

# Canada Economics

Transforming into an oil economy



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## Disclaimer & Disclosures

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- ▶ **Canada is transforming into an oil-driven economy: CAD464bn of investment is needed in the next decade**
- ▶ **The US buys 99% of Canada's oil exports: Canada needs new markets as the US boosts its own oil production**
- ▶ **China is the top foreign investor in Canada's oil sands, but new investment guidelines create uncertainty about future trends**

## Canada: An unconventional oil economy

Canada's development of new sources of natural gas and oil will dramatically reshape Canada's oil production in the coming years and will rebalance its economic landscape towards energy-sensitive sectors. Canada's terms of trade, a key driver of the Canadian dollar, will be increasingly dominated by oil price trends. We do not expect Canada's overall GDP growth path to shift. However, Canada's economy is likely to become more closely tied to the energy cycle, echoing the transformations of economies like Australia.

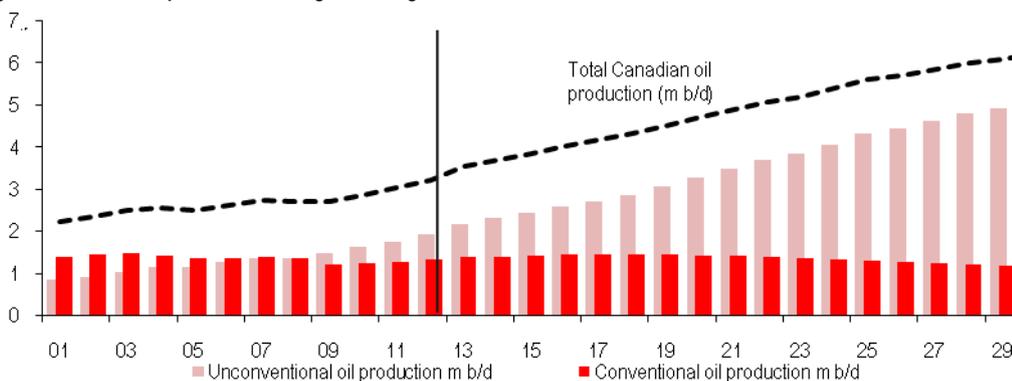
In this report, we assess the growth of Canada's unconventional oil and gas sectors. We expect unconventional oil to rise from 58% of Canadian oil production in 2011 to over 85% in 2035. The US's own oil and gas boom presents risks and opportunities. Canada is already the top source for US imported energy and the US is virtually the only destination for Canadian oil and gas exports. We see the biggest challenges in gas: Canada currently accounts for almost 90% of US natural gas imports and the US is expected to turn into a net natural gas exporter. For oil, there are opportunities for increased sales volumes to the US, as Canada displaces OPEC importers. Even so, Canada needs new export markets, most notably in emerging Asia.

In the next 10 years, we estimate Canada's energy sector will need investments totalling CAD464bn (28% of 2011 GDP). This will require foreign investment. New guidelines on foreign state-owned enterprises create added uncertainty over future investment trends.

# Canada's unconventional energy boom

- ▶ Energy has replaced motor vehicles as Canada's largest export; Canada will become increasingly sensitive to oil prices, as the oil sands are further developed
- ▶ The US is the destination for over 99% of Canada's oil exports; As US production rises, Canada must diversify its exports
- ▶ China has become an increasingly important investor in oil sands developments, and will be an important source of the funds for CAD464bn of proposed energy projects in the next decade

Figure 1: Canadian oil production turning increasing toward unconventional sources



Source: Canadian Association of Petroleum Producers, HSBC

## The ongoing rebalancing

Canada, like the US, is experiencing a boom in what are termed “unconventional” sources of gas and oil.<sup>1</sup> In Canada, this generally refers to “tight”

and shale gas largely in British Columbia and to the bitumen extracted from Canada's oil sands.

The transformation into an “unconventional” producer has been underway for several years,

<sup>1</sup>The term “unconventional” refers to sources of oil and gas that are more difficult and more costly

to develop than those reserves considered conventional.

and will dramatically reshape Canada's oil production in coming years. Unconventional oil's share of total Canadian oil production has increased from 38% in 2001 to 58% in 2011, and based on projections from the Canadian Association of Petroleum Producers (CAPP), it will surge to 85% by 2030 (Figure 1).

We expect the boom in unconventional energy to rebalance economic power in Canada further westward. Industries that are aligned with the energy sector will also benefit. For example, in manufacturing, the value of petroleum refining now challenges the value of motor vehicle production, which was long a mainstay of the factory sector and a dominant source of exports. This transformation will also further increase the exposure of the economy to energy prices, notably oil prices. As a result, Canadian gross domestic income is likely to grow faster than gross domestic product during commodity (energy) booms, and to grow at a slower pace during cyclical downturns in commodity prices.

