



# What Happened to the Alberta Advantage?

Presented to

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By

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# Presentation Outline

- **GPMi Introduction**
- **Western Canadian Petrochemical Feedstocks**
- **The Canadian Economy**
- **The Alberta Advantage**
- **Environmental Responsibility**
- **Conclusion**

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# Gas Processing Management Inc.

- For 18 years, GPMi has been delivering industry leading solutions to the Business of Energy Infrastructure – Worldwide!
- Over 400 man years of hands-on front line Senior Management and Executive Level Experience in the Natural Gas, NGL and Petrochemical industries
- Based in Calgary and established in 1999, GPMi is independently owned and controlled
- Western Canada roots with growing international portfolio of over 400 clients
- Providing independent advisory services to Producers, Midstreamers, Financial Institutions and Governments
- Areas of Expertise

NGLs	Petrochemical	Gas & LNG	Other
<ul style="list-style-type: none"> <li>• Supply</li> <li>• Demand</li> <li>• Markets</li> <li>• Pricing outlooks</li> <li>• Netbacks</li> <li>• Infrastructure Development</li> <li>• Regulatory</li> </ul>	<ul style="list-style-type: none"> <li>• Feedstock</li> <li>• Ethylene business development &amp; infrastructure</li> <li>• New plant economics</li> <li>• “Alberta Advantage”</li> </ul>	<ul style="list-style-type: none"> <li>• Processing Fees &amp; negotiation</li> <li>• Gas plant operations</li> <li>• Unconventional gas infrastructure development</li> <li>• Sour gas processing</li> <li>• JV agreement development, negotiation &amp; related services</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic planning for natural gas, LNG and NGL infrastructure</li> <li>• Acquisitions &amp; divestitures</li> <li>• Mediation, arbitration &amp; expert witness testimony</li> <li>• Knowledge transfer &amp; mentoring</li> <li>• Facility evaluation &amp; economic analysis</li> <li>• Infrastructure development &amp; project/commercial management</li> <li>• Contract negotiation</li> </ul>

- [www.gasprocessing.com](http://www.gasprocessing.com)

