OBSERVATION
TD Economics

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THE FOG OF CORE: SEEING THE TREES FOR THE FOREST IN CANADIAN CPI INFLATION

Highlights

- With total and core CPI inflation accelerating in recent months, there has been a great deal of chatter in economic circles as to the impact of these developments on monetary policy.
- In this report, we conclude the answer is that these developments will likely have little impact on monetary policy.
- This conclusion is premised on the fact that the recent acceleration in CPI inflation is due to temporary factors such as an unseasonably cold winter, illness and low herd levels among meat producers, the knock on effects of the 2013 Alberta floods, and base effects.
- Once these temporary factors have run their course through the end of 2014 and into 2015, Canadians can expect both total and core CPI inflation to be more subdued than in the first half of 2014.
- As a consequence, the Bank of Canada isn't expected to beginning raising the overnight rate until the second half of 2015, around the time the economy is expected to return to full capacity. That said, the Bank is expected to put less emphasis on the downside risks to inflation going forward.

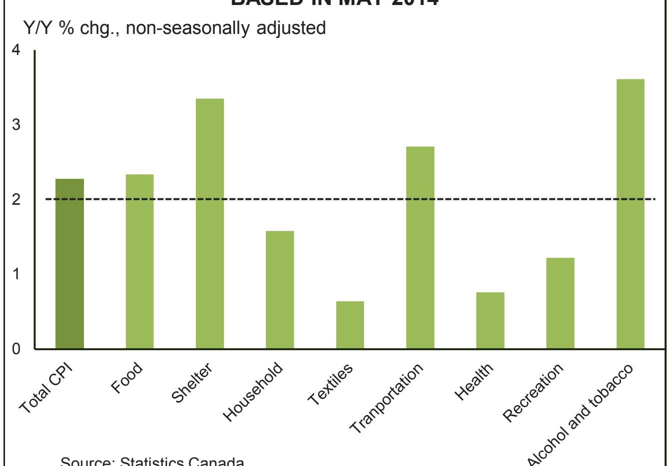
The rebound in the CPI over the past few months has made headlines, increasing worries that the Bank of Canada may fall behind the proverbial inflation curve. This upward pressure has been particularly evident in headline CPI, where year-over-year inflation reached 2.3% in May, a far cry from the low of 0.5% recorded in late 2013. However, core has also jumped significantly over the same period, to a two-year high of 1.7%. As Chart 1 shows, the pickup in inflation has been broadly based, with four of the eight major categories registering gains above 2% in May 2014. In January 2014, this number was one in eight.

A closer look shows that a significant part of the upward pressure can be chalked up to temporary factors, especially on the overall rate. As the influence of these factors wanes in the coming months, headline inflation is likely to return below 2%.

That said, the data suggest that the period of ultra-low, sub-1.5% inflation appears to be in the rearview mirror. Other more systemic forces – notably the upward of prices from past Canadian dollar depreciation and well anchored inflation expectations – will continue to support a gradual return in both headline and core inflation over the next 12-18 months towards 2%.

It's for these reasons that we continue to expect that the Bank of Canada won't begin raising the overnight rate until the second half of 2015. At the same time, however, it has become increasingly difficult for the central bank to emphasize the downside risks to inflation, especially with Canadian economic growth widely

CHART 1: PICK UP IN INFLATION WAS BROAD BASED IN MAY 2014



Source: Statistics Canada.

