

Impact of Low Oil Prices on the Canadian Economy - A Newfoundland and Labrador Perspective

A presentation to the Standing Committee on Finance House of Commons

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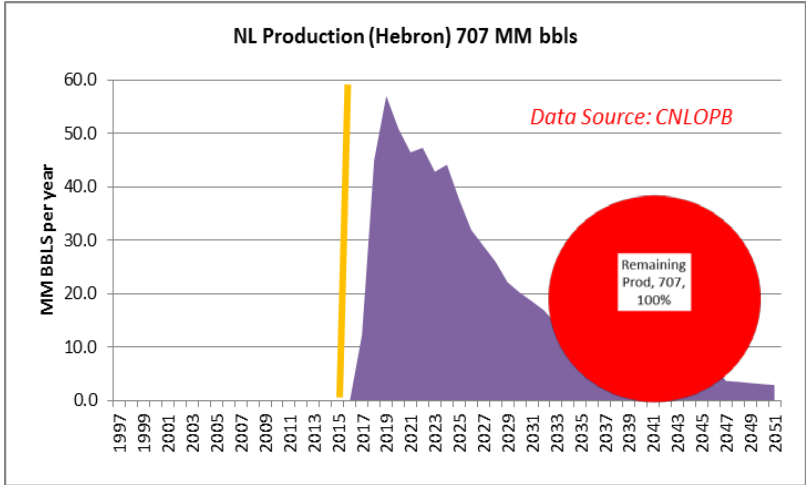
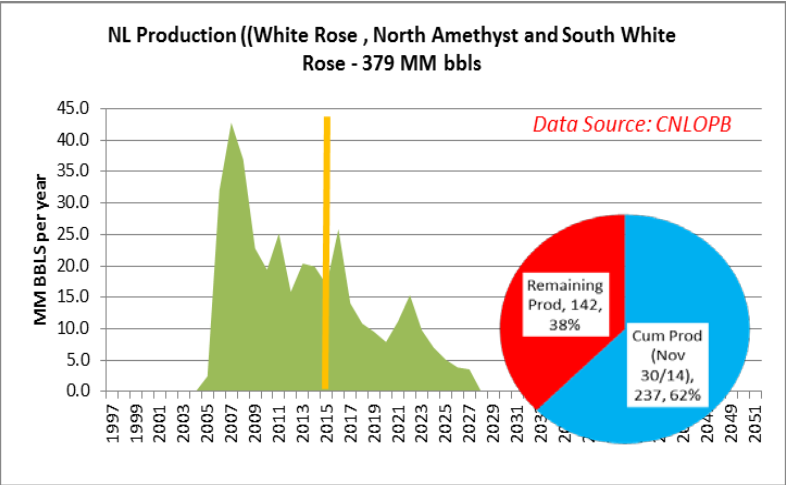
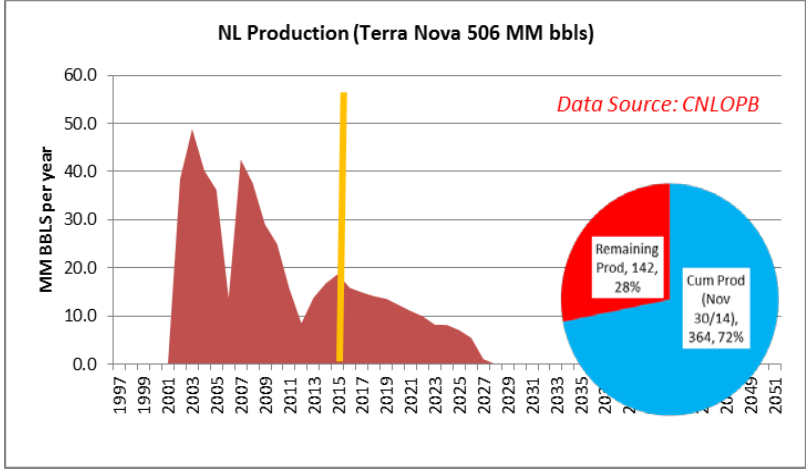
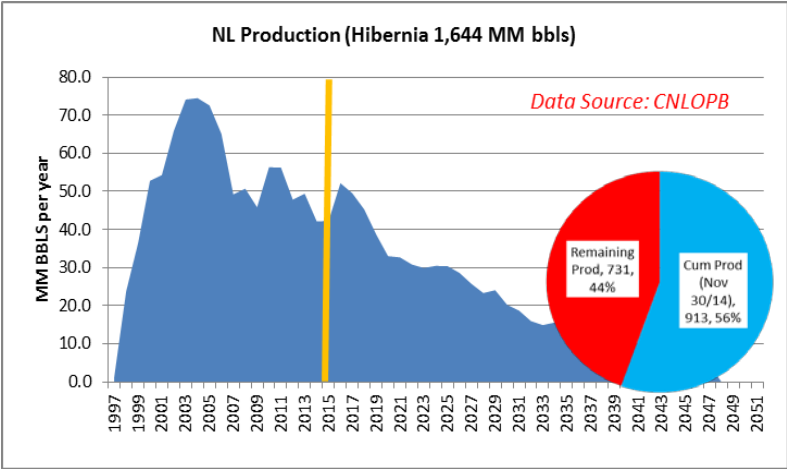
March 11, 2015
Ottawa

