

Quick Hit – The Phillips curve is dead, long live the Phillips curve!

Despite the Canadian economy flirting with record-low unemployment rates—February 2019 marked the 16th straight month at or below 6%—the inflation pick-up that one would expect based on traditional Phillips curve theory has been underwhelming. Indeed, a look at the post-crisis relationship between consumer price inflation and the national unemployment rate reveals a flat, horizontal line. A decade earlier there wasn't much life in the Canadian Phillips curve either, but you could at least glimpse something of a connection between labour markets and inflation (Chart 1). Of course, this relational breakdown is not unique to Canada—economists have highlighted a flattening/dying Phillips curve in developed nations for ages. Whether it be that the unemployment rate isn't accurately measuring labour market slack, inflation expectations that are now well-anchored, weaker employee bargaining power, or any of the other suggested theories, it's become clear that a tightening labour market no longer translates to upward price/wage pressure the way it once did.

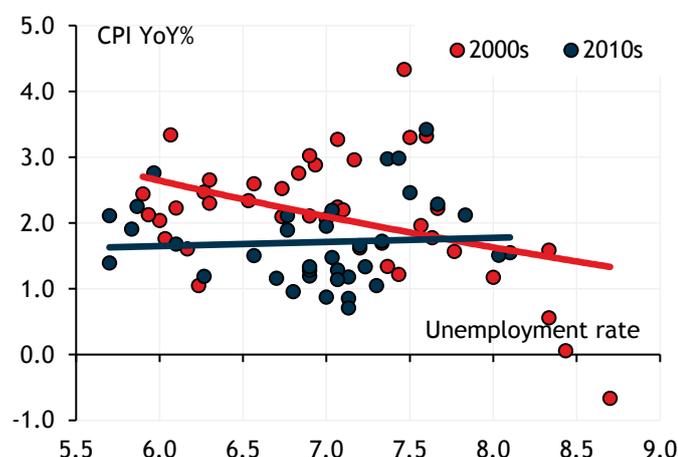
But while an intertemporal correlation may be non-existent, a slight variation on the traditional theory shows the Phillips curve is alive and well *within* Canada, right now. Sure enough, plotting the ten provinces' rates of price inflation against their respective unemployment rates *at this point in time* reveals a fairly well-fitted downward sloping curve... call it a contemporaneous Phillips curve (Chart 2). To demonstrate, British Columbia, the province with the tightest labour market has experienced the hottest inflation over the last year while Newfoundland and Labrador, saddled with a double-digit unemployment rate, has barely seen its provincial price level expand. In general, this suggests that jurisdictions with hot labour markets are throwing off relatively more inflation.

Interestingly, the relationship fails to hold when average hourly earnings are substituted for consumer prices, as we end up with an inverted or upward-sloping curve (Chart 3). While this inversion can be attributed to Newfoundland and Labrador's outsized wage growth, it's true that the correlation between wage and price increases isn't as strong as one would intuitively think (there's a nationwide correlation coefficient of roughly 0.6 using the last three years of data) and, in some cases, has even turned negative in recent years (i.e. rising inflation with falling wages, or vice versa). Still, average hourly earnings remain healthy in general and currently outpace inflation for the majority of provinces.

For provinces like British Columbia (which is in an already enviable fiscal position) and Ontario (which in the early stages of digging itself out of a fiscal hole), at-or-above target inflation rates should provide a boost to the nominal GDP outlook going forward. For our provincial governments it's nominal output, rather than real, that bares the most consequence given that's what the majority of tax revenues are generated off of. And with a decidedly patient Bank of Canada that looks to stay on the sidelines for the time being, current interest rates will continue to act as a tailwind to these economies. If you'll entertain the somewhat contrived measure of *real provincial interest rates*, it's clear monetary policy is especially accommodative for jurisdictions like BC and Ontario (Chart 4). Taken together, this could mean higher gross output, and hence revenues, without a corresponding increase in borrowing costs, for at least the first half of this year. Safe to say, as far as these provinces are concerned the Bank can take all the time in the world to nudge rates higher, especially given their elevated sensitivity to housing markets.

