

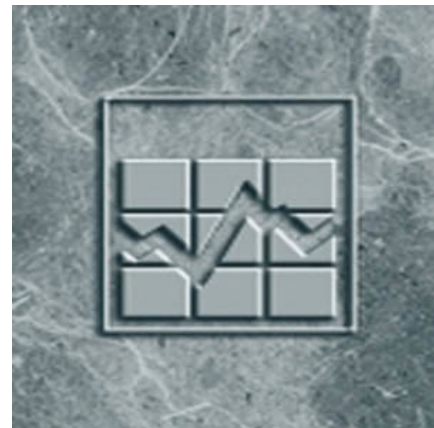
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Modelled Market Basket Measure poverty rates for 2022 and 2023

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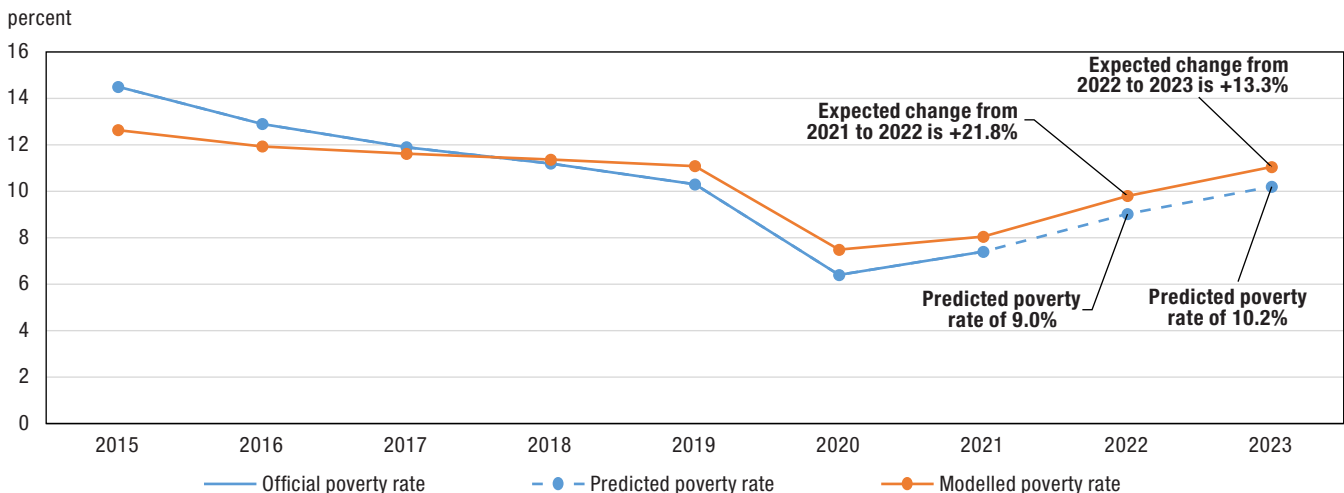
by **Burton Gustajtis** and **Andrew Heisz**

The Market Basket Measure (MBM) establishes poverty thresholds based on the cost of a basket of food, clothing, shelter, transportation and other items for a family of four that reflects a modest, basic standard of living. A family with a disposable income below the appropriate MBM threshold for the size of the family and the region where they live is deemed to be living in poverty.

Last year, Statistics Canada published, for the first time, estimates for the poverty rate using a simple model which predicts the poverty rate using information on recent trends in inflation and economic growth (i.e., gross domestic product) in order to provide an indication on the likely direction of the poverty rate. All things being equal, poverty rates tend to fall as the incomes of lower-income Canadians grow, and they rise as inflation increases. This analysis updates this procedure for the 2022 and 2023 reference years.

Using the regression model defined in [Market Basket Measure poverty thresholds and provisional poverty trends for 2021 and 2022](#) and updating it with the most recently available data from the distributions of household economic accounts (DHEA),¹ the Canadian Income Survey (CIS)² and the latest Consumer Price Index (CPI),³ we could expect Canada’s overall poverty rate to grow by 21.8% from 2021 to 2022, followed by an additional 13.3% increase from 2022 to 2023 (Chart 1). These growth rates would imply a predicted overall poverty rate of 9.0% in 2022 and 10.2% in 2023. Canada’s official poverty rate in 2021 was estimated at 7.4% using data from the CIS.

Chart 1
Official and modelled poverty rates, Canada, 2015 to 2023



Notes: The official poverty rate comes from Table 11-10-0135-01. The modelled poverty rate is based on the authors’ calculations using data from the distributions of household economic accounts.

Sources: Statistics Canada, Table 11-10-0135-01. Low income statistics by age, sex and economic family type; and authors’ calculations.

1. Quarterly DHEA data were taken from [Distributions of household economic accounts, income, consumption and saving, by characteristic, quarterly](#). Annual DHEA data were taken from [Distributions of household economic accounts, income, consumption and saving, by characteristic, annual](#). Accessed on November 19, 2023.
 2. Official poverty rate data were taken from [Low income statistics by age, sex and economic family type](#).
 3. Annual CPI data were taken from [Consumer Price Index, annual average, not seasonally adjusted](#). Monthly CPI data were sourced from [Consumer Price Index, monthly, seasonally adjusted](#).

