TD Economics



Inflation Tracker

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Highlights

- Inflation continues to cool across the G-7 as the energy price shock from 2022 fades into the background.
- Core inflation too has cooled, notably in Canada and the U.S., but getting price growth in line with target rates remains a sticky situation. Most G-7 central bankers are talking tough and shifting to a fine-tuning approach to rate hikes.
- China's backdrop is notably different from the rest, as consumer prices fell relative to year-ago levels in July. Challenging economic conditions will weigh on price gains and limit upside surprise to commodity prices.

The spring and summer months have brought relief on the inflation front as the energy shock abated and core price gains slowed. However, progress is at risk of stalling out short of major central banks' targets. The last mile may just prove to be the hardest for central bankers wary of pushing interest rates too far into restrictive territory.

Advanced Economies

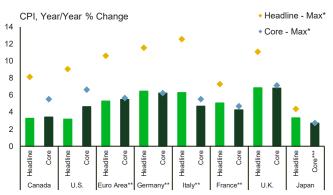
Consumer Price Index (CPI) inflation in the G-7 has come off the boil as last year's energy price surge has faded (Chart 1). Compared to last year's eye-watering levels today's above-trend price gains look quaint. In Italy, headline CPI gains topped out at 12.6% year-on-year (y/y) but have since decelerated to "just" 6.3%. Similar patterns were replicated across the euro area and the UK where the 2022 shock to natural gas prices was the most profound. Across the pond, Canada and the U.S. never saw the same scale of inflation and have managed to bring price growth much closer to the 2.0% range.

However, while the energy price shock has faded (Chart 2), it has not been fully unwound in all regions. In the euro area and U.K., where the shock was most acute, prices are still 11% and 26% higher, respectively, than they were in January 2022. For the rest of the year, this means the base effects from 2022's price surge will continue to bring annual inflation numbers lower. However, in North America and Japan price levels are roughly in line with those from early 2022 and, having ticked

higher in recent months, mean the downdraft on inflation from energy is in the rearview mirror.

Despite the recent uptick in energy prices, North American central banks have made significant progress in wrangling inflation. The improvements are most readily apparent in core prices (CPI excluding food and energy). Unlike their European counterparts, core CPI inflation has sunk lower amid a myriad of interest rate hikes. In Canada, where the peak inflation rate was lower than the U.S., core prices are up 3.4% y/y after topping out at 5.5%, whereas core inflation has decelerated to 4.7% y/y from 6.6% in the U.S. While both rates are still above readings consistent with meeting inflation targeting mandates, the progress thus far has been encouraging and allowed policymakers to switch to a fine-tuning approach to interest rate-setting.

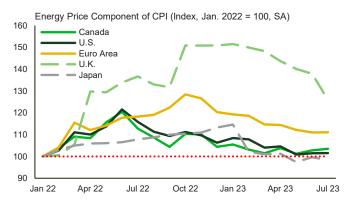
Chart 1: Inflation in Advanced Economies Abates



*January 2021-Present. **Harmonized CPI. ***Western Core. Note: Core CPI excludes Food, Energy, Alcohol, and Tobacco. Source: National Statistical Agencies, TD Economics. Last Observation: July 2023.

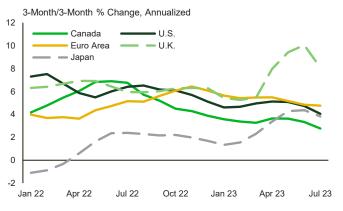


Chart 2: Last Year's Energy Impulse Fades



Source: Statistics Canada, Bureau of Labor Statistics, The Office for National Statistics Eurostat, Ministry of Internal Affairs and Communications, TD Economics.

Chart 3: Core Inflation Shows Signs of Improvement



Source: BoC, FRB, ECB, BoE, BoJ, TD Economics.

The shift in tone from rate setters is just starting to emerge in Europe and near-term developments in core prices highlight why that is the case (Chart 3). In the U.S. and Canada, the three-month over three-month annualized percent change (3-mo/3-mo) has been steadily decelerating since the summer of 2022. These near-term rates are now at 4.1% and 2.8%, respectively. Since the 3-mo/3-mo rates are below the annual pace, there will be further downward pressure on inflation in the coming months. Conversely, the near-term core price gains in the euro area are still running at 4.8% and, while beginning to decelerate, the corresponding pace in the U.K. is still 8.1%. Lastly, in Japan, where the Bank of Japan only recently began loosening the tolerance band on its yield curve control policy, core CPI inflation has decelerated from 4.4% 3-mo/3-mo annualized in June to 3.8% as of July.

