheet repair on the response of household saving to a fall in real incomes. Higher oil prices are also likely to take a toll on potential growth, due to higher input costs and the detrimental effect of increased price volatility on business investment.

- **The recent oil price hikes may have a modest impact on activity in the near term.** On the basis of the OECD Global Model multipliers and EO88 projections, if the $25 increase in the price of oil that has taken place since the Tunisian uprising were to be sustained, activity could be reduced by about 0.5 percentage points in the OECD area by 2012 and inflation could rise by 0.75 percentage points. This loss in growth would nevertheless occur from a somewhat higher base than projected in EO88, given that the $10 increase in the price of oil prior to the Tunisian uprising was likely related to stronger-than-projected demand growth.

---

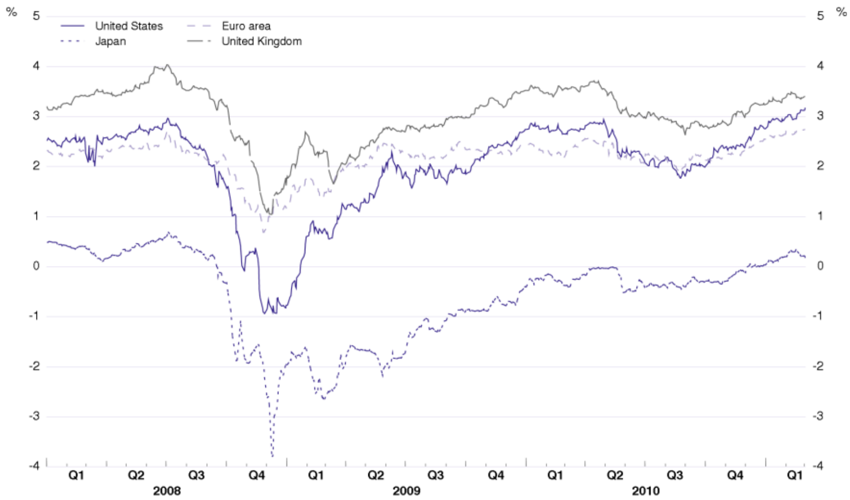
[1] See Wurzel *et al.* (2009), "Recent Oil Price Movements: Forces and Policy Issues", *OECD Economics Department Working Papers*, No. 737, for more information.

- **At currently low levels of inflation and expectations, monetary policy may not need to react to the recent oil price hikes**. The inflationary impact of oil price hikes depends on the ability of the monetary authorities to prevent inflation expectations from drifting away from implicit or explicit targets. The experience of 2008 is instructive in this regard: due to well anchored expectations, inflation remained tame, despite a sharp increase in oil prices. If inflation expectations were to destabilise, the effect of recent oil price hikes, if sustained, could be stronger than expected.

**Figure 1. Oil prices and inflation expectations, 2008-11**

A. Oil prices[1]


B. Inflation expectations[2]




1. The vertical bars identify the cut-off date for information used in the EO88 projections (12 November 2010), when the oil price assumption was set at $80 per barrel, and the beginning of demonstrations in Tunisia (17 December 2010), Egypt (25 January 2011) and Libya (18 February 2011).

2. Expected inflation implied by the yield differential between 10-year government benchmark bonds and inflation-indexed bonds (Merrill Lynch).

*Source*: Datastream.

## ECONOMICS DEPARTMENT POLICY NOTES

This series of Policy Notes is designed to make available, to a wider readership, selected studies which the Department has prepared for use within OECD.

Comment on this Policy Note is invited, and may be sent to OECD Economics Department, 2 rue André Pascal, 75775 Paris Cedex 16, France, or by e-mail to Luiz.demello@oecd.org.

OECD