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The Impact of Oil Prices on the Canadian Economy

Policy Brief
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Introduction

Who would have thought that the desperate act of one fruit vendor in a small village in Tunisia would unleash a wave of revolution in countries across the Middle East and North Africa (MENA), toppling regimes and challenging the status quo? It was another reminder that unforeseen geopolitical events can quickly cloud the economic outlook, disrupt markets and propel oil prices higher.

To be sure, crude oil prices had been on a gradual upswing since early 2009 when the first green shoots of global recovery emerged. Prices began to rise more strongly in the final quarter of 2010 on the back of renewed optimism about global economic prospects, particularly in the United States (U.S.), and a strong demand from emerging-market economies. The slump in the U.S. dollar has also driven prices higher.[1] However, unrest in the MENA region and related supply concerns have caused crude prices to soar well above $100 per barrel (see Chart 1)—the North America benchmark, West Texas Intermediate (WTI), hit US$113 per barrel in early May, while its European counterpart, Brent Crude, spiked to US$126 per barrel (see Box 1). And there are good reasons to worry. The MENA region produces more than one-third of the world's oil.

Oil production in Libya, what use to be Africa's third largest oil producer, dropped from 1.58 million barrels per day before the war to an estimated 200,000 barrels per day in May. While Libya accounted for less than two per cent of the world's oil production in good times, more than 85 per cent was exported to Europe, with small

1 Crude oil is priced in U.S. dollars and is, therefore, cheaper for stronger-currency countries to buy when the greenback is weak, boosting demand for the product.

The Canadian Chamber is committed to fostering a strong, competitive and profitable economic environment that benefits all Canadians. This paper is one of a series of independent research reports covering key public policy issues facing Canada today. We hope this analysis will raise public understanding and help decision-makers make informed choices. The papers are not designed to recommend specific policy solutions, but to stimulate public discussion and debate about the nation's challenges.

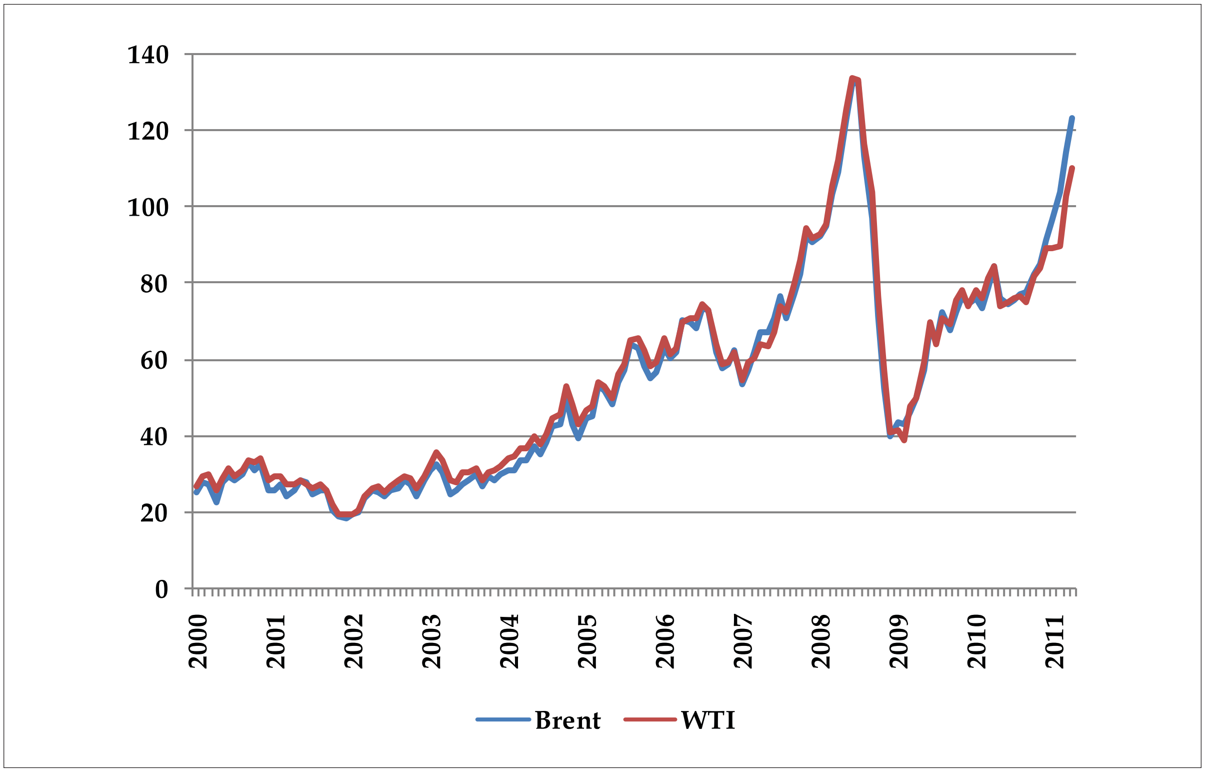
volumes flowing to the United States. The bulk of Libya's oil is of high quality—light crude and low in sulphur—which yields more lucrative products like gasoline and diesel. In Yemen, more than two-thirds of the country's usual daily crude oil production of 270,000 barrels has been lost due to pipeline attacks and oil sector labour strikes. That is a relatively small amount, but Yemeni crude is also a high-quality product that refiners find difficult to replace.

