Economics

ECONOMIC INSIGHTS

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Inflation: A deeper dive

by **Avery Shenfeld** avery.shenfeld@cibc.com, **Andrew Grantham** andrew.grantham@cibc.com and **Karyne Charbonneau** karyne.charbonneau@cibc.com

To understand where you're going, it helps to know where you've been, but much of what's being said about inflation these days misses that key first step. Some prominent academic economists put all the blame on excess US fiscal stimulus, but ignore the perspectives available from what's happening to prices in countries that didn't follow that script. It's a similar story in Canada, although the finger pointing is more directed at the central bank and easy monetary policy. Analogies are being drawn to the early 1980s, solely on the basis of that being the last time when the CPI was this elevated, while missing some key differences.

Our forecast calls for slower North American growth in 2023, and while that's hardly out of consensus, we see that slowdown, rather than an outright recession like that of the early 1980s, as sufficient to get inflation under control (see Tables 1 and 2, p.5). Admittedly, that will take a good deal of skill on the part of central banks to steer the economy onto that narrow runway, and we see that as requiring a bit less aggression on rate hikes than markets are now pricing in (Tables 3 and 4, p.6).

Herein we take a deeper dive into today's inflation pressures in the US and Canada by drawing insights from international and historical experience, with an eye to understanding how taming inflation needn't compel a recession if the central banker's aim is on target.

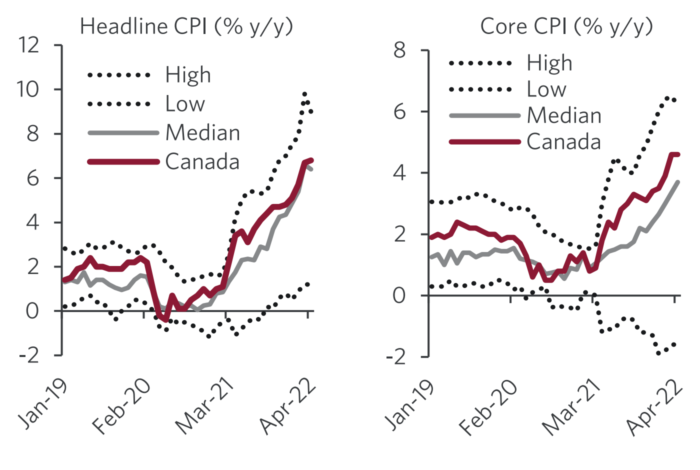
A global story, not just overheating

Some prominent economists who warned that the Biden stimulus bill was too big, and therefore inflationary, are now doing their "I told you so" tour. But they didn't actually get the full story right, because only some of what we're seeing in the CPI stateside can be chalked up to overheated American demand, judging by inflation rates in countries that haven't made up as much economic ground in this recovery.

Even more to the point, for all the criticism about excess monetary stimulus, Canada is only in the middle of a pack of 10 similar countries in terms of the acceleration we've seen in headline CPI (Chart 1, left). Of course, part of that captures the lift to world food and energy prices, and excluding food/energy, Canadian inflation would be a bit on the high side of the median in that group (Chart 1, right).

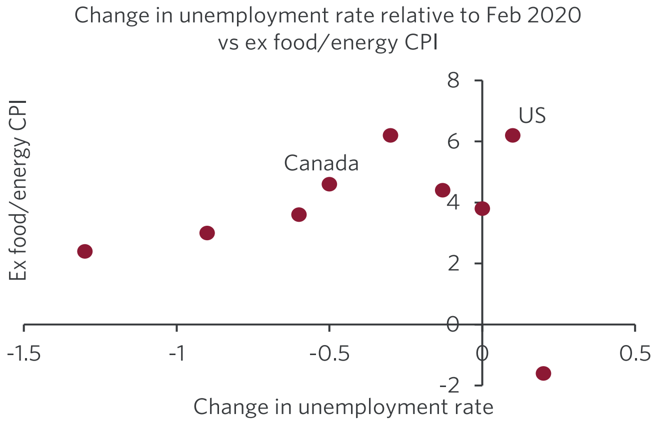
But what's notable is that an overheated economy explains less of that positioning than what you've been led to believe. The correlation between each country's change in the unemployment rate since February 2020 and its change in core CPI inflation since then looks decidedly unimpressive (Chart 2).