Interesting Statistics – NL Offshore

	To Nov 2014	
	Period Total	Ave Monthly
Production (millions bbls)	1,516	7.4
Brent Price (US \$/bbl)		\$60.53
CDN/US \$		1.2045
US \$/CDN		0.8061
Value of Output (M \$ CDN)	\$110,139	\$534.7
Value of Output (M \$ US)	\$98,676	\$479.0
Cumulative Royalties to 2014-15 or 2012-13	\$18,395	
Investment (M \$ CDN) (to Dec 2012)	\$33,923	
Exploration (to Dec 2012)	\$6,369	
Pre-development (to Dec 2012)	\$1,197	
Development (to Dec 2012)	\$12,390	
Production(to Dec 2012)	\$13,967	

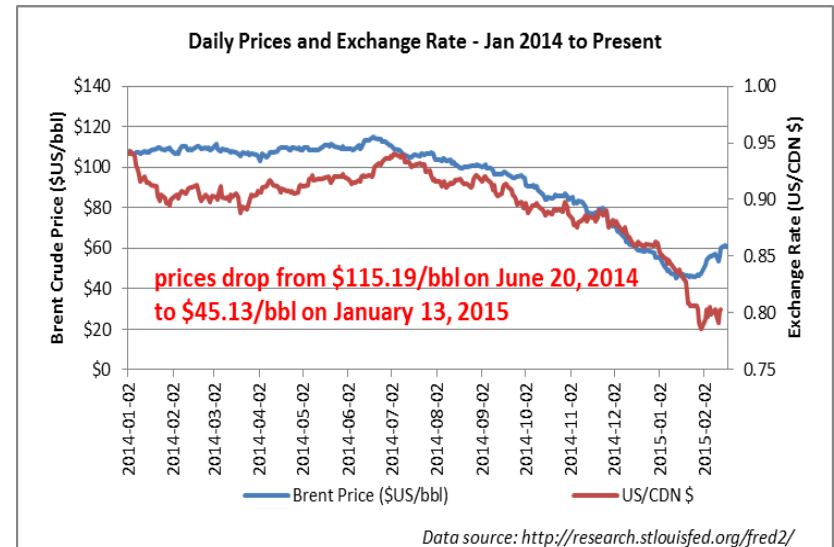
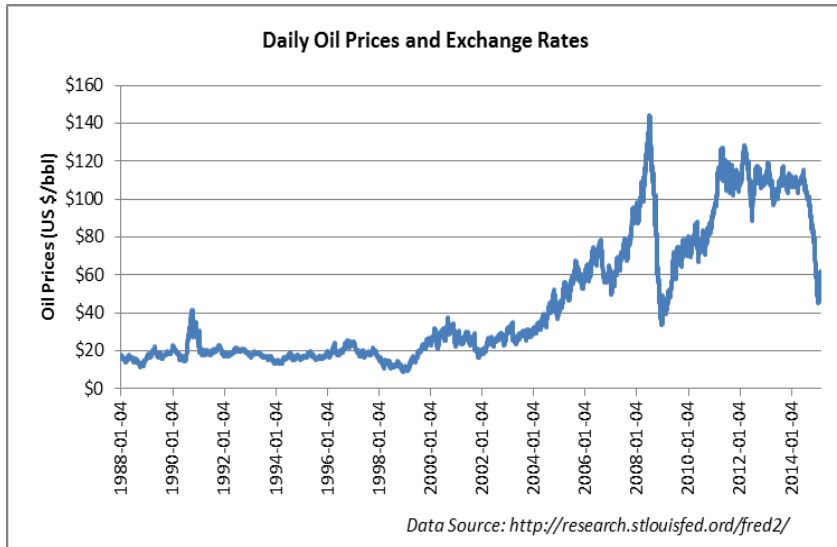
- 1.5 billion barrels of oil produced (source: CNLOPB)
- \$18.4 billion in provincial royalties to 2014-15 (public accounts & prov budgets)
- \$33.9 billion invested in offshore (source: CNLOPB)
- \$110 billion in output produced (author's calculation)
- 4-5% of labour force working in Alberta (11,000 people)