Randall Bartlett, CFA, Senior Economist, 647-521-6214

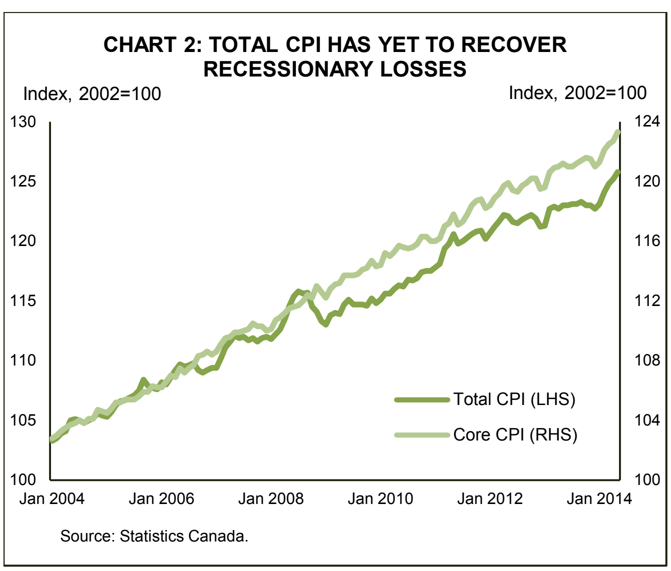
expected to gain some traction in the coming quarters.

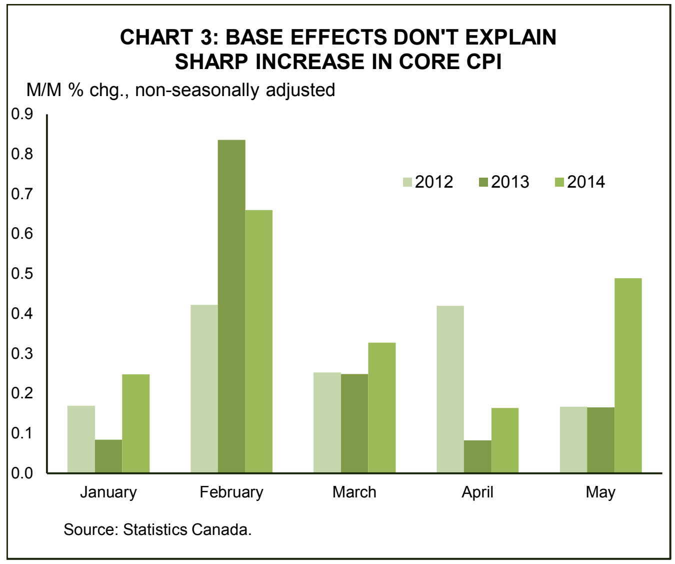
Definitions and Conventions

In order to address the questions and concerns that have arisen around CPI inflation, it is first important to define the measures of inflation being discussed, what distinguishes them, and why they are important.

To begin, total CPI is a measure that tracks movements over time in the level of consumer prices. The CPI compares the retail prices of a representative "shopping basket" of goods and services at two different points in time.[1] Total CPI inflation is the explicit target of monetary policy for the Bank of Canada, where the Bank aims to keep total CPI inflation at the 2% midpoint of a target range of 1 to 3% over the medium term by adjusting the level of the overnight rate.

Given that the prices of certain CPI components are particularly volatile in the short run, total CPI can be subject to a great deal of fluctuation. This is evidenced by the sharp drop in total CPI relative to core CPI during the 2008-09 recession, reflecting the volatility of more cyclically-sensitive prices (Chart 2). According to the Bank of Canada, in setting monetary policy, "the Bank seeks to look through such transitory movements in total CPI inflation, by focusing on core inflation measures … that are considered to reflect better the underlying trend of inflation. In this sense, "core" inflation is monitored as an operational guide to help the Bank achieve the total CPI inflation target, not as a replacement for it." More specifically, core CPI inflation strips out eight of the most volatile CPI components (fruit, vegetables, gasoline, fuel oil, natural gas, mortgage interest, intercity transportation, and tobacco products), as well as the effect of changes in indirect taxes on the remaining components.[2]



