# Consumer prices: The adjusted price index and basket weights

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Canadians have been spending a lot more time at home and spending a lot more money on their homes during the COVID-19 pandemic and a lot less on travel and other items. Statistics Canada has adapted to these changes in spending habits by developing the adjusted price index in partnership with the Bank of Canada. The adjusted price index takes into account these sudden shifts in spending patterns when weighing the components that make up the Consumer Price Index (CPI).

#### Consumer price inflation during the pandemic

The COVID-19 pandemic led to economic disruptions that affected financial and labour markets across the globe. Very quickly, Canadians began spending differently as they adapted to staying home, travelling less, and buying more of certain items and less of others. Some businesses reopened over the summer as physical distancing measures were eased, starting with the most essential services. Although some consumer spending patterns began returning to the way they were before the pandemic, many remained altered over the winter.

Shifts in household purchasing patterns have implications for the basket weights used to measure consumer price inflation. A fixed-basket price index, such as the official CPI, can only reflect such changes when basket weights are updated. The official CPI basket weights will be updated with the release of the June CPI, on July 28, 2021.

In partnership with the Bank of Canada, Statistics Canada obtained temporary access to aggregate data on recent expenditures representing the majority of consumer goods and services. These data reflect the altered consumption patterns during the pandemic and were used, along with other available alternative data sources, to derive the monthly adjusted basket weights used to calculate the adjusted price index. This adjusted series provides an alternative estimate of consumer price inflation during the pandemic. With this release, the adjusted price indexes for the period from December 2020 to February 2021 are published.

### Canadians direct more of their spending to shelter and less to clothing and footwear

The monthly adjusted basket weight for the shelter component edged higher in November (reaching 28.81%), December (reaching 29.35%) and January (reaching 29.63%) compared with October 2020, as consumers directed a greater share of their spending to the costs associated with homeownership. Growth in new home prices accelerated in January; it posted its fastest year-over-year pace since March 2008. The adjusted basket weight for the shelter component peaked at 35.96% in April 2020 and has since been approaching the official CPI (27.36%), remaining a few percentage points higher.

Although the adjusted basket weight for the transportation component fell in November (16.40%) compared with October (17.21%), it rebounded in December (17.27%) and January (17.61%). Canadians directed a greater share of household expenditures to gasoline in December and January, as prices rose at the pump. Over the past year, the adjusted basket weight for the transportation component fell to a low of 12.02% at the onset of the pandemic in April 2020, recovering to 17.61% in February 2021, a few percentage points lower than the official CPI (19.95%).

The adjusted basket weight for clothing and footwear was relatively stable between June and December, at an average of 4.83%. This share fell to 3.63% in January, comparable to the share at the onset of the pandemic, coinciding with physical distancing measures that were extended or reintroduced in some regions during the winter.

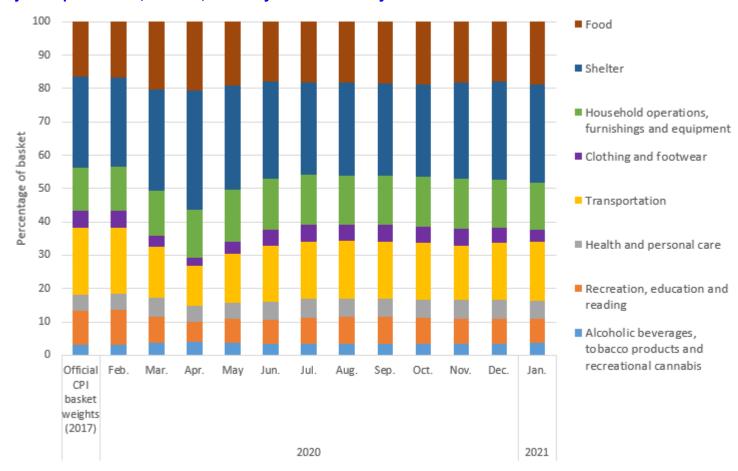
The share of consumer spending on recreation, education and reading remained lower than the official CPI basket weight. During the pandemic, this share dropped to 5.96% in April before picking up in the summer months; however, it remained about 3 percentage points lower than the official CPI basket weight. Canadians continued to direct a smaller proportion of their spending to travel services, as many international borders remained closed and non-essential travel was discouraged.





Although the adjusted basket weight for food jumped 4 percentage points compared with the official CPI at the onset of the pandemic, the gap fell to about 2 percentage points as consumers began spending more on other goods and services, resulting in a lower share of spending directed to food.

Infographic 1 – Basket weights of major components in the official Consumer Price Index and the adjusted price index, Canada, February 2020 to January 2021



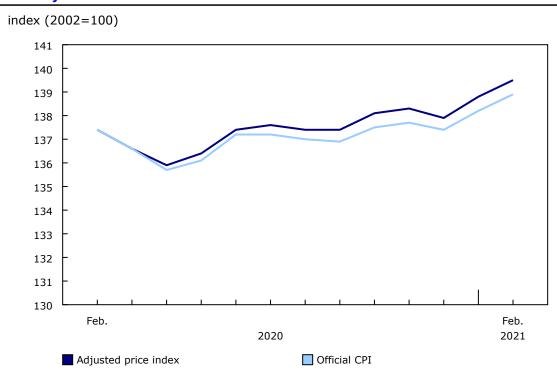
Source: Consumer Prices program.

## Gap between the adjusted price index and the official CPI remains steady since September

Although the gap between the adjusted price index and the official CPI widened slightly in January, it narrowed in February and has remained relatively steady since September.

The adjusted price index fell in December (-0.3%) compared with November, but rebounded in January (+0.7%) and February (+0.5%).

Chart 1
Official Consumer Price Index (CPI) and adjusted price index, Canada, February 2020 to February 2021



Source(s): Consumer Prices program.