Changes in external trade demonstrate the evolution of the Canadian economy in recent years. In the late 1990s, motor vehicles were unchallenged as a driver of exports accounting for 25% of total Canadian exports. Energy accounted for less than 10% of exports. By 2012, the roles have reversed. Energy is now the largest export sector having surpassed motor vehicles for good in mid-2007, and now accounting for nearly 23% of exports. Motor vehicles presently account for roughly 15% of exports. This shift has resulted in manufacturing sector employment falling by 532,000 since 2002, but has also helped create 2,500,000 jobs in other sectors.

The dominance of energy is going to become even further entrenched. Over the next decade, crude oil alone is projected to nearly double from 15% of exports in 2012 to nearly 30% by 2025. Such an expansion could lift crude oil to between 75%

and 80% of energy exports, and could boost energy exports to between 35 and 40% of total exports.

The rise of energy is also evident in Canadian investment trends. Investment into oil-rich Alberta has surpassed investment into manufacturing-heavy and natural resource light Ontario to become the largest investment destination in Canada. That investment shift will also continue. The Canadian federal and provincial governments estimate that natural resources in total will require investments totalling CAD658bn over the next 20-years, with CAD464bn (28% of 2011 GDP) destined for energy. Alberta is a primary destination of those investment funds, as that province alone will receive roughly one-half of the funds targeted toward energy, and just over one-third of the total investment funds. Such a scale of investment will require substantial foreign investment. There is thus a pressing need for clear guidelines regarding investment by non-residents, particularly foreign state-owned enterprises (SOEs), into Canada's energy sector.

The ongoing expected increase in export revenues from energy, particularly from crude oil, and inflows of foreign investment to finance the addition to productive capacity in the oil sands are positive factors for the Canadian dollar (CAD). The future performance of the CAD will be affected by the Risk On / Risk Off environment that has been a key driver of currencies since the 2008-09 financial crisis, and by commodity prices, notably oil, which now accounts for almost one-half of the Bank of Canada's total commodity price index, and which are closely tied to Canada's terms of trade. With oil sands production expected to increase in coming years, the oil share of the Bank of Canada commodity price index is more likely to rise than to fall.

As these transformations unfold in Canada, the US is in the midst of its energy boom, as noted by HSBC's US Chief Economist Kevin Logan in his 24 July 2012 note, [US Shale Gas and Oil Boom](#). HSBC projects that the US shale gas and oil boom will cut the US energy import bill in coming decades. The US oil and gas boom presents risks and opportunities regarding the transformation of the Canadian economy in coming years, particularly as Canada is already the top foreign source for US imported oil and natural gas (Table 1).

**Table 1: United States Energy Imports by Country**

Natural Gas (% of Total, 2011)		Crude Oil(% of Total, 2011)	
Canada	89.8	Canada	24.9
Trinidad and Tobago	3.7	Saudi Arabia	13.3
Qatar	2.6	Mexico	12.3
Yemen	1.7	Venezuela	9.7
Egypt	1.0	Nigeria	8.6
Peru	0.5	Iraq	5.1
Norway	0.4	OPEC	47.1

Source: EIA, HSBC

\*OPEC members

Two factors suggest that the US shale gas boom poses its most notable challenge to Canada's natural gas sector. First, Canada already accounts for almost 90% of US natural gas imports, so there is little market share to grab from other countries. Second, the US is projected to turn into a net natural gas exporter in coming years. In fact, Canadian imports of natural gas from the US are already on the rise, which has carved into Canada's natural gas trade surplus.

### Five implications of the Canadian and US energy booms for Canada:

- 1 Canada is the largest single source of US imports of oil and gas. The US is virtually the only destination for Canadian oil and gas exports. This makes Canada vulnerable to the US shale gas and oil boom. We consider Canada's gas sector to be relatively more vulnerable in this regard.
- 2 Canadian oil exports to the US are still expected to continue to rise in coming years. As a result, we expect Canada to grab an even

larger share of the US oil import market as imports from other countries decline.

- 3 To meet expected increases in oil exports to the US and to develop other export markets, Canada pipeline capacity constraints will have to be addressed by the middle of the decade.
- 4 Even accounting for rising exports of crude oil to the US, Canada will still have an excess of oil available for export, based on projected increases in production from the Canadian Association of Petroleum Producers (CAPP). Thus, Canada must still seek to diversify its oil exports.
- 5 To develop Canada's unconventional oil and gas resources, we expect foreign investment to remain strong. Since many projects have long lead times before production commences, it is necessary to have clarified rules for foreign investment, particularly from foreign state-owned enterprises (SOEs).

In this report, we will first look at Canada's natural gas sector before turning our attention to the crude oil sector.