Chart 1: Canadian headline CPI close to developed economy median (L), ex food/energy not too far above (R)



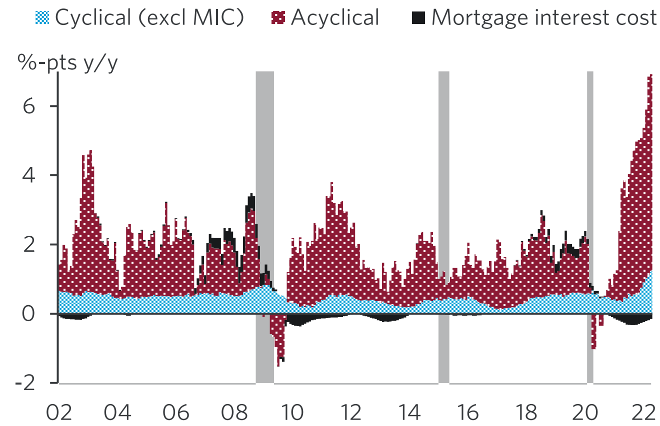
Source: Bloomberg, CIBC

Chart 2: Little correlation between change in economic slack vs pre-pandemic and core inflation



Source: Bloomberg, CIBC

Chart 3: Canadian cyclical inflation is historically high, but still only accounting for about 20% of total inflation



Source: Statistics Canada, CIBC

So actually, Powell and Macklem weren't completely wrong when they cited temporary supply disruptions as a factor behind last year's run-ups in CPI. They were in good company in missing how quickly labour markets would tighten, and that does indeed pose a threat to inflation ahead if the brakes aren't applied. But, given the international data, supply chain issues are still a large part of the story for why prices are so lofty, not just in hot economies, but in more sluggish performers where fiscal stimulus wasn't as powerful. They just got the "temporary" part wrong, as Covid-19 proved more persistent, and the Ukraine war added to our woes.

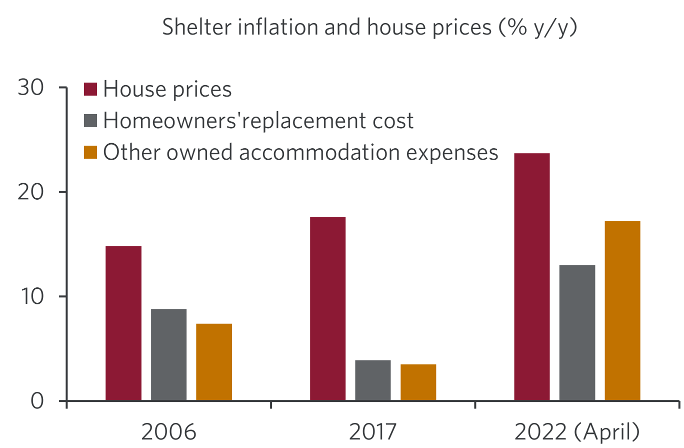
Hitting for the cyclical

Within the US and Canada, there are also measures designed to separate the cyclical elements of inflation from other sources of price pressures. The San Francisco Fed developed one such measure by splitting components of the US PCE price index into those that respond more to overall economic conditions (i.e. cyclical components) and those that are more sensitive to industry-specific factors (i.e. acyclical components). Monetary policy should be particularly effective at targeting cyclical inflation, and therefore this split gives a rough approximation of the ability of central banks to impact overall price pressures. Not surprisingly, both cyclical and acyclical inflation in the US have been elevated in recent months, with cyclical components contributing about 2.2%-points, or 40% of the total annual core PCE price index inflation.

We applied a similar method to the Canadian CPI and found that the contribution of cyclical inflation, which includes for example prices at restaurants and many household goods and services, is at its highest in over 20 years (Chart 3). In some sense, that is good news for the Bank of Canada, because it means that at least some part of the runup in inflation should ease as interest rates are raised and the economy slows. The bad news, though, is that overall, cyclical components only account for 1.2%-pts, or a little under 20%, of total inflation in recent months. This is somewhat lower than the share accounted for in the US, partly because the analysis in the US focuses on core PCE, which excludes components such as gasoline, and partly because there is more excess demand south of the border. It is however also below the historical average for Canada and well below the 30-40% seen in the years prior to the financial crisis or the period preceding the pandemic, when the Bank of Canada was tightening in response to excess demand. That means that even if the Bank had hiked earlier and managed to get cyclical inflation down to zero today, total inflation would still be around 5.5%.