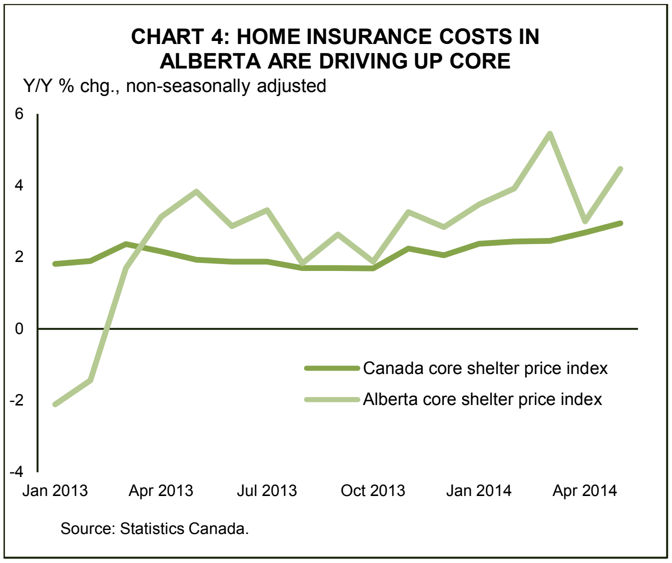


Core CPI Inflation

Now that we know what inflation is and how it's used by the Bank of Canada for determining monetary policy, we begin by examining recent trends in core CPI. The core measure accounts for a sizeable 85% of the headline inflation reading.

Base effects

A key question is to what extent the recent strengthening in inflation is due to so-called base effects. "Base effects occur when variations in the annual growth rate of an economic indicator … are attributable to an atypical movement in the index 12 months earlier owing, for instance, to significant changes in commodity prices. More specifically, they explain the extent to which the change from one month to the next in the year-on-year rate of inflation results from the "dropping out" of an unusual month-on-month change from the price index 12 months earlier."[3] However, in the case of core CPI specifically, base effects do not appear to explain the recent price strength, as changes on average during the first five months of 2013 were not out of the ordinary (Chart 3). Put another way, the upward pressure on year-over-year core inflation so far this year is indeed largely a story of recent strength rather than past softness.



Subcategories of core CPI

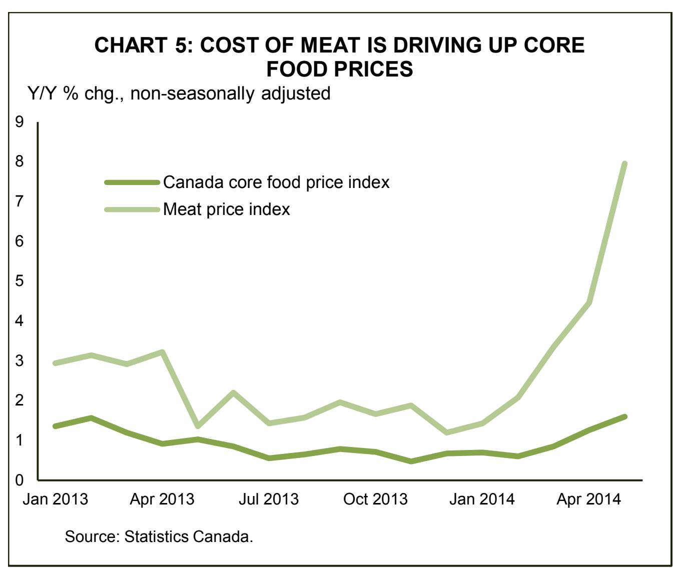
Looking to the subcategories of core CPI, the big driver of the increase in core has been core shelter (+2.9% over May 2013).[4] In May, core shelter prices contributed 0.7 percentage points to the 1.7% increase in core CPI. More specifically, home and mortgage insurance (+7.0%) and electricity (+7.0%), although the cost of water (+6.2%) and property taxes (+3.2%) maintained their usual buoyancy (Chart 4). Much of this increase took place in Alberta following the flooding in 2013, with the price of home insurance up 16.6% and electricity up 18.0% over May 2013 levels.[5] This impact on core CPI inflation can either be expected to level off or decline by May 2015, as flooding of this magnitude is not expected to be repeated.