Existing and Approved Projects



1.5 billion barrels produced and 1.7 billion barrels to produce from existing projects 3

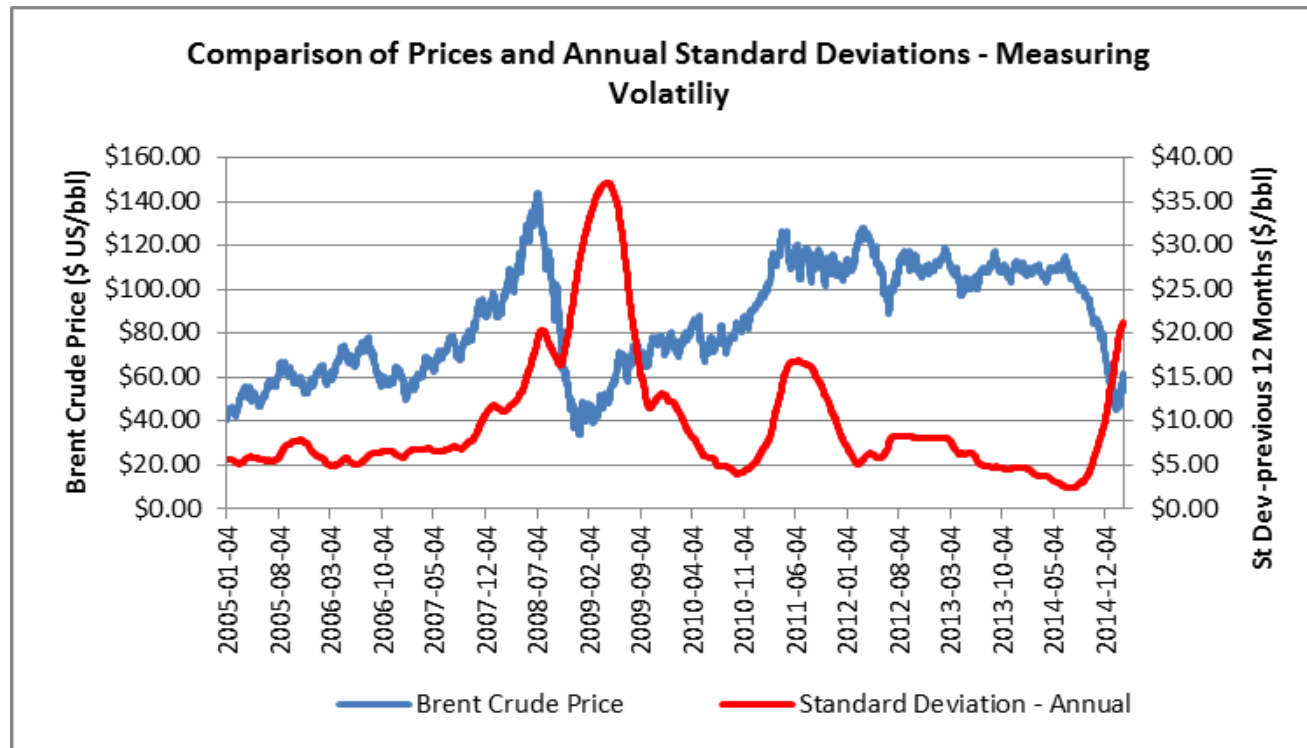
Daily Prices – Levels



