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MACROCOSM

Keystone is Key to Low Oil Prices

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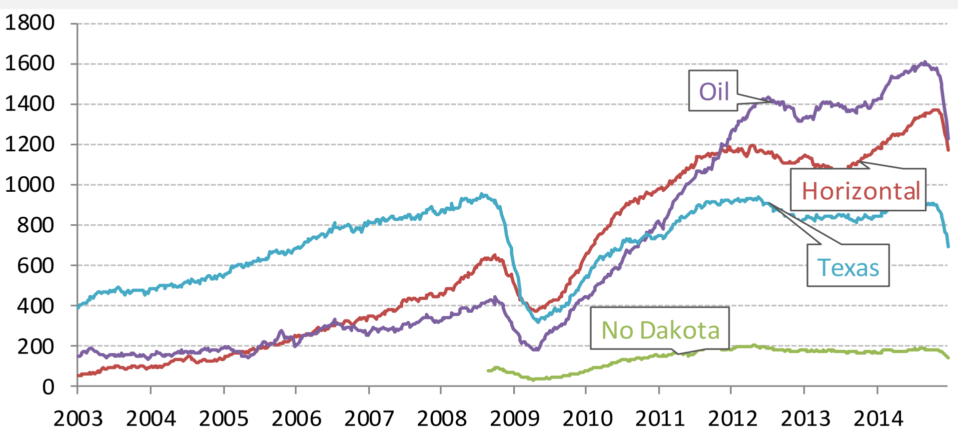
Donald Luskin and **Dr. Michael Warren**

If oil prices have hit bottom for 2015, cost-reduction takes center stage to set the ceiling.

West Texas intermediate crude oil futures rose 8.33% on Friday, the biggest jump in more than two and a half years. Last time, the driver was ECB President Mario Draghi's "whatever it takes" speech, which restored confidence in global growth (see "On Draghi in London" July 26, 2012). *We certainly can't explain Friday's move that way!* No, Friday's move was for a very different reason that we warned about two weeks ago -- a reported very sharp drop in rig counts, implying *a coming slowdown in US shale oil production* (please see the chart below, and "Oilmageddon: The Sequel" January 15, 2015).

- In the new world of abundance-driven oil prices -- without cartelized artificial scarcity -- for any given level of demand, the price is notionally set at the production cost of the least efficient marginal producer.
- Now demand is on the rise in the US, hidden in the internals of an otherwise weak GDP report (see "On Q4 2014 GDP" January 30, 2015), just as producers are cutting back on capital expenditures. So how high can the oil price go now? That depends on where costs go.
- *Enter the fight over Keystone XL pipeline (KXL). The conventional wisdom is that it is irrelevant now in a regime of lower oil prices. That's quite untrue, because transportation costs are now perhaps*

Rotary rig count



Source: Baker Hughes, TrendMacro calculations

Update to strategic view

OIL, US MACRO: Friday's jump in oil prices, the biggest in two and a half years, catalyzes the reality that US producers are cutting back CAPEX, which will result in falling production against a backdrop of rising demand. We continue to think we've seen the lows for the year in oil prices, and that crude will trade in a range of \$50 to \$65 in 2015, with a short-lived speculative over-reaction that could take prices briefly into the \$80's. In that environment, controlling costs is key to keeping prices low, and approving the Keystone XL pipeline is a logical move. It was approved in the Senate by a strong bipartisan consensus for growth. Obama is threatening to veto it, but as prices back up that will be difficult in light of his promise of "middle class economics."

