NATIONAL BANK OF CANADA FINANCIAL MARKETS

Public Sector Strategy

Fixed Income Trading Desk Strategy

June 13, 2018 - (Vol. II, No. 45)

Quick Hit — Alberta's billion dollar oil yo-yo

If you've happened across a price chart of Western Canadian Select of late, you could very well have strained your neck following the up-and-down roller coaster ride it's been on. After Enbridge announced new rules governing Canada's biggest export pipeline on May 24th, which would have made nominating supply for the pipeline more stringent, the heavy crude benchmark fell off a cliff, dropping nearly 25% (US$14) over the next ten days. Then, on June 4th, after Enbridge announced they'd be scrapping the plan, WCS rapidly took back its losses. While the market has since calmed, the incident serves as a prime example of the volatility inherent in Canadian oil prices. To demonstrate, consider that there have been 19 single-day WCS moves >5% in 2018. For WTI there hasn't even been one. Not surprisingly, for an oil-levered province like Alberta, these palpitations can and do have a direct and significant impact on the provincial royalty revenue outlook.

Despite recent volatility and general price weakness, current WCS/WTI levels are fairly attractive relative to (a) levels recorded earlier in 2018 and (b) 2018-19 projections outlined in the latest Alberta budget. Once you factor in the weak Canadian dollar, the price Canadian-based shippers receive looks even better (Chart 1). So how does this affect Alberta's bottom line? Although it's difficult to pinpoint the exact effect oil prices will have on provincial finances, the Province provides a sensitivity estimate in its budget to gauge the fiscal impact of a deviation in oil price from planning assumptions. (e.g. Alberta estimates an average WTI price US$1 more than assumed would have a C$265 million fiscal impact).

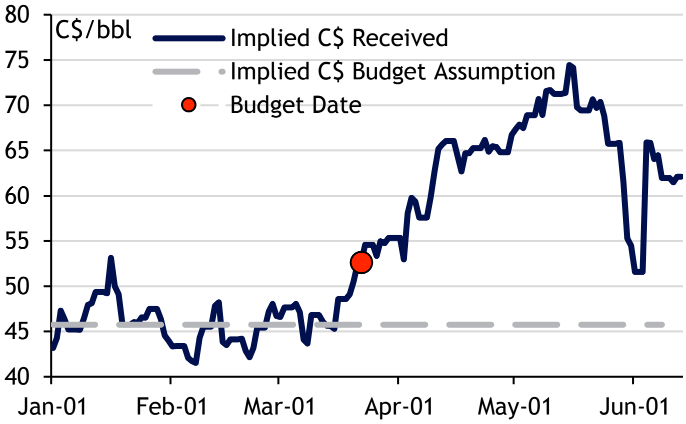
Table 2 shows the estimated fiscal impacts for a range of WTI and differential values, given the current level for the C$. This table allows us to formulate an oil/differential scenario and ballpark its fiscal effect. For example, supposing that the dollar and WTI remain at current levels, the differential could widen significantly without a negative impact, relative to the budget. Holding the currency and differential constant, WTI could fall below US$54 for the rest of the year and Alberta might still come out even. Bolded/outlined in the table are fiscal impacts based on WTI and differential levels corresponding to the current and budget-assumed conditions, as well as for the maximum and minimum WCS prices observed this fiscal year. Even supposing that WCS falls to and remains at its FY low of US$40, we'd still be above the implied WCS assumption in the budget (US$36.60), and alongside a weak dollar there could still be greater than a $1 billion boost come March 2019.

Before we get too excited, it's important to note there are distinct limitations to this approach. Individual fiscal sensitivities may not apply linearly. Nor are they strictly additive. Further, the more that actual levels deviate from those assumed, the less reliable the sensitivity estimates become. They also don't control for the level of oil production, where deviations from plan can exert considerable influence. More to the point, energy prices remain extremely volatile… particularly the differential, where a single standard deviation over the past year amounts to nearly US$7/bbl. As we've just witnessed, all it takes is a pipeline disruption or development for the differential to widen substantially. Lastly, we are still *very* early in the FY, with just over two months elapsed. As seen last year, the fiscal situation can change considerably quarter-to-quarter (Chart 2). Nonetheless, these are useful tools that in the past have been fairly accurate approximating fiscal impacts.

All in all, barring a more sustained and significant reversal of fortune, Alberta still has scope for a positive fiscal adjustment this year. We've already seen these potential positive fiscal impacts translate into tighter spreads relative to provincial peers, with the Alberta 10Y spread tightening 6bps relative to Ontario so far in 2018. Ultimately, allowing extra resource revenue to flow through to the bottom line could provide important support for credit ratings. At a time when Alberta is on negative outlook from two of the three rating agencies, a favourable (and ideally more stable) commodity/currency landscape would be more than welcome.

