# Scotiabank Commodity Price Index

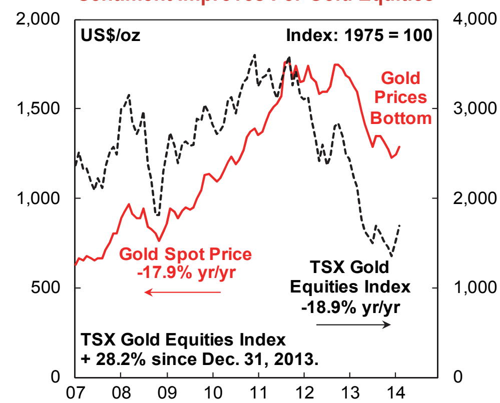
**Patricia Mohr** (416) 866-4210
patricia.mohr@scotiabank.com

## Commodity Prices Strengthen In January

- **Equity market sentiment improves for TSX Golds & Diversified Metals.**
- **Western Canada's 'Oil Patch' is quite cost competitive with the new 'light, tight' oil plays in the United States.**
- **A Canada-Korea Free Trade Deal would be good news for Canadian beef exporters.**

**After dropping sharply in late 2013, Scotiabank's Commodity Price Index rallied back by 3.3% m/m in January. Commodity prices are bottoming.** Prospects for a pick-up in the U.S. economy in 2014 (3% GDP growth) and a slow recovery in Europe — in the context of a Chinese economy still growing by more than 7% — point to reasonable demand growth, offsetting the challenges faced by some 'emerging markets' in dealing with capital outflows linked to Fed tapering. **China's imports of refined copper (+53% yr/yr), iron ore (+33 %) and crude oil (+11.9 %) surprised on the upside in January, all climbing to record highs,** despite financial market jitters over a potential slowdown in China. Equally important, supply developments (especially in metals & minerals) will likely prove less negative going forward.

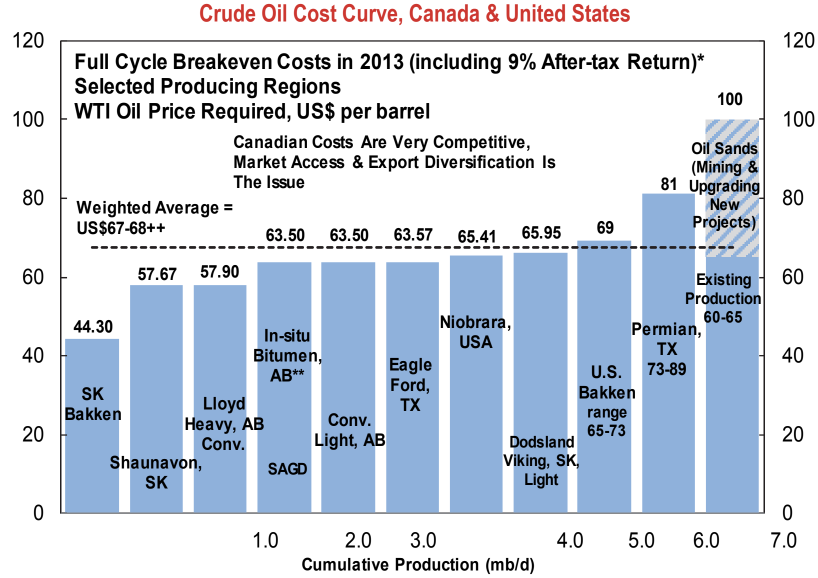
Sentiment Improves For Gold Equities




Data to February 19, 2014.

The **Oil & Gas Index** led the rally in January (+8.4% m/m, +5.9% yr/yr) — receiving a big lift from severe winter weather across the United States and Canada. **Propane prices in Edmonton & Sarnia (a fuel & petrochemical feedstock) surged to record highs (+175% yr/yr) — surpassing the mid-2008 peak, when WTI oil prices skyrocketed as high as US$147 per barrel.** Propane inventories in the U.S. Midcontinent had been low even before the onset of the winter heating season, as large volumes were used to dry a late, wet U.S. corn harvest. Exports from the U.S. Gulf also ramped up as producers took advantage of higher prices in Europe and Asia. The net result, U.S. propane stocks plunged by almost 45% yr/yr as of late January, with a knock-on impact in Canada.

Crude Oil Cost Curve, Canada & United States




* U.S. & Canadian 'light, tight' oil mid-cycle costs plus assumed $5/bbl for initial land acquisition and infrastructure. ** In-situ bitumen Alberta: low cost $50. Persian Gulf US$10-25.
++ Weighted avg. including existing Integrated Oil Sands at C$65.
Source: Scotiabank Equity Research and Scotiabank Economics.