Chart 1: The Phillips curve is dead!

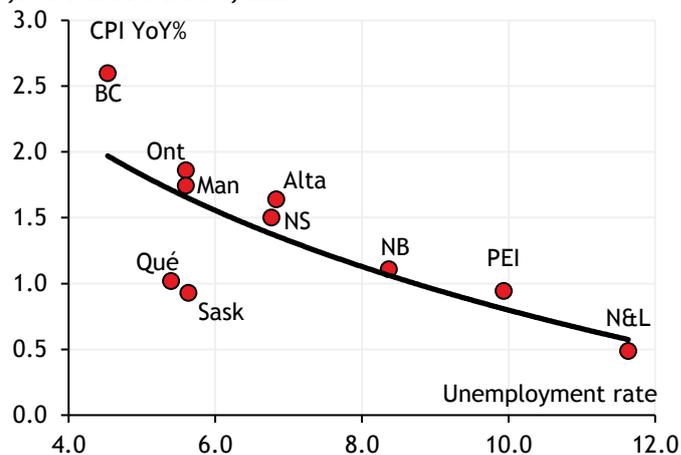
Canada 3M YoY % chg. in CPI vs. 3M average unemployment rate



Source: NBF, StatCan

Chart 2: The Phillips curve is alive! ...

3M YoY % chg. in CPI vs. 3M average unemployment rate by province for the last 3 months of data

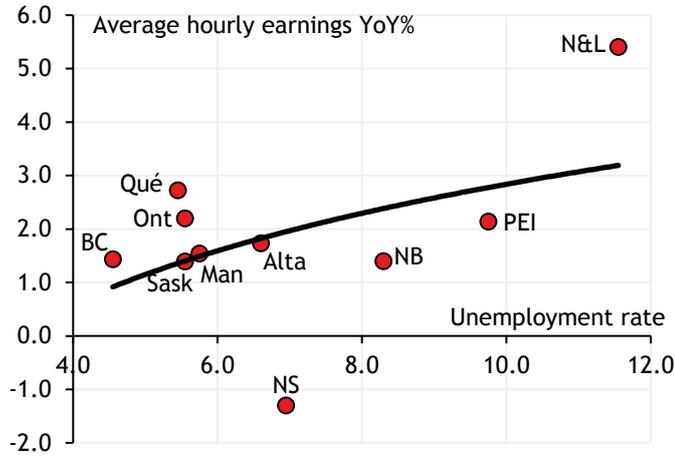


Source: NBF, StatCan

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Chart 3: ... but not with wage growth

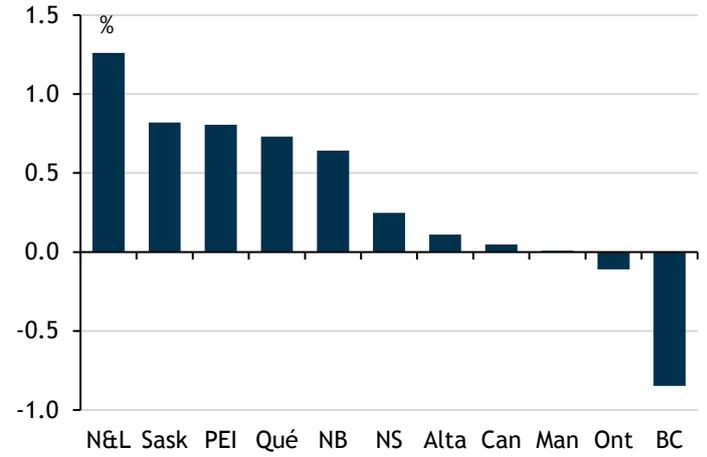
3M YoY % chg. in average hourly wages vs. 3M average unemployment rate by province for the last 3 months of data



Source: NBF, StatCan

Chart 4: “Real provincial interest rates”

Bank of Canada overnight interest rate (1.75%) minus 3M YoY % chg. in CPI by province



Source: NBF, StatCan

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