While other member countries[2] of the Organization of the Petroleum Exporting Countries (OPEC) have increased production, and there is enough spare capacity (the bulk in Saudi Arabia) to replace the loss in output,[3] the oil is not of the same quality.

The market's greatest fear is that political upheaval may spread to major oil-producing nations like Saudi Arabia and Iran (see Table 1). If that were the case, oil prices could easily top 2008's record-high of nearly US$150 per barrel. Dr. Fareed Zakaria, a renowned foreign affairs expert, recently said, "Street protests in Saudi Arabia might warm our hearts, but they could easily lead to $250-a-barrel oil and a global recession." However, Dr. Zakaria believes "Saudi Arabia will make it through this period without massive change. It will be evolutionary change and not revolutionary change."[4]

Large and persistent increases in the price of oil can have a significant impact on Canada's economy through a variety of channels, which is the focus of this paper.

Chart 1
Crude Oil Prices
(US$ per barrel, monthly average)



2 The Organization of the Petroleum Exporting Countries is made up of Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates and Venezuela.

3 For example, Saudi Arabia has 3.5 million barrels per day (b/d) of spare capacity, Nigeria 260,000 b/d, Kuwait 230,000 million b/d and UAE 330,000 million b/d.

4 Fareed Zakaria, "Fareed Zakaria on the future of the Middle East," CNN, April 22, 2011, http://globalpublicsquare.blogs.cnn.com (accessed June 8, 2011).

Table 1
OPEC Crude Oil Production
(First Quarter 2011, million barrels per day)

Saudi Arabia	8.55
Iran	3.63
Iraq	2.66
UAE	2.48
Kuwait	2.08
Nigeria	2.14
Venezuela	2.22
Angola	1.65
Libya	1.13
Algeria	1.27
Other OPEC	1.88
Total OPEC	**29.69**

Source: IEA, Oil Market Report, May 12, 2011

Economic Impact of Rising Oil Prices

Inflation

An increase in oil prices has a direct impact on inflation as measured by the All-items Consumer Price Index (CPI). Consumers pay more for gasoline, heating oil and transportation services. Households and businesses may switch from oil-related energy items to natural gas, leading to an increase in its price. The extent to which rising oil prices translate into higher overall inflation depends on their persistence.

Higher oil prices can lead to wage demands to offset a higher cost of living. Rising oil prices can also lead to higher inflation expectations over the longer term. If this transpires, rising energy and wage costs are more likely to be passed on, spurring price increases for a broader range of goods and services. However, "there has been little evidence of such second-round effects in Canada in the past two decades."[5]

To limit the impact of inflationary pressures emanating from rising oil prices, the Bank of Canada pays close attention to the core inflation rate which excludes components whose prices are highly volatile, like energy and food. Their exclusion makes the core rate a more reliable indicator of the underlying broad trend in inflation and, therefore, a better guide of where inflation is heading.[6]

The U.S. Federal Reserve has found no systematic evidence that rising oil prices have had a significant impact on core inflation in the United States, Canada or the United Kingdom.[7]

Household Spending

Energy represents 9.4 per cent of a household's consumption basket; therefore, higher energy costs can take a significant bite out of Canadians' wallets. Energy prices weigh most on low- and middle-income households who spend more than twice as much of their income on energy as do high-income households.