**NYMEX natural gas prices** (near-by futures) also spiked as high as US$5.56 per mmbtu in late January (currently US$6.15), propelling **Canadian natural gas export prices to the highest level since March 2010.** 'Spot' prices — for both space heating and power — have

**Scotiabank Economics**
Scotia Plaza 40 King Street West, 63rd Floor
Toronto, Ontario Canada M5H 1H1
Tel: (416) 866-6253 Fax: (416) 866-2829
Email: scotia.economics@scotiabank.com

been particularly volatile, soaring as high as US$15.18 per mmbtu on the ‘AECO-C’ hub in Alberta and US$8.03 at ‘Henry Hub’, Louisiana on February 5. **U.S. gas-in-storage is rapidly being depleted, spelling much higher-than-expected prices during the storage refill season this spring and summer (US$4-5) and increased export volumes from Canada. Low U.S. steam coal inventories may also be a factor, with utilities preserving coal stocks to meet ‘peak summer’ electricity demand.** Higher prices will have staying power, because gas drilling will not likely be increased until 2014:H2, when corporate capital budgets are reviewed.

**Light oil prices also rose in Edmonton** to US$80.89 per barrel and **Western Canadian Select heavy oil (WCS) at Hardisty, Alberta to US$65.63 in January.** While WTI oil — the bellwether for North America — edged down to US$94.86, the discounts on Alberta oil narrowed (on WCS Heavy from an enormous -US$39.13 to -US$29.22 and an even lower -US$19.14 in February). Firmer Alberta prices partly reflect the start-up of the BP Whiting, Indiana coker (200,000 b/d, designed specifically to run cheaper heavy oil from Canada). **Stronger international oil prices in February, with Brent climbing to US$110 and WTI oil to US$103 mid-month, the product of renewed ‘geopolitical supply risks’ in Libya and the Sudan and anticipation of a pick-up in the global economy** — will contribute to further gains in February (with WCS Heavy climbing over US$80).

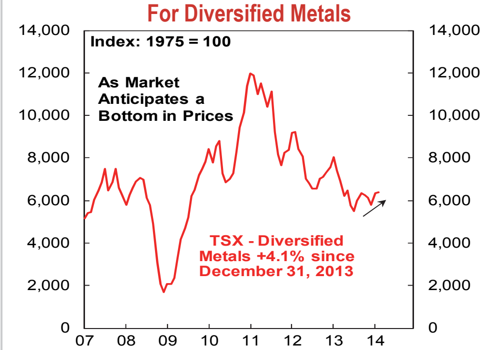
The **Metal & Mineral Index** lost ground again in January (-1.3% m/m, -19.6% yr/yr), though equity markets are discounting a bottom in prices. **Base and precious metal prices averaged higher in January. Gold (London PM Fix) appears to have reached a low last June at US$1,180 per ounce and has traded up to US$1,320 in mid-February, while LME copper, at US$3.27 per pound, is holding up well. However, spot potash prices (FOB Vancouver)** moved down one more notch from US$305 per tonne in December to US$295 in January, but are now firming in Brazil & Malaysia. **Contract prices for premium-grade hard coking coal from Western Canada to Asian markets also dropped from US$152 per tonne in 2013:Q4 to an estimated US$144 in 2014:Q1.** (The bellwether BHP Billiton Mitsubishi Alliance contract price with Nippon Steel had not yet been settled for Peak Downs in mid-February, a coal of similar quality to top grades in Western Canada.) Lower prices reflect a significant increase in exports from Queensland, Australia in 2013:H2 and an end to port constraints.

After easing in December, the **Forest Products Index** rallied in January (+1.5% m/m, -0.6% yr/yr). **NBSK pulp prices** advanced US$20 per tonne to US$1,010 in the U.S. market. **Western Spruce-Pine-Fir 2x4 lumber prices** — the bellwether for North America — also rebounded from US$364 per mfbm in December to US$373 in January, though prices have lost steam in mid-February to US$362. Difficult winter conditions curbed housing starts to 880,000 units annualized in January. Prices are, nevertheless, expected to average a stellar US$390 in 2014 — a 9.6% gain over 2013 and the highest level since 2004 — as a further recovery in U.S. housing starts hits a wall of limited supplies.

This forecast is consistent with the findings of a recent report from Forest Economic Advisors. Of roughly 207 sawmills shut down since 2006 across the U.S. and Canada — partly due to the prolonged downturn in U.S. building activity — 49 have resumed production. However, 111 have or will be permanently closed (a loss of 9.5 bbf or 12% of peak sawmill capacity at 80.4 bbf in 2005).

