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Another Hot U.S. Core CPI Print Was Dampened By a Record Low Seasonal Adjustment Factor

- Core CPI inflation is reaccelerating...
- ...as the summertime soft patch fades away
- Core PCE tentatively tracking 0.2–0.3 pending producer prices
- Core CPI would have been even hotter if not for the lowest-ever September SA
- Output gap, nonfarm and core inflation seriously question why Powell up sized...
- ...instead of sticking to the logic he applied in July

US CPI / core CPI, m/m % change, September, SA:

Actual: 0.2 / 0.3

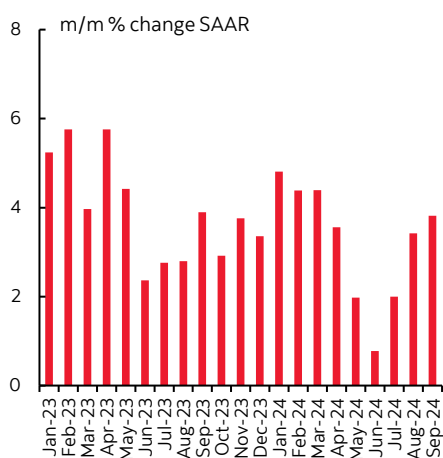
Scotia: 0.1 / 0.2

Consensus: 0.1 / 0.2

Prior: 0.2 / 0.3

Chart 1

US Core CPI Inflation Progress



Sources: Scotiabank Economics, BLS.

In case it wasn't already clear after the payrolls report, the takeaway from an upside surprise on core CPI is to forget about another fifty from the Fed. I'm not entirely sold on delivering further cuts in November and/or December either. In fact, data is emboldening the argument that cutting 50bps in non-emergency conditions within an economy that remains in excess aggregate demand was another policy misstep led by Chair Powell who is paying a price for abandoning his earlier cautions on data issues.

Core CPI was up by 0.31% m/m SA which is false precision to the second decimal point but indicates that the 0.3% reading wasn't a generous rounding up issue. At a seasonally adjusted and annualized rate, core CPI was up 3.8% in September after August's 3.4%.

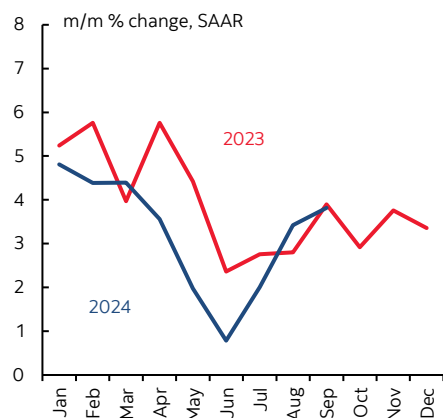
As chart 1 shows, we're back up toward readings earlier in the year as the summertime soft patch over May, June and July is in the rearview mirror. As chart 2 shows, this is following a similar pattern to what happened last year and I'll come back to the seasonals.

Core PCE at month's end is tentatively shaping up to be 0.2–0.3% m/m SA but tomorrow's producer prices will help to firm up the core PCE estimate.

Chart 3 shows that core services inflation remains hot, but this time it was joined by a rebound in core goods inflation (chart 4).

Chart 2

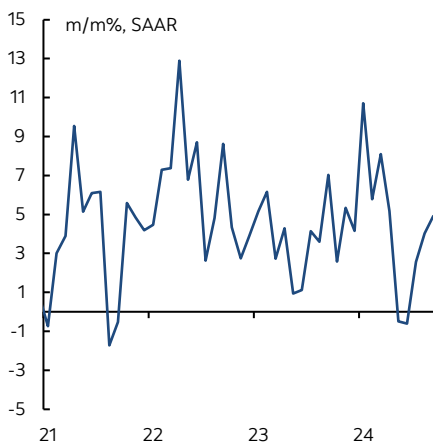
2024 is Looking Similar to 2023 for US Core CPI



Sources: Scotiabank Economics, BLS.

Chart 3

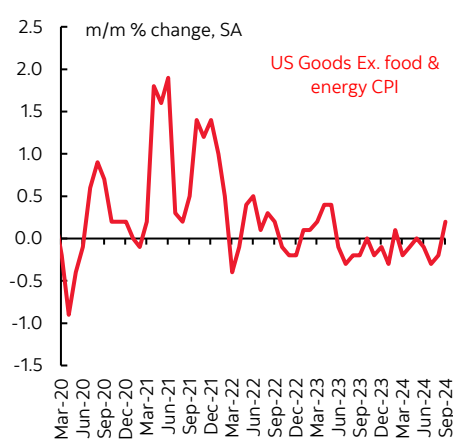
US CPI Core Services Ex-Housing



Sources: Scotiabank Economics, BLS.

Chart 4

US Goods Inflation



Sources: Scotiabank Economics, BLS.