Because Canada is a net exporter of oil, households in energy-rich provinces enjoy a wealth and income boost from higher energy prices that can offset some of the increase in their energy costs. This triggers greater spending on goods and services—both domestic-and foreign-produced.

Household balance sheets are also likely to receive a boost from the strength in equity markets related to energy price gains. The TSX, in particular, is heavily weighted towards energy stocks (major oil and gas producers account for about 27 per cent of the TSX's market cap). The recent rise in oil prices has boosted profits at many energy companies, lifting the returns of mutual funds that specialize in energy stocks to the benefit of many Canadian investors and pension funds.

5 Bank of Canada, Monetary Policy Report, April 2011.

6 In April, for example, the All-items CPI was up 3.3 per cent from a year ago. Excluding energy, inflation in Canada was up 2.0 per cent.

7 Michelle Cavallo, "Oil Prices and Inflation," FRBSF Economic Letter, no. 2008-31 (Oct. 3, 2008).

Sectoral Effects

An increase in oil prices raises production costs for oil-intensive sectors of the economy, especially manufacturing and transportation. This can reduce the potential activity in the economy, particularly in central Canada's manufacturing-intensive provinces, Ontario and Quebec.

Higher crude prices are a boom for Canada's oil patch, stimulating production, investment, employment and wages. The run-up in oil prices also encourages foreign direct investment in the energy sector. This skews activity toward the resource-rich provinces (notably Alberta, Saskatchewan, and Newfoundland and Labrador).

Canadian Dollar

Canada has become an important player in world energy markets—it is the sixth largest producer of crude oil and a net exporter of the commodity. It is not surprising there is a strong link between the appreciation of the Canadian dollar and the rise in oil prices.

The persistent strength of the Canadian dollar has created headwinds for our exporters and has put downward pressure on inflation. It has also highlighted the need to boost the competitiveness of businesses to gain market share internationally.

Trade

The degree to which higher oil prices affect trade depends on what is causing the higher oil prices in the first place. If higher oil prices are the result of speculation or supply disruptions (caused by geopolitical unrest or natural disasters that damage infrastructure, for example), and are sustained over a longer period, global production costs rise and global economic activity slows, hurting Canada's export-oriented resource and manufacturing industries. In particular, the International Monetary Fund (IMF) estimates that a 10 per cent increase in oil prices reduces U.S. growth by about 0.2 per cent in the first year. This is because the U.S. is a net importer of oil. Rising oil prices in the past year could reduce U.S. real GDP growth by a half percentage point in the year ahead. As a result, the U.S. economy is projected to grow about 2.7 per cent in 2011 rather than 3.2 per cent. Slower growth in the U.S. may mean less demand for Canadian goods and services.

Conversely, if higher oil prices are a reflection of robust global economic activity that boosts demand for oil, Canada benefits as foreign demand for Canadian goods and services rises. When the increase in prices is caused by higher world demand, the net effect on Canada's real GDP is positive.

Despite recent supply disruptions stemming from geopolitical unrest, the Bank of Canada has come to the conclusion that a large, sustained increase in demand stemming from rapid growth in emerging market economies has been the primary driver of the most recent boom in commodity prices. However, only 10 per cent of Canada's exports go to emerging market economies, and Canada exports very little in the way of non-commodity items to these nations. Thus, Canada's economy is not likely to benefit as much as it has in past oil-price booms that were driven mainly by U.S. growth.[8]

Overall Impact

In summary, households, businesses and investors are affected by higher oil prices through a variety of channels. The Bank of Canada has concluded that the net impact of higher oil prices on the Canadian economy is negative but "the impact is small, so their economic importance is limited, even for substantial oil price movements."[9]

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8 Bank of Canada, Monetary Policy Report, April 2011.

9 Brian DePratto, Carlos de Resende and Phillip Maier, "How Changes in Oil Prices Affect the Macroeconomy," Bank of Canada Working Paper 2009-31 (December 2009).