# Who is GPMi?



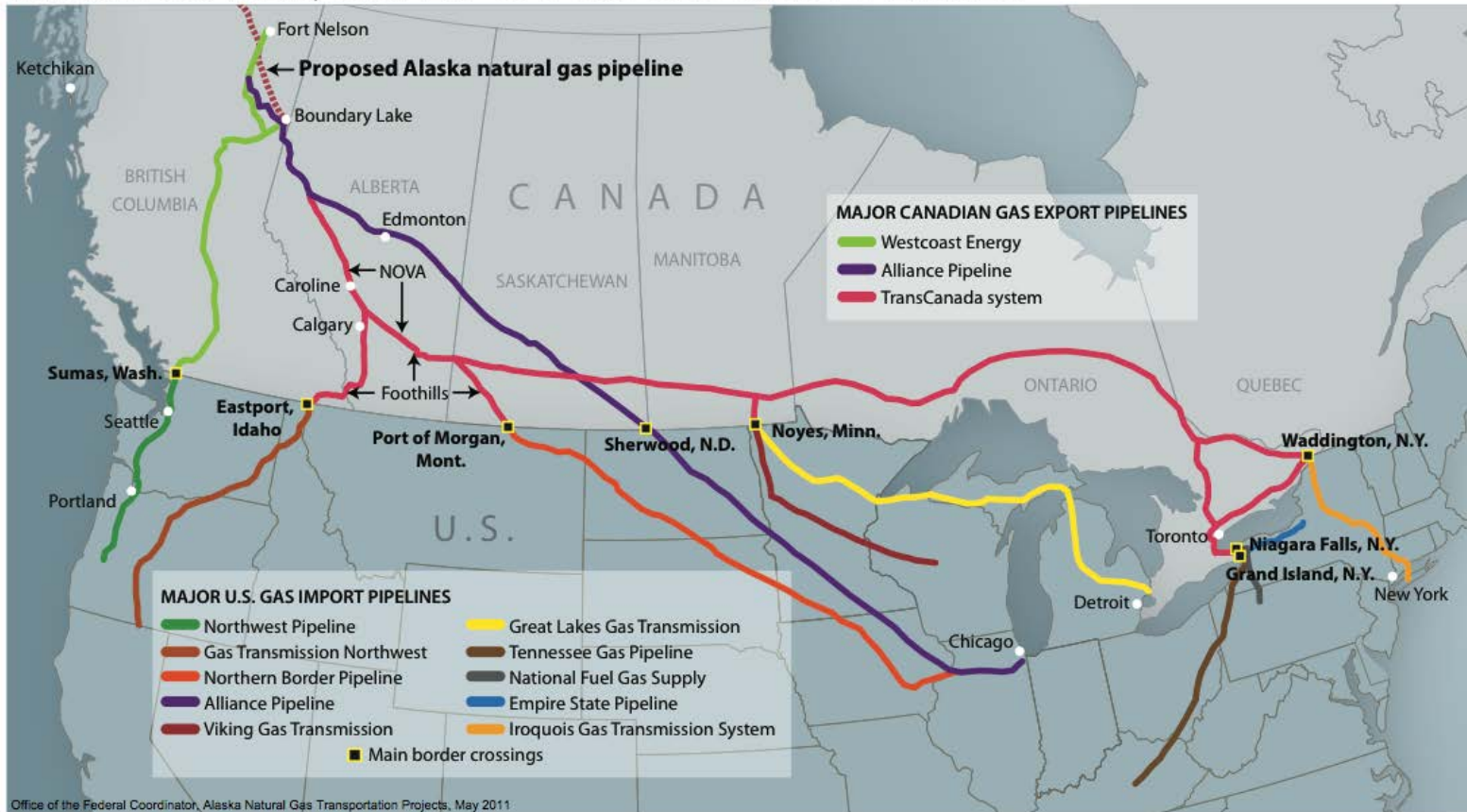
**If you want comprehensive, independent advice for natural gas, NGL and petrochemical businesses, then you need GPMi!**

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# Natural Gas Exports

## MAJOR CANADA, U.S. EXPORT-IMPORT GAS PIPELINES



Source: Alaska Office of the Federal Coordinator

- **Western Canadian hydrocarbon exports, especially natural gas exports, are the foundation for petrochemical feedstocks**



# Methane Feedstock Summary



- **In any gas production scenario, Western Canada has a large surplus of competitively priced methane**
- **Volumes are sufficient to build several world scale methane based projects such as methanol or fertilizer facilities in Alberta**

# Ethane Feedstock Summary



- In a moderate gas production scenario there is enough surplus ethane to support the debottleneck of existing crackers and addition of derivative capacity
- In a high LNG export scenario, there could be enough surplus ethane to support at least one world scale ethylene cracker and derivatives capacity

# Propane Feedstock Summary



- In a moderate gas production scenarios there is sufficient propane to build at least one and possibly two propane dehydrogenation (PDH) and associated polypropylene derivative facilities

# Supply Is Not The Issue

- **But Canadian supply is constrained because our only hydrocarbon export market is the U.S. and the U.S. doesn't need our supply anymore**
- **If we do not open up additional markets, there will not be sufficient supply to underpin significant new petrochemical investments**
- **But additional petrochemical investment requires more than supply**
- **It needs attractive economics**