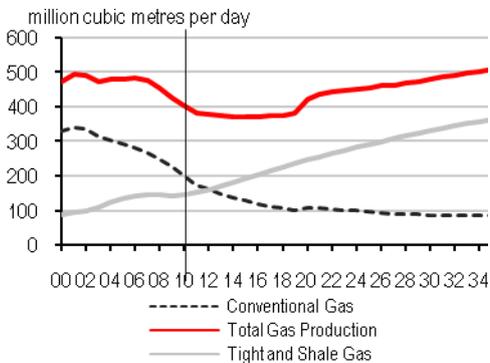
### Natural gas

Canada's natural gas sector faces the most acute challenge from the US shale gas boom.

Canadian natural gas' transformation will see production from conventional sources decline in coming years, as production from unconventional sources continues to grow (Figure 2).

Unconventional sources of natural gas include tight and shale gas. As described in [US Shale Gas and Oil Boom](#), 24 July 2012 and HSBC Global Research: *Global Gas*, 13 July 2012), "tight gas" refers to reserves that are stuck in underground, impermeable rock formations. Shale gas comes from deposits trapped in shale, a soft, sedimentary rock that is not very porous.

**Figure 2: Canada is also going to see a boom in “unconventional” production of natural gas**



Source: Natural Resources Canada, HSBC

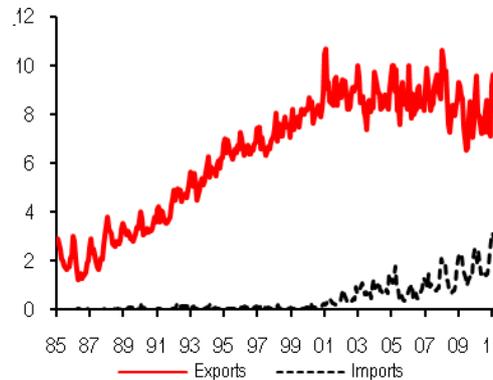
Like oil, almost all of Canada’s natural gas exports go to the US; but, unlike oil, there is limited scope for Canadian natural gas to displace other countries in order to gain a larger share of the US market (Table 1). Meanwhile, Canada has already felt the impact of the US shale gas boom through lower export volumes to the US, rising import volumes from the US, and lower natural gas prices. Another effect is on the pricing of contracts for liquid natural gas (LNG) in British Columbia.

As discussed in HSBC’s oil and gas team’s July 2012 report, *Global Gas*, one of the ways to price natural gas contracts is by indexing them to oil prices. This method was introduced in markets where natural gas competed with oil and oil products. Recently, however, a US firm agreed to sell LNG from Louisiana at a price linked to Henry Hub natural gas. Henry hub gas remains historically low relative to crude oil prices thanks to surging US gas production. This has affected the ability of proposed LNG projects in British Columbia to sign customers to oil indexed contracts.

However, the more direct impact of the US shale gas boom has been on Canadian natural gas exports and import volumes and the value of those exports. We first look the three phases of Canadian natural gas exports.

Canadian natural gas export volumes to the US have seen a period of expansion between 1987 and 2001; a period of stability, between 2001 and 2007; and more recently, a period of decline (Figure 3). In the first phase, Canadian natural gas exports more than tripled from 1.8bn cubic metres (bm3) in 1986 to over 9.0 bm3 in 2001. They stabilized there through 2007, and then drifted down toward 7.5 bm3.

**Figure 3: Canada’s natural gas exports and imports (billions of cubic metres)**



Source: Statistics Canada, HSBC

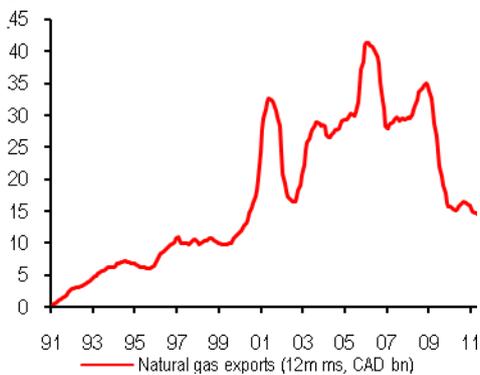
Turning toward Canadian imports of natural gas, we note the clear rising trend in the past several years (Figure 3). Prior to 2000, imports of natural gas were negligible. In fact, until quite recently, Statistics Canada did not even separately report natural gas imports in the monthly merchandise trade report. Natural gas imports are no longer easily overlooked with imports of natural gas of over 2.0 bm3 per month. The increase in Canadian natural gas imports since 2007 is coincident with the US shale gas boom.

Provincially, Ontario, Alberta and New Brunswick account for over 90% of Canada’s natural gas imports. New Brunswick encapsulates the impact of the US shale gas boom on Canadian imports. Until 2009, New Brunswick’s imports of natural gas were minimal. By 2011, as a result of the increase in US natural gas production in the Marcellus range, they accounted for 11% of total

Canadian natural gas imports. Thus, while Canada continues to be a net exporter of natural gas, rising US shale gas production and the anticipated shift in the US from net importer to net exporter suggests that Canada's natural gas trade surplus will face persistent headwinds.