It is important to underscore that these predictions are based on a model, and the official poverty rates could differ depending on the actual data or if another model had been chosen.⁴

All things being equal, poverty rates tend to fall as the incomes of lower-income Canadians grow, and they rise as inflation increases. Modelled results presented in this note indicate that, based on current macroeconomic conditions and price trends, Canada’s poverty rate is predicted to continue to rise in 2022 and 2023, returning to a level close to those observed before the COVID-19 pandemic by 2023.

Appendix

For predicted poverty trends, a model is estimated that describes the poverty rate as a function of the average disposable income of the bottom quintile, in current dollars, per household from the DHEA, the CPI and a time trend. National (all provinces) MBM poverty rates from 2002 to 2021 were used for all available MBM bases (i.e., the 2000, 2008 and 2018 bases). The model expresses the poverty rate, the DHEA disposable income and the CPI in logs. The time trend is linear, and dummy variables are added to account for differences in poverty rates from different MBM bases. Results of the regression are in Table A.1. Although the inflationary (CPI) and trend (time) coefficients are no longer significant at the 10% level of confidence after the model was updated with the latest data, the model was kept the same. It should be noted that, since the annual CPI growth rates in 2022 and 2023 were very high compared with previous years, there is some extra uncertainty for the 2022 and 2023 predicted estimates. However, once the official 2022 reference year poverty estimates are incorporated in the model, its predictive quality should improve.

Table A.1
Regression results

	DV = ln (poverty rate)	
	Parameter	Standard error
Intercept	-3.157	12.005
ln (disposable income)	-1.479***	0.363
ln (CPI)	4.448	2.756
2000-base	-0.354***	0.075
2008-base	-0.129**	0.056
Time	-0.071	0.045
N	32	...
R ²	0.771***	...

... not applicable

** Significant at 5%

*** Significant at 1%

(CPI) Consumer Price Index

(DV) Dependent Variable

Source: Authors’ calculations.

The regression has a modest-quality overall fit, with an R² of 0.771. As expected, disposable income enters the model with a negative coefficient, indicating that poverty falls when disposable income rises, and the CPI is estimated to have a positive coefficient, indicating that the poverty rate would fall when prices fall (all else being equal). Published and modelled data are shown in Table A.2.⁵

4. For more information on the model results and published or modelled data used, please see the appendix.

5. The DHEA estimates are subject to change, and this would have an impact on the predicted estimates previously published.

Table A.2
Published and modelled data, Canada, 2002 to 2023

Year	Official poverty rates			Average disposable income per household in the bottom income quintile (DHEA)	All-items Consumer Price Index, 2002=100	Modelled poverty rates		
	2000-base	2008-base	2018-base			2000-base	2008-base	2018-base
	percentage				dollars	percentage		
2002	12.9	...	...	16,110	100.0	13.1	...	...
2003	12.5	...	...	16,719	102.8	13.1	...	...
2004	12.5	...	...	16,792	104.7	13.1	...	...
2005	11.8	...	...	16,468	107.0	13.9	...	...
2006	12.4	15.6	...	18,060	109.1	12.3	15.4	...
2007	10.8	13.9	...	19,253	111.5	11.5	14.4	...
2008	10.2	12.4	...	19,564	114.1	11.6	14.5	...
2009	11.3	13.4	...	20,329	114.4	10.3	12.9	...
2010	10.4	12.3	...	21,011	116.5	9.9	12.4	...
2011	10.5	12.7	...	21,689	119.9	10.0	12.5	...
2012	10.8	12.7	...	23,097	121.7	9.1	11.4	...
2013	...	12.1	...	22,766	122.8	...	11.3	...
2014	...	11.3	...	23,215	125.2	...	11.1	...
2015	...	12.1	14.5	22,867	126.6	...	11.1	12.6
2016	...	10.6	12.9	23,637	128.4	...	10.5	11.9
2017	...	9.7	11.9	24,025	130.4	...	10.2	11.6
2018	...	9.0	11.2	24,888	133.4	...	10.0	11.4
2019	...	8.3	10.3	25,566	136.0	...	...	11.1
2020	...	...	6.4	32,481	137.0	...	...	7.5
2021	...	...	7.4	32,569	141.6	...	...	8.0
2022	...	...	...	33,093	151.2	...	...	9.8
2023	...	...	...	32,463 [†]	157.0 [‡]	11.1

... not applicable

[†] Based on the first and second quarters of 2023.

[‡] Based on January to November 2023.

DHEA stands for distributions of household economic accounts.

Notes: The official poverty rates come from Table 11-10-0135-01. Average disposable income per household in the bottom income quintile (DHEA) comes from tables 36-10-0587-01 and 36-10-0662-01. The Consumer Price Index comes from Table 18-10-0005-01. The modelled poverty rates come from the authors' calculations.

Sources: Statistics Canada, Table 11-10-0135-01. Low income statistics by age, sex and economic family type; Table 36-10-0587-01. Distributions of household economic accounts, income, consumption and saving, by characteristic, annual; Table 36-10-0662-01. Distributions of household economic accounts, income, consumption and saving, by characteristic, quarterly; Table 18-10-0005-01. Consumer Price Index, annual average, not seasonally adjusted; and authors' calculations.

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