



# THE MACDONALD-LAURIER INSTITUTE



*"True North in Canadian Public Policy"*

## Summary of Roundtable Discussion: "Is more refining at home the best way to get the most value out of Canada's oil?"

**Toronto, Ontario, October 17, 2013**

### Context

The market for energy in North America is undergoing unprecedented changes. For crude oil, the rapid growth of supply from the oil sands and shale oil in North America has displaced large amounts of US imports from Latin America and Africa. However, the price Canada receives for its exports of bitumen from the oil sands has been discounted because it is landlocked in the central part of North America, a prisoner of the current limitations of pipeline transport. The best estimate is that this discount lowers Canadian income from crude by about \$13 billion. The price differential between some North American grades of crude oil and imported crude has created opportunities for refineries that can access cheaper sources and for pipeline and rail transport to supply refineries with this less expensive crude.

### Discussion

There was agreement around the table that Canada's bitumen needed to reach new markets overseas to reduce its price discount. It was also agreed that the price discount for bitumen has two parts. One part, reflecting its lower quality and therefore higher cost of refining, would not disappear in the foreseeable future. The other part of the discount is due to the higher cost of transporting crude to coastlines (especially the cost of moving oil from the supply hub at Cushing, Oklahoma hub to the US Gulf Coast) and could be eliminated by providing crude oil currently landlocked in North America with access to other markets.

Since the US forbids the export of its own crude oil, the question was raised whether Canadian oil exported to the US could be re-exported to overseas markets? The answer clearly is yes, since it is easy to identify bitumen shipped from the oil sands, which has to be mixed with diluent (creating what is called "dilbit") to be moved by pipeline. However, the restriction on US exports of crude oil does lower its price in the US, giving a competitive advantage to US refineries.

This project was undertaken with the support of a project sponsor.



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Some participants noted that price differentials are notoriously volatile; even the differential between light and heavy oil could someday disappear or be reversed. And the profitability of refineries can change rapidly. Only four years ago, before the large-scale development of shale oil in the US, many refineries on the US Gulf Coast faced an uncertain future because of their reliance on expensive imports. Now, this same dependence on more costly imported crude threatens the long-term viability of some refineries in Eastern Canada.

The question was posed about where lay Canada's comparative advantage in the petroleum sector. The biggest advantage is the natural resource of oil itself. There was no question of not exploiting all of our supplies of crude oil, including the oil sands. Additionally, Canada has the advantage of having existing assets in refineries, a skilled labour force that supports them, and proximity to the largest markets in Canada and the Northeastern US (New Brunswick's refinery is a major supplier of gasoline to New England). Political stability is obviously a major advantage for Canada's energy sector, but is of most benefit for the extraction industry because crude oil is often located in despotic nations, while refining is done in all parts of the world.

However, refining in Canada also faces disadvantages. Many participants noted intensified competition from existing refineries on the US Gulf Coast already configured to handle heavy oil, which costs less because of the discount mentioned earlier. Currently, refineries in central and eastern Canada have no access to bitumen, and few have the configuration to process bitumen. Refineries in Ontario are not on tidewater, and therefore have no access to export markets overseas. Exports are increasingly important to a refinery's profitability as international trade in refined petroleum products grows. There was a consensus that refineries in Canada strictly obey environmental regulations, but that puts them at a disadvantage with refineries that face less stringent regulations, such as refineries in Asia and even those on the US Gulf Coast. It was noted that Ontario has one of the most expensive electricity rates for industrial users, although low power rates do not provide refineries in Quebec with much of an advantage. Many states in the US offer subsidies for refineries to build, a problem faced by other industries such as autos.

In discussing Canada's comparative advantage, no one cited transportation infrastructure such as pipelines or rail transport as either an advantage or disadvantage, except the lack of access of refineries in Ontario to tidewater.

Economists emphasized the notion of opportunity cost when discussing whether it was worthwhile to refine more crude in Canada. Opportunity cost means that the labour and capital devoted to building and refining in Canada by definition are not available to other sectors, such as the extraction of crude oil. So even if more refining in Canada could be done profitably, Canada would still be better off if those resources were allocated to extraction, where profits are higher. Analysts often confuse "moving up the value-added chain" with moving to higher rates of profitability; for petroleum, profits are lower in refining than in extraction.

One complication for Ontario and Quebec is that their large chemical industry needs refineries to provide their feedstock. It was unclear how these plants would be affected if nearby refineries closed, forcing the chemical industry to resort to imports of crude oil. At least one chemical plant was switching to cheaper natural gas as its principal feedstock, following the trend in the US chemical industry.

One of the conundrums of the energy industry is that its infrastructure has high capital costs, which require a long time horizon of several decades to repay, while market conditions are extremely volatile over much shorter periods. Bridging this gap between short-term volatility and the need for long-term certainty has led to innovations, including the extensive use of long-term contracts and the vertical integration of firms (where everything from producing crude oil through refining is done within one firm), to reduce uncertainty and volatility.

Governments also may have a role in reconciling the inherent short-term volatility of oil markets and the industry's need for certainty. Several participants called for more government leadership, in terms of both getting all the players needed in a refinery project in the same room and providing subsidies as an incentive to invest. The latter was justified by the differential between the social versus the private return from investing in refining.

The broader role of government was discussed, particularly the policies it could adopt to encourage growth throughout the petroleum sector. These policy options included accelerated depreciation, aligning federal and provincial environmental regulations, lower electricity rates for industrial users, and outright subsidies to refineries.