Increased US shale gas production has led to steady downward pressure on natural gas prices. As Canada is an export product price-taker, lower natural gas prices have resulted in steady downward pressure on the value of Canada's natural gas exports (Figure 4). The value of Canadian natural gas exports to the US, which is virtually all of those exports, have fallen from a peak of CAD37.5bn in 2005 to CAD8.8bn in 2011, their lowest level since 1999. In GDP terms, exports of natural gas have fallen from 2.7% of nominal GDP in 2005 to just 0.5% in 2011. In that time, Canada has shifted from running consistent monthly trade surpluses to running regular trade deficits.

Figure 4: Canada's natural gas exports (12m ms, CADbn)



Source: Statistics Canada, HSBC

### Competition from US natural gas exports in Canada, and potential competition in global markets

Rising US natural gas production and the potential US shift from net importer to net exporter, together with higher prices for Asian imports of liquid natural gas, has generated interest in diversifying Canada's natural gas export base from a singular reliance on the US.

Asian natural gas markets might also attract US producers as the US shifts from net importer to net exporter. Hence, Canada natural gas sector faces the prospect of increased competition in the domestic market from rising imports of US natural gas and in other markets for natural gas as the US shifts toward being a net gas exporter in coming years.

These developments highlight the potential for fundamental changes in the traditional energy relationship between the US and Canada. In the past, the relationship was rather simple; the US imported and consumed, Canada produced and exported. In natural gas, that is no longer the case.

### Canada's shift toward unconventional oil

The US oil boom, however, might present more of an opportunity than a challenge to Canada's oil sector. The US Energy Information Agency (EIA) anticipates that even as overall US oil imports decline in coming years, imports from Canada will grow. As a result, US oil imports from Canada are expected to rise from 24.9% of total US oil imports in 2011 to over 40% by 2030. (These trends are combined with projections for rising Canadian oil production to determine the impact on the Canadian economy in a later section).

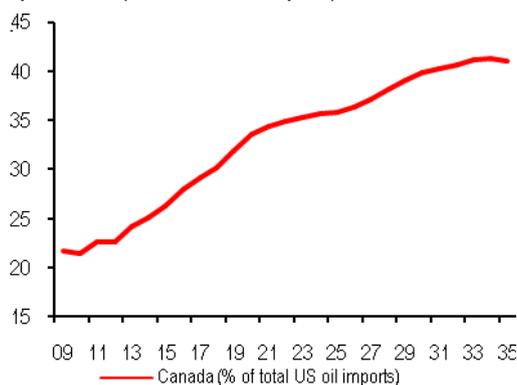
As noted previously in Table 1, Canada is the largest single source of US crude oil imports, accounting for 25% in 2011. Those exports represent almost all of Canadian oil exports. China is Canada's second largest export market. It accounted for a negligible 0.4% of Canadian oil exports in 2011.

Looking ahead, the US EIA foresees Canadian oil replacing reduced production from foreign countries and taking market share from other countries, even as total US demand for oil increases at a very moderate pace and as imports decline. The EIA currently projects US oil imports declining from 8.9 m b/d in 2011 to 7.5 m

b/d in 2035, an annual average decline of 0.8%. Even so, the EIA projects US imports of crude oil from Canada rising at an annual average rate of 1.8% to 3.0 mb/d, as US imports from Mexico are projected to decline at an annual average rate of 1.6%, and as US oil imports from OPEC decline at an average annual rate of 2.8%.

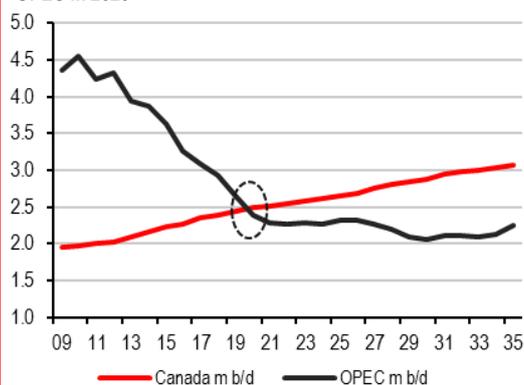
According to these projections, Canada's share of US crude oil imports will rise from 25% in 2011 to over 40% in 2035, with Canada projected to surpass OPEC's share around 2020 (Figure 5a and 5b).

**Figure 5a: Canada projected to grab larger share of US oil import market (% of total US oil imports)**



Source: US EIA, HSBC

**Figure 5b: US oil imports from Canada to surpass those from OPEC in 2020**



Source: US EIA, HSBC

### Canadian Production:

Based on Canadian Association of Petroleum Producers (CAPP) and Natural Resources Canada projections, Canadian oil production is expected

to rise toward 6.5m barrels per day (m b/d) through 2035, as a result of rising unconventional production as illustrated in Figure 1.

With domestic Canadian oil demand expected to rise to only 1.5 m b/d that leaves 5.0 m b/d available for export in 2035. Unconventional oil will account for 75% of the crude oil available for export by 2035.