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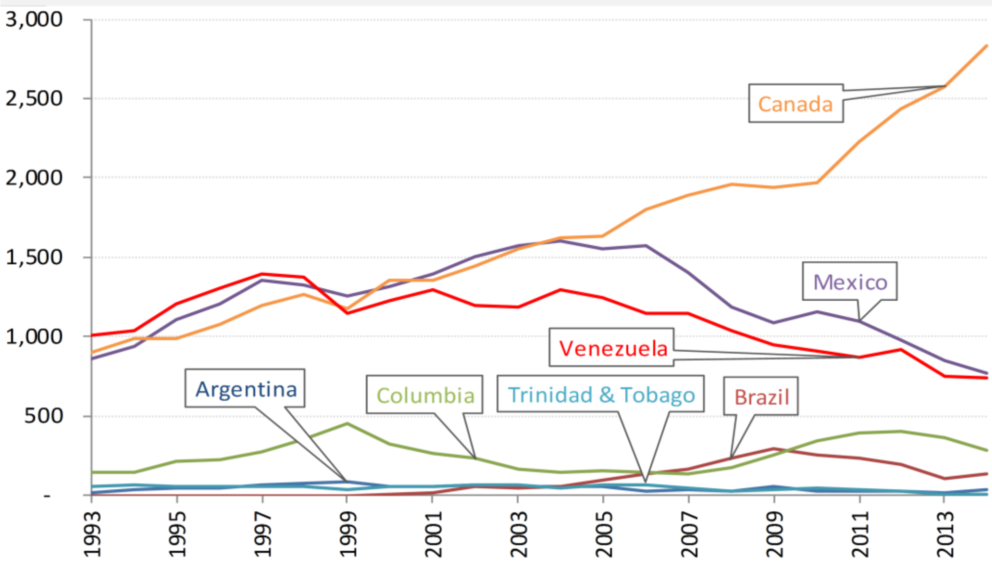
the single biggest factor in "netback pricing" for the marginal producers -- the all-in price they actually receive. KXL matters now more than ever.

- *That means: politics matters more than ever.*
- It is when oil prices are high that the KXL doesn't matter -- well, matters less. To see why, consider the extreme case of Canadian producers of bitumen and diluted bitumen -- that is, "oil sands" producers.
- In the old regime of high oil prices, Canada has been capturing market share away with heavy crude exports, especially from previous Western Hemisphere leaders Mexico and Venezuela (please see the chart below) -- thanks not only to new technologies exploiting long-latent oil sands resources, but also its stable and capital-friendly political environment that nurtured that exploitation.

Crude oil imports to the US from the Americas Thousands barrels/day



Source: EIA, TrendMacro calculations

- By contrast, in Mexico, PEMEX's slow-footed oil monopoly deprived it of the technology to move into deep water and shale, which has led to a reduction in total production and exports to the US.
- In Venezuela, the 2001 Hydrocarbon Laws and subsequent PdVSA strike decimated a relatively well-run state-owned enterprise built up under the leadership of Luis Giusti, resulting in massive brain drain, as President Hugo Chavez wiped out decades of institutional knowledge.
- Canadian producers have ample low-cost pipeline capacity linking them to US refiners that can utilize their more viscous crude in nearby PADD 2, PADD 4 and Washington State (part of PADD 5). But to get to the capacious heavy crude refineries in the Gulf Coast -- PADD 3 -- they have had to utilize high-cost alternative transportation -- rail and barge. A record 182,000 barrels/day of crude oil were railed to the United States from Canada in 3Q 2014,

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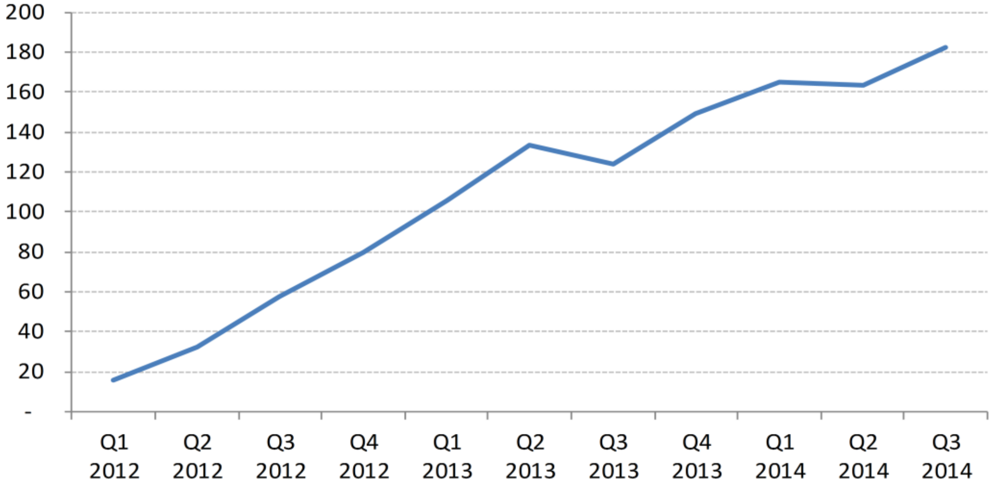
Canadian oil exports to the US, by rail Thousands of barrels/day