In my opinion, Powell & Co overreacted to a handful of soft months of core inflation and softer payrolls—both of which had data quality issues (see payrolls reminder [here](#)). The US economy remains well into excess aggregate demand characterized by a positive output gap of over 1% of potential GDP. GDP growth continues to outpace the supply side as represented by estimates of potential GDP growth. The US economy hasn't even begun to tip toe toward creating disinflationary slack and then lagging out the effects on softening inflation.

And again, recall that the FOMC has tended in recent decades to only go big with the first cut during emergency conditions like the dot com and GFC periods. This is no emergency. If it is an emergency, then the emergency lies in not prematurely easing too much too fast.

LOWEST SEPTEMBER SEASONAL FACTOR ON RECORD

The seasonal adjustment factor for this September's core CPI reading was the lowest on record compared to like months of September in history (chart 5). All else equal, that actually restrained some of the m/m rise.

Charts 6–13 show the SA factors for each month this year and how they compare to history. A reasonable conclusion is that SA factors overstated core inflation early in the year, understated it later on, and now we're shaking that off.

An SA factor closer to historical norms would have driven core CPI up by 0.4% m/m SA. Chart 14 shows the various m/m SA core CPI readings for various SA factors compared to actual seasonally unadjusted and actual seasonally adjusted core inflation. In all cases, a more historically normal SA factor would have driven a little hotter core inflation.

REFRESHER ON SEASONAL ADJUSTMENTS

So what's going on with the SA factors in CPI? Two main things need to be brought to your attention.

1. When the BLS revises SA factors each February, they apply their X-13ARIMA-SEATS seasonal adjustment software and only revise for the prior five years of SA factors while treating all prior years as unchanged. That may mean they are not deriving new SA factors for all years each time they take in new data to the sample for purposes of calculating the revised SA factors. Here are their words from the CPI docs: "Seasonally adjusted indexes beyond the last 5 years of data are considered to be final and not subject to revision."

2. "Intervention analysis" is used for some series which means they override data with SA factor adjustments where their judgement thinks it is important to do so. In their words:

Charts 5-13

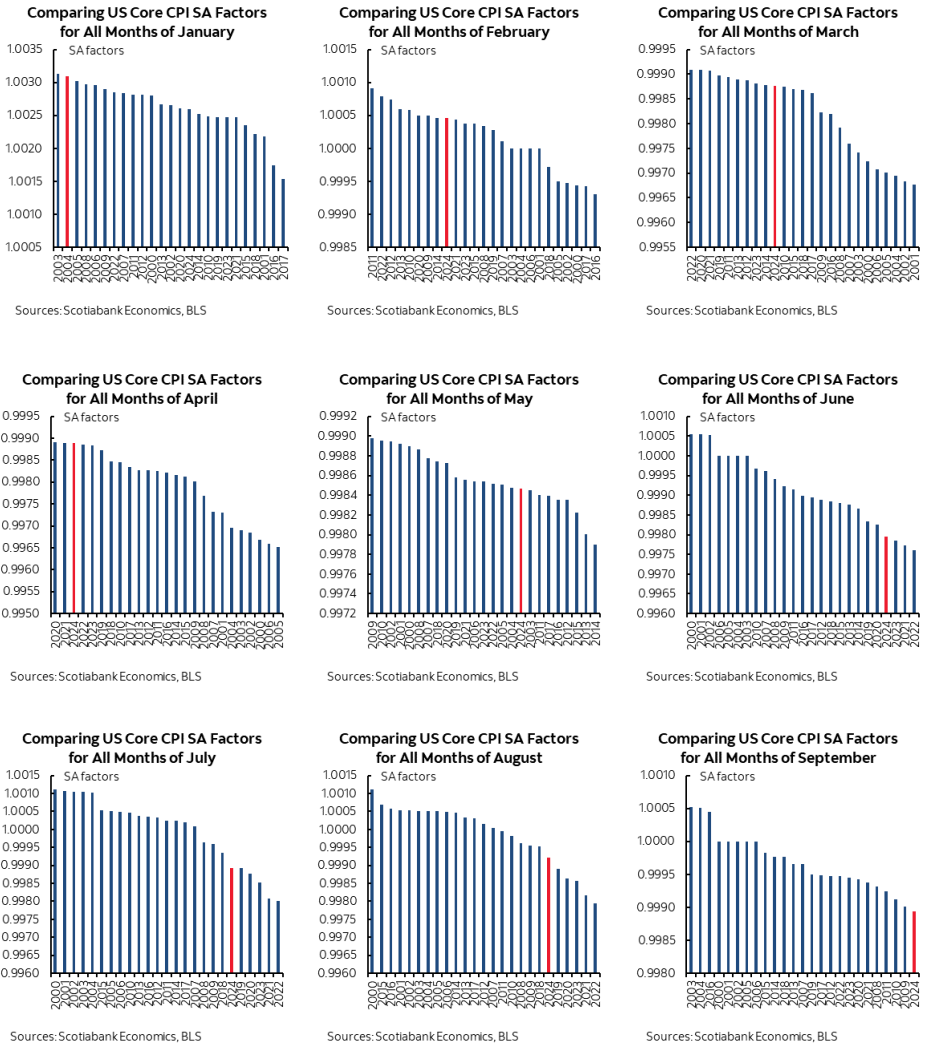
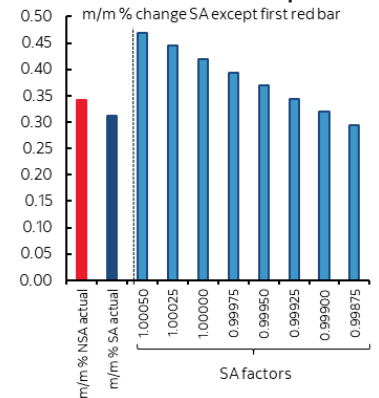


Chart 14

US Core CPI Scenarios for September



Sources: Scotiabank Economics.