As noted previously, the EIA anticipates Canadian oil exports to the US reaching 3.0 m b/d by 2035.

As a result, by 2035, even after satisfying the projected increase in exports to the US, Canada will have a 2.0 m b/d surplus of crude oil available for export. This highlights the need to diversify export markets. With energy demand in emerging markets to grow at a more rapid pace than in the US in coming years, as noted by Senior Economist Karen Ward in her March 2011 note, [Energy in 2050](#), there are opportunities that suggest Canada would benefit from a more diverse set of export destinations. This remains the case even as global energy usage becomes more efficient and as the energy supply mix shifts to being less heavily weighted toward fossil fuels.

### The need for investment

Reaching such levels of production and export availability though will require substantial investment in Canadian oil production, specifically in the oil sands, and transportation infrastructure. At present, production from currently operating and oil sands projects currently under construction will peak in the middle of this decade. Projections of a steady increase in oil sands production, total Canadian oil production, and increased export revenues in coming years are thus based on anticipated increases in investment in the oil industry.

## Oil Sands Investment

Natural Resources Canada, a department of the federal government and the various provincial governments have determined that planned energy sector investments over the next 10 years amount to CAD464bn or 28% of 2011 GDP. Almost one-half of those planned energy sector projects are in Alberta and form the basis of proposed increases in oil sands production in coming years. Canada does not have the capital resources to meet such a pace of investment, hence foreign investment will play a crucial role.

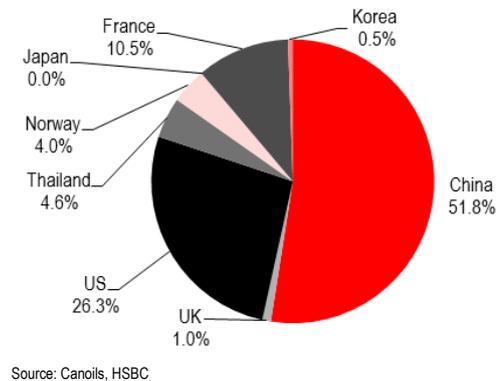
### Foreign investment in the oil sands

Foreign investment has played an important role in the oil sands in recent years and will necessarily play a key role going forward.

Since 2003, of the CAD61.5bn in mergers and acquisitions in the oil sands, almost 50% (CAD30.3bn) involved foreign counterparties. The total foreign investment into the oil sands has been augmented to include the recently approved China National Overseas Oil Corporation's (CNOOC) proposed acquisition of Canada's Nexen. This lifts total foreign investment in the oil sands since 2003 to CAD46bn. That said, the CNOOC/Nexen proposal must still be approved by US authorities. UK regulatory authorities have indicated that they will not stand in the way of the deal. Nexen controls 43% of the Buzzard oilfield in the North Sea, the UK's largest oil field.

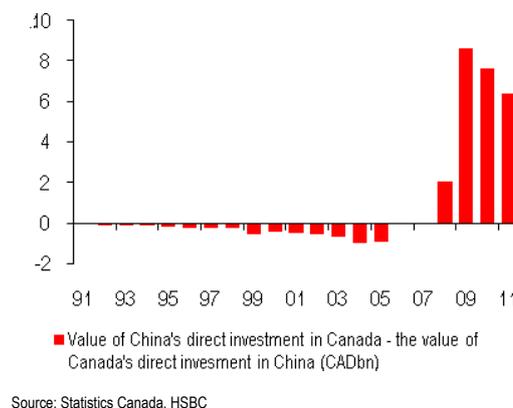
Including the CNOOC/Nexen deal, China accounts for 51.8% (CAD25.2bn) of the foreign investment in the oil sands over the past decade (Figure 6).

Figure 6: Foreign investment in Canada's oil sands since 2003



The influx of Chinese investment funds has profoundly changed the net foreign direct investment position between Canada and China, as we highlighted in [July 2012](#) (Figure 7). Overall, China direct investments in Canada have increased in value by CAD10.7bn since 2003, suggesting that almost all of China's direct investment into Canada was concentrated in the oil sands. Chinese direct investments into Canada still remain a relative small 1.7% share of foreign direct investment assets in Canada, but as noted above, they account for a significant portion of foreign assets in the oil sands.

Figure 7: A surge in foreign direct investment from China into Canada



Direct investment inflows from China, along with those from other countries such as Korea, Norway, France, the UK, Thailand, and Japan came despite the lack of diversity in exports of Canadian crude oil. There would also have been

little prospect of diversification for several years. However, investment in the oil sands remained attractive despite the fact that the US would remain the sole destination for oil sands product for several years.