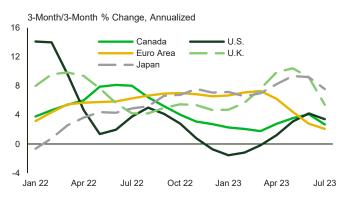
Goods and Services Split Reveals Lingering Price Pressures

Digging deeper into recent trends in core goods and services prices helps reveal the underlying dynamics. Price gains on the goods front have eased substantially in the euro area, U.K., Canada, and the U.S. amid waning demand, and improved supply chain conditions (Chart 4). On a three-month over three-month (3-mo/3-mo, annualized) basis, CPI inflation on consumer goods has been tapering off in recent months. In the euro area, the 3-mo/3-mo rate on non-energy industrial goods is 2.1%, having slowed from over 7% in March. In the U.S., where goods prices have re-accelerated in recent months, the near-term trend is still 3.4%, well shy of the 14% rate posted in early 2022.

While there has been substantial progress fighting inflation on manufactured goods, the same can't be said for services. All countries report slightly different measures for the services sector, with how homeownership is accounted for proving particularly cumbersome. In Canada, for instance, mortgage interest costs are included, meaning that higher rates numerically raise inflation – whereas the U.S. calculates homeowners' equivalent rent. Conversely, the euro area doesn't include it at all.

So, to help make cross-country comparisons easier, we strip out homeownership costs from the calculation for services prices in Canada, the U.S. and Japan. The resultant measure (Chart 5) shows how persistent price pressures services have been. The U.S. and Canada have shown notable deceleration but are still at 3.0% and 3.2%, respectively, on a 3-mo/3-mo basis. Japan and the euro area, both show consumer services price inflation chugging along at

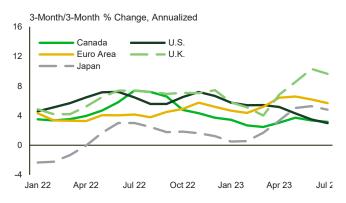
Chart 4: Goods Inflation Is Sliding...



Note: CPI goods excluding food and energy. Source: Statistics Canada, Bureau of Labor Statistics, The Office for National Statistics, Eurostat, Ministry of Internal Affairs and Communications, TD Economics.



Chart 5: ... But Services Inflation Looks Stuck



Note: CPI services excluding home ownership. Source: Statistics Canada, Bureau of Labor Statistics, The Office for National Statistics, Eurostat, Ministry of Internal Affairs and Communications, TD Economics.

roughly 5.0%, while the U.K. is the standout at a 9.6% clip. The stickiness in services prices, and its large share in the consumption basket, is giving market participants pause that central bankers may have to take rates a little higher in the coming months.

Policy Rates and Expectations

Market implied inflation expectations have come down since 2022 (Chart 6) as inflation has cooled and central banks reaffirmed their commitment to bringing inflation to their target with aggressive rate hikes. However, the past three months have seen most breakeven inflation rates shift higher as the stubbornness in price pressures, particularly for core services, has market participants questioning whether more must be done (see Table 2 in Appendix). This kind of give-and-take is to be expected as central banks near the end of the tightening cycle and are fine-tuning how high rates need to go to cool inflation to target without triggering more economic pain than necessary.

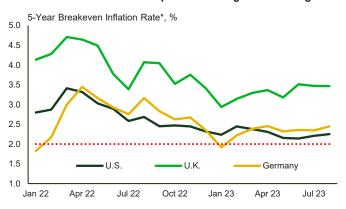
In contrast to market expectations, consumer expectations for future inflation have been trending lower across advanced economies (see Table 2 in Appendix). Moreover, while consumers anticipate limited relief in the near-term, over the five-year horizon expectations in Canada, the U.S., and the U.K. are settling back in line with historical trends. This represents a positive development for the global inflation outlook as central banks retain credibility about their commitment to inflation targeting.

For the most part, business inflation expectations are trending in the same direction as consumers'. In Canada, the share of firms expecting inflation to be above 3.0% over

the next two years continues to fall – albeit from an extraordinarily high level. Businesses' inflation expectations are also declining in Italy, the U.K., France, and Japan. However, from the euro area's Survey of Professional Forecasters, the one-year outlook for core inflation ticked up 30 basis points in July to 3.1%. The headline forecast was revised upward by a more modest 10 basis points for the year ahead.

