



The Canadian Energy Business in 2017

Presented to

Geoconvention 2017

By

Gerry Goobie, P.Eng.

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Trigger Warning!

- **Canadian Energy and Hydrocarbon Resources are huge!**
- **The world says, “So what?”**
- **Supply is not an issue**
- **Market access is the limiting factor**
- **Canada will suffer economic decline if we do not capture new export opportunities**

Presentation Outline

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

- 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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Canadian Economy



- **Canada's economy depends on trade, primarily with the U.S.**
- **The Canada/U.S. trading relationship is critical to both countries**
- **Energy exports to the U.S. are a substantial component of the Canadian economy**

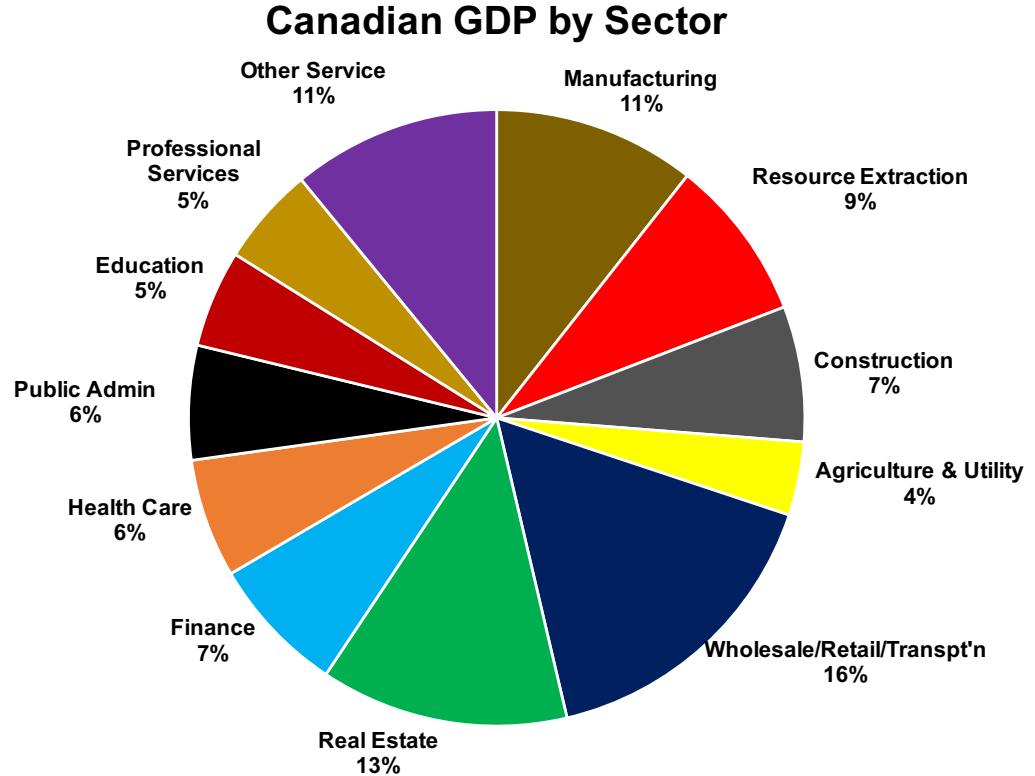
Canada's Competitive Advantage

- **Canada's resources are among the largest the world and among the lowest cost to produce**
- **We must use this competitive advantage to develop new markets**
- **We do not have a competitive advantage in manufacturing**
 - Therefore developing value added industrial investments to diversify the economy is extremely challenging
- **The consequences of failing to diversify our markets and industries are not good!**



