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FINANCIAL MARKETS

Special Report

Economics and Strategy

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The Bank of Canada's labour market indicator understates labour market tightness

Summary

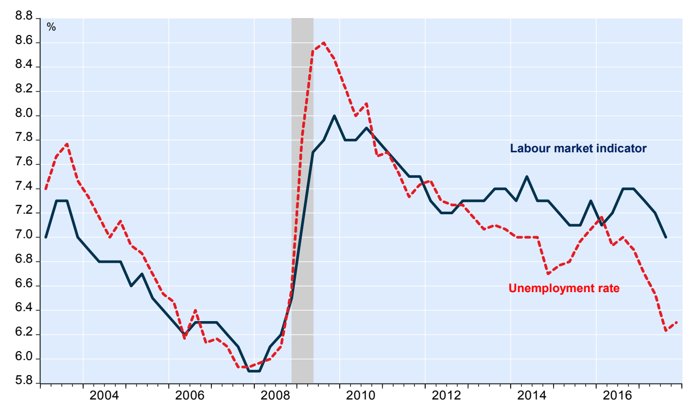
- In its latest Monetary Policy Report, the Bank of Canada says the decline of the unemployment rate "overstates the degree of improvement in the labour market" because the Bank's labour market indicator (LMI) "is still relatively high."
- What explains the less favourable light cast on the labour market by this indicator, which aggregates eight variables? First, average hours worked fell during the recession and are still below the pre-recession level. But this variable has been trending down for 40 years, a trend attributable to increased participation of women in the labour market. In addition, population aging increases the proportion of workers older than 55, reinforcing a propensity to reduce the number of hours worked.
- The other factor braking improvement of the Bank's LMI is that the long-term unemployed have remained just as high a proportion of all unemployed as they were at the recession bottom. The jump in long-term unemployment resulting from the recession was much less in Canada than in the U.S., and if it is measured relative to the active population rather than to all unemployed there has been considerable improvement.
- In our view, the BoC's LMI understates the tightness of the labour market and if the central bank continues to use this indicator as guidance for monetary policy, there is risk of an upside surprise in wage pressures.

Slack in the labour market?

The robust economic growth of recent quarters has supported impressive job creation in Canada. The unemployment rate has fallen about one point since the beginning of 2016 and is now just a half-point above its historic low.

The Bank of Canada nevertheless continues to maintain that there is slack left in the labour market. In its latest Monetary Policy Report, the Bank says the decline of the unemployment rate "likely overstates the degree of improvement in the labour market" because the Bank's labour market indicator (LMI) "is still relatively high" (chart).

The BoC's LMI is much more downbeat than the unemployment rate
Bank of Canada labour market indicator and the unemployment rate



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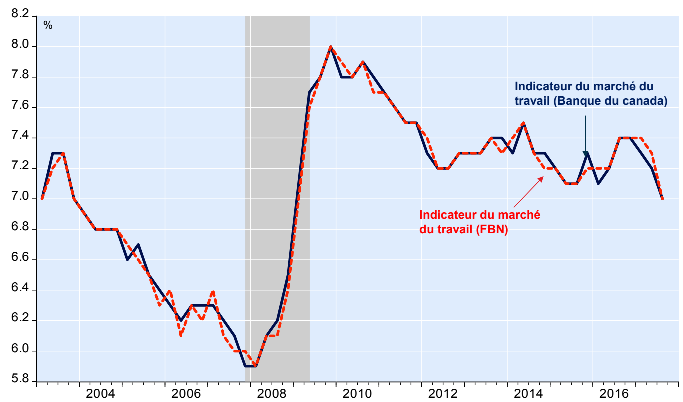
It is true that the unemployment rate does not give a complete picture of the labour market. Its health is better gauged from a range of indicators. The Bank's LMI aggregates eight labour variables by a statistical technique — "principal-component analysis" — that extracts the common movement across the eight component indicators and scales it to be comparable with the unemployment rate. These components are:

(1) Unemployment rate
(2) Labour underutilization rate (R-8)
(3) Participation rate of population aged 25-54
(4) Wage growth
(5) Separation rate
(6) Average hours worked
(7) Long-term unemployment (as % of all unemployed)
(8) Job-finding rate

The Bank has not disclosed in detail the construction of its LMI, in particular the precise series that are used, their seasonal adjustment and other econometric parameters.[1] However, we have been able to replicate the Bank's LMI to a very satisfactory degree (chart) to gain a better understanding of what is hidden in this black box that says the labour market is only halfway back to its pre-recession state.