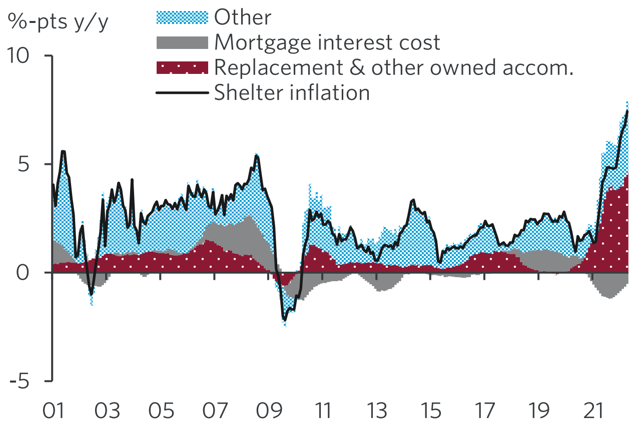
While this analysis would suggest serious limitations to what the Bank can do this time around to tame inflation, not all is lost. The split is far from perfect, and historical relationships are not always the best guide post pandemic. In particular, some large components of shelter costs included in acyclical inflation have seen their relationship with house prices altered. Homeowners' replacement cost and other owned accommodation expenses, which together account for about 30% of shelter, have been rising in tandem with house prices to a degree not seen in recent history (Chart 4).

Chart 4: Shelter components of inflation have more fully reflected pick up in Canadian house prices than they did in prior peaks



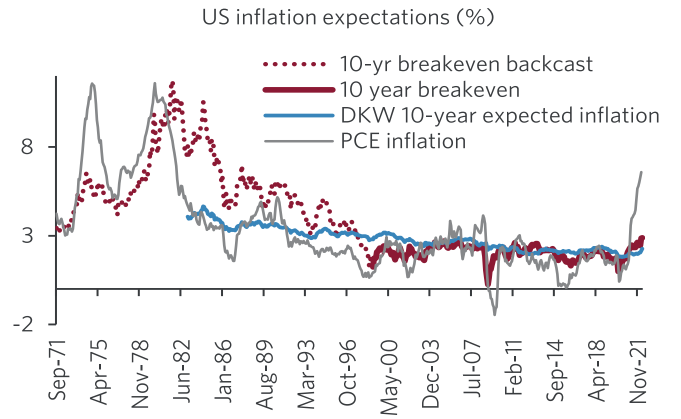
Source: Statistics Canada, CIBC

Chart 5: Components strongly linked to house price moves have made a larger than normal contribution to shelter inflation in Canada



Source: Statistics Canada, CIBC

Chart 6: US inflation expectations have been well anchored recently, only became unanchored in the 70's/80's after several inflation spikes



Source: Federal Reserve Board, FRED and Liberty Street Economics

As its name suggests, homeowners' replacement cost represents the cost of replacing a house and is based on what builders can charge for a new construction. It is therefore linked to tightness in the residential construction sector and includes both labour and material costs. The price of this component has been rising rapidly, fueled by some supply chain issues, skyrocketing building materials prices and labour shortages. It's contribution to shelter inflation is therefore much larger than in previous periods of rising house prices (Chart 5). Perhaps even more exceptional is the increase in other owned accommodation expenses and its contribution to inflation. This component includes real estate commissions and legal fees and is therefore highly correlated with house prices.

As the Bank of Canada raises rates, we expect the housing market to cool rapidly and the pressure on the prices of these components to abate. In the past, the increase in the contribution of mortgage interest costs would have largely offset that of the fall in the two components linked to house prices. But, this time around, we expect their return to normalcy to far outweigh the increase in mortgage costs. The Bank should therefore have more power than normal to affect the shelter component of inflation.