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"The Bureau of Labor Statistics uses intervention analysis seasonal adjustment (IASA) for some CPI series. Sometimes extreme values or sharp movements can distort the underlying seasonal pattern of price change. Intervention analysis seasonal adjustment is a process by which the distortions caused by such unusual events are estimated and removed from the data prior to calculation of seasonal factors. The resulting seasonal factors, which more accurately represent the seasonal pattern, are then applied to the unadjusted data."

For instance, when they last revised SA factors for each month earlier this year, they applied intervention analysis to 46 of the price series. Categories that were affected included food and beverages, fuels, vehicles etc.

I'm sure they feel they are doing things on a best efforts basis, but when SA factors stick out compared to history, are selectively revised, and at times overridden for quite a few price series, you take the data across all months with a cup of salt. These issues only add to the need to be very careful with the statistics which broaches other topics like hedonic adjustments.

WHERE DID 'JULY POWELL' GO?

Amid such uncertainties about whether SA factors are distorting dual mandate readings and other data question marks, the FOMC should be more circumspect and careful with its assessments around progress toward their goals. Cyclical (eg. output gaps) and structural (eg. a nascent stage of revamping global supply chains and passing on the costs) arguments should have the Committee proceeding very carefully. Uncertainty around the magnitude of further fiscal largesse coming out of the US election is an added huge question mark for a country that is already looking like it's a slow motion fiscal train wreck. Fiscal easing complicates prospects for monetary easing while risks to trade policy only aggravate the situation.

These same cautions apply to markets, market participants and all forecasters.

This is why I remain concerned about what happened to Powell circa the July FOMC presser. He went awol afterward. At the July presser he said he was aware of SA issues and that's why he was looking at 12 months of data to smooth through it. Here is his direct quote at the time:

"If it's just seasonality that drove higher inflation earlier then that implies inflation would be stronger later in the year with the opposite seasonal adjustment problems. This is why we look at 12 months."

Powell should have stuck to that line of reasoning in July because here we go and core inflation is back on an upswing again. Abandoning that logic by cut 50bps because of a trivial handful of months of soft core inflation has me thinking that maybe the air in the Teton mountains was a factor.

DETAILS

Housing-derived inflation was cooler this month and has been trending lower (charts 15, 16). As previously noted, this is being offset by still hot core services prices (ex-housing and ex-energy services).

Clothing price increases were quite strong as seasonal lines changed over (chart 17).

Vehicle price inflation remains soft (charts 18). Auto insurance remains hot (chart 19). Gasoline prices were the estimated drag (chart 20).

Food prices were warmed than expected (chart 21) but made a tiny contribution in weighted terms.

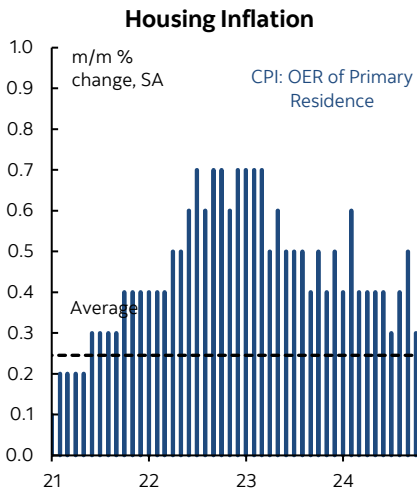
Airfare prices are volatile but this was another pretty hot month (chart 22). Expect wage bills to continue to be passed on in future.

Charts 23 and 24 provide a break down of the CPI basket in y/y terms both unweighted and as weighted contributions to the total change in CPI.

Charts 25 and 26 do the same thing for m/m price changes in the overall CPI basket.

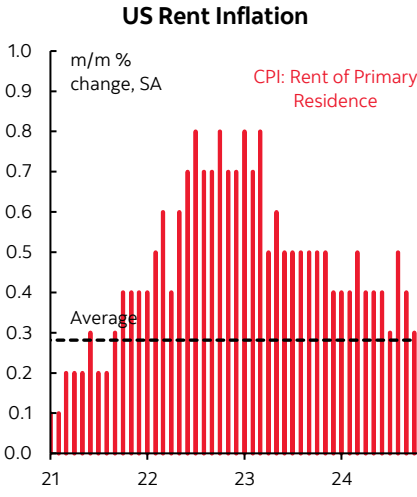
Please also see the fuller table at the back of this note that breaks down greater detail along with other measures like z-scores and micro charts.