Our in-house replication of the BoC's LMI matches it very closely



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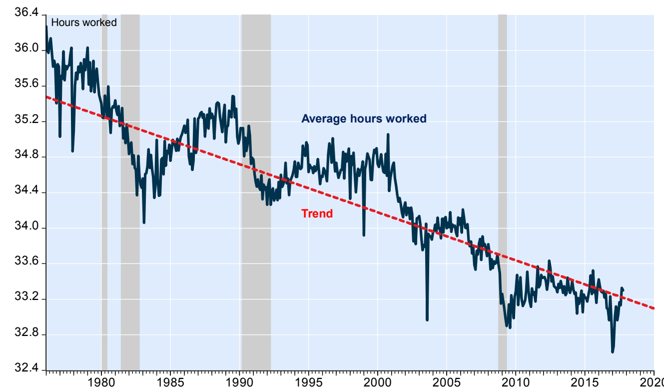
The wheat and the chaff

We essentially agree that the use of indicator components 1 to 5 is well-founded. The labour underutilization rate is less restrictive than the unemployment rate in that it takes into account discouraged job-seekers, those marginally attached to the labour market and people working involuntarily part-time. The participation rate of prime-age workers can shed additional light on the vigour of the labour market. Wage growth indicates workers' ability to benefit from current conditions. The separation rate gives an idea of the recent rate of job losses.

About components 6 to 8, we have reservations.

We begin with component 6, average hours worked. It is true that employers may respond to hard times by reducing number of hours worked rather than headcounts. Such a reduction would not affect the unemployment rate, though it indicates an excess supply of labour. And it is true that average hours worked are currently well below the pre-recession level. A cause for concern? As it turns out, this indicator has been on a structural downtrend since the 1970s, a phenomenon also observed in other advanced economies. In recent expansions it has never returned to its previous peak (chart).

Average hours worked: 40-year downtrend



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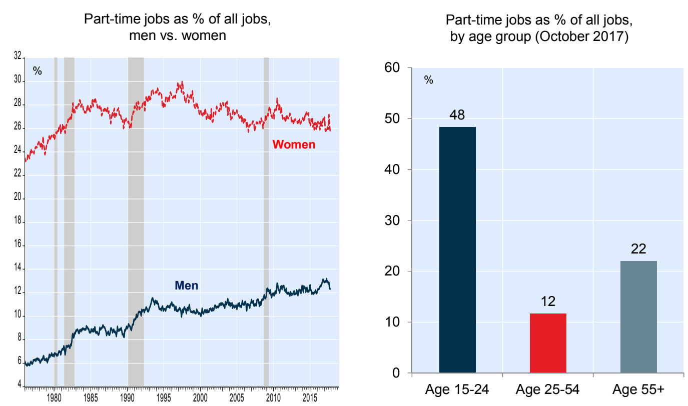
This trend is attributable in part to the increased participation in the labour market of women, 26% of whom work part-time compared to only 12% of men (chart). We note in passing that more and more men are working part-time (the proportion has more than doubled since the 1970s), an option made more available by a second household income. Population aging — the increase in the proportion of workers aged 55 or more — also reinforces a propensity to part-time work (chart).

