

An excellent synopsis of Canada's oil and gas industry plight, as the oil price hits \$50 / barrel.

Enjoy.

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May 25, 2016



ARC energy charts

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Spot WTI Crude	Edmonton Light	Spot Henry Hub	Spot AECO	Spot AECO Basis	Currency
\$US/B	\$US/B	\$US/MMBtu	\$Cdn/GJ	\$US/MMBtu	\$US/\$Cdn
47.75 ↑	45.55 个	1.81 ↓	1.25 ↑	0.81 ↓	0.7623 ↓

Chart Watch

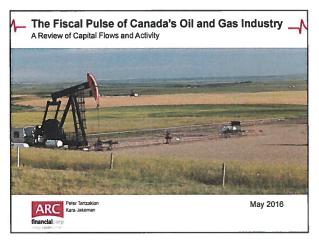
- 6 The CAD has fallen 3.5 cents since early May
- US crude stocks had a bearish 1.3 MMB build
- 32 The AECO basis remains wider than normal
- 39 The US oil rig count remained flat last week
- 41 US natural gas production fell again last week

The Fiscal Pulse of Canada's Oil and Gas Industry

By Peter Tertzakian

Economists and analysts have been trying to find historical comparisons to the lengthy oil price downturn that began 21 months ago. As bad as 1998? 1985? Or even the 1890s? Regardless, the dual impact of oil and natural gas prices falling by more than 50% since late 2014 has led to a severe contraction in the Canadian oil and gas industry. In an update to our report "The Fiscal Pulse of Canada's Oil and Gas Industry," we examine the ongoing impact of the downturn on capital flows, production levels and field activity since our last review, one year ago. Through our model called the "Fiscal Pulse," we assess the financial health of Canada Oil and Gas Limited (COGL) - a fictitious company that represents a financial consolidation of all upstream oil and gas companies operating across the country.

With the first quarter behind us, the highlights of our 2016 diagnosis are summarized below:



Nominal cash flow lowest since the 1990s - Cash flow is the dominant source of capital for investment in the drilling, completion of new wells, and requisite production infrastructure. In 2016 we expect a token \$18.6 billion from all hydrocarbons, down 30% from 2015, and a staggering 75% from

Investment reduced to legacy spending - Cash flow running at near break-even levels in early 2016 means that there won't be much of a Fiscal Pulse for investment this year. Bankruptcies and 100,000+ layoffs validate the issue under a harsh light.

Nominal CAPEX for the conventional side of the business will be as low as the mid-1990s, reducing field activity to a crawl. Like last year, the \$30.5 billion in total CAPEX is largely being driven by spending on several late-stage oil sands projects, the last of which is expected to be completed by 2017 - 2018.

Sources Bloomberg, CAODC, Baker Hughes, EIA, NOAA, CPC, IEA, Natural Resources Canada, Canadian Gas Association, ARC Financial Research Disclaimer The information and data contained herein has been obtained or prepared from sources which ARC believes to be reliable but has not been independently verified. ARC makes no representations or warranties as to the accuracy or completeness of such information and data nor the conclusions derived therefrom. This document has been published on the basis that ARC shall not be responsible for, and ARC hereby expressly disclaims any responsibility for, any financial or other losses or damages of any nature whatsoever arising from or otherwise relating to any use of this document.

2014.

Declining production - The calculus in the oil and gas business is fairly simple: declining investment equals declining production. But there is a lag in the equation, which is one reason why production declines had not yet been recorded a year ago. In 2016, conventional oil as well as natural gas output is expected to drop. Light and medium grades of high-decline, tight oil are already off by 17% or 120,000 B/d from the 2014 peak.

Contracting oilfield service capacity - Rig activity is down to levels not seen in decades.

Utilization of equipment this past winter was as low as the idle "spring breakup" period in normal years.

Bankruptcies, layoffs and cannibalization of good equipment for spare parts all represent a contraction of field capacity that may be insufficient to serve COGL on a price rebound.

Falling costs (for now) - Declining investment continued to create a labour and service surplus in 2016. As well, producing companies doubled their emphasis on improving logistics and innovating for operational efficiencies. The result was a further lowering of year-over-year capital and operating costs. Existing production is now costing 15 to 25% less than the peak of 2014. Drilling and completing new wells is 20 to 30% cheaper. Any rebound in investment by COGL will be served by less equipment and fewer people.

Tighter capital markets - COGL was able to raise \$17.1 billion in new debt and equity in 2015, a level that was surprisingly resilient to the downturn.

However, much of that was in the first half of the year. By late 2015 capital markets were shunning the industry. Only \$1.2 billion of external capital came into the business in Q1 2016, a trickle by historical standards. A rebound in financings will be wholly dependent on rising commodity prices; however new debt and equity will remain scarce until there is belief in the sustainability of a recovery. We expect only \$8.5 billion of financings in 2016, half of last year.

Governments feel the fiscal pain of contraction - Last year was the first year since 1998 that COGL reported an income statement loss (\$20.1 billion). The loss in 2016 will be even greater, estimated at (\$26.4 billion). Negative earnings means that corporate income taxes from oil and gas producers to provincial and federal governments will be net zero. Royalty income to provinces is expected to total \$3.0 billion in 2016, the lowest level in decades.

None of the Fiscal Pulse indicators for 2016 are looking positive. However, the air of unsustainability is not unique to Canada's oil and gas industry. Contraction of productive capacity across the world's supply chain – from producers to service companies – has a momentum in 2016 that will not be reversed without meaningful price recovery. That by itself is a self-referential, positive indicator for future prices. In short, the world can look to Canada's exceptionally weak Fiscal Pulse as a transparent case study for inevitable commodity price recovery.

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