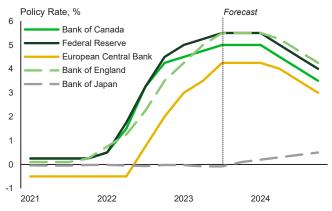
Amid sticky services price pressures and mixed sentiment from financial markets, the Bank and Canada (BoC) and U.S. Federal Reserve (Fed) came off the sidelines to raise rates this summer after taking a "conditional pause" earlier this year (Chart 7). Policymakers are fine-tuning the policy rate level where the strength of incoming data will determine whether more tightening is necessary. Ongoing upside surprises in the data represent the biggest upside risk to the rates outlook – a topic we recently touched on in our Q&A.

Chart 6: Market Inflation Expectations Linger Above Target



*Monthly Average of Daily Data.
Source: Federal Reserve Board, Bank of England, Deutsche Bundesbank, TD Economics.

Chart 7: Rate Setters Moving To Fine-Tuning Stage



Source: BoC, FRB, ECB, BoE, BoJ, TD Economics.

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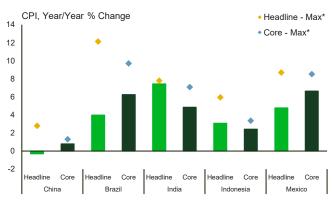
In Europe, the inflation outlook is more nuanced. The European Central Bank (ECB) is facing persistent inflation pressures, despite a steeper drop in demand, necessitating more tightening in 2023. We expect the ECB will hike at least one more time as it fine tunes its policy stance amid sluggish growth. Similarly, the Bank of England is set to hike again in September to combat stubbornly high inflation in the U.K.. Moreover, the risks are firmly to the upside with markets bracing for another hike in the late fall.

Wage Growth

Sustained wage growth is helping offset some of the purchasing power losses from the past year's inflation shock (Table 1). Across most of the G-7 hourly compensation growth is still above its pre-pandemic pace as labor markets remain tight. Even in Japan, monthly cash earnings (that includes overtime and bonus payments) registered a 2.3% y/y gain in June. This is notable after the spring bargaining sessions saw employers and unions agree to a 3.8% pay rise – the largest since 1993. However, in support of the BoJ's reticence about the sustainability of this trend, the growth rate in scheduled hourly earnings has eased off to 0.7% in recent months.

The situation in the U.K. is worth calling out, as hourly wage growth touched a new post-pandemic era high in May – advancing 8.4% y/y. Moreover, average weekly earnings available for June show weekly compensation ticked up to 8.2% y/y from 7.9% in May. Amid strong core inflation and a tight labor market, strong wage growth will keep pressure on the BoE to bring inflation to heel.

Chart 8: Inflation in Emerging Markets



*January 2021-Present. Source: National Statistical Agencies, TD Economics. Last Observation: July 2023

Emerging Markets

Inflation in most emerging markets continued to cool through the summer (Chart 8). In particular, the fading surge in energy prices is cooling top-line measures of CPI. However, India stands apart from the rest with limited relief on headline CPI inflation (7.4% y/y in July) as food prices were up 11.5% y/y in July.

China's extremely soft consumer price inflation is particularly concerning for the global economy. The headline CPI slipped into deflation territory in July while core prices firmed marginally to a still soft 0.8% y/y. Weak inflation pressures in China indicate tepid domestic demand. For the global economy, sustained weakness in China's economy will limit the potential for upside surprises on commodity prices.

Table 1: Hourly Wage Growth										
Measures	Canada	U.S.	Germany*	Italy*	U.K.**	France	Japan***			
Current (Y/Y % Change)	5.0	4.4	2.2	3.1	8.2	5.4	0.7			
2022-2023 Max (Y/Y % Change)	5.8	5.9	2.8	3.1	8.2	5.4	2.4			
2017-2019 Average (Y/Y % Change)	2.4	3.0	2.6	1.0	2.9	1.5	1.5			
Last Observation	Jul	Jul	May	Jun	May	Mar	May			

*Negotiated Hourly Wages.

**Average Weekly Earnings, 3-Month Moving Average.

***Ratio of Scheduled Weekly Earnings to Scheduled Weekly Hours Worked, 3-Month Moving Average.

Source: Statistics Canada, Bureau of Labor Statistics, Deutsche Bundesbank, National Institute of Statistics, The Office for National Statistics, The National Institute of Statistics and Economic Studies, Ministry of Health, Labour and Welfare, TD Economics.



