

The economic impact of the Middle East crisis

Key Points

- **A permanent US\$15 per barrel increase in oil prices lowers global economic activity by 0.5 percentage points**
- **East Asian and Central and Eastern European economies fare worst from the oil price hike**
- **Real GDP in India, Taiwan and South Korea is lower by around 1.2 percentage points due to higher oil prices**
- **Oil producers and prudent consumers of fossil fuels (e.g., Sweden, France and Austria) fare best as oil prices rise**
- **Australia outperforms (5th best) as energy-related export prices rise**

As tensions in the Middle East escalated with the outbreak of civil war in Libya, oil prices jumped sharply, with West Texas Intermediate rising from US\$86 per barrel to above US\$100 per barrel in early March, the highest level since September 2008.

To date, outside of Egypt and Libya, unrest in the region has been most intense in Bahrain, Jordan and Yemen. More recently, protests have also occurred in Saudi Arabia. However, other oil rich States such as Kuwait, United Arab Emirates, Qatar and Oman appear stable with no sign of protests or social unrest. In bids to bolster popular support for the incumbent regimes, Saudi Arabian authorities announced plans for a US\$36 billion fiscal stimulus package (around 10 per cent of Saudi Arabian gross domestic product), while Kuwait authorities have issued a handout of US\$3,600 per person and will pay for free food for the coming 14 months.

How quickly stability is restored to the region will partly depend on the nature of the governments that emerge in countries such as Egypt and Libya. The opportunity exists to eliminate corrupt and inefficient regimes that have distorted the economies of these countries. If the change of government coincides with reform, the outcome of the current crisis could be a strong positive for the global economy. If the outcome is to create a power vacuum and ongoing civil disruption, the result will be an extended period of high oil prices and financial market volatility that will pose a real risk to the global economic recovery. Nonetheless, the recent crisis has highlighted the volatility of energy prices, and particularly oil, and the potential for higher prices going forward due to ongoing political tensions.

Below, we report results from simulations using our global macroeconomic model that test the sensitivity of various countries' levels of real gross domestic product (GDP) to a permanent US\$15 increase in the per barrel (bbl) price of West Texas Intermediate oil. Our choice of shock (US\$15/bbl) can be thought of as the premium that would apply due to an expectation of ongoing turbulence in the

Middle East and reflects the hike in the price brought about by the Libyan crisis.

The first two columns of numbers in Table I show deviations in the country's real GDP from base in response to a US\$15/bbl increase after one year (2011q4) and five years (2015q4), respectively. The last two columns show the fossil fuel intensity of the country's production process and the country's ratio of net energy imports to GDP.

We choose to display the last two columns to assist in the rationalisation of our results. The degree of oil intensity in the production process tells us of the exposure of the economy's cost structure to oil price rises. We are imposing a one-off permanent increase to the price of oil, which will lift the level of costs, and also lift the rate of inflation as the cost structure of the economy adjusts to the higher oil price.

In the short term (next one to two years), the pace of adjustment in a country's cost structure will influence the near term impact on real GDP. In countries such as Spain and Italy, where the wage-bargain process leads to swift pass through of cost increases, the rise in inflation is rapid and negatively impacts the short-term outlook. In countries such as the UK, where workers tend to absorb cost pressures by lowering the real wage, the short-term impact of rising costs on economic activity is ameliorated.

The country's ratio of net fossil fuel imports to GDP is important for the longer term impact of higher oil prices. If a country is a net importer of energy, and oil prices rise, then the country will experience a fall in its terms of trade. That is, the prices of the goods and services that it exports fall relative to the prices of the goods and services that it imports. As the costs of imports rise relative to output (export) prices, profits are squeezed and firms cut back on investment expenditure. The resulting decline in the stock of physical capital (compared to base), reduces the potential level of real GDP that the economy can produce.

The results reported in Table 1 highlight that those countries with a high level of oil intensity in their production processes and/or high levels of net energy imports fare poorly in response to the oil price shock. We can identify three groups within the ten worst performing countries: emerging market economies of East Asia (India, Taiwan, South Korea and China), emerging market economies of Central and Eastern Europe (Czech Republic, Hungary and Poland) and a mix of advanced economies (US, Spain and Italy).

The majority of the poor performing economies suffer from high rates of oil intensity in their production processes and high rates of net energy importation. A notable exception is China, which satisfies a large share of its energy needs from domestic sources rather than imports. For example, China produces around five per cent of the global oil supply, greater than that of Iraq.

Among the best ten performing economies we find representatives of energy producers (Norway, Russia, Mexico, Australia, Denmark, UK and Brazil) and advanced European economies that have reduced the fossil fuel intensity of their production processes to very low levels (Sweden, France and Austria). Interestingly, although small energy producers in terms of global markets, Denmark and the UK manage to supply their own energy needs, thereby benefiting from a low rate of energy import intensiveness.

In conclusion, the impact of a permanent increase of US\$15 bbl in the WTI oil price has limited but long lasting effects on the global economy. The level of real GDP in the worst

performing economies is lower by between 1.5 per cent and 1.1 per cent by 2015Q4. On average, global real GDP would be lower by 0.5 per cent in 2015Q4 compared to base, in response to a permanent US\$15/bbl oil price increase.

Table 1. Impact of a permanent US\$15/bbl oil price increase

Major Non-OPEC Economies	% deviation in real GDP from base		Fossil fuel intensity of production	Net fossil fuel imports
	2011Q4	2015Q4	% of GDP	imports/GDP % of GDP
Worst performing				
India	-0.2%	-1.5%	15.2%	5.5%
Taiwan	-0.1%	-1.3%	8.3%	8.9%
South Korea	-0.1%	-1.1%	7.9%	8.0%
Czech Republic	-0.1%	-0.9%	8.7%	3.3%
Hungary	-0.5%	-0.8%	6.6%	5.9%
China	0.0%	-0.8%	22.3%	2.3%
Poland	-0.2%	-0.7%	9.3%	3.3%
US	-0.2%	-0.7%	5.5%	1.5%
Spain	0.0%	-0.7%	3.6%	3.5%
Italy	0.1%	-0.7%	3.3%	3.1%
Best performing				
Norway	-0.1%	1.2%	1.7%	-22.7%
Russia	0.8%	0.9%	23.7%	-24.0%
Sweden	0.0%	0.0%	1.6%	1.6%
Mexico	0.1%	-0.1%	6.8%	-2.3%
Australia	0.0%	-0.2%	5.3%	-8.0%
Denmark	0.3%	-0.2%	2.4%	-0.6%
UK	0.0%	-0.2%	3.0%	0.8%
France	-0.2%	-0.3%	2.3%	2.3%
Brazil	0.0%	-0.4%	5.5%	0.9%
Austria	0.0%	-0.5%	2.8%	2.8%

Sources: QIC, BP, NIESR

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