In February, there has been a small turn around in prices

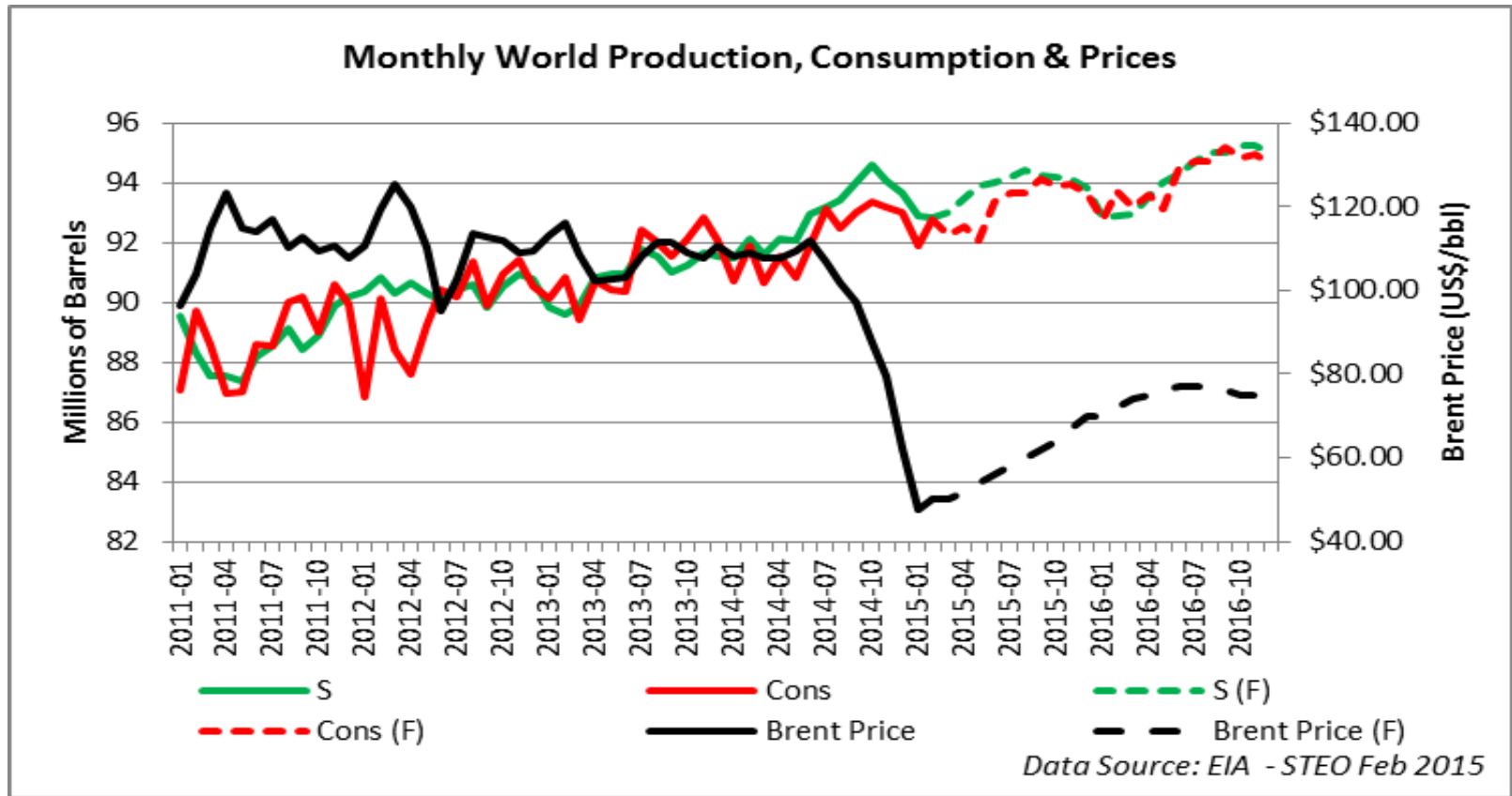
February 20, 2015, the price for Brent Crude was around \$60.00 US/bbl