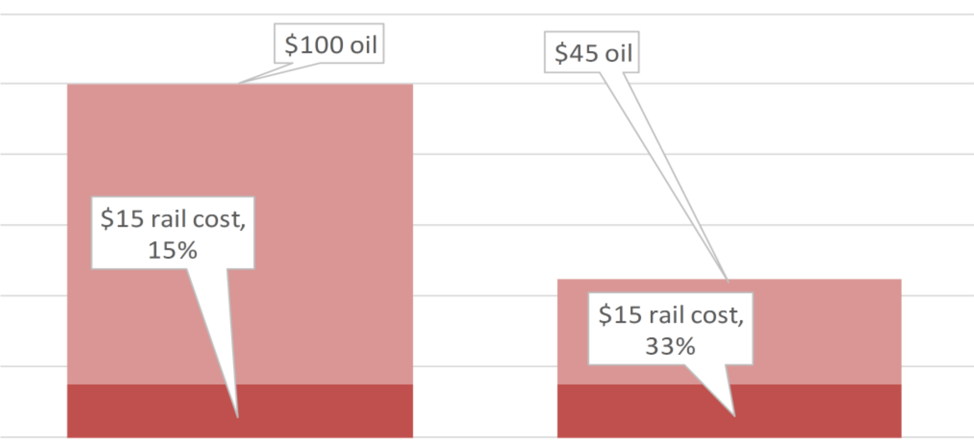


Source: Canada National Energy Board, TrendMacro calculations

about 86% from the high-cost oil sands producers (please see the chart above).

- The KXL was first commissioned in 2010 as a way of facilitating oil imports into the US. At that time, no one expected that oil would be railed instead, at a huge logistical cost of $12 to $18/barrel.
- In today's new regime of abundant supply and low market prices, *<u>that cost of railing to Gulf Coast refiners has suddenly more than doubled as a proportional cost factor</u>* (please see the chart below).

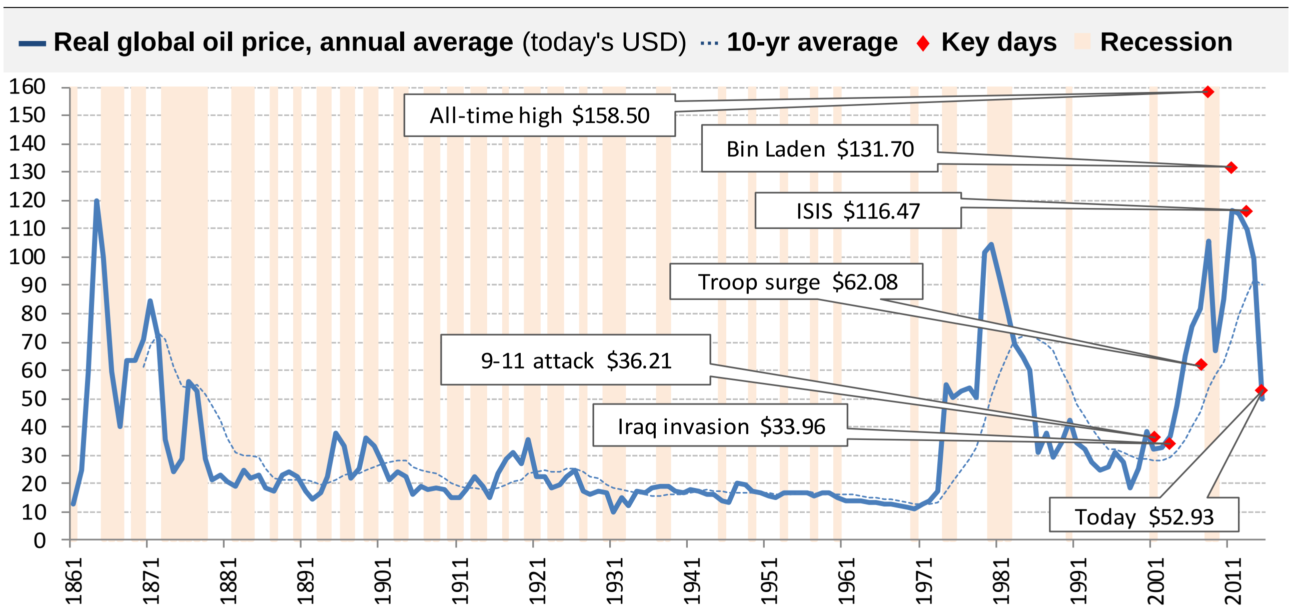
$15/barrel rail costs as share of oil price