Decline of hours worked is due to structural changes



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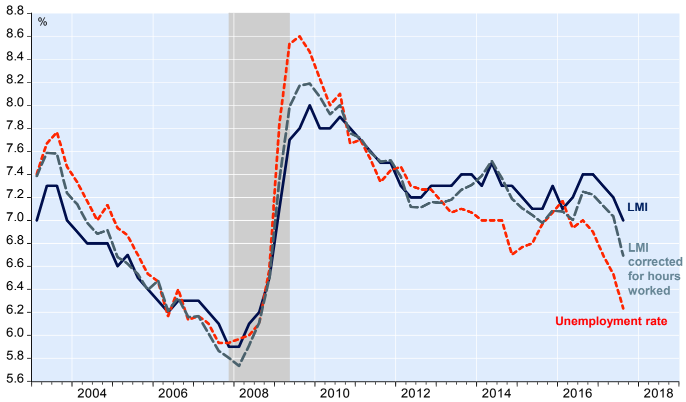
The use of this indicator is thus a major weakness of the LMI. To gain a better idea of the effect of this weakness, we have constructed an LMI replacing this component with a measure of the divergence of average hours worked from the long-term trend (the new indicator is now stationary). This change reduces the spread of the LMI from the unemployment rate by 40% (chart).

[1] For further information see "Beyond the unemployment rate: Assessing Canadian and U.S. labour markets since the Great Recession," Bank of Canada Review, Spring 2014.

The picture improves when corrected for hours worked
Bank of Canada labour market indicator and the unemployment rate



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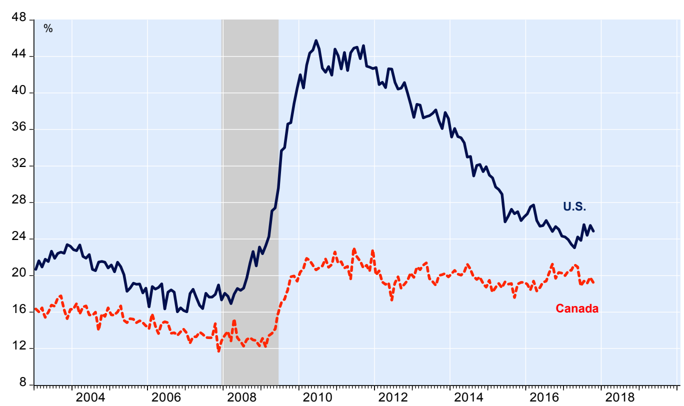
Another weakness: Long-term unemployment

One of the disastrous consequences of the Great Recession in the U.S. was the surge of long-term unemployment. The number of long-term unemployed went from less than 20% of all unemployed people to more than 45% at the recession bottom (chart). In Canada the rise of this percentage was only a third of that in the U.S., yet this indicator has been a considerable drag on LMI improvement since it has remained essentially unchanged during the expansion.

Long-term unemployment since 2003
Long-term unemployed (≥27 weeks) as % of all unemployed



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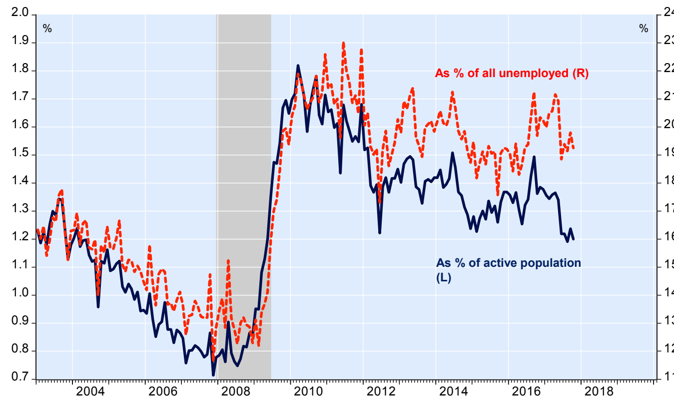
But is this the right gauge? The long-term unemployed may have stayed near 20% of all unemployed, but the unemployment rate has fallen from 8.7% to 6.3%. In other words, the percentage of long-term employed in the active population has improved considerably since 2010 (chart).[2]

[2] This is the measure presented by Tiff Macklem, former senior deputy governor of the Bank of Canada, in a 2012 speech titled "A measure of labour."