Among the key features of Canada that make it an attractive investment destination for both foreign reserve managers and foreign direct investors are its political stability, its robust regulatory environment, a banking system that has been ranked the soundest by the World Economic Forum for five consecutive years since 2008, a skilled workforce, a technically advanced energy industry, a competitive corporate tax regime, it has the third largest proven oil reserves, and it remains open to foreign investment though recent changes to guidelines on foreign investment have created some uncertainty.

For China, investment into Canada's oil sands provides access to expertise in extracting oil in difficult and harsh environments, and revenue from sales of crude oil. With China to be on the short side of oil in coming years, through import demand, oil sands investments provide an important long-side exposure.

China's investments, by helping to provide greater assurance of a rising production profile for Canada's oil sands, also potentially helped to limit future tightness in the global crude oil market. This suggests that even if most of the oil produced in Canada heads to the US, by displacing US imports from elsewhere, it could help to keep the global oil market in balance and thus limit the upward pressure on global oil prices from growing demand in Emerging Asia. This would then dissipate some of the pressure on oil import bills.

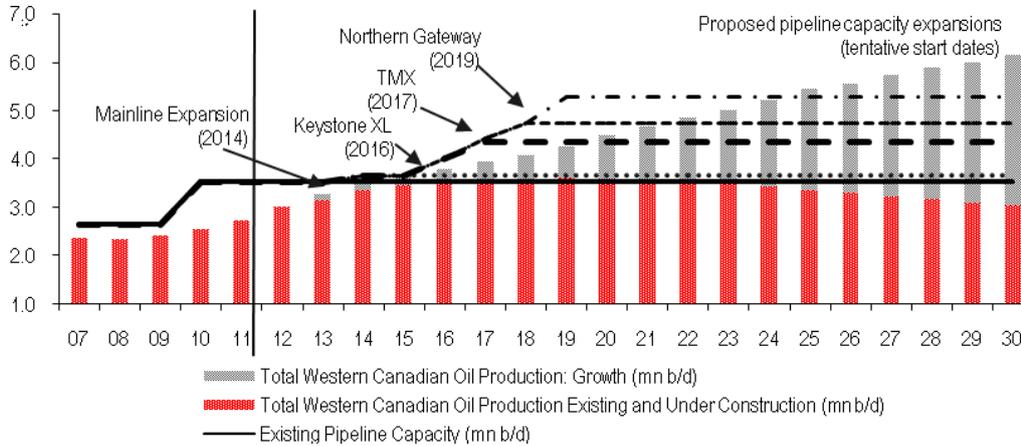
As noted previously, Canada will face increasing pressure to diversify its oil export base in the future, as the amount of oil available for export will exceed that destined for the US. What is not

clear is that foreign-controlled firms would bias their shipments in such a way to disadvantage Canada. Such misconceptions have been aired as foreign state owned enterprises (SOEs) have become more engaged in the oil sands. However, it is far from clear that foreign SOEs shipments of Canadian oil are driven by non-commercial factors. This might be due to the fact that Canada lacks the infrastructure to materially increase shipments beyond the US at present. A more credible answer though is that foreign SOEs in Canada's oil patch seem to be operated on a commercial basis selling product to the highest bidder. To the extent a foreign SOE did try to operate on a non-commercial basis, and/or if they tried to behave in a way that was not compliant with Canadian and provincial laws there are legal and regulatory remedies.

For example, in acquiring Nexen, CNOOC agreed:

- 1 To establish Calgary as the head office of its North and Central American operations,
- 2 To seek to retain Nexen's current management team and employees,
- 3 To invest significant capital as a long-term commitment to the development of oil and gas resources in Canada, which was subsequently announced to be a commitment to spend an additional CAD5bn to CAD8bn on North American oil and gas development,
- 4 To list its shares on the S&P TSX
- 5 That consistent with its commitment to social responsibility, CNOOC will build upon Nexen's existing and highly regarded community and charitable programs, particularly with respect to First Nations and local communities,
- 6 To continue to support oil sands research at Alberta universities and to participate in the Canada Oil Sands Innovation Alliance, and

Figure 8: Canadian pipeline capacity and Western Canadian oil production forecasts



Source: CERI, CAPP HSBC

7 To provide a compliance report related to its undertakings annually to Industry Canada.

### New Guidelines for Foreign Investment

Despite the above arguments, Canada's federal government released new guidelines for foreign investment on 7 December 2012. The guidelines specifically focus on foreign SOEs, which are defined "as an enterprise that is owned, controlled, or influenced, directly or indirectly by a foreign government." Henceforth, such entities will only be found to be of "net benefit" to Canada and allowed to purchase control of a Canadian oil sands business on an "exceptional basis." The threshold for review is any proposal over CAD330m. Private ventures face a review for proposals above CAD1bn.

The new rules still allow foreign SOEs to participate in joint ventures and to take minority stakes in projects.

The new guidelines do not provide clarity. Situations that would constitute an "exceptional basis" are left undefined. The focus is acutely on the ownership structure rather than on the behaviour of foreign SOEs. Thus foreign SOEs that operate upon a commercial basis are still to be treated differently than private firms.