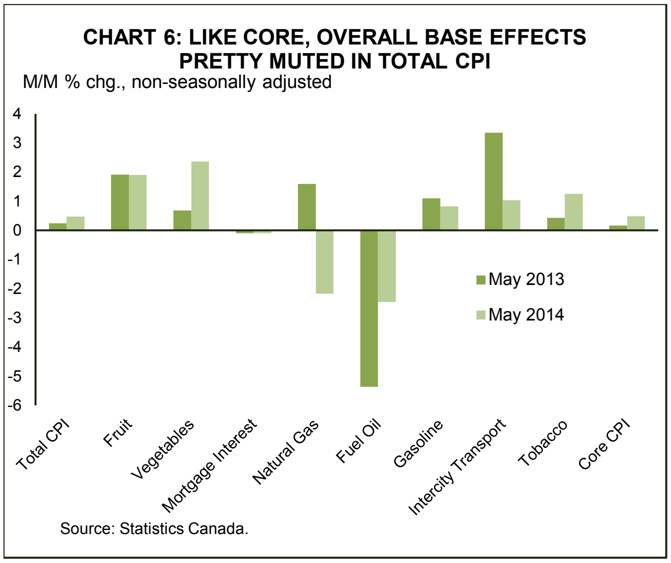
Additionally, core food prices increased 1.6% in May, the strongest year-over-year increase since December 2012, led by increases in the price of pork (+16.7%), beef (+11.9%), and processed meat (+7.9%) (Chart 5). Of the increase in core food prices in May, 1.3 percentage points came from meat. However, this surge in prices appears to be largely due to temporary factors related to a virus among pigs and record low herds in the beef industry. While these factors are expected to affect prices only temporarily, other categories in core food have continued to see weak or negative price growth so far in 2014 (the exception being food purchased from restaurants). Surveys of retailers suggest that continued retail competition may contribute further to weak price growth over the near term.[6]

Some systemic trends underlying core CPI inflation

Other, more systemic influences on the price environment are generally consistent with core inflation running well above its recent lows of around 1% but do not point to a further sustained acceleration. The exchange rate is important, as changes in the Canadian dollar price of imports will ultimately be passed on to consumers. Despite a recent bounce, the exchange rate has depreciated significantly against the greenback from its recent 2012Q4 peak. Given the exchange rate impacts core CPI inflation with a lag of about 18 to 24 months, this suggests some of the subsequent increase in the Canadian dollar price of imports may have started to creep into core CPI inflation.[7] According to the Bank of Canada, this is roughly the same amount of time it takes for the overnight rate to have an impact on core inflation. At the same time, however, the firming in the Canadian dollar over the past few months will work to limit future pass through.[8] This is consistent with the results of the central bank's Summer 2014 Business Outlook Survey (BOS), where firms generally expect upward pressure on input prices to taper off.

Unlike the exchange rate, muted wage growth recently has helped to restrain core CPI inflation. For instance, average hourly wages increase by a modest 1.4% (y/y) in May 2014. Growth in unit labour cost has also weakened markedly lately, rising 0.9% (y/y) in the first quarter of 2014, one of the lowest quarters of growth in the recovery (albeit stronger than the last two quarters of 2013).[9] Another possible reason for the subdued wage inflation early in the year is the increased slack in the Canadian economy, as output increased less than potential output, constraining wages and ultimately inflation. Finally, weak wage growth may stem, in part, from the muted inflation expectations of employers resulting in modest increases in compensa-





tion of employees. For instance, in the Summer 2014 BOS, 64% of firms surveyed expected the annual rate of CPI inflation to be between 1% and 2% over the next two years while 30% of firms surveyed expected it to be between 2% and 3%.[10]

Total CPI Inflation

We now turn to total CPI inflation, and in particular the eight volatile items that are excluded from the core index. Given that the recent increase in the core CPI has likely been driven by temporary factors and makes up much of the total CPI, it should come as little surprise that much of the increase in headline inflation is also likely temporary in nature.

Base effects

As Chart 6 shows, base effects have had mixed impacts on the non-core items contained in headline CPI. For instance, while the sharp increase in the year-over-year price of fuel oil was in part a response to the sizeable drop a year ago, the weakness in the price inflation of inter-city transport was partly due to an increase a year ago. That said, the overall base effect for the total CPI, much like the core CPI, was a relatively small factor in May.