Source: TrendMacro calculations

- American and Canadian entrepreneurs have already allocated capital to connect existing pipelines (through reversals and repurposing), or added new capacity, to bring oil sands production to PADD 3. For example, Enbridge's 600,000 barrel/day Flanagan South pipeline, which runs from Illinois down to Cushing, Oklahoma came on line last December. At the same time, Canadian flows into Cushing were connected to the Gulf Coast (Jonas Creek, Texas) with the start-up of the 450,000 barrel/day Enterprise Product Partners Seaway Twin pipelines -- which can now deliver 850,000 barrels/day to the Gulf Coast.

- Obviously, this is welcome news for Canadian producers, lowering their cost of transport to $6 to $9/barrel (from Hardisty, Alberta to Jonas Creek, Texas). *With pipelines, Canadian producers cut their transmission costs in half -- back to 15% of market price, down from 33%.*
- Contrary to the dominant political narrative, the KXL has similar benefits for US producers that are tapping liquids formations from the Bakken, the Niobrara and midcontinent plays. According to the US Department of State, the KXL pipeline has reserved up to 100,000 barrels/day of its 830,000 capacity for US operators -- of which Bakken operators have already subscribed for 65,000.
- Now 59% of all North Dakota oil production from the Williston Basin (mostly Bakken) is moved by rail. The added logistical costs of rail reduce netback pricing from $10 to $15/barrel depending on which PADD the Bakken output is targeted. If more Bakken oil can be piped out of the basin, then logistical costs can be reduced to only $5/barrel.
- *The politically-driven narrative that the KXL doesn't matter now that oil prices are low is driven by a fallacy -- the failure to think at the margin*. The fallacy treats the oil price now as though it were literally zero, where there is no room for prices to fall even lower as costs are reduced.
- What if microchip producers had declared, say, 25 years ago that the price of memories and processors had already fallen effectively to zero, thanks to Moore's Law, versus where their prices started in the 1960s when they were new and scarce? We'd have missed another 16 recursions of Moore's Law, in which at each turn prices effectively fell by 50% -- we'd wouldn't have smartphones, tablets,



Source: BP, BLS, NBER, Bloomberg, TrendMacro calculations

RFID chips, and all the other productivity miracles of the modern world.

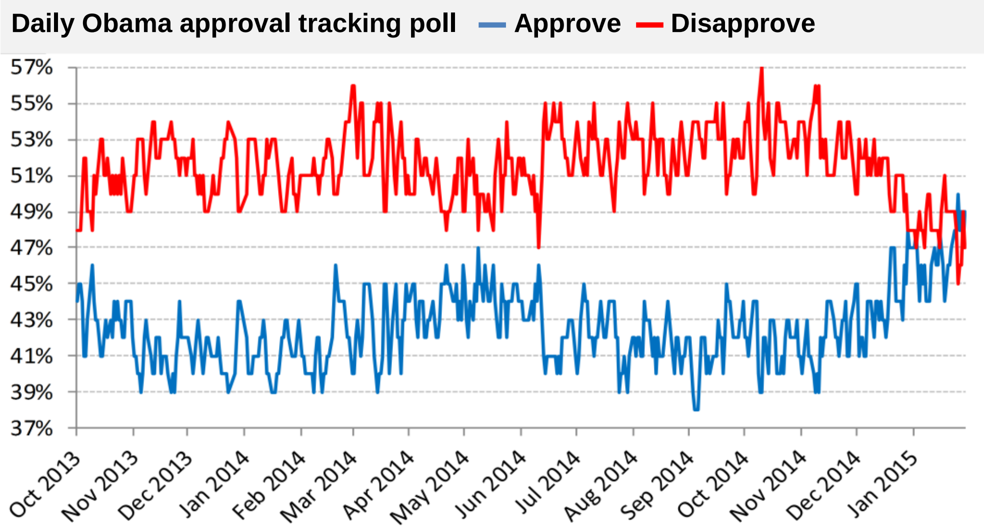
- Oil prices have much further to fall in the long-run. As we have said many times (see, among others, "Oilmageddon" December 16, 2014), the long-term mean oil price is a range between $15 and $40 in today's dollars (please see the chart on the previous page). "There's plenty of room at the bottom," as Nobel physics laureate Richard Feynman said in 1959, six years before Intel founder Gordon Moore propounded Moore's law.
- *This is where the rubber meets the road for oil prices, because many US shale producers enjoy mid-cycle breakevens lower than those of oil sands producers. So they are more likely to be the marginal producers setting market prices. It is here -- among the domestic shale producers -- that KXL and other pipeline projects will have the greatest effect in putting a ceiling on rallying oil prices as demand improves and production slows over the coming years.*