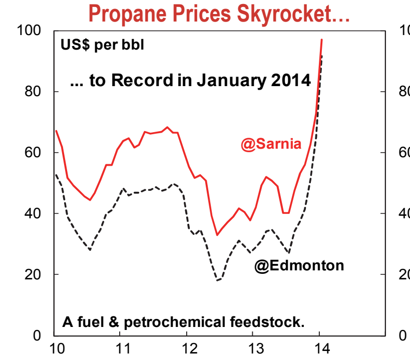
In January, the **Agricultural Index** posted its first small gain in two months, rising 0.6% m/m, but is still 13.8% below a year earlier. Gains in cattle, Atlantic Coast lobster and wheat prices offset further declines in barley, canola and hogs. **Ontario steer prices** rose from US$115 per hundredweight in December to US$127 — up 6.6% yr/yr. **Canadian cow-calf and feedlot owners are starting to enjoy stronger profitability alongside rising prices — currently at a record** — in the face of

**Equity Market Lifts For Diversified Metals**

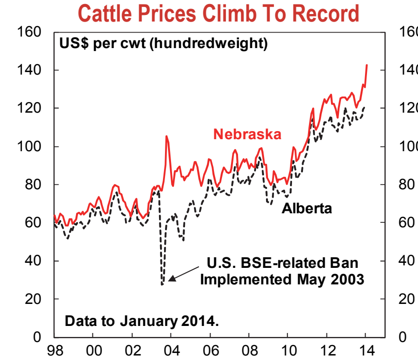



Data to February 19, 2014.

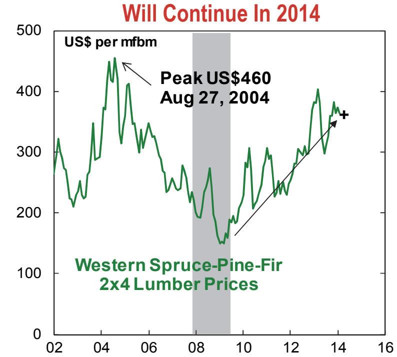
**Propane Prices Skyrocket…**




**Cattle Prices Climb To Record**




**Lumber Strength Will Continue In 2014**




+ February 14, 2014: US$362.
Shaded area denotes U.S. recession period.
U.S. Housing Starts: 2012 780,600; 2013 923,400; 2014F 1.20 million; 2015F 1.40 million.

dramatically lower feed grain costs. Herd numbers in the U.S. & Canada have plunged in recent years (at a 63-year low in the United States in 2013). At the same time, last Fall's massive U.S. corn crop has pressured feed grain prices. Barley prices at Lethbridge, Alberta (a key feedlot centre) plunged to US$142 per tonne in January — less than half the US$288 peak of last May. Herd rebuilding has started in the United States, but not yet in Canada.

**A weaker Canadian dollar is enhancing the competitiveness of Canadian cattle and beef producers,** helping Canadian producers counter the added costs to U.S. meat packers of handling Canadian cattle (i.e. of meeting **U.S. Country of Origin Labelling**). Lower Canadian prices have also recently boosted exports of both fed cattle directly to U.S. packers and calves for feeding. A WTO dispute resolution panel is currently reviewing COOL, a non-tariff barrier to trade, on behalf of Canada and Mexico.

**A potential 'Canada-Korea Free Trade Agreement' would provide considerable benefits to Canada's beef industry.** Under the terms of the U.S.-Korean Free Trade Agreement, implemented in 2012, the Korean tariff on U.S. beef imports is declining 2.7 percentage points per annum until U.S. beef imports are duty free in 2026; this has placed Canadian exports at a disadvantage, given a 40% import tariff.

**Scotiabank Commodity Price Index**

| January 2014 | Growth Trends | (per cent change) | (Compound Annual Growth Rates) | | | |
|---|---|---|---|---|---|---|
| | Weights | One Month | One Month | Three Months | One Year | Five Years |
| **All Commodity Price Index** | **100.0** | **3.3** | **47.0** | **-10.4** | **-6.8** | **3.7** |
| **Industrials** | **84.7** | **3.8** | **56.1** | **-11.1** | **-5.4** | **3.7** |
| Oil & Gas | 39.9 | 8.4 | 163.7 | -13.6 | 5.9 | 12.6 |
| Metal & Minerals | 30.1 | -1.3 | -14.2 | -14.6 | -19.6 | -5.1 |
| Forest Products | 14.7 | 1.5 | 19.3 | 6.3 | -0.6 | 7.2 |
| **Agriculture** | **15.3** | **0.6** | **8.0** | **-6.6** | **-13.8** | **3.5** |