Industry Minister Christian Paradis, though, in an interview with Canada's Business News Network on 10 December 2012, did indicate that a lack of capital might be one such "exceptional" circumstance. As noted earlier, the new investment guidelines come at time of intense capital need in the oil sands in order to meet projected increases in production in coming years, including investment in pipeline infrastructure.

There is the potential that the exception will become the rule.

### Pipeline Capacity:

Despite the above factors that highlight the potential upside to Canadian oil sands investment, production and exports, an important hurdle has to be surmounted: transportation capacity.

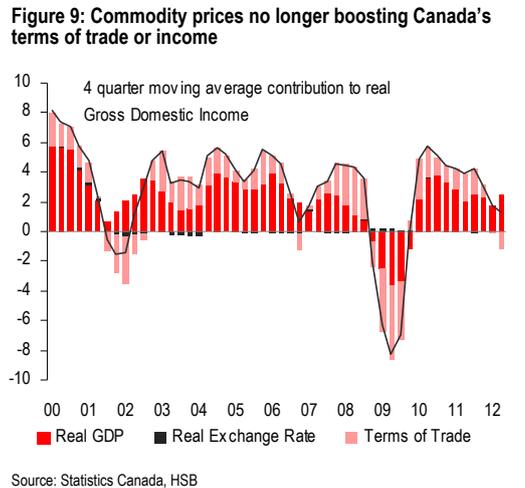
Canada's existing oil pipeline system faces a capacity constraint as early as 2015, even with a planned expansion to add 120,000 b/d in 2014 (Figure 8). Meanwhile, other pipeline projects face varying degrees of opposition, and it is unclear which, if any, will be approved. Even if all of these controversial projects are approved, and completed on the proposed timelines, pipeline capacity will again be an issue a decade from now.

### Economic impact:

Canada's transformation to an unconventional energy producer, the investment required to enable that transformation, and the elevated terms of trade that are encouraging that transformation are similar in key aspects to the mining transformation in Australia, as discussed by HSBC Australia and New Zealand Chief Economist Paul Bloxham in [Does Australia have a resources curse?](#) from August 2011, and more recently [Australia's great rebalancing act](#) from December 2012.

As well, in common with Australia, the transformation in Canada has raised concerns about the potential that the country is suffering from some form of what is called the "Dutch Disease." This issue will be discussed in future research, but suffice to say that the flexibility of the CAD the flexibility of Canadian labor markets, and the positive impact of terms of trade effects on gross domestic income have spread the benefits of the commodity boom throughout the Canadian economy, even to provinces where natural resources are a mere sliver of the economy such as Ontario and Quebec.

Though the bulk of the direct economic benefits of oil sands development would revert to Alberta, the rest of Canada also benefits. One way this benefit can be illustrated is to examine the contributions to gross domestic income from GDP, the terms of trade and the real exchange rate (Figure 9). During that commodity boom, Canada's gross domestic income tended to expand faster than GDP thanks to a positive contribution from the terms of trade. The improved terms of trade benefited consumers in all provinces, including the manufacturing heavy provinces of Ontario and Quebec.

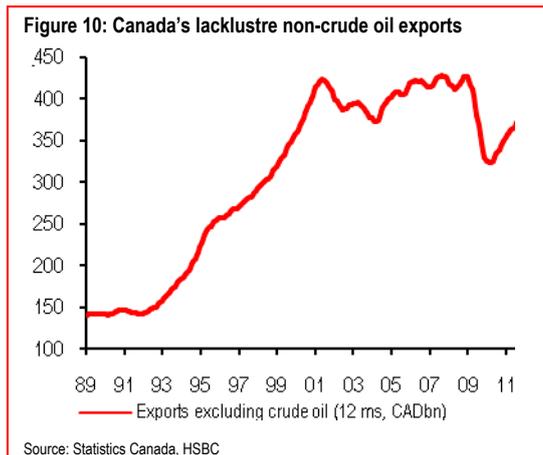


The positive spill-over effects of the oil sands, and the commodity boom since 2002 in general, are also evident in the job market. Though the manufacturing sector has shed just over 532,000 jobs since employment in the sector peaked in November 2002, total employment overall is up by just over 2,000,000. Thus other sectors of the Canadian economy generated over 2,500,000 jobs across the country, reflecting the positive impact of the commodity boom, most notably the expansion of Alberta's oil sands.