Does that mean the LMI's component 7 should be replaced by the proportion of long-term unemployed in the active population? Not necessarily. The long-term unemployed are already included in the unemployment rate (component 1) and the underutilization rate (component 2). Why should the central bank give more weight to the long-term unemployed than to other unemployed people in its evaluation of the labour market, when multiple studies have concluded that long-term unemployment has less effect on the movement of wages?

Another perspective on long-term unemployment
Unemployed 27 weeks or more



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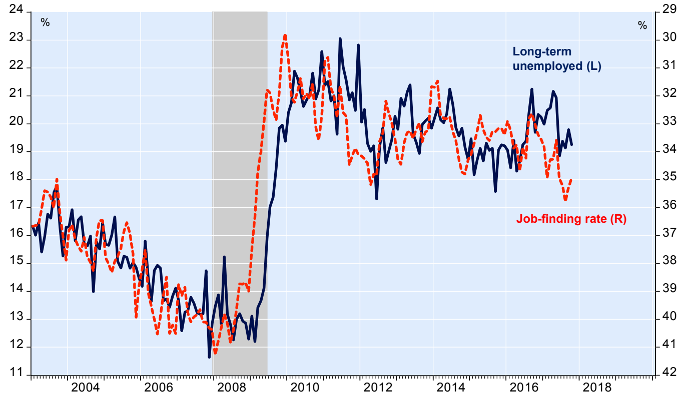
Moreover, it turns out that component 8, the job-finding rate, correlates closely with component 7. The calculation of both indicators includes the long-term unemployed (see formulas below). In both cases the denominator is the number of all unemployed.

$$JFR = 1 - \frac{Unemployed\ at\ least\ 27\ weeks_t + Unemployed\ 5\ to\ 26\ weeks_t}{Unemployed_{t-1}}$$

$$Long - term\ unemployment = \frac{Unemployed\ at\ least\ 27\ weeks}{Unemployed_t}$$

The chart below illustrates the strong inverse correlation of these two indicators. They express the same reality: that the long-term unemployed are a higher proportion of all unemployed than they were in 2007 and they have difficulty finding jobs. But for the reasons given above for component 7, we suggest dropping both components because they do not reflect underutilization of labour resources.

LMI: Two components with strong inverse correlation
Long-term (≥27 weeks) unemployed as % of all unemployed, vs. job-finding rate



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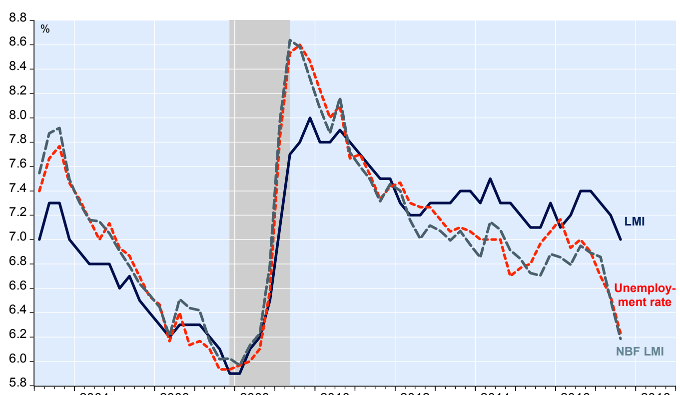
For a modified indicator

In light of the preceding observations, we argue for evaluating underemployment by an indicator that retains the first five components of the BoC's LMI with a component 6 modified to take its downtrend into account. The indicator we have built in this way shows the Canadian labour market in a much more favourable light than the Bank of Canada's — a light consistent with that given by the unemployment rate.

To summarize, the Bank of Canada's LMI understates labour market tightness. If the Bank continues to use this indicator as guidance for monetary policy, there is risk of an upside surprise in Canadian wage pressures.

Modified LMI is essentially consistent with unemployment rate
Bank of Canada LMI, NBF LMI, unemployment rate



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