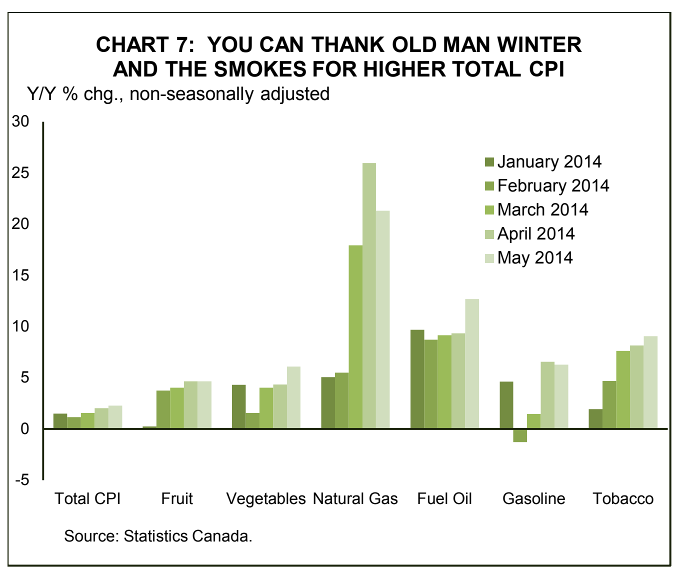
Subcategories of total CPI

The eight non-core categories of total CPI tend to be volatile to substantial short-term swings. And, indeed, much of the recent pressure can be chalked up to temporary factors related to unseasonably cold winter, recent geopolitical tensions, and the trend drop in the Canadian dollar.

Starting with shelter, non-core prices include mortgage interest cost, natural gas, and fuel oil and other fuels prices. The story in the mortgage interest category is that price changes remain subdued, but this measure is no longer declining outright as it did throughout 2012 and the first half of 2013. Recent mortgage rate reductions since the spring will help to keep this area subdued in the near term. In contrast, the price of natural gas (+21.3%) and fuel oil and other fuels (+12.7%) continued to post significant year-over-year gains in May (Chart 7). However, while these increases reflected unusually high demand in previous months due to the unseasonably cold winter, May's advance in natural gas prices partly stemmed from the gain in the regulated price of natural gas in Ontario that was introduced on April 1, 2014. Although natural gas price inflation may carry through to the end of the year, this isn't expected to continue into next winter.

The price of gasoline (+6.3%) has been lifted in part by similar factors to that of natural gas, although this is compounded by recent geopolitical tensions related to the conflict in Iraq. Barring a worsening situation in the Middle East and a further jump in crude oil prices, the upward impact on inflation from gasoline prices is poised to dissipate in the coming quarters. The other transportation price removed from the total CPI when calculating the core CPI, inter-city transportation, was the only category to decline in May 2014 (-1.8%).

Non-core food items are another important contributing category to total CPI, and it has also experienced some pretty solid gains through the first half of 2014. More specifically, both fruit and vegetable prices averaged about 3.5% to 4.0% over the first five months of 2014, in part



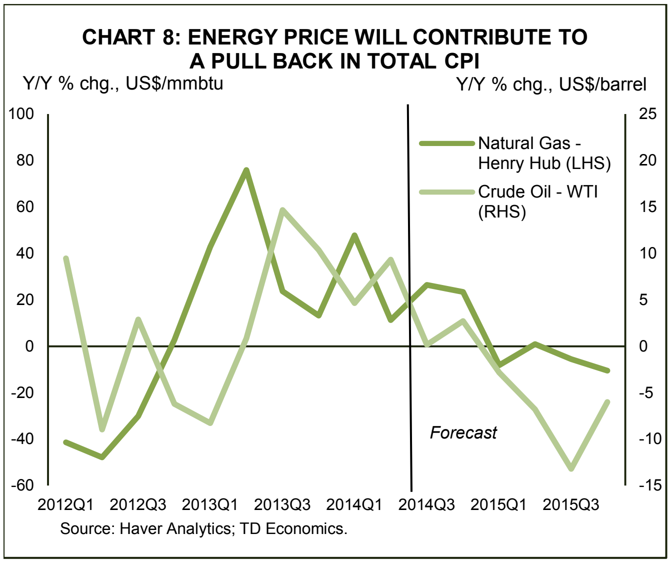


CHART 8: ENERGY PRICE WILL CONTRIBUTE TO A PULL BACK IN TOTAL CPI

Source: Haver Analytics; TD Economics.