Index: January 2007 = 100

| | 2014 | 2013 | | | |
|---|---|---|---|---|---|
| | Jan | Dec | Nov | Oct | Jan |
| **All Commodity Price Index** | **136.7** | **132.3** | **132.8** | **140.4** | **146.7** |
| **Industrials** | **135.5** | **130.5** | **130.7** | **139.5** | **143.2** |
| Oil & Gas | 142.5 | 131.4 | 130.0 | 147.8 | 134.6 |
| Metal & Minerals | 130.4 | 132.1 | 133.3 | 135.7 | 162.1 |
| Forest Products | 126.6 | 124.8 | 127.4 | 124.7 | 127.4 |
| **Agriculture** | **143.3** | **142.4** | **144.2** | **145.7** | **166.2** |

Re-designed Index: Net export weights in 2010, data re-estimated back through 2007, January 2007=100. The Canadian Wheat Board's asking export price for CWRS No. 1 13.5% protein wheat del St. Lawrence has been replaced with Dark Northern Spring Wheat, 14% protein, del Duluth, Minnesota from April 2011 (Minneapolis Grain Exchange).

## *Western Canada's Oil Plays Are Cost Competitive — Market Access & Export Diversification Are The Issues*

The recent rapid development of new 'light, tight' oil in the United States has called into question the competitiveness of the Alberta oil sands (in-situ bitumen and integrated mining/upgrading into 'light, synthetic crude oil') as well as conventional oil production in Alberta and Saskatchewan. **An examination of more than 50 plays across Canada and the United States (in addition to Alberta oil sands integrated mining & upgrading projects) reveals that the oil plays in Western Canada are on average lower cost than in the United States (including the prolific 'light, tight' 'North Dakota Bakken' and the 'Eagle Ford' & 'Permian' Basins in Texas).** This partly reflects royalty credits in Canada, but is also a testimony to the effectiveness of the R&D & technology brought to bear in developing the Alberta oil sands.

**In Canada, an average WTI oil price of US$63-65 per barrel is required to yield a 9% after-tax return on 'full-cycle' costs for the oil plays shown on page 1 compared with close to US$72 in the United States (based on costs in the Fall of 2013).**

- Several small-volume Canadian plays — 'Seal heavy' in Alberta and 'Kaybob Montney oil' — are on the bottom of the cost curve, requiring less than US$45 per barrel (not shown on the chart). While there are probably also 'sweet spots' in the 'Eagle Ford' in Texas, average break-even costs are in the middle of the pack. **Ranking the plays with significant volume, the 'Southwest Saskatchewan Bakken' is on the bottom of the Canada-U.S. supply curve.**
- **A number of 'conventional heavy oil' plays in Western Canada — such as 'Lloyd Heavy' in Alberta — are also quite low-cost, yielding some of the best profit investment ratios across North America.**
- **Most importantly, 'SAGD bitumen' production at US$63.50** — accounting for 1.08 mb/d or 46% of Alberta oil sands output and likely to represent 75% of the 1.2 mb/d growth projected through 2020 — **is quite cost competitive with the 'North Dakota Bakken', the 'Eagle Ford' and the 'Permian Basin'** — the home of 'West Texas Intermediate' oil — in Texas. These new 'light, tight' oil plays — made economic by new horizontal, multi-fracture drilling technology — have yielded most of the U.S. production gains in 2012-13 (up a remarkable 800,000 b/d over the past year). However, **the 'U.S. Bakken' requires US$65-73 and the 'Permian Basin' is relatively high cost at US$73-89. We note that production is**

**plateauing in the Permian.** (Rising ‘sustaining costs’ for ‘SAGD bitumen’ in Alberta appear to have recently increased the break-even cost to US$70, though the ‘U.S. Bakken’ is also running at US$70.)

- **Existing ‘integrated mining/upgrading’ oil sands projects in the Fort McMurray region are quite cost competitive, with full cycle break-even costs in a US$60-65 range (906,000 b/d).** These projects involve long-life, low decline rate assets, in contrast to U.S. ‘light, tight’ oil projects — offering scale, but with rapid decline rates. However, the risk that light oil prices — relative to international benchmarks such as Brent — could fall across North America in coming years led to the cancellation of the Suncor/Total Voyageur Upgrader. Nevertheless, Canadian Natural Resources (with onsite upgrading into SCO) will continue to develop additional phases of the Horizon Project, taking advantage of infrastructure & equipment already in place. New ‘unintegrated mining’ projects in Alberta are on the high side of the cost curve, with care needed to contain costs.

**Garnering ‘world’ prices for Canadian crude oil through greater export diversification to Asia/Pacific markets and increased market optionality remain the key priorities for Western Canada’s ‘oil patch’. Expanding export pipeline and/or rail capability to the B.C. Coast and Central & Atlantic Canada are key.**

## Scotiabank All Commodity Price Index [1]


1. A trade-weighted U.S. dollar-based index of principal Canadian exports.
2. Index deflated by U.S. Producer Price Index for Intermediate Goods.
– Shaded areas represent U.S. recession periods.