Blasts from the past

This spring's headlines have screamed about the highest inflation in decades, raising alarm bells because the final chapter for the inflation run up of the 1970s was a severe monetary tightening and a recession in the early 1980s. Are those blasts from the pasts then a suitable analogy to where we sit today, and therefore ominous for what lies ahead?

One key difference was that the inflation pop of the late 1970s wasn't an isolated incident, but was the culmination of several waves of CPI pressure that dated all the way back to the Vietnam war period of the late 1960s. That made a huge difference in terms of where inflation expectations in both the US and Canada stood at the dawn of the 1980s.

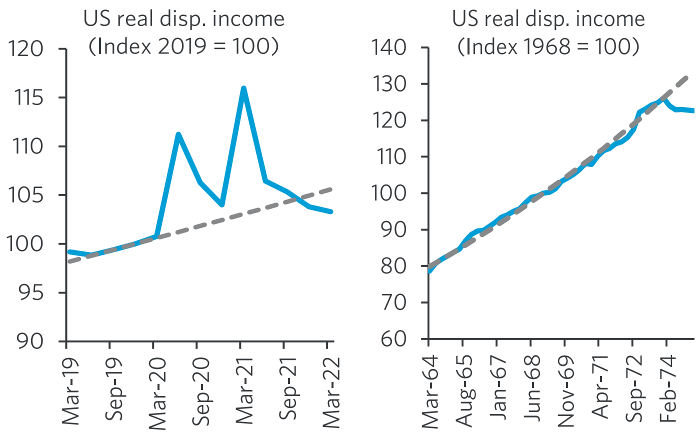
Although the climb in inflation wasn't one climb upward, successively higher peaks in US CPI set in 1966 (3.8%), 1969 (6.2%), 1974 (12.3%) and finally 1980 (14.8%) had 10-year inflation expectations breaking through 10 percent. That meant that it took a double-deep recession and a long period of economic slack to unwind those expectations, and reverse the impression in business and labour markets that every year should see a large markup in prices and wages.

However, crucially for the situation today, it wasn't until the third or fourth spike in realized inflation that expectations for persistently higher inflation became engrained (Chart 6). Contrast that with the recent trend in inflation expectations, which are drawing on the memory of decades of stable prices. As was the case when inflation first bumped up in the 1960s, the latest bout of inflation hasn't yet altered views on what's normal.

That matters because when employers don't expect to be able to pass on year after year of price hikes, they're cautious about labour contracts that build that pace into wages. Yes, wage rates have accelerated, but not nearly to the degree that prices are climbing this year. The result is a squeeze on purchasing power that will act as a break on inflation, as real household incomes are in fact falling (Chart 7, left).

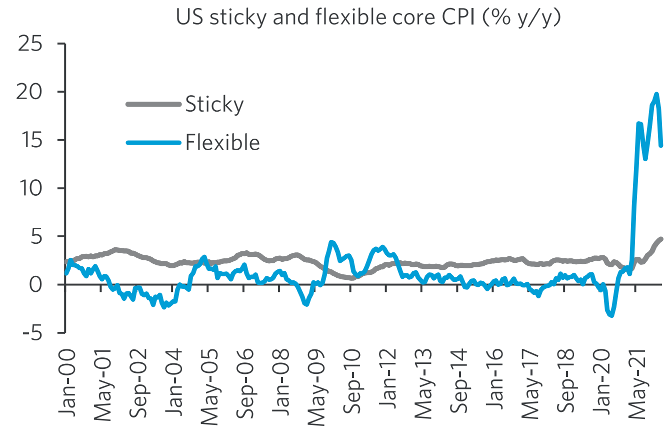
That's also a contrast with the inflation blast in the past, as higher inflation expectations became ingrained into wage contracts, helped by greater unionization and the common use of the CPI as an escalator clause. That meant that through the initial escalation in inflation in the late 1960's and early 70's, real household incomes were able to do a better job keeping pace, allowing that spending power to keep prices climbing until the largest spikes in inflation and a recession took them

Chart 7: US disposable incomes have fallen below their pre-pandemic trend (L), incomes kept pace with inflation until the mid-70's



Source: BEA, CIBC

Chart 9: Inflation among stickier price elements has picked up, but still not the main inflation driver