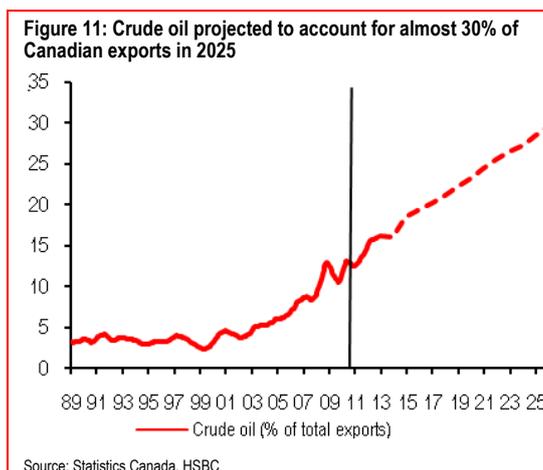
We can perform a little analysis on the potential impact on Canada's balance of payments. Assuming oil prices of USD100/b in the future, with the USD/CAD exchange rate dipping to 0.95 in 2013 (consistent with HSBC's forecast) and remaining there in coming years, and that all of the Canadian oil available for export is exported, the value of Canadian oil production will increase from CAD99bn in 2011 to CAD201bn in 2025. The value of Canadian oil exports will track production higher and increase by nearly CAD100bn from CAD68.3bn in 2011 to CAD152.6bn in 2025.

How does this affect Canada's overall trade situation? The projected increase in oil sands production and thus oil sands exports will result in crude oil continuing to grab a larger share of

Canadian exports. The average annual growth rate of non-crude oil exports from 2000 to 2008 was a measly 0.5%, and is used as the base case for non-crude oil export growth in coming years (Figure 10).



Combining the outlook for crude oil and non-crude oil exports, we expect crude oil exports to become the largest single source Canadian export and to account for upward of 30% of total Canadian exports by 2025 (Figure 11).

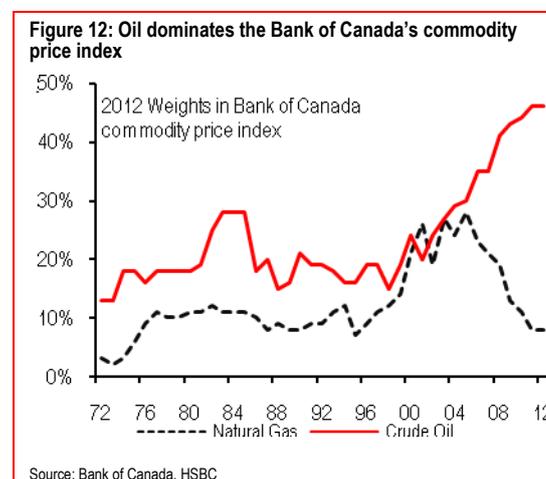


### Commodities and the Canadian dollar

Looking ahead, the CAD will remain closely linked to commodity prices, most notably oil prices, which are becoming an increasingly important factor in the Bank of Canada's total commodity price index, and thus in Canada's terms of trade. The CAD tends to track the terms

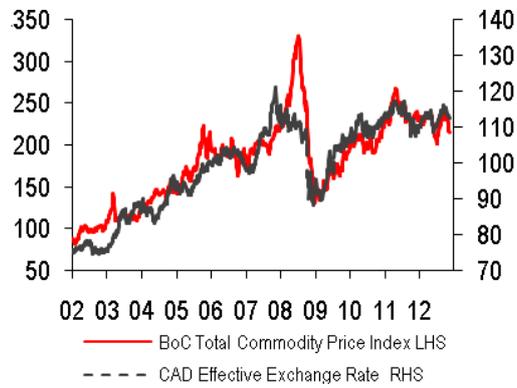
of trade. Hence, upward pressure on oil prices that would improve Canada's terms of trade would likely result in upward pressure on the Canadian dollar. The tight supply-demand balance in the global oil market looks set to remain in place and oil prices are likely to face moderate upward pressure, providing underlying support to the Canadian dollar.

With regard to the Bank of Canada total commodity price index crude oil's share of the index was generally less than 20% from the early 1970s to the late 1990s. Crude oil (of all varieties) now accounts for 47% of the index. This is an historic high. Meanwhile, within the energy complex, a balance between crude oil and natural gas has decidedly tipped in oil's favour, in part reflecting the surge in US shale gas production, and the downward pressure on natural gas prices (Figure 12).



Importantly, the global supply demand balance might affect the CAD regardless of whether Canada's unconventional oil and gas boom unfolds as expected or not. Thus, tight global energy markets are likely to place upward pressure on energy prices, Canada's terms of trade and the CAD (Figure 13).

Figure 13: Commodity prices still an important factor to Canadian dollar effective exchange rate



Source: Bank of Canada, Bank of England, HSBC

**Bottom Line:**

Canada is expected to further transform into an unconventional energy producer and exporter. That transformation faces key challenges in coming years from transportation infrastructure capacity, the US shale gas and oil boom, and potential regulatory uncertainty if rules on foreign investment into the oil sands are not sufficiently clarified. These challenges, however, are not seen as likely to halt investment into unconventional Canadian energy resources. Nor are they expected to derail the transformation of Canadian exports toward a heavily dependence on energy. The challenges though might temper the impact of the boom in unconventional energy production on Canadian GDP in coming years.

# Disclosure appendix

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