Table 2: Inflation Expectations in G7 Financial Measures*									
	T manda weasare		Current	Change from Prior 3					
Country	Measure	Unit	Value	Months	Last Obs.				
Canada	10-Year Breakeven Inflation Rate	%	1.7	Decreased	Aug				
U.S.	5-Year Breakeven Inflation Rate	%	2.3	Increased	Aug				
U.S.	10-Year Breakeven Inflation Rate	%	2.4	Increased	Aug				
Germany	5-Year Breakeven Inflation Rate	%	2.4	Increased	Aug				
Germany	10-Year Breakeven Inflation Rate	%	2.5	Increased	Aug				
U.K.	5-Year Breakeven Inflation Rate	%	3.5	Increased	Aug				
U.K.	10-Year Breakeven Inflation Rate	%	3.5	Increased	Aug				
	Consumer Survey Me	asures			•				
Canada	Bank of Canada - Survey of Consumer Expectations								
	Inflation Expectations - 2 Years Ahead	%	3.9	Decreased	Q2				
	Inflation Expectations - 5 Years Ahead	%	2.9	Decreased	Q2				
U.S.	University of Michigan - Surveys of Consumers								
	Inflation Expectations - 1 Year Ahead	%	3.3	Decreased	Aug				
	Inflation Expectations - 5 Years Ahead	%	2.9	Decreased	Aug				
Euro Area	European Commission - Business and Consumer Survey								
	Inflation Expectations - 1 Year Ahead	% Balance	5.0	Decreased	Jul				
Germany	Deutsche Bundesbank - Survey on Consumer Expectations								
	Inflation Expectations - 1 Year Ahead	%	5.0	Decreased	Jul				
	Inflation Expectations - 5 Years Ahead	%	4.7	Decreased	Jul				
Italy	ISTAT - Consumer Survey								
	Inflation Expectations - 1 Year Ahead	% Balance	-14.0	Increased	Jul				
U.K.	Bank of England/Ipsos - Inflation Attitudes Survey								
	Inflation Expectations - 1 Year Ahead	%	3.5	Decreased	Q2				
	Inflation Expectations - 5 Years Ahead	%	3.0	Unchanged	Q2				
France	INSEE - Consumer Confidence Survey								
	Inflation Expectations - 1 Year Ahead	% Balance	-57.2	Decreased	Jul				
Japan	Bank of Japan - Opinion Survey		****						
	Inflation Expectations - 1 Year Ahead	%	10.5	Decreased	Q2				
	Business Survey Med	sures							
Canada	Bank of Canada - Business Outlook Survey								
	Share of Firms Expecting Inflation Above 3% - 2 Years Ahead	%	64.0	Decreased	Q2				
U.S.	Duke University - CFO Survey								
	Inflation Expectations - 1 Year Ahead	%	5.0	Increased	Q2				
Euro Area	European Central Bank - Survey of Professional Forecasters								
	Inflation Forecast - 1 Year Ahead	%	2.7	Increased	Q3				
Inflation Fo Inflation Fo Inflation Fo	Inflation Forecast - 2 Years Ahead	%	2.2	Unchanged	Q3				
	Inflation Forecast - Long-Term	%	2.1	Unchanged	Q3				
	Inflation Forecast - 1 Year Ahead (Core)	%	3.1	Increased	Q3				
	Inflation Forecast - 2 Years Ahead (Core)	%	2.3	Unchanged	Q3				
	Inflation Forecast - Long-Term (Core)	%	2.1	Increased	Q3				
Germany	ZEW - Financial Market Survey								
	Inflation Expectations - 6 Months Ahead	% Balance	-73.4	Increased	Aug				
Italy	Bank of Italy - Survey on Inflation and Growth Expectations								
Inflat	Inflation Expectations - 1 Year Ahead	%	5.8	Decreased	Q2				
	Inflation Expectations - 2 Years Ahead	%	5.0	Decreased	Q2				
U.K.	Confederation of British Industry - Distributive Trades Survey								
	Inflation Expectations - 1 Year Ahead	% Balance	2.3	Decreased	Q3				
France	Bank of France - Monthly Business Survey		-						
l l	Inflation Forecast - Finished Goods	% Balance	1.5	Decreased	Jul				
	Inflation Forecast - Services	% Balance	4.3	Decreased	Jul				
Japan	Bank of Japan - Tankan Survey	, Daiano	0	2 33.00000	301				
Japan	Inflation Expectations - 1 Year Ahead	%	3.0	Decreased	Q2				
lı	Inflation Expectations - 3 Years Ahead	%	3.8	Decreased	Q2 Q2				
	Inflation Expectations - 5 Years Ahead	%	4.4	Decreased	Q2 Q2				
	age of August 24th 2023	/0	4.4	Decreased	ل ۷۷				

^{*}Monthly average as of August 24th, 2023.

Source: Bank of Canada, Federal Reserve Board, European Central Bank, European Commission, Deutsche Bundesbank, ZEW, Bank of Italy, Bank of England, CBI, INSEE, Bank of France, Bank of Japan, TD Economics.



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