Canadian GDP

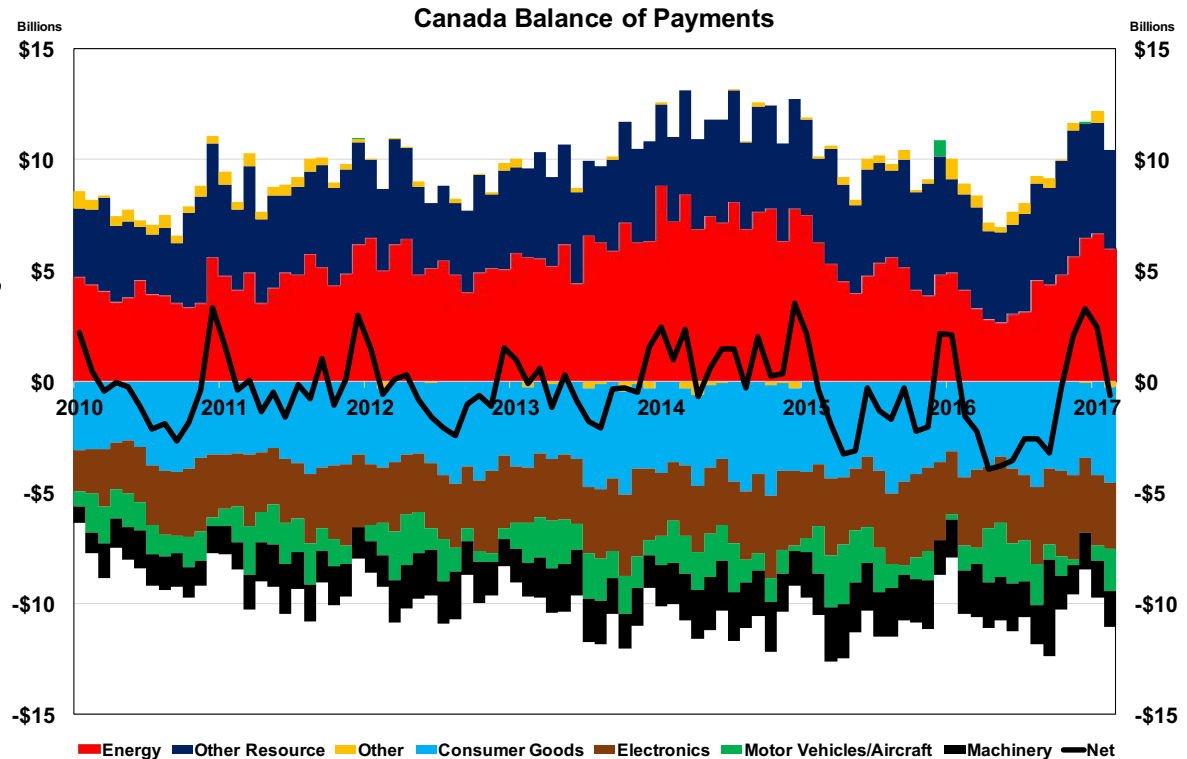
- **Services comprise 69% of Canadian GDP**
- **Production of goods comprises 31% of Canadian GDP**
- **But without goods production, you can't afford services**



