The Phillips Curve is broken — here's why that is keeping economists up at night

By Mitchell Thompson
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Something has gone awry with the Phillips Curve.

It's been roughly flat since 2008, which has some economists worried as it points to stagnant wages, imperilled bottom lines for companies and a stubborn economic slack that — despite massive stimulus efforts — isn't being eaten up.

So what's the Phillips Curve?

It is a model that economists use to describe the inverse relationship between the level of unemployment and the rate of inflation. In short, when more people are working, prices tend to rise.

"The Phillips curve is central to macroeconomic modelling and the Bank of Canada, the Federal Reserve and any other large central bank uses this as a core component in its forecasting models to capture excess capacity. It's key to any standard monetary outlook," TD economist Brian DePratto said.

Economist William Phillips initially studied the inverse relationship between wage increases and unemployment between 1861 and 1957. Phillips found that wages rise when employment rises to attract workers, who can afford to be more discerning. The curve was later adapted to note an inverse relationship between unemployment and inflation — prices rise, when falling unemployment lifts wages, to accommodate rising costs.

"As workers have more choices, they demand higher wages — and, at the same time — business who pay more in wages will raise prices to protect their bottom line. 'More employment causes more inflation' is how the theory has worked since the Second World War," TD economist Michael Dolega said.

Until now.

Whereas historically, the curve was a curve — with an X axis for unemployment and a Y axis for inflation — sloping downwards as unemployment rises, it's now a mostly flat line.

That's a problem for central bankers and policy makers, and it suggests bad news.

Canada's jobless rate has fallen to 6.3 per cent, its lowest since October 2008, but inflation has lagged. From 1996 to 2008, TD noted, headline inflation averaged 1.8 per cent, roughly in line with the Bank of Canada's recently-renewed 2 per cent mandate. Since the crash, from January 2009 to present, headline inflation has averaged just 1.5 per cent, despite the benchmark interest rate dropping to record lows for much of that same period.

The picture looks the same throughout much of the western world and many economists are perplexed.

The current trend sets a "possibly very low limit to how far unemployment can fall without inflation starting," James Forder, economics professor at Oxford, said.

That combination of low inflation and a falling jobless rate is odd, TD'S Dolega said. "Typically, inflation accelerating suggests economic slack is being absorbed and resources are rising in cost with more demand."

Gustavo Indart, economics professor at the University of Toronto, said the flattening of the curve most likely results from a domestic unemployment figure that doesn't capture global labour market competition. Prices aren't increasing as a result of rising employment "because wages aren't increasing."

A report from TD notes that before 2009, wage growth held at around 3.5 per cent year-over-year, however it's been stuck around 1 per cent ever since.

Ranjit Dighe, economics professor at the State University of New York, said the trend holds true across advanced economies. "Falling unemployment has yet to translate into big wage gains for workers. This could be because of weaker unions, increased worker anxiety due to globalization or low employment-to population ratios," he said.

TD also called these the effects of low bargaining power. Workers can't push for better pay after years of globalization, automation and declining union density.

DePratto said it could pose special risks to Canada. "Take, for instance, Canada's high household debt levels. We note the way to reduce that burden is for incomes to climb quickly, you'd expect that in a higher growth economy but there are definitely concerns."

A common reason given for low inflation in the post-crisis period is an influx of cheap goods, mainly from China, holding back prices.

But DePratto said this explanation fails to explain why prices for services haven't increased, since you can't import them. And it explain why inflation stalled after 2008, considering the price effects of China's 2001 entry into the WTO had mostly faded by then.

Another common explanation is that e-commerce, which has lower overhead costs, is keeping prices low. But while online sales growth is outpacing that of traditional channels, digital retail sales still only account for about 2 per cent of total retail spending, TD says.

Though changes in the type of work have undoubtedly curbed bargaining power, TD noted, the sluggishness in wage growth is standard for both part time precarious sectors and full-time work.

Whatever the cause, the flattening of the curve may impede the central bank's ability to plan. "(It) means (Governor) Stephen Poloz has a much harder job," DePratto said.

It also means the usual relationship between monetary stimulus and inflation — where lower rates tend to be inflationary — is less direct. With most central banks sticking at or near record low rates, but no noticeable impact on inflation, the picture is murkier.

"As unemployment falls, the bank hopes to raise the interest rate to give it downward leeway in a subsequent downturn. Higher inflation would lead to higher nominal interest rates, giving the bank more leeway to lower them in recessions," said Simon Fraser University economics professor Richard Lipsey. Though, Lipsey said, the trade off for giving the Bank that leeway would mean higher inflation. Few would likely be happy with that trade off, he said.