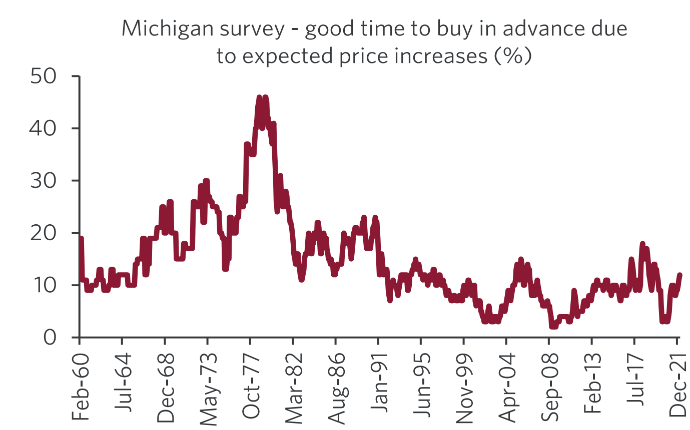


Source: Atlanta Fed, CIBC

away. (Chart 7, right). So, unlike what we saw in the late 1960's and 1970s, higher prices could be an earlier part of the cure for higher prices, suppressing demand and requiring less of a bludgeon from monetary policy.

The squeeze now being placed on household incomes, combined with stable inflation expectations, also means that we have not seen the change in consumer behaviour that helped inflation become a self-fulfilling prophecy in the 70's. Back then, consumers, fearing further price increases, brought forward purchases which spurred demand and caused inflation to rise even further (Chart 8). Today, consumers are telling us that they aren't behaving in the same way, although as well as being a sign of grounded inflation expectations that could also be because households had already brought forward goods purchases during the pandemic.

Chart 8: US consumers are not yet feeling the need to spend now to safeguard against higher future prices



Source: University of Michigan

What's next

If financial markets would like some calming signals from CPI readings to ease their fears, they're probably not going to get enough of that right away. For one, after a brief respite, gasoline prices headed higher again in recent weeks. Concerns over food supply are growing with each passing day of strife in Ukraine. China has yet to let up on its zero-Covid lockdowns.

And to some extent, there's some pent up price hikes still on their way in the CPI. Rents aren't all reset every month, and governments could decide to pass on inflationary cost increases in once-a-year prices for publicly-funded school tuitions or property taxes. Economists track trends between those prices that are frequently set, and those that tend to be sticky for a while, and we're at the stage of the cycle in which sticky prices are playing catch up (Chart 9).

However, even if inflation hasn't been as transitory as most believed it would be a year ago, that doesn't mean it will be as persistent as it was in the 70's and early 80's. Inflation expectations are better anchored, household incomes aren't keeping pace with inflation which will impact demand, and we haven't seen a big shift in consumer spending behaviour as yet. As a result, a return to neutral interest rates, slowing economic growth to something close to or a bit under its long-run trend, should be good enough to return inflation back to the 2% target by 2023.

Table 1: Canada forecast detail (real % change, SAAR, unless otherwise noted)

Variable	22Q1F	22Q2F	22Q3F	22Q4F	23Q1F	23Q2F	23Q3F	23Q4	2021A	2022F	2023F
Real GDP Growth (AR)	5.2	3.2	1.4	1.3	2.8	2.6	2.1	1.8	4.6	3.8	2.2
Real Final Domestic Demand (AR)	2.8	1.4	2.5	1.2	2.9	2.3	1.8	2.2	5.5	2.7	2.1
Household Consumption (AR)	1.2	2.2	3.2	1.6	3.2	3.0	2.5	2.4	5.2	3.7	2.7
All Items CPI Inflation (Y/Y)	5.8	7.0	6.2	5.1	3.5	1.4	1.4	1.7	3.4	6.0	2.0
Unemployment Rate (%)	5.8	5.2	5.2	5.3	5.3	5.2	5.1	5.1	7.4	5.4	5.2

Table 2: US forecast detail (real % change, SAAR, unless otherwise noted)