In December, air transportation prices contributed the most to the difference between the one-month change in the official CPI and in the adjusted price index, as seasonal price increases took on less importance in the adjusted price index. As a result, the adjusted price index declined more than the official CPI for the first time in December. Similarly, a seasonal decline in airfare prices in January had a larger impact on the official CPI, contributing to a larger gap between the adjusted price index and the official CPI. Higher food prices in February took on more importance in the adjusted price index because consumers have increased the proportion of their spending on food compared with at the onset of the pandemic.

#### Note to readers

The adjusted price index was first released in July 2020, as a temporary and complementary measure to reflect shifting consumer expenditures during the pandemic. This latest release includes the final months of the 12-month period covered by the adjusted price index: December 2020, January 2021 and February 2021. The official Consumer Price Index (CPI) basket weights will be updated with the release of the June CPI, on July 28, 2021. As a result, this will be the final planned publication of the adjusted price index prior to the basket update.

Over the last year, much has been learned from the experimental work to calculate an adjusted price index, including the impact of changing weights and changing index methods on measures of price change. Some of this information is summarized below and will help inform Statistics Canada's approach for future basket updates.

The adjusted price index is based on a monthly chained Laspeyres price index using, for the lowest-level products in the aggregation structure, Canada-level estimates of monthly consumer expenditures from the previous month and monthly price changes from the CPI, which are then chained together across months. This index method was chosen to better reflect consumption patterns during the pandemic while at the same time allowing for comparability with the official CPI, which is a Laspeyres-type price index with fixed 2017 quantities.

In the 12 month-to-month comparisons for the period covered by the adjusted price index (March 2020 to February 2021), the Laspeyres price index calculated with monthly consumer expenditures was higher than the official CPI. Although most of the difference is attributable to the monthly adjustment of the weights in the adjusted price index, some of the difference may be explained by the index formulations. The adjusted price index may be subject to chain drift, which occurs when a chained price index shows price change over a sequence of periods even if prices and quantities return to their initial level.

Statistics Canada will continue to monitor evolving consumer behaviours and expenditures in preparation for the CPI basket update.

Table 1
Adjusted consumer expenditure basket weights for the months of February 2020 to January 2021

	Official Consumer Price Index basket weights December 2018 (basket link month)	Adjusted consumer expenditure basket weights								
		February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020
		%								
Food Shelter Household operations, furnishings and	16.48 27.36	16.70 26.66	20.36 30.43	20.46 35.96	19.21 31.03	17.93 29.12	18.18 27.61	18.08 27.97	18.38 27.74	18.89 27.53
equipment Clothing and footwear Transportation	12.80 5.17 19.95	13.29 5.19 19.63	13.43 3.33 15.26	14.41 2.26 12.02	15.79 3.49 14.70	15.32 4.81 16.87	15.00 5.06 17.37	14.82 4.87 17.41	14.84 4.92 17.18	14.98 4.90 17.21
Health and personal care Recreation, education and	4.79	4.98	5.63	4.93	5.01	5.27	5.43	5.37	5.47	5.25
reading Alcoholic beverages, tobacco products and	10.24	10.59	8.01	5.96	6.95	7.34	7.95	8.17	7.97	7.94
recreational cannabis	3.21	2.96	3.56	4.00	3.82	3.34	3.39	3.30	3.51	3.28
		Adjusted consumer expenditure basket weights								
					November 2020		December 2020			January 2021
							%			
Food Shelter Household operations, furnishings and equipment				18.30 28.81 15.01		2	17.85 29.35 14.64		18.66 29.63 14.04	
Clothing and footwear Transportation Health and personal care Recreation, education and reading					4.91 16.40 5.52 7.73			4.34 17.27 5.59 7.69		3.63 17.61 5.64 7.15

	Adjusted consumer expenditure basket weights				
	November 2020	December 2020	January 2021		
Alcoholic beverages, tobacco products and recreational cannabis	3.32	3.26	3.64		

Source(s): Consumer Prices program.

Table 2
One-month and 12-month change in the official Consumer Price Index (CPI) and the adjusted price index

	1-month o	1-month change					
	Official CPI	Adjusted price index	Official CPI	Adjusted price index			
		%					
March 2020	-0.6	-0.6	0.9	0.9			
April 2020	-0.7	-0.5	-0.2	-0.1			
May 2020	0.3	0.4	-0.4	-0.1			
June 2020	0.8	0.7	0.7	0.8			
July 2020	0.0	0.1	0.1	0.4			
August 2020	-0.1	-0.1	0.1	0.4			
September 2020	-0.1	0.0	0.5	0.9			
October 2020	0.4	0.5	0.7	1.1			
November 2020	0.1	0.1	1.0	1.4			
December 2020	-0.2	-0.3	0.7	1.1			
January 2021	0.6	0.7	1.0	1.5			
February 2021	0.5	0.5	1.1	1.5			

Source(s): Consumer Prices program.

Available tables: 18-10-0263-01 and 18-10-0264-01.

Definitions, data sources and methods: survey number 2301.

The analytical paper Consumer expenditures during COVID-19: An exploratory analysis of the effects of changing consumption patterns on consumer price indexes and the *Daily* article Adjusting the Consumer Price Index to the new spending realities during the pandemic provide detailed information on the data and methods used to calculate the adjusted price index series, as well as on the adjusted weights reflecting consumer spending. The data table for the adjusted price index now includes data for December 2020, January 2021 and February 2021, as well as revised data for prior months. The data table for the monthly adjusted consumer expenditure basket weights now includes data for November 2020, December 2020 and January 2021, as well as revised data for prior months.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; **STATCAN.infostats-infostats.STATCAN@canada.ca**) or Media Relations (613-951-4636; **STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca**).