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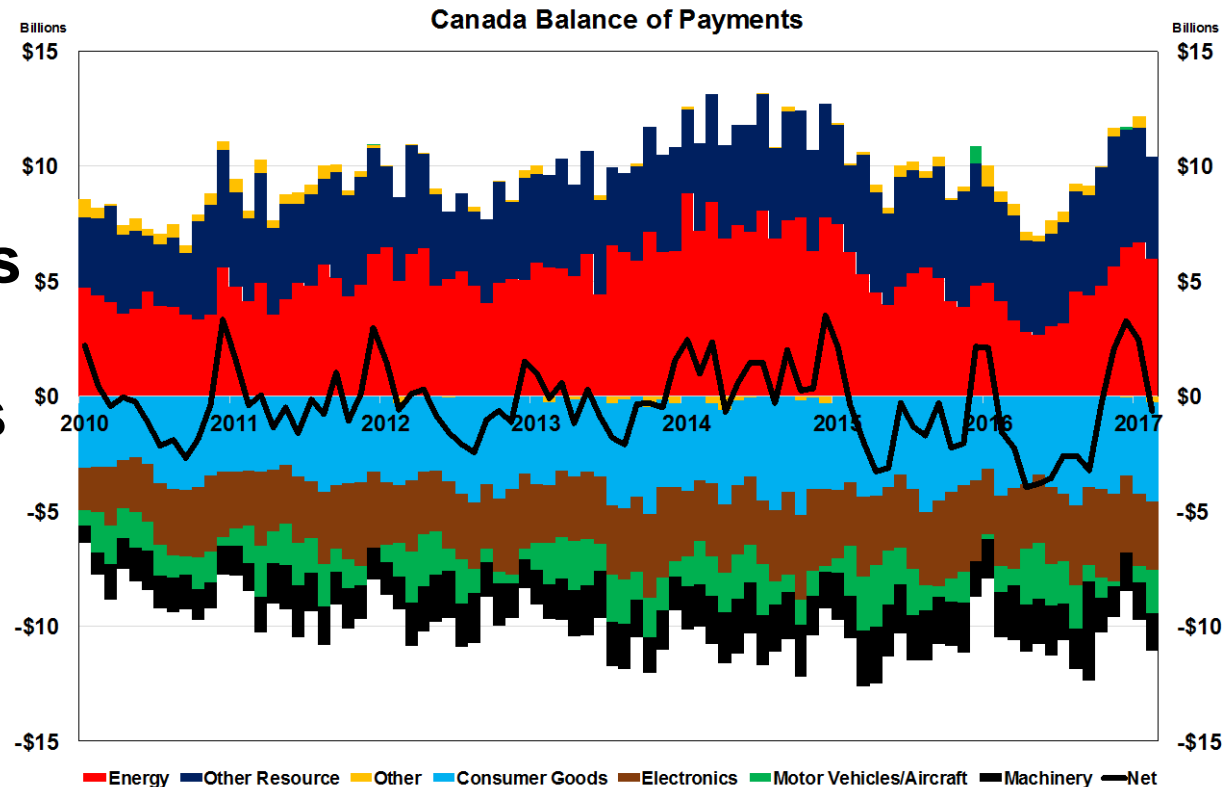
# Canadian Economy



- **Canada's economy relies on trade with the U.S.**
- **The Canada/U.S. trading relationship is important to the U.S. but is critical to Canada**
- **Energy exports to the U.S. are a substantial component of the Canadian economy**