Daily Prices – Levels and Volatility



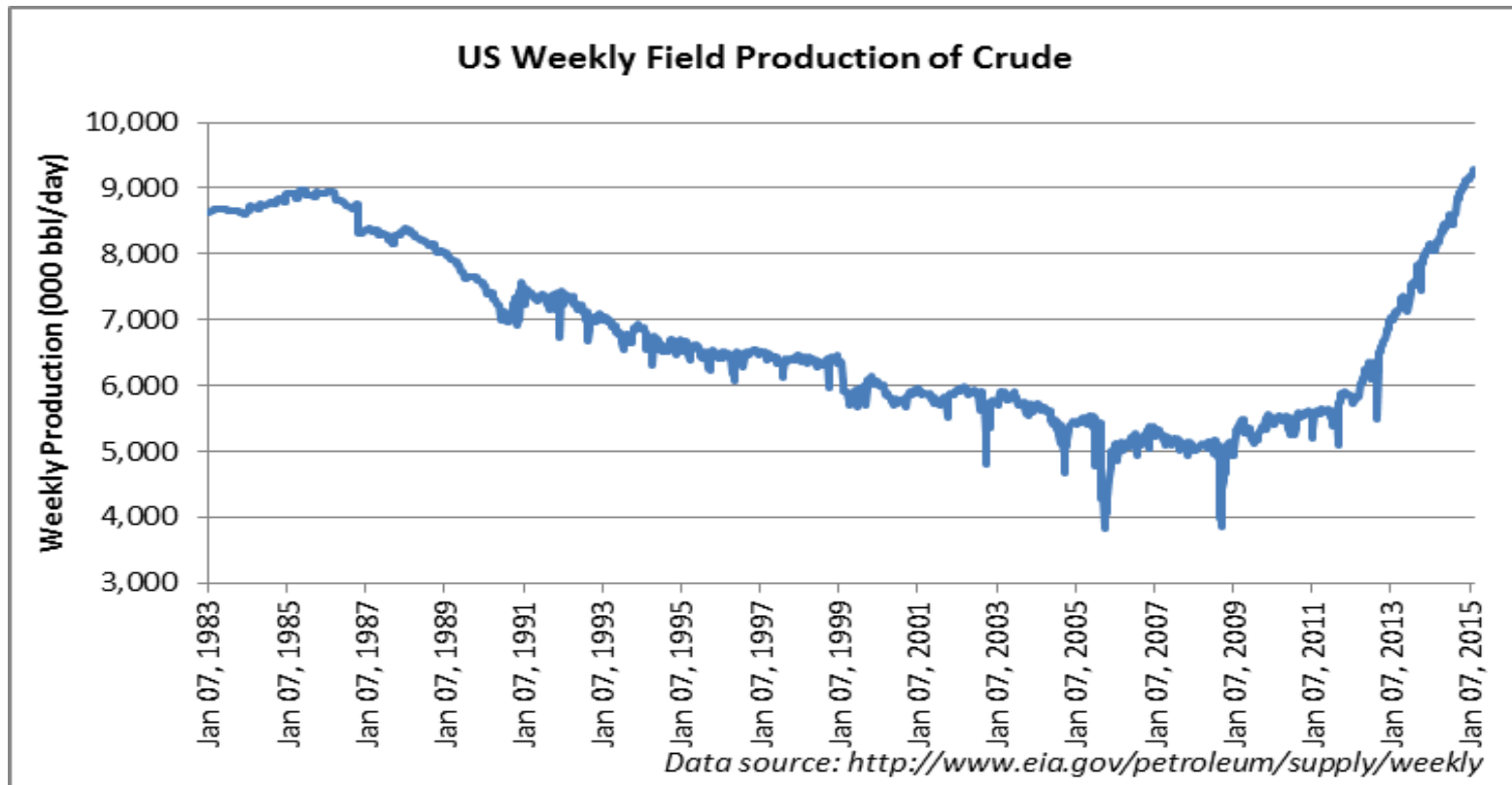
Independent of how it is measured, in the recent period, volatility has increased and, as such, so has the risks associated with oil prices because the price is less predictable.