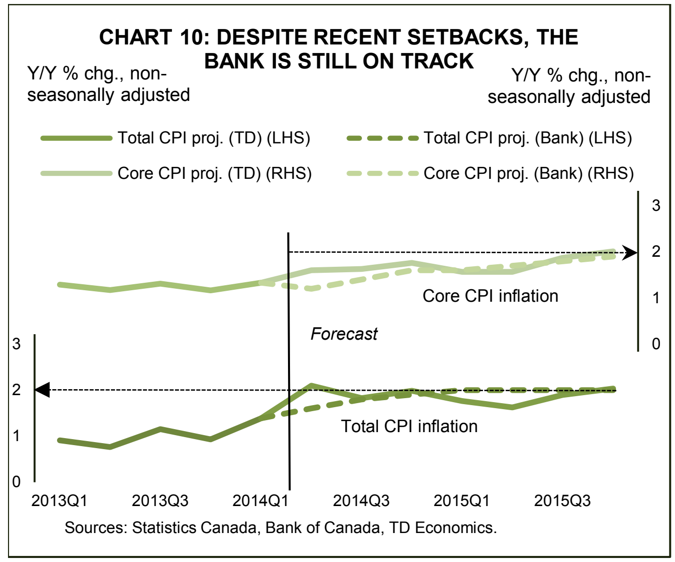


CHART 10: DESPITE RECENT SETBACKS, THE BANK IS STILL ON TRACK

Sources: Statistics Canada, Bank of Canada, TD Economics.

the result of a lower dollar.[11] Finally, the price of tobacco products increased 9.1% in the year to May 2014, as a direct result of higher federal excise taxes introduced in the February 2014 Federal Budget. Again, these impacts will be totally phased in by the first half of 2015 and will therefore not continue to be a significant driver of the total CPI.

Forecast and Implications for Monetary Policy

As revealed in TD Economics' June 2014 Quarterly Economic Forecast (QEF), we project total CPI inflation to come down from its pace in May but remain elevated through 2014. In 2015, we anticipate some further softening in the first half of 2015, before headline inflation accelerates back toward 2% in the second half of 2015. Meanwhile, core CPI inflation will likely follow a similar, albeit more muted, path. This view is premised on many of the drivers of the recent strength in both the core and total CPI stabilizing or retreating over the near term (Chart 8), as well as on the impact of base effects resulting from month-to-month changes in 2014 acting as a drag on inflation (Chart 9).[12]

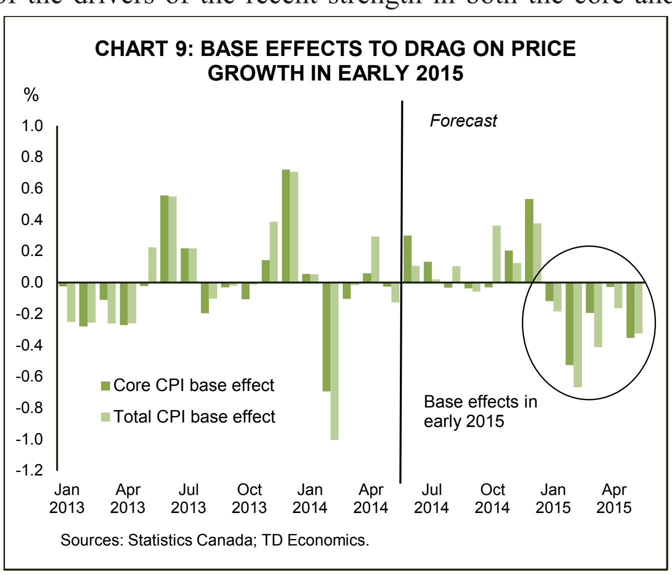


CHART 9: BASE EFFECTS TO DRAG ON PRICE GROWTH IN EARLY 2015

Sources: Statistics Canada; TD Economics.