As we've expected, a bill to approve construction of the KXL was one of the first to emerge from the new GOP-controlled Senate (see "On the 2014 Midterms" November 5, 2014). In fact, its high priority is ceremonially symbolized by the bill's designation as "S.1".

- The "Keystone XL Pipeline Approval Act" was passed in the Senate on Thursday, by a vote of 62 to 36, easily overcoming any threat of a filibuster. All Republicans voted "yea" except for the absent Marco Rubio (R-FL). They were joined by nine Democrats -- pretty much the ones you'd expect, from energy-producing states or red states: Bennet (D-CO), Carper (D-DE), Casey (D-PA), Donnelly (D-IN), Heitkamp (D-ND), Manchin (D-WV), McCaskill (D-MO), Tester (D-MT) and Warner (D-VA).
- Now it's in the hands of the House of Representatives, where some version of it will surely pass.
- The Obama White House has implied very strongly that it would veto the bill -- although its official statement leaves lots of wiggle-room. To override a veto would take a two thirds majority, that is, four more votes in the Senate than the bill received on its initial passage -- not impossible, but unlikely on the face of it.
- The Obama administration's veto threat is part of a complex of mixed signals about energy, designed on the one hand to appease environmental interests, while on the other hand appear to support economic growth through continued development. Last week Obama signed an order setting parts of Alaska's Outer Continental Shelf off-limits from further leasing -- but on the same day his Department of the Interior announced the opening of leasing off the southeast coast of the US starting in 2017.
- Sadly, this policy mix fails to reduce costs for existing producers and retards creation of economies of scale in areas already being exploited, while opening exploitation -- and only in the distant future -- under an obsolete business model dependent on stupendous CAPEX risks and beset by inherently inflexible production.
- As to the KXL veto threat, there's more than just appeasing activist voters at work. Burlington Northern Santa Fe, the railroad

controlled by Obama ally Warren Buffett, is positioned to command a dominant market share of oil railing from Canada -- and from the Bakken -- in the absence of KXL. As [a Burlington Northern spokesman put it](), if KXL "doesn't happen, we're here to haul."

- Obama's approval ratings have been rising for the last several weeks (please see the chart below), along with perceptions of US economic revival -- [for which he has claimed credit]().



Source: Gallup, TrendMacro calculations

- We think the driver of improving perceptions is the tremendous relief experienced by the majority of American consumers thanks to lower gasoline prices (see, ["Don't Let a Good Oil Crisis Go to Waste"]() October 21, 2014). Setting aside the issue of whether Obama can legitimately take credit for this, if we are right that oil prices will rise over 2015, perhaps as high as the $80's for a while, those perceptions might be put at risk.
- If that happens, it will be more obvious to Obama that if he wishes to deliver on [his new brand-promise of "middle class economics"]() he will have to *not* block initiatives like KXL that create jobs and lower gasoline prices -- initiatives that have been put on his desk as the result of a new bipartisan consensus for growth.

Bottom line

Friday's jump in oil prices, the biggest in two and a half years, catalyzes the reality that US producers are cutting back CAPEX, which will result in falling production against a backdrop of rising demand. We continue to think we've seen the lows for the year in oil prices, and that crude will trade in a range of $50 to $65 in 2015, with a short-lived speculative over-reaction that could take prices briefly into the $80's. In that environment, controlling costs is key to keeping prices low, and approving the Keystone XL pipeline is a logical move. It was approved in the Senate by a strong bipartisan consensus for growth. Obama is threatening to veto it, but as prices back up that will be difficult in light of his promise of "middle class economics."