EIA Price Forecast



Prices forecast to reach approximately \$76/bbl by end of 2016 according to EIA STEO (Feb 2015)

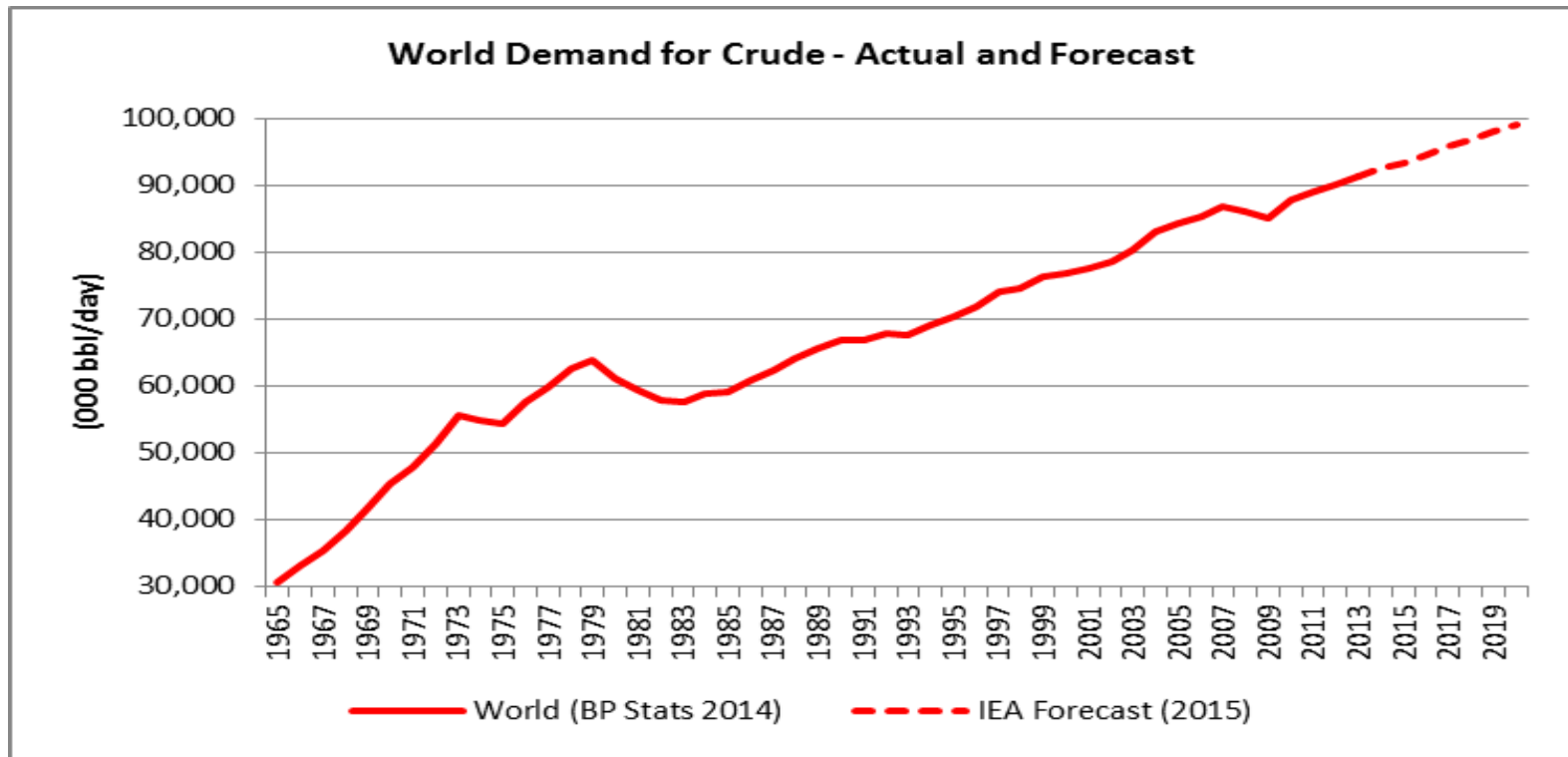
Weekly US Crude Oil Inventories and Production



Weekly inventories and production are historic levels and this is depressing prices

Concern that prices may need to be lowered to clear inventories

World Demand for Crude



World demand expected to reach 100 million barrels per day in 2020

Growth in China's demand having big influence on demand and prices in recent years and growth now starting to slow