Source: Statistics Canada

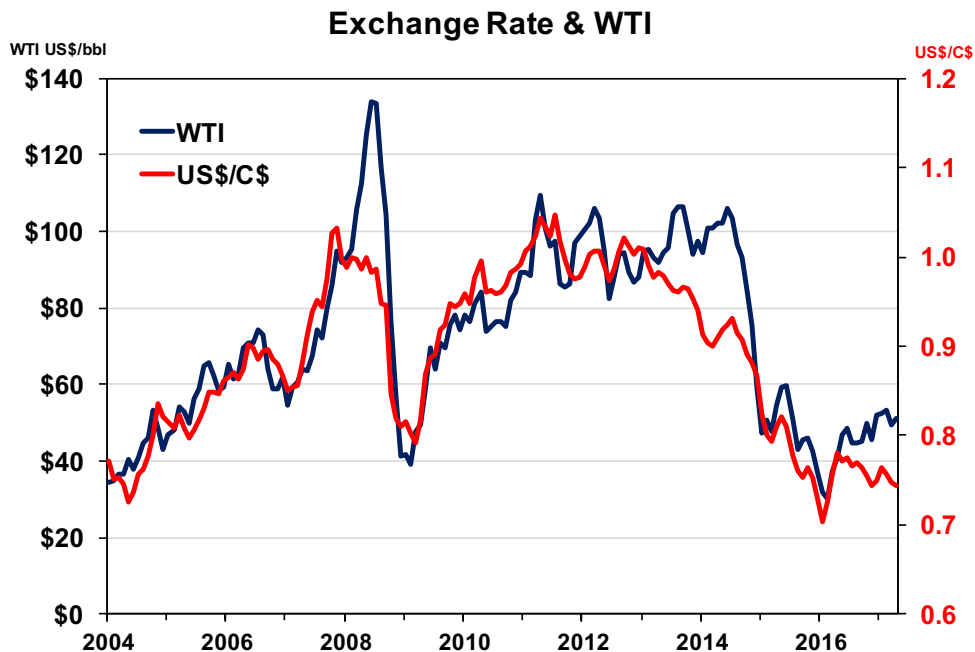
Canada's Balance of Payments

- **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

The “Loonie” is a Petrocurrency



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

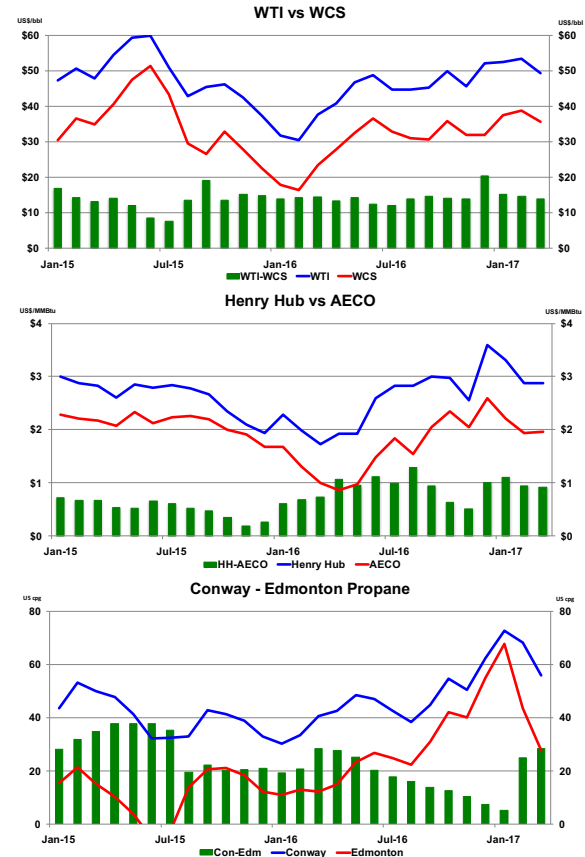
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Crude Oil & Natural Gas Prices

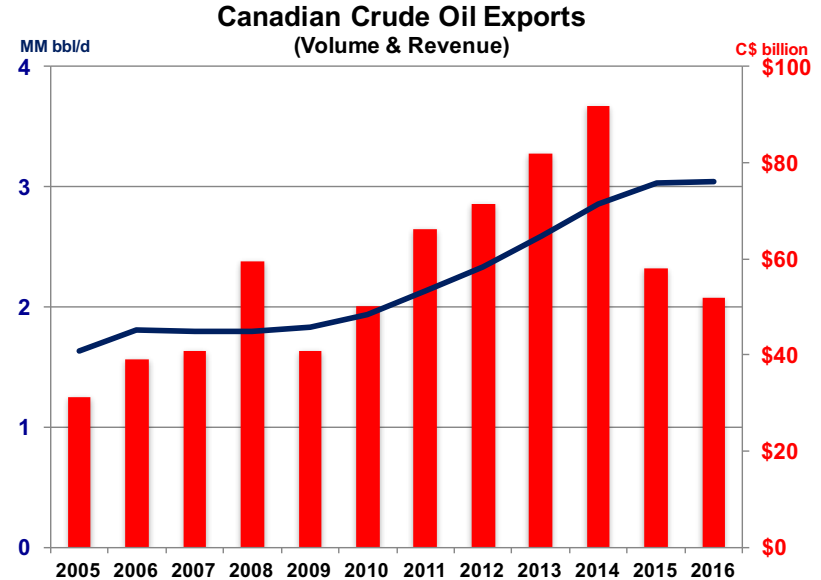
- Canadian crude oil, natural gas and propane prices remain significantly discounted to U.S. prices
- Canada is a price taker because its primary market is the U.S.
- Low cost production is one of Canada's strongest competitive advantages
- Exploiting that advantage strengthens Canada's economy

Source: GPMi NGL Report



Crude Oil Exports

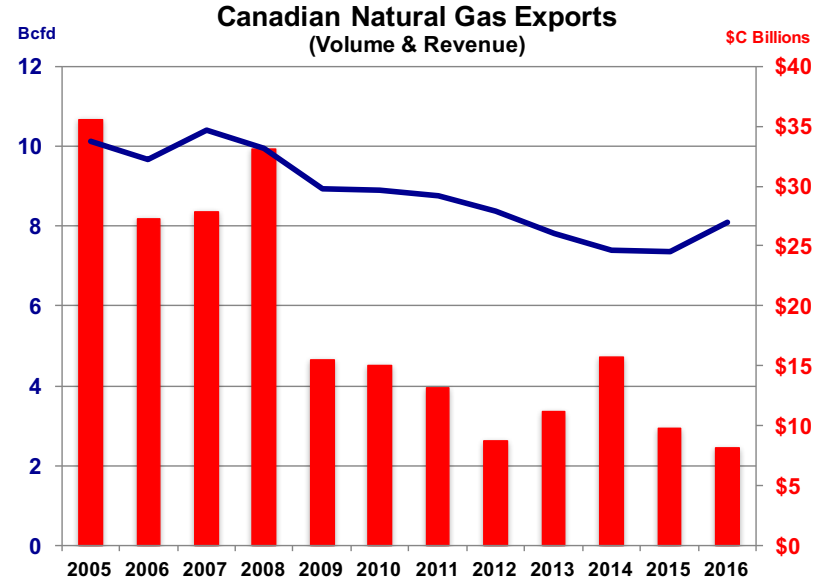
- **Crude oil export volumes to the US continue to grow but revenues have fallen sharply in the last two years**
- **Canadian crude is cheap!**