Chart 15



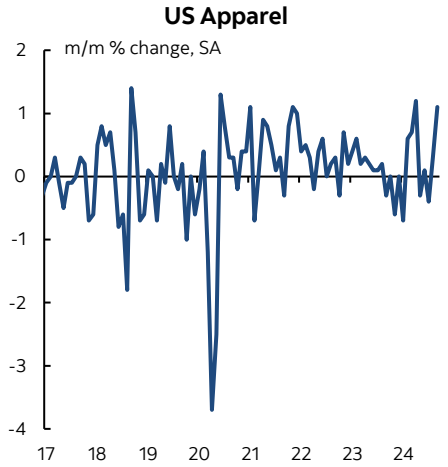
Sources: Scotiabank Economics, BLS.

Chart 16



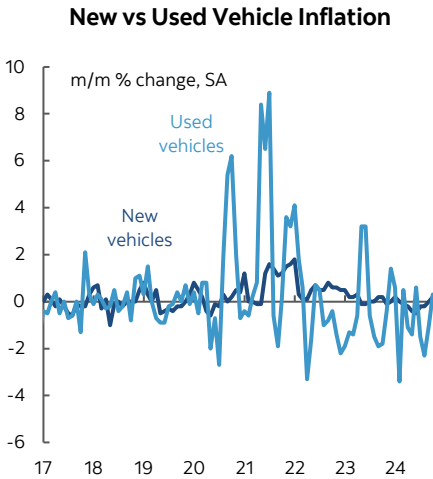
Sources: Scotiabank Economics, BLS.

Chart 17



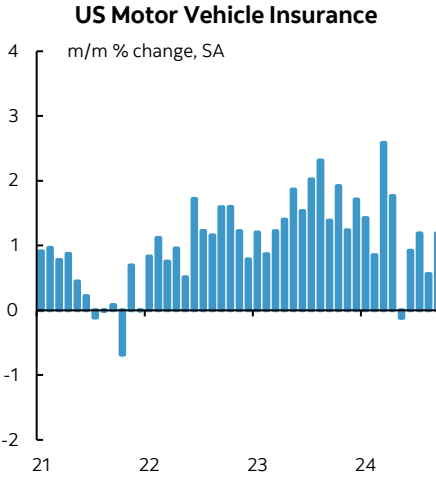
Sources: Scotiabank Economics, BLS.

Chart 18



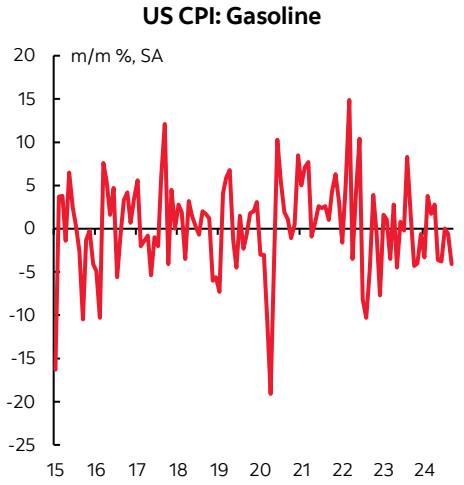
Sources: Scotiabank Economics, BLS.

Chart 19



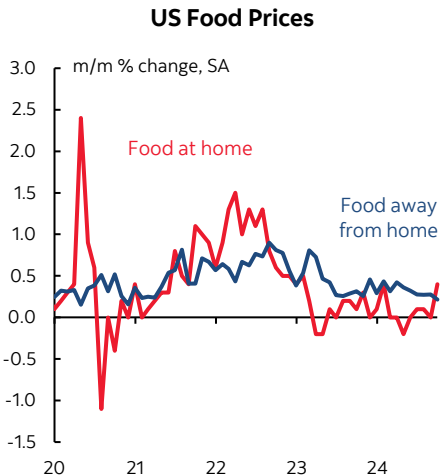
Sources: Scotiabank Economics, BLS.

Chart 20



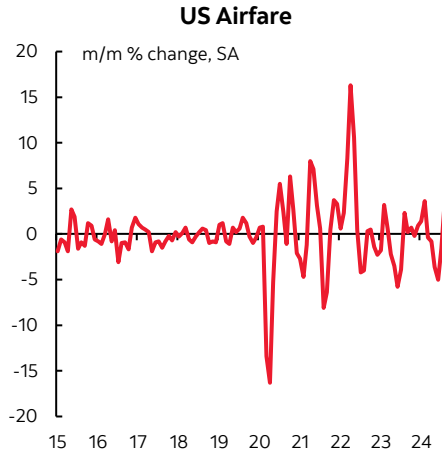
Sources: Scotiabank Economics, BLS.

Chart 21



Sources: Scotiabank Economics, BLS, Haver.