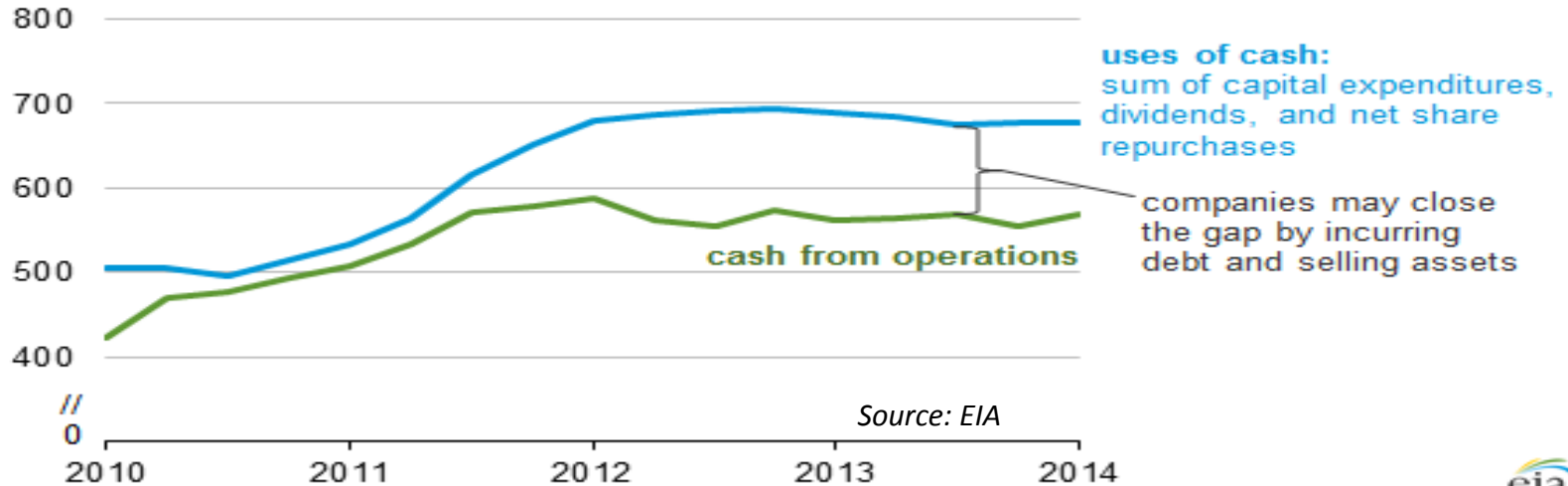
China's growth expected to fall below 7%, the weakest growth more than two decades 8

How is Efficiency Achieved

- Horizontal drilling – increase length of the horizontal lateral (in Bakken, typically 10,000 ft with 30 fracturing stages)
- Multiple-well pad drilling
- Walking drill rigs
- Utilizing adjacent leases
- Drilling in “sweet spots” which according to the EIA can be 10 times more productive than drilling in other parts of the play
- **EIA noted that ‘The easy improvements in tight oil well drilling and completion efficiency (e.g., longer laterals, pad drilling) have apparently been achieved; therefore, future improvement to existing technology are likely to occur at a more measured pace.’**
- **EIA noted that “as the high-productivity portions of the tight oil formations (i.e., sweet spots) are depleted, drilling activity will have to focus on the less-productive portions of the tight formations, requiring more well completions just to maintain oil production.”**

Energy Debt Increasing

Major energy companies' cash from operations and uses of cash
billion 2014 dollars, annualized values from quarterly reports



for the year ending March 31, 2014, the EIA reported on July 29, 2014 that cash from operations for 127 major oil and natural gas companies totaled \$568 billion, but their major uses of cash totaled \$677 billion, a difference of almost \$110 billion. This shortfall was filled through a \$106 billion net increase in debt and \$73 billion from sales of assets, which increased the overall cash balance.

The gap between cash from operations and major uses of cash has widened in recent years from a low of \$18 billion in 2010 to \$120 billion during the past three years.

Conclusion (1)

- Price drop driven by shale production
- Adjustment delayed by licencing, sweet spots, hedging, and efficiency gains
- Price will recover as demand recovers and that has started (China, Europe and Japan)
- As demand recovers, higher marginal cost of production sources will have to be used
 - The full cycle cost of new oil sands will be in the range of \$100 US/bbl and other marginal sources are in that range
- The slowdown in Alberta will have a dramatic and substantial impact on NL through reduced demand for labour
- It may take two years for prices to recover, but we should start to see noticeable changes by the middle of 2015