Variable	22Q1A	22Q2F	22Q3F	22Q4F	23Q1F	23Q2F	23Q3F	23Q4	2021A	2022F	2023F
Real GDP Growth (AR)	-1.4	4.2	2.0	1.4	2.5	1.9	1.9	1.7	5.7	2.7	2.1
Real Final Sales (AR)	-0.6	3.9	1.6	1.2	2.8	3.1	2.6	2.0	5.3	1.6	2.4
All Items CPI Inflation (Y/Y)	8.0	7.9	7.1	5.4	3.7	2.0	1.7	2.1	4.7	7.1	2.3
Core CPI Inflation (Y/Y)	6.3	5.8	5.1	4.0	3.0	2.1	2.1	2.5	3.6	5.3	2.4
Unemployment Rate (%)	3.8	3.5	3.5	3.7	3.6	3.5	3.5	3.5	5.4	3.6	3.5

Table 3: Canadian interest rates (end of period)

Variable	2022 18-May	2022 Jun	2022 Sep	2022 Dec	2023 Mar	2023 Jun	2023 Sep	2023 Dec
Overnight target rate	1.00	1.50	2.25	2.25	2.50	2.50	2.50	2.50
98-Day Treasury Bills	1.37	1.55	2.20	2.20	2.45	2.40	2.30	2.10
2-Year Government Bond	2.76	2.85	3.00	2.80	2.75	2.65	2.60	2.50
10-Year Government Bond	2.97	3.15	3.00	3.00	2.85	2.60	2.60	2.40
30-Year Government Bond	2.95	3.05	2.95	2.95	2.85	2.75	2.60	2.40
Canada - US T-Bill Spread	0.33	-0.15	0.00	-0.20	-0.05	-0.05	-0.10	-0.20
Canada - US 10-Year Bond Spread	0.06	0.00	0.00	-0.05	-0.10	-0.20	-0.15	0.10
Canada Yield Curve (10-year — 2-year)	0.21	0.30	0.00	0.20	0.10	-0.05	0.00	-0.10

Table 4: US Interest rates (end of period)

Variable	2022 18-May	2022 Jun	2022 Sep	2022 Dec	2023 Mar	2023 Jun	2023 Sep	2023 Dec
Federal funds rate	0.875	1.375	2.125	2.375	2.625	2.625	2.625	2.625
91-Day Treasury Bills	1.04	1.70	2.20	2.40	2.50	2.45	2.40	2.30
2-Year Government Note	2.67	2.85	3.00	2.80	2.75	2.65	2.60	2.40
10-Year Government Note	2.91	3.15	3.00	3.05	2.95	2.80	2.75	2.30
30-Year Government Bond	3.10	3.10	2.95	2.95	2.80	2.75	2.70	2.50
US Yield curve (10-year — 2-year)	0.25	0.30	0.00	0.25	0.20	0.15	0.15	-0.10

Table 5: Foreign exchange rates

Exchange rate	2022 18-May	2022 Jun	2022 Sep	2022 Dec	2023 Mar	2023 Jun	2023 Sep	2023 Dec
CAD-USD	0.78	0.76	0.78	0.79	0.78	0.78	0.78	0.78
USD-CAD	1.28	1.31	1.28	1.27	1.28	1.29	1.29	1.29
USD-JPY	128	132	135	130	128	125	122	120
EUR-USD	1.05	1.06	1.07	1.08	1.10	1.11	1.12	1.14
GBP-USD	1.24	1.22	1.22	1.23	1.26	1.28	1.30	1.33
AUD-USD	0.70	0.71	0.75	0.77	0.79	0.80	0.81	0.81
USD-MXN	20.0	21.0	21.5	21.5	21.0	21.5	21.3	21.5

Contacts:

Avery Shenfeld
416 594-7356
avery.shenfeld@cibc.com

Benjamin Tal
416 956-3698
benjamin.tal@cibc.com

Andrew Grantham
416 956-3219
andrew.grantham@cibc.com

Karyne Charbonneau
613 552-1341
karyne.charbonneau@cibc.com

Katherine Judge
416 956-6527
katherine.judge@cibc.com

FICC Strategy
Ian Pollick
416 594-7057
ian.pollick@cibc.com

CIBC Capital Markets
PO Box 500
161 Bay Street, Brookfield Place
Toronto, Canada, M5J 2S8
Bloomberg @ CIBC

economics.cibccm.com