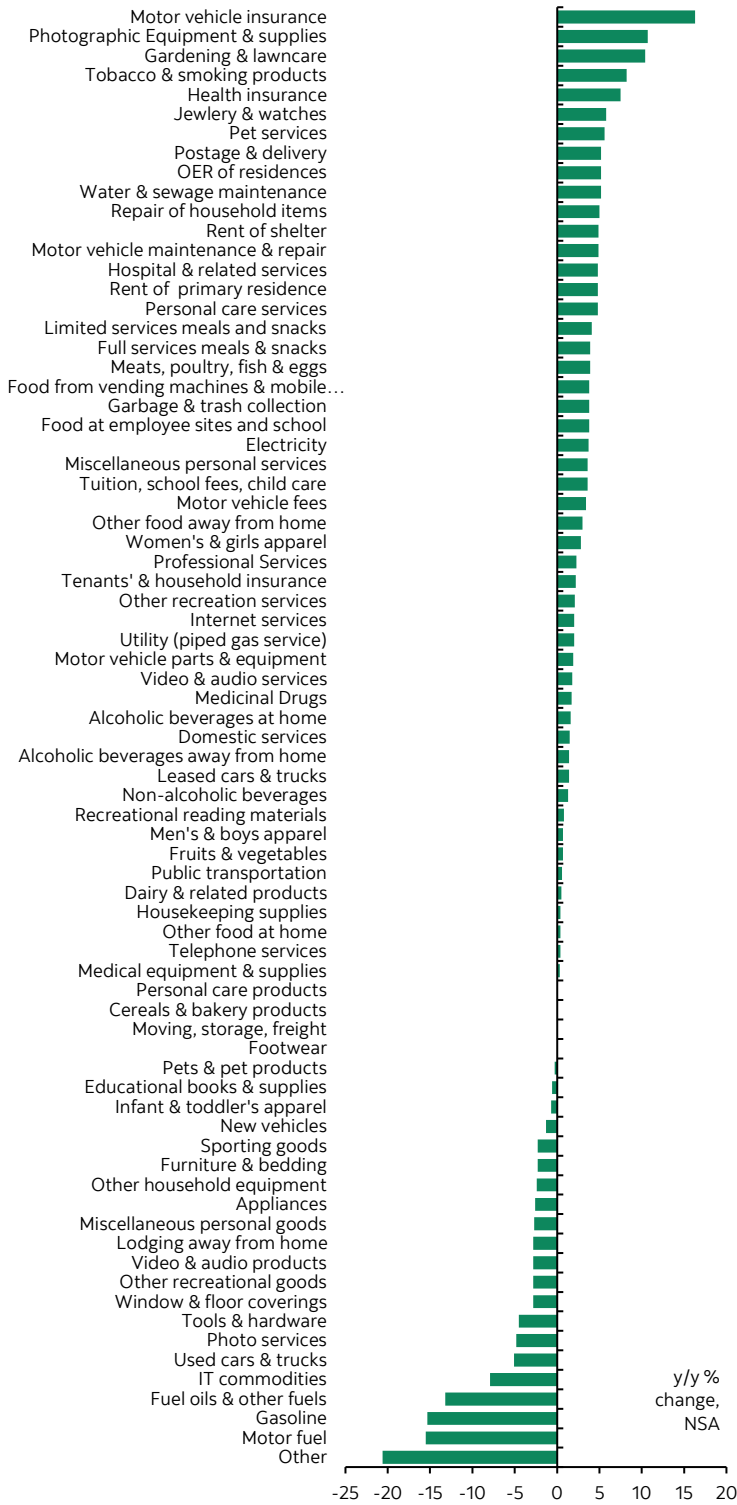
Chart 22



Sources: Scotiabank Economics, BLS.

Chart 23

September 12-Month Changes in US Headline CPI Categories



Sources: Scotiabank Economics, BLS.

Chart 24

September Weighted Contributions to the 12-Month Change in US Headline CPI



Source: Scotiabank Economics, BLS.

Chart 25

September Changes in US Headline CPI Categories



Sources: Scotiabank Economics, US BLS.

Chart 26

September Weighted Contributions to Monthly Change in US Headline CPI



Sources: Scotiabank Economics, US BLS.