Chart 1: WCS well-positioned despite shaky weeks

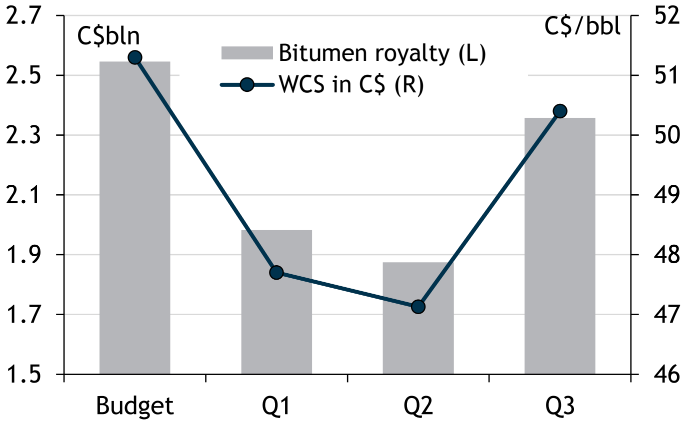
Implied C$ oil price realized in 2018 vs. Alberta's budget assumption. Implied C$ price = (US$ WTI - Differential)/CADUSD



Source: Bloomberg, NBF

Chart 2: Volatile oil price/royalties within year

2017-18 oil price/royalty projections on budget date and on each quarterly update



Source: Province of Alberta, NBF

Chart 3: Volatile WTI-WCS differential in 2018

Light-heavy differential since Jan. 1, 2018

Source: Bloomberg, NBF

Table 1: Oil price scenarios

Current, budget-assumed, FY max. and FY min. oil price scenarios.

	WTI	WCS	Differential
Current	65.94	47.66	18.28
Budget	59.00	36.60	22.40
FY Max	71.49	57.99	13.50
FY Min	65.81	39.81	26.00

Source: Bloomberg, Alberta, NBF | Note: Max/min levels based on WCS for 2018. Scenarios assume levels in table persist from now until year-end.

Table 2: Illustration of the fiscal impact of oil prices and differential with the current exchange rate

Fiscal impact on Alberta from oil price, light-heavy differential and current exchange rate of 77 US¢/Cdn$. Outlined cells represent scenarios defined in Table 1.

Differential ($US)	WTI ($US)										
	$54	$56	$58	$60	$62	$64	$66	$68	$70	$72	$74
$30	-1,086	-663	-241	182	605	1,027	1,450	1,872	2,295	2,717	3,140
$28	-751	-328	94	517	939	1,362	1,785	2,207	2,630	3,052	3,475
$26	-416	7	429	852	1,274	1,697	**2,119**	2,542	2,964	3,387	3,810
$24	-81	341	764	1,187	1,609	2,032	2,454	2,877	3,299	3,722	4,144
$22	254	676	**1,099**	1,521	1,944	2,367	2,789	3,212	3,634	4,057	4,479
$20	589	1,011	1,434	1,856	2,279	2,701	3,124	3,546	3,969	4,392	4,814
$18	923	1,346	1,769	2,191	2,614	3,036	**3,459**	3,881	4,304	4,726	5,149
$16	1,258	1,681	2,103	2,526	2,949	3,371	3,794	4,216	4,639	5,061	5,484
$14	1,593	2,016	2,438	2,861	3,283	3,706	4,128	4,551	4,974	**5,396**	5,819
$12	1,928	2,351	2,773	3,196	3,618	4,041	4,463	4,886	5,308	5,731	6,154
$10	2,263	2,685	3,108	3,531	3,953	4,376	4,798	5,221	5,643	6,066	6,488
									Rest of Year US¢/Cdn$		77

Source: Province of Alberta, Bloomberg, NBF | Notes: Estimated fiscal impact is equal to the fiscal year average for each variable less the level assumed in the 2018-19 provincial budget multiplied by the sensitivity. The fiscal impact of each variable (oil, differential and exchange rate) is added together to obtain the total fiscal impact illustrated above. Note it is not clear whether the sensitivities are additive and therefore, these results should be interpreted with caution. Sensitivities can vary significantly at different prices/levels meaning that fiscal impacts may not be strictly linear with respect to the sensitivity.

Table 3: Fiscal sensitivities in Alberta's 2018-19 budget

Fiscal Sensitivities to Key Assumptions, 2018–19[c]
(millions of dollars)

	Change	Net Impact (2018-19)
Oil Price (WTI US$/bbl)	-$1.00	-265
Light/Heavy Oil Price Differential	+$1.00	-210
Natural Gas Price (Cdn$/GJ)	-10 Cents	+10[d]
Exchange Rate (US¢/Cdn$)	+ 1 Cent	-198
Interest Rates	+1%	-226
Primary Household Income	-1%	-150

[c] Sensitivities are based on current assumptions of prices and rates and show the effect for a full 12 month period. Sensitivities can vary significantly at different price and rate levels. The energy price sensitivities do not include the potential impact of price changes on the revenue from land lease sales.

[d] Lower natural gas prices increase net royalty revenues due to the positive impact on bitumen royalties (due to lower costs) which more than offsets the decline in natural gas and by-product royalties.

Source: Alberta Budget 2018: A recovery built to last

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