Source: NEB; 2016 estimated

Natural Gas Exports

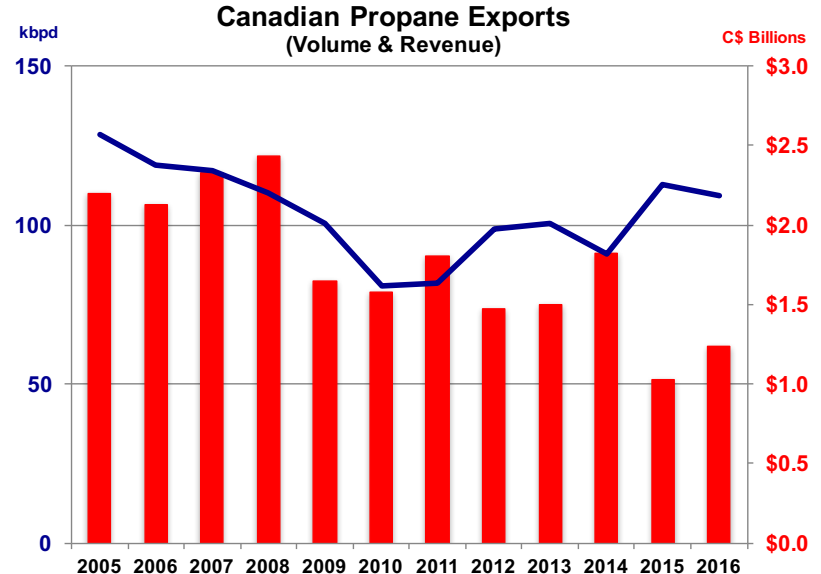
- Natural gas export volumes grew in 2016 but revenues continue to fall
- Canadian gas is cheap!



Source: NEB; 2016 estimated

Propane Exports

- Propane export volumes to the US remain strong and revenues have started to recover
- Canadian propane is really cheap!



Source: NEB; 2016 estimated

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Recent Developments

- **There are many opportunities to diversify Canada's resource exports but many obstacles remain**
 - **Low cost and proximity to Asia are advantages**
- **Natural gas, crude oil and propane export projects include**
 - **Pacific Northwest LNG (no FID yet)**
 - **Kinder Morgan Trans Mountain Expansion (no FID yet)**
 - **Enbridge Line 3 Replacement (pending U.S. approval)**
 - **AltaGas Ridley Island Propane Export Terminal (in construction)**
 - **Pembina West Coast Propane Export Terminal (no FID yet)**
 - **Pembina and InterPipeline PDH projects (no FID yet)**
 - **Keystone XL (in regulatory review – again!)**
 - **Energy East (in regulatory review)**

What is Happening Now?

**build
absolutely
nothing
anywhere
near
anything**

- The Canadian petroleum industry is leaving too much on the table
- Numerous LNG and LPG export projects are in development
- But, the NIMBYs and BANANAs are slowing everything down
- The economic downturn will force decisions soon
- Federal and Provincial Governments are getting an Economics 101 lesson

Changing the Race



- **When running away from a grizzly bear, you don't have to be the fastest, just not the slowest – We can consistently beat the U.S.G.C.**
- **Unfortunately, in energy races, Western Canada is a slow competitor**
- **We have to run where we can be more competitive, i.e., waterborne exports to the Pacific or Atlantic basins**

Alberta Incentive Programs



- **The Alberta Government has awarded C\$500 million in royalty credits to support the development of two Propane De-Hydrogenation projects**
 - Pembina PDH/PP
 - InterPipeline PDH
- **Alberta has to compete to attract investment**
- **The Energy Diversification Advisory Committee will likely recommend additional incentive programs**

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 development**
- **Canada must improve productivity and increase incentives to compete in this environment**

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Environmental Responsibility



- **Environmental opposition isn't going away**
- **Canada will continue to develop its resources in the most environmentally responsible manner**
- **Governments have imposed tough but fair environmental conditions on all projects**
- **Canada is second to none at environmentally responsible resource development**

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Conclusion



- **Canada's economy depends on resource exports**
- **Canada's economy has suffered over the last two years but Canadian producers have become lean and mean again**
- **The potential to add value and open up new markets is almost unlimited but we are struggling to get projects to FID**
- **The time to invest is now – costs are low**

Gas Processing Management Inc.

Gerry Goobie, P.Eng.

gerry@gasprocessing.com

403-680-9110

www.gasprocessing.com