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US INFLATION COMPONENT BREAKDOWN				Weighted Contributions (ppts)*			5-Year Pre-Pandemic			10-Year Pre-Pandemic			
	y/y % change	10-year trend	Pandemic trend (Jan 2019–Present)	m/m % change	Weights (%)	y/y	m/m	2015–2019 avg. y/y	Std. Dev.	Z-Score	2011–2019 avg. y/y	Std. Dev.	Z-Score
Food	2.3			0.4	13.43	0.31	0.05	1.3	0.8	1.4	1.7	1.1	0.5
Food, home	1.3			0.4	8.05	0.11	0.03	0.2	1.1	1.0	1.2	1.9	0.1
Cereals & bakery products	0.1			0.3	1.04	0.00	0.00	0.4	0.9	-0.4	0.9	1.7	-0.5
Meats, poultry, fish & eggs	3.9			0.8	1.73	0.07	0.01	-0.2	3.2	1.3	2.1	3.9	0.5
Dairy & related products	0.5			0.1	0.73	0.00	0.00	-0.6	1.6	0.7	1.1	3.1	-0.2
Fruits & vegetables	0.7			0.9	1.37	0.01	0.01	0.4	1.7	0.1	1.0	2.0	-0.1
Non-alcoholic beverages	1.3			0.0	1.02	0.01	0.00	0.6	1.0	0.7	0.5	1.6	0.5
Other food at home	0.4			0.2	2.16	0.01	0.00	0.5	0.6	-0.1	1.0	1.6	-0.4
Food, away	3.9			0.3	5.38	0.19	0.02	2.7	0.3	4.0	2.5	0.5	2.7
Full services meals & snacks	3.9			0.4	2.47	0.09	0.01	2.6	0.4	3.6	2.4	0.5	3.0
Limited services meals and snacks	4.1			0.2	2.52	0.09	0.01	2.8	0.3	4.0	2.5	0.7	2.3
Food at employee sites and school	3.8			1.7	0.08	0.00	0.00	2.8	2.4	0.4	2.8	1.9	0.5
Food from vending machines & mobile vendors	3.8			0.2	0.05	0.00	0.00	3.1	1.0	0.7	2.5	1.3	1.0
Other food away from home	3.0			0.5	0.26	0.01	0.00	2.5	1.3	0.4	2.3	1.0	0.7
Energy	-6.8			-1.9	6.80	-0.49	-0.13	-1.9	10.0	-0.5	1.6	9.6	-0.9
Energy comm.	-15.3			-4.0	3.68	-0.60	-0.15	-2.8	17.0	-0.7	3.0	17.1	-1.1
Fuel oils & other fuels	-13.2			-3.1	0.15	-0.03	0.00	-2.3	15.8	-0.7	2.7	14.4	-1.1
Motor fuel	-15.5			-4.0	3.53	-0.58	-0.14	-2.8	17.1	-0.7	3.0	17.3	-1.1
<u>Gasoline</u>	<u>-15.3</u>			<u>-4.1</u>	<u>3.43</u>	<u>-0.56</u>	<u>-0.14</u>	<u>-2.8</u>	<u>17.1</u>	<u>-0.7</u>	<u>3.0</u>	<u>17.4</u>	<u>-1.1</u>
<u>Other</u>	<u>-20.6</u>			<u>-3.4</u>	<u>0.10</u>	<u>-0.02</u>	<u>0.00</u>	<u>-2.3</u>	<u>19.5</u>	<u>-0.9</u>	<u>3.6</u>	<u>17.9</u>	<u>-1.4</u>
Energy serv.	3.4			0.7	3.12	0.11	0.02	0.0	2.4	1.4	0.5	2.7	1.1
Electricity	3.7			0.7	2.47	0.09	0.02	0.5	1.5	2.2	1.0	1.7	1.6
Utility (piped gas service)	2.0			0.7	0.65	0.01	0.00	-1.4	7.5	0.5	-0.9	7.3	0.4
All items less food and energy	3.3			0.3	79.77	2.62	0.24	2.0	0.2	5.6	1.8	0.4	3.6
Commodities less food and energy	-1.0			0.2	18.44	-0.21	0.04	-0.3	0.4	-1.7	0.2	0.9	-1.3
Household furnishings	-2.2			0.0	3.95	-0.09	0.00	-0.8	1.2	-1.1	-0.9	1.2	-1.1
Window & floor coverings	-2.8			0.6	0.28	-0.01	0.00	-2.3	1.7	-0.3	-2.8	1.8	0.0
Furniture & bedding	-2.3			1.7	0.92	-0.03	0.02	-0.3	1.7	-1.2	-0.9	2.1	-0.7
Appliances	-2.6			-0.6	0.22	-0.01	0.00	-1.2	3.1	-0.4	-1.6	3.0	-0.3
Other household equipment	-2.4			0.2	0.51	-0.01	0.00	-3.5	1.8	0.6	-3.7	1.5	0.9
Tools & hardware	-4.5			-0.8	0.70	-0.05	-0.01	-0.1	1.0	-4.3	-0.3	1.2	-3.4
Housekeeping supplies	0.4			-0.3	0.79	0.00	0.00	0.3	1.2	0.1	0.4	1.3	0.0

