



Canadian Payments Forecast, 2023



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Introduction



Objectives

Canadian Payments Forecast, 2023, is an in-depth assessment of how the consumer payments landscape in Canada is likely to be transformed over the next five years based on the severe disruptions over the past few years – the pandemic, supply chain issues, geopolitical conflict, inflation, rapidly increasing interest rates, and the prospect of a recession. Subscribers will be in a unique position to make well-founded, research-based, strategic decisions about how best to steer their business in the turbulence that is affecting the Canadian payments industry. The primary information objectives of the 2023 study are to:

- Undertake an in-depth analysis of how the economy, personal consumption expenditure and retail sales are expected to evolve over the next five years in light of the developments highlighted above
- Provide a comprehensive review of how consumer payments in Canada is expected to evolve based on these developments
- Provide quantitative forecasts for payments across all the major consumer payment modalities.

This study provides essential information for organizations interested in gaining an understanding of, and tracking developments in, the Canadian payments marketplace. This is particularly important in the current economic context where the disruption to economic activity is likely to have a profound impact on consumer payments in the future.

Methodology

In assembling the information for this study, TSI drew on a wide range of information resources, including the following:

- **Desk Research:** TSI consultants carried out in-depth desk research into the payments industry, both in Canada and internationally. There is vast literature on payments available on the internet. Our skill lies in identifying credible sources, sifting through the information to extract the most valuable elements, and verifying facts that appear to be suspect, or that do not appear to be supported by any substantiated argument. In addition, TSI has, over the past twenty-five years, built up a comprehensive database on the payments industry in Canada based on past studies conducted in this area. Our database provides a rich source of information in this analysis, especially in providing the baselines for establishing the most important trends in the Canadian market.
- **Executive Interviews and Discussions:** While desk research can provide an important backdrop and some basic data for a project such as this, it was important for us to gain in-depth insights into the market directly from key players in the industry, both within Canada and globally. We did this through interviews, discussions, and participation in major conferences and seminars (more recently mostly online seminars) relevant to the Canadian payment marketplace.
- **Consumer Research:** This is the ninth year in which we have used data from our Canadian Consumer Payments Survey (CCPS) market research to inform our analysis and projections in Canadian Payments Forecast. While in the past we have found this to be an important source of supplementary information to obtain granularity on developments in the market especially in areas relating to the adoption of new technologies, it has been particularly important over the last three years since it allowed us to get feedback directly from consumers on the impact that the significant changes in the economic environment has had on their economic activity and payments behaviour.
- **Analysis:** The information obtained through primary and secondary research was collated and analysed within TSI's strategic market analysis framework. This report embodies the analysis and findings of the research.

Forecasts

An important aspect of this study is to provide subscribers with a well-founded look ahead to the prospects for the payments industry in Canada. As a result of the dramatic changes to the economy and consumer behaviour that have resulted from regional and international developments over the past three years, we have had to develop new approaches and models for our economic and payments forecasts. In 2023, we have refined these even further, based on what we have learnt so far about how the last few tumultuous years have influenced the economy and what is likely to happen in the future. We have tried to keep the publication on track, from a timing perspective. At the time of publication, there was still some uncertainty about the trajectory that the economy would take, given the strains arising from the war in Ukraine, global supply chain issues, inflation, rising interest rates and prospects of a recession – which is yet to arrive.