Outlook for Oil Prices

WTI is expected to average in the $95 to $105 per barrel range in the next two years (up from $79.40 per barrel in 2010), assuming no further escalation in geopolitical tensions. "At oil prices close to $100 per barrel, the economic models predict that it would only have a modest dampening impact on the global economy. However, the fallout could be greater this time around, given the vulnerability of the world economy to shocks at the moment."[10]

Prices could fall below our forecasted range if steps taken by China and other fast-growing emerging market economies to temper their expansion and rein in inflationary pressures produce a "hard landing," removing a crucial pillar of support for global oil demand and prices.

As noted at the start, if geopolitical unrest spreads to major-oil producing countries (Saudi Arabia and Iran), crude oil prices could rise significantly and overall economic activity could slow and possibly head into reverse. It would all depend on how much oil production was lost and for how long. We do not foresee this as the most likely outcome.

Today's oil market has plenty of buffers. There are almost 4.3 billion barrels of oil—of which 1.5 billion barrels are held by governments and the remainder by private industry—held globally in strategic reserves (equivalent to 93 days of forward demand) that could be used to help offset the impact of significant supply disruptions.[11]

"At its worst, the danger is circular, with dearer oil and political uncertainty feeding each other. Even if that is avoided, the short-term prospects for the world economy are shakier than many realise. But there could be a silver lining: the rest of the world could at long last deal with its vulnerability to oil and the Middle East. The to-do list is well-known, from investing in the infrastructure for electric vehicles to pricing carbon. The 1970s oil shocks transformed the world economy. Perhaps a 2011 oil shock will do the same—at less cost."[12]

10 TD Economics, "Will Rising Oil Prices Derail the Global Economy?" Observation, April 25, 2011.

11 U.S. Energy Information Administration, December 2010 International Petroleum Monthly, Jan. 12, 2011. Of the 4.3 billion barrels in strategic reserves, 1.9 billion barrels are in the U.S. Strategic Petroleum Reserve—the largest stockpile of emergency crude oil in the world, of which 727 million barrels are held by the government. This could be used to help offset the negative impact on the U.S. economy of significant supply disruptions.

12 "The 2011 Oil Shock," The Economist, March 3, 2011.

Box 1
WTI and Brent Prices Cross Paths

West Texas Intermediate (WTI) crude, priced at Cushing Oklahoma, is the benchmark for North America. Brent, sourced from the North Sea, is the benchmark for crude oil in Europe.

Historically, WTI has traded at a $1-$2 dollar per barrel premium to Brent because it is a slightly higher quality oil—a lighter and sweeter (i.e. lower sulphur content) crude. However, since last spring, Brent has been trading at a premium to WTI and in February 2011, the price spread had widened to $19 per barrel. Two main factors are behind this development.

First, ample supplies have contributed to a lower price of WTI. U.S. inventories at Cushing, Oklahoma are running well above their five-year average as record volumes of shale oil from the Bakken fields in the northern Great Plains and oil from Canada's oil sands have made their way south. "But because pipelines are set to run into Cushing, not out, much of that oil is going into storage rather than into refineries."[13] For now, Cushing is pretty much a land-locked delivery hub. Over time this should be resolved as new pipelines siphon crude oil off to the Gulf Coast.

In sharp contrast, European inventories are running below their five-year average as less crude is going to Europe due to supply disruptions in the MENA region. Libya's share of the European market is estimated at 10 per cent, and there is a growing view that the loss of Libyan oil will continue for an extended period of time. Additionally, loading/production problems continue in the North Sea with several cargoes delayed and other completely dropped from the June loading program. This too is impacting the overall supply and demand balance and, thus, inventory levels.[14] These factors are putting significantly more upward pressure on the price of Brent compared to its North American counterpart, WTI. To a large extent, "U.S. and Canadian consumers have been shielded from the full weight of the higher 'geopolitical risk premium' now in world oil prices."[15]

13 Collin Barr, "Here comes $4 gasoline," CNNMoney, Feb. 18, 2011.

14 Dominick A. Chirichella, "Oil Quiet Ahead of Long Holiday Weekend in U.S.," International Business Times, May 27, 2011.

15 Patricia Mohr, Scotiabank Commodity Price Index, April 26, 2011.

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