A majority of people thought direct government involvement was unwise. The case for subsidizing any particular industry involves the discredited notion of government "picking winners." More broadly, economists want to create a market system where the key players by themselves would have the incentives to organize and deploy the necessary resources. There was little confidence that government would correctly identify which industries would succeed in the future and then select the right people from those industries to be in the room when decisions were made.

Some industry experts noted that one of the challenges facing refining in Eastern Canada was the substantial excess capacity that already exists. Surplus refining capacity exists throughout what the industry refers to as "the Atlantic Basin," extending from Eastern Canada and the US to the US Gulf Coast and Europe, which are all potential sources of refined petroleum for markets close to the Atlantic Ocean. There has been a long-term decline in demand for refined petroleum around the Atlantic Basin, especially for gasoline as fuel economy improved in response to both higher gas prices and government fiat. Given this substantial surplus capacity, it is difficult to justify government incentives to invest in more refining capacity. Investments are likely to be concentrated in converting existing refineries to use cheaper bitumen or upgrading them to produce higher value products.

The Asian market is where the fastest growth in demand for refined petroleum is occurring, which raises the tantalizing prospect of exporting to that region. It was noted that it is currently easier and cheaper to export crude oil to Asian refineries than to export refined petroleum products. However, the global rise in trade in these products shows that technical barriers to trade are falling, and refineries no longer have to be as close to their markets as in the past. Rising international trade in refined petroleum also reflects the trend to greater specialization in certain product lines by refineries.

## Conclusion

Canada's economy is likely to tilt further towards natural resources. All parts of the petroleum sector in Canada are profitable and drawing increased investment, although some sectors like extraction and transportation are drawing more investment than others. The prospect of more growth in our natural resource sector and less in manufacturing that is not resource-related did not faze economists, who noted that many of the richest countries in the world do not have a manufacturing base, while countries pursuing growth based on manufacturing often rank in the bottom half of global per capita incomes. It was also noted that the 1990s in Canada had an over-reliance on manufacturing for growth and an under-investment in natural resources, which laid the groundwork for some of the shortages the resource sector is experiencing today.

## Agenda

8:00am	<b>Continental Breakfast</b>
8:30am	<b>Welcome and Introductions</b> Brian Lee Crowley, Managing Director, The Macdonald-Laurier Institute ● Overview of the meeting objectives and proceedings
8:40am	<b>Presentation: Philip Cross, Senior Fellow, The Macdonald-Laurier Institute</b> Canada's Petroleum Industry: Where is the most value?
9:15am	<b>Moderated Discussion</b> Brian Lee Crowley, moderator
	<b>Suggested questions for discussion:</b> ● <i>Is more domestic refining the best way to maximize the benefit of our oil resources for Canadians?</i> ● <i>How do the economic fundamentals of refining (e.g. access to domestic and international markets, access to different sources of crude, supply and demand) play out in Central and Eastern Canada?</i>
10:15am	<b>Coffee Break</b>
10:30am	<b>Presentation: Daniel Massey – Argus Media president</b> <i>How the positioning of crude in Canada and the U.S. has dramatically changed the balance of the refining business in North America</i>

<b>10:45am</b>	<b>Moderated Discussion – cont'd</b> <b>More Suggested Questions for Discussion:</b> <ul style="list-style-type: none"> <li>• <i>What would a potential investor see as the potential risks and rewards of building new refining capacity in Canada?</i></li> <li>• <i>Should Canada aim to become wholly self-reliant (i.e. stop importing foreign crude) and only refine Canadian crude?</i></li> </ul>
<b>11:50pm</b>	<b>Closing remarks and thanks</b>
<b>12:00pm</b>	<b>Meeting Adjournment</b>

## Participants

Robin Banerjee, Economist, Industrial Sectors Policy, Government of Ontario

Bob Bleaney, VP External Relations, CAPP

Peter Boag, President, Canadian Fuels Association

Eric Bristow, Director, Government & Stakeholder Relations Canadian Fuels Association

Philip Cross, Sr. Fellow at the Macdonald-Laurier Institute & former Chief Economic Analyst at Statistics Canada.

Brian Lee Crowley (moderator), Managing Director at the Macdonald-Laurier Institute

Pierre Desrochers, Associate Professor, University of Toronto

Ray Fillion, President, Sarnia and District Labour Council

Rick Jennings, Assistant Deputy Minister, Energy Supply, Transmission and Distribution Policy, Government of Ontario

Jane Keast, Director of Operations, St. Clair Ethanol Plant Suncor Energy

Spencer Knipping, Advisor, Ontario Ministry of Energy and Infrastructure Government of Ontario.

Jeff Labonte, Director, General Petroleum Resources Branch, Ministry of Natural Resources

Patrick Luciani, Director, Salon Speaker & Senior Resident at Massey College

Daniel Massey, President, Argus Media

Mike Moffatt, Assistant Professor of Economist, Ivey School of Business

Walter Petryschuk, Associate, Bowman Centre for Technology Commercialization

Alex Phillips, Senior Policy Advisor, Office of the Premier of Ontario

Leslie Preston, Economist, TD

Rory Ring, President, Sarnia Lambton Chamber of Commerce

**Observers:**

Mike Cassaday, Director, Fuel Quality and Regulatory Affairs, Suncor

Hiroko Shimizu, Collaborator with the Canadian Fuels Association

Maryline Vuillerod, Business Development Manager - Downstream at Argus, Argus Media