# Canada's Balance of Payments

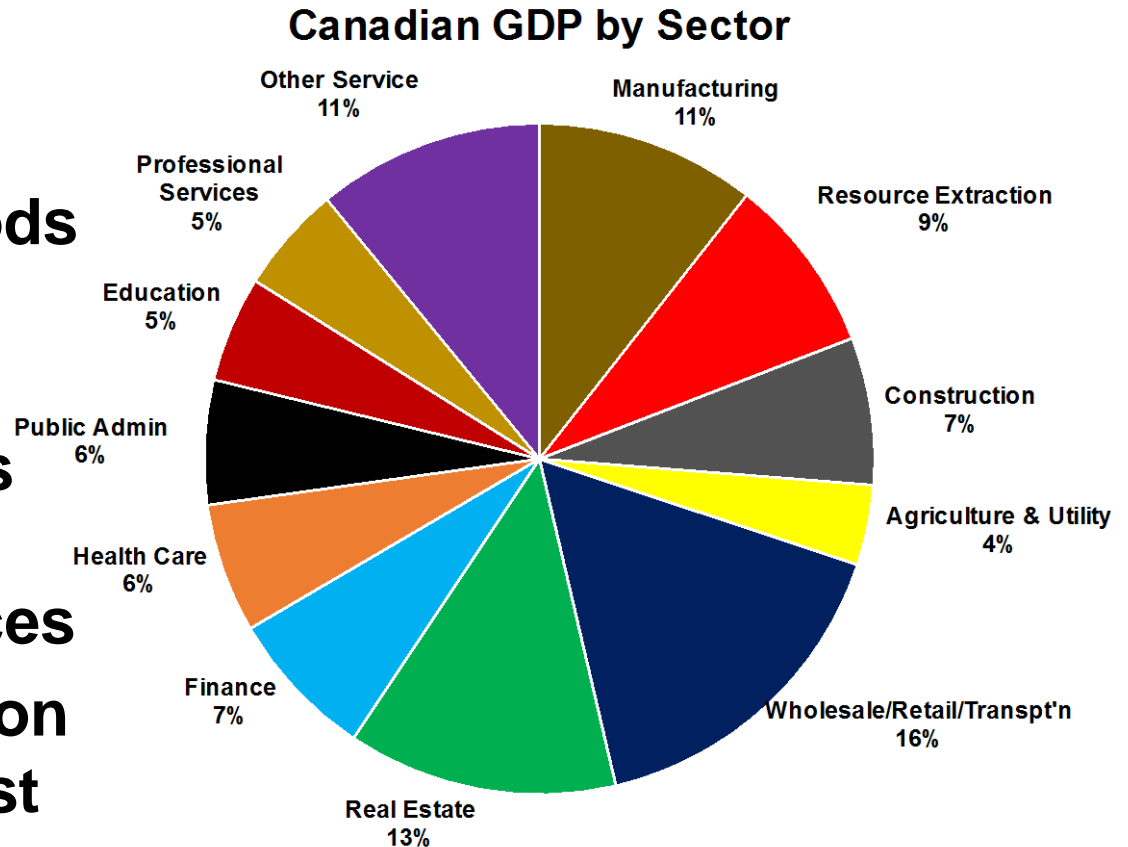
- Canada's Balance of Payments is dominated by energy exports and consumer goods imports
- Canada has a competitive advantage in resource extraction and not much else



Source: Statistics Canada

# Canadian GDP

- **Services comprise 69% of Canadian GDP**
- **Production of goods comprises 31% of Canadian GDP**
- **But without goods production, you can't afford services**
- **Resource extraction is by far the largest value add component**