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US INFLATION COMPONENT BREAKDOWN				Weighted Contributions (ppts)*			5-Year Pre-Pandemic			10-Year Pre-Pandemic			
US INFLATION COMPONENT BREAKDOWN	y/y % change	10-year trend	Pandemic trend (Jan 2019–Present)	m/m % change	Weights (%)	y/y	m/m	2015–2019 avg. y/y	Std. Dev.	Z-Score	2011–2019 avg. y/y	Std. Dev.	Z-Score
Apparel	1.8			1.1	2.56	0.05	0.03	-0.5	1.0	2.4	0.3	1.7	0.8
Men's & boys apparel	0.7			0.9	0.65	0.00	0.01	-0.3	1.5	0.7	0.5	2.3	0.1
Women's & girls apparel	2.8			0.5	1.04	0.03	0.01	-1.3	1.9	2.2	-0.1	2.5	1.2
Footwear	0.0			1.2	0.53	0.00	0.01	0.2	1.3	-0.1	0.8	1.7	-0.5
Infant & toddler's apparel	-0.7			-0.8	0.10	0.00	0.00	0.4	3.8	-0.3	0.5	3.6	-0.3
Jewelry & watches	5.8			5.2	0.24	0.01	0.01	1.0	3.4	1.4	1.5	3.8	1.2
Trans. less fuel	-2.3			0.3	5.98	-0.17	0.02	-0.3	0.9	-2.3	0.4	1.5	-1.8
New vehicles	-1.3			0.2	3.58	-0.06	0.01	0.1	0.7	-2.1	0.8	1.2	-1.7
Used cars & trucks	-5.1			0.3	1.87	-0.13	0.01	-1.3	2.1	-1.8	1.1	4.8	-1.3
Motor vehicle parts & equipment	1.9			0.9	0.46	0.01	0.00	0.2	1.1	1.6	0.9	2.2	0.5
Medical comm.	1.6			-0.7	1.47	0.02	-0.01	2.1	1.7	-0.3	2.3	1.5	-0.5
Medicinal Drugs	1.7			-0.8	1.36	0.02	-0.01	2.2	1.8	-0.3	2.3	1.6	-0.4
Medical equipment & supplies	0.3			0.2	0.12	0.00	0.00	0.4	1.2	0.0	0.3	1.2	0.0
Recreation comm.	-1.5			-0.3	1.99	-0.03	-0.01	-2.6	1.1	1.0	-2.3	0.9	0.9
Video & audio products	-2.8			0.1	0.28	-0.01	0.00	-10.1	2.4	3.0	-9.2	2.2	2.9
Pets & pet products	-0.3			-0.4	0.61	0.00	0.00	0.4	1.5	-0.5	0.5	1.5	-0.5
Sporting goods	-2.3			-0.3	0.63	-0.02	0.00	-0.7	1.5	-1.0	-0.6	1.2	-1.4
Photographic Equipment & supplies	10.7			-1.0	0.03	0.00	0.00	-1.7	4.6	2.7	-3.0	4.0	3.4
Recreational reading materials	0.8			-0.8	0.10	0.00	0.00	1.6	1.9	-0.4	1.5	1.8	-0.4
Other recreational goods	-2.8			-0.1	0.34	-0.01	0.00	-6.5	1.3	2.8	-5.2	1.7	1.4
Educ. & communication comm.	-6.9			-0.7	0.83	-0.06	-0.01	-3.7	1.0	-3.1	-3.5	0.9	-3.8
Educational books & supplies	-0.6			0.7	0.08	0.00	0.00	2.2	3.0	-0.9	3.6	2.7	-1.5
IT commodities	-7.9			-1.2	0.75	-0.06	-0.01	-6.1	1.9	-1.0	-6.8	1.8	-0.6
Alcohol	1.5			0.1	0.84	0.01	0.00	1.3	0.3	0.7	1.4	0.4	0.4
Alcoholic beverages at home	1.6			0.1	0.47	0.01	0.00	0.8	0.6	1.3	0.8	0.5	1.6
Alcoholic beverages away from home	1.4			0.1	0.37	0.00	0.00	1.9	0.5	-1.0	2.2	0.7	-1.2
Other goods	3.0			0.3	1.37	0.04	0.00	1.4	0.9	1.9	1.4	0.7	2.2
Tobacco & smoking products	8.2			0.0	0.56	0.04	0.00	4.3	1.5	2.5	4.4	3.8	1.0
Personal care products	0.1			0.4	0.66	0.00	0.00	-0.3	0.6	0.7	-0.1	0.8	0.3
Miscellaneous personal goods	-2.7			0.6	0.16	0.00	0.00	-2.4	3.1	-0.1	-1.7	2.4	-0.4