This stacks up pretty well against the Bank of Canada's projection in its April 2014 MPR, despite their marked miss on both total and core CPI inflation in the second quarter of 2014 (Chart 10). As a result, the Bank of Canada is likely to revise up its near-term inflation projections but won't materially change its quarterly projections for 2015. If anything, it may bring down its 2015 outlook due to base effects and the end of temporary factors. It is on that basis that we don't expect the Bank of Canada will raise rates until the second half of 2015, around the same time that the economy is expected to return to full capacity.

Bottom Line

The bottom line is that Canada doesn't have an inflation problem. Underlying trends in prices in Canada remain benign and this will be borne out toward the end of 2014 and into 2015, as prices either stabilize at higher levels or retreat as temporary factors run their course. Therefore, financial markets recent move to price in higher odds of an interest rate hike in the first half of 2015 is likely premature. The future path of inflation is not expected to push the Bank back into hiking mode until the second half of 2015. In the meantime, however, a more balanced assessment of the risks surrounding the inflation appears warranted in our view.

Randall Bartlett, CFA, Senior Economist
647-521-6214

End Notes

1. http://www.bankofcanada.ca/rates/indicators/key-variables/inflation-control-target/#targetrange.
2. In the April 2014 Monetary Policy Report (MPR), the Bank went beyond the typical measure of core CPI inflation to highlight a "modified version" of core inflation that excludes the prices for motor vehicles and regulated services (such as tuition fees, property taxes, etc.). According to the Bank, "by removing those components that have behaved countercyclically over time, a stronger relationship between underlying inflation and the output gap (another measure of capacity used by the Bank, defined as the ratio of actual to potential output) is revealed (parentheses added)." However, the Bank also highlighted that this measures is not to be used directly for monetary policy decision making, but instead "highlights the importance of considering a wide range of information in assessing underlying inflation pressures, including regular analysis of disaggregated inflation dynamics."
3. See Box 5 of http://www.ecb.europa.eu/pub/pdf/mobu/mb201302en.pdf.
4. The CPI is a Lowe index, which can be expressed as the weighted sum of elementary price indices with the weights expressed as expenditure shares. These weight have been price updated from the 2011 basket at January 2013 prices. For more information on price updating, please see the background section below, or refer to Section 7.3 of the CPI Reference Paper (http://www23.statcan.gc.ca/imdb-bmdi/document/2301_D4_T9_V1_B.pdf). Note that core CPI subcategories do not reflect the impact of indirect taxes.
5. Note that the measure of Alberta core shelter is equivalent to the Alberta total shelter price index less the price of natural gas. In addition, it was created using Canadian weights for the price of total shelter and natural gas.
6. For example, see the June 3, 2014, Canadian Retail Insights Report from American Express.
7. Using a statistical technique known as a vector autoregression (VAR), we see that the exchange rate has an impact on core inflation that is significant (at the 5% level) six to nine quarters in the future (or roughly 18 to 24 months).
8. The overnight rate is important as it is the primary tool for monetary policy and is known to affect inflation with a lag, in that a change in the interest rate today won't be felt on prices until sometime in the future. The overnight rate is important as it is the primary tool for monetary policy. The Bank of Canada believes the overnight rate has a noticeable impact on inflation with a 6 to 8 quarter lag. However, given the overnight rate hasn't changed since September 2010, this isn't an important consideration in trying to understand current trends in core CPI inflation.
9. Unit labour cost measures the cost of labor input required to produce one unit of output, and equals labor compensation in current dollars divided by the real output. It is often calculated as the ratio of labor compensation per hour worked and labor productivity. Unit labor cost increases when labor compensation per hour worked increases more rapidly than labor productivity. It is widely used to measure inflation pressures arising from wage growth.
10. http://www.bankofcanada.ca/wp-content/uploads/2014/07/bos-summer2014.pdf.
11. Food prices were projected to lead CPI higher as a result of the stronger dollar in: http://www.td.com/document/PDF/economics/special/LoonieDescentSetsTheStageForInflationAscent.pdf.
12. For the method for calculating base effects, see http://www.sedlabanki.is/lisalib/getfile.aspx?itemid=5323.