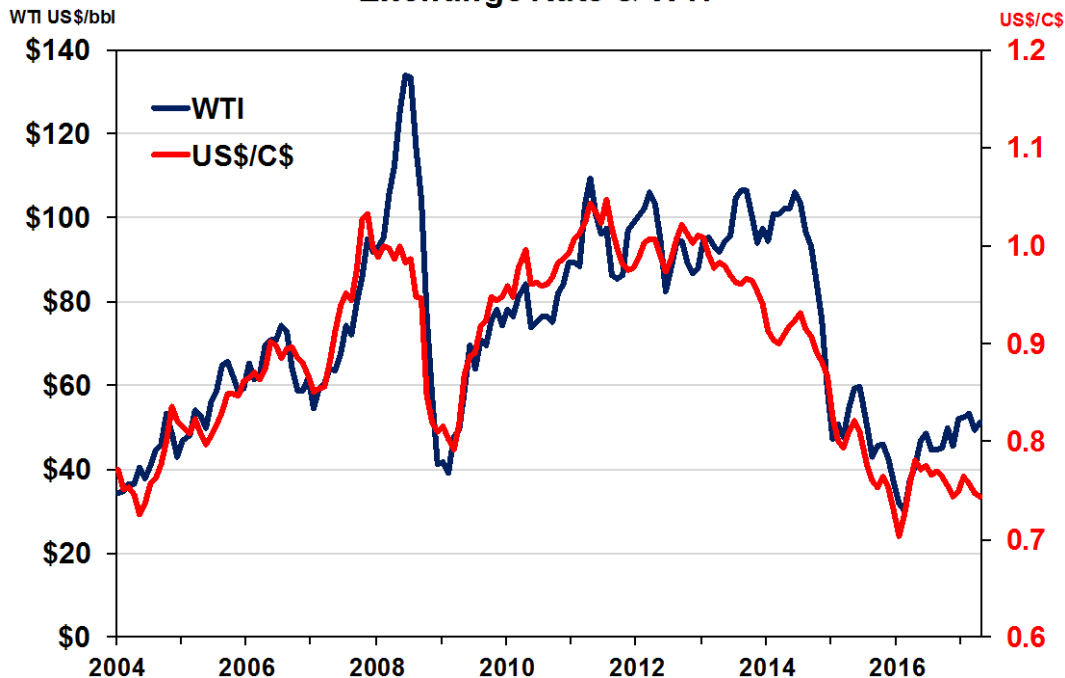


Source: Statistics Canada



# The “Loonie” is a Petrocurrency

Exchange Rate & WTI



Source: EIA and Bank of Canada Data  
Correlation Coefficient = 0.88;  $r^2 = 0.775$

- The Canadian dollar is highly correlated to the price of oil
- Petroleum resource revenues have a direct impact on Canada's GDP
- The Canadian dollar currently appears to be under valued

# Canada's Competitive Advantage

- **Canada's resources are among the largest and lowest cost in the world**
- **We do not have a competitive advantage in manufacturing**
  - **Developing value added industrial investments to diversify the economy is extremely challenging**
- **We must use our competitive advantage to develop new markets**
  - **i.e., LNG to capture world prices and create NGL feedstock supply**



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# What Was The Alberta Advantage?

- **Abundant, low cost resources**
- **Efficient, existing infrastructure**
- **Skilled workforce**
- **Low taxes**
- **A stable and supportive government**



# What Changed?



- The world has lots of supply
- We are building some intra-Alberta infrastructure, but little ex-Alberta
  - Others are building more
- We are in danger of losing our skilled workforce
  - Workers are leaving for greener pastures
- We have high taxes
- We have political risk

# Uncertainty



- **Carbon levy**
- **Power costs**
- **Regulatory delays**
- **Construction costs**
- **Constrained market access (pipe and rail)**

# Economic Incentives



- **Canada does not have a competitive advantage in manufacturing**
- **Many jurisdictions around the world, but especially in the U.S., do whatever it takes, including providing significant incentives, to attract industrial investment**
- **Canada must improve productivity and increase incentives to compete in this environment**

# Bottom Line

- **Simply put, stronger economics and lower risk investment opportunities exist elsewhere**
- **Canada is not a world player**
- **The world is not waiting for us to figure out whether we want to build something**
- **We have to do whatever it takes to attract investment and develop new markets, regardless of who it may offend**



# What Does It Take To Succeed?

- **We have to want economic success**
- **That requires political will to create an environment that attracts investment**
- **That means reclaiming the advantage:**
  - **Low and stable taxes, costs**
  - **Predictable regulatory process**
  - **LNG to ensure additional feedstock supply**
  - **Improved infrastructure, especially rail**
  - **Targeted, customized and smart incentives**
    - **It's not One-Size-Fits-All**
    - **Requires understanding how business works and what drives investment decisions, i.e., get people with business experience to negotiate the deals**

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# Environmental Responsibility



- **Environmental opposition isn't going away**
- **Canada must continue to develop its resources in the most environmentally responsible manner**
- **Canada has among the most stringent environmental regulations in the world**
- **Canada is second to none at environmentally responsible resource development**
- **We must not be ashamed of our success**

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# Conclusion

- **Canada's economy depends on resource exports**
- **LNG is necessary for additional feedstock supply to support new petrochemical investment**
- **The potential to add value and open up new markets is almost unlimited but we are struggling to get projects to FID**
- **We need government that understands the urgency of the issue and has the political will to do something about it**
- **The time to invest is now – costs are low**
- **I remain optimistic that we will ultimately be successful but I fear there will be more pain first**

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