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Sep 2024				Weighted Contributions (ppts)*			5-Year Pre-Pandemic			10-Year Pre-Pandemic			
US INFLATION COMPONENT BREAKDOWN	y/y % change	10-year trend	Pandemic trend (Jan 2019–Present)	m/m % change	Weights (%)	y/y	m/m	2015–2019 avg. y/y	Std. Dev.	Z-Score	2011–2019 avg. y/y	Std. Dev.	Z-Score
Services less energy services	4.7			0.4	61.33	2.75	0.25	2.8	0.2	8.1	2.4	0.6	3.6
Shelter	4.9			0.2	36.52	1.71	0.07	3.3	0.2	9.6	2.5	1.2	2.1
Rent of shelter	4.9			0.2	36.11	1.69	0.07	3.3	0.2	8.6	2.5	1.2	2.0
<i>Rent of primary residence</i>	<i>4.8</i>			<i>0.3</i>	<i>7.69</i>	<i>0.37</i>	<i>0.02</i>	<i>3.7</i>	<i>0.1</i>	<i>8.3</i>	<i>2.9</i>	<i>1.1</i>	<i>1.7</i>
<i>Lodging away from home</i>	<i>-2.8</i>			<i>-1.9</i>	<i>1.50</i>	<i>-0.03</i>	<i>-0.03</i>	<i>2.3</i>	<i>2.0</i>	<i>-2.5</i>	<i>2.2</i>	<i>2.2</i>	<i>-2.3</i>
<i>OER of residences</i>	<i>5.2</i>			<i>0.3</i>	<i>26.94</i>	<i>1.34</i>	<i>0.08</i>	<i>3.2</i>	<i>0.2</i>	<i>9.7</i>	<i>2.4</i>	<i>1.1</i>	<i>2.6</i>
Tenants' & household insurance	2.2			-0.5	0.41	0.01	0.00	1.4	1.2	0.7	2.3	1.5	0.0
Water, sewer, trash collection	4.8			0.7	1.09	0.05	0.01	3.6	0.6	2.1	4.3	1.0	0.5
Water & sewage maintenance	5.2			0.8	0.77	0.04	0.01	4.0	0.8	1.5	4.8	1.4	0.3
Garbage & trash collection	3.8			0.6	0.33	0.01	0.00	2.5	1.5	0.9	2.5	1.1	1.2
Household ops.	6.9			-1.2	0.99	0.00	-0.01	3.8	1.3	2.5	2.6	1.6	2.6
Domestic services	1.5			-2.1	0.32	0.00	-0.01	2.0	1.1	-0.4	1.6	1.0	-0.1
Gardening & lawn care	10.4			2.1	0.35	0.03	0.01	4.3	2.7	2.3	2.8	2.6	2.9
Moving, storage, freight	0.0			-0.1	0.15	0.00	0.00	5.6	3.9	-1.4	3.3	3.9	-0.8
Repair of household items	5.0			1.7	0.14	0.00	0.00	4.8	2.1	0.1	4.2	2.0	0.4
Medical serv.	3.6			0.7	6.48	0.23	0.05	2.9	1.0	0.7	3.0	0.8	0.7
Professional Services	2.3			0.6	3.59	0.08	0.02	1.5	0.9	0.8	1.8	0.8	0.6
Hospital & related services	4.8			0.3	2.31	0.11	0.01	3.8	1.1	0.9	4.5	1.3	0.2
Health insurance	7.5			0.4	0.59	0.04	0.00	5.0	5.8	0.4	3.6	6.0	0.6
Transportation serv.	8.5			1.4	6.46	0.51	0.09	2.6	1.1	5.3	2.6	1.0	6.1
Leased cars & trucks	1.4			-0.2	0.50	0.01	0.00	0.5	3.0	0.3	-1.6	3.2	0.9
Motor vehicle maintenance & repair	4.9			1.0	1.25	0.06	0.01	2.2	0.7	3.9	2.0	0.6	5.1
Motor vehicle insurance	16.3			1.2	2.98	0.45	0.04	5.5	2.6	4.1	4.8	2.0	5.6
Motor vehicle fees	3.4			0.9	0.54	0.02	0.00	1.8	0.7	2.3	2.2	1.9	0.6
Public transportation	0.6			2.4	1.05	0.00	0.03	-1.2	1.5	1.2	1.0	3.6	-0.1
Recreation serv.	2.2			-0.5	3.24	0.07	-0.02	2.6	0.7	-0.6	2.3	0.7	-0.2
Video & audio services	1.8			0.0	0.90	0.02	0.00	2.7	1.4	-0.6	2.6	1.3	-0.6
Pet services	5.6			-0.3	0.44	0.03	0.00	3.1	0.8	3.3	3.3	0.9	2.5
Photo services	-4.8			-0.5	0.05	0.00	0.00	-0.2	2.0	-2.3	0.8	1.8	-3.1
Other recreation services	2.1			-0.7	1.85	0.03	-0.01	2.4	0.6	-0.5	1.7	1.1	0.3
Educ. & communication serv.	2.3			0.1	4.99	0.11	0.00	0.4	1.3	1.4	1.1	1.3	1.0
Tuition, school fees, child care	3.6			0.7	2.38	0.08	0.02	2.8	0.6	1.4	3.3	0.8	0.3
Postage & delivery	5.2			-0.3	0.07	0.00	0.00	2.3	2.0	1.5	3.3	2.0	1.0
Telephone services	0.4			0.1	1.54	0.01	0.00	-2.4	3.0	0.9	-1.3	2.4	0.7
Internet services	2.0			-1.3	0.99	0.02	-0.01	-0.2	1.5	1.5	0.1	1.3	1.4
Other personal serv.	4.1			0.1	1.53	0.06	0.00	2.7	0.7	2.1	2.4	0.6	2.7
Personal care services	4.8			0.1	0.63	0.03	0.00	2.3	0.7	3.6	1.8	0.8	3.6
Miscellaneous personal services	3.6			0.2	0.90	0.03	0.00	2.9	0.9	0.8	2.7	0.7	1.2

*Number may not add due to rounding
Sources: Scotiabank Economics, BLS.

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