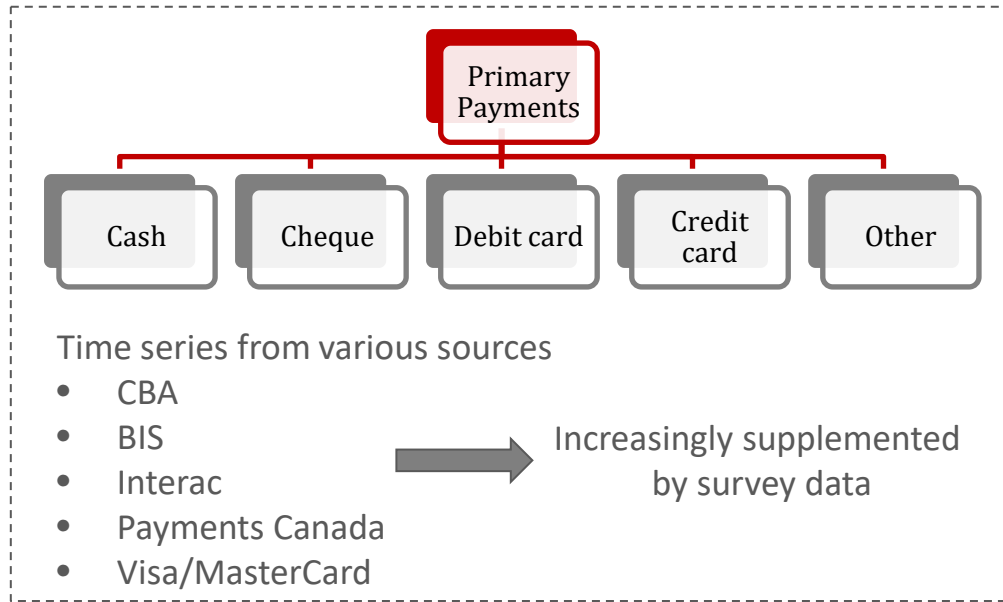
Many of our forecasts use the survey data that we collect from TSI's annual Canadian Consumer Payments Survey as inputs to our models. There can be substantial variation in the accuracy of survey data from year to year based on sampling error. As a result, from time to time we revise some time series retrospectively where a parameter estimate used in a prior forecast appears to be an outlier, or inaccurate.

Forecasts in this report cover a **five-year time frame**, with the **base year of 2022**. Where we have been unable to source key primary payment statistics for 2022 due, for example, to statistical lag, we have provided our own estimates. Projections are prepared for 2023 through to the end of 2027.

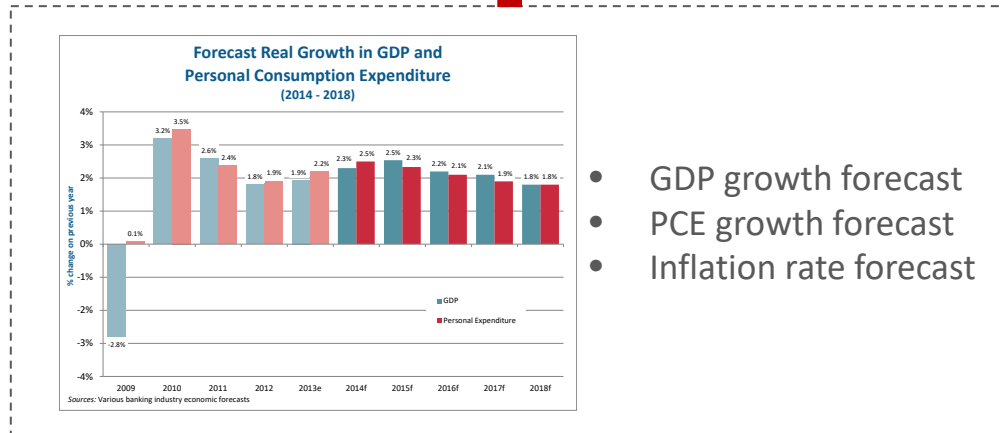
Forecasting, by its very nature, cannot be an exact science. The forecasts presented in this report represent what we believe to be the best view available of prospects for Canadian payments. However, the global economy is experiencing unprecedented turbulence at present and the cone of uncertainty around these forecasts is therefore higher than normal. While we believe that the information contained in this document is as accurate as is possible for a review of this nature, TSI accepts no liability for any errors, inaccuracies or omissions.

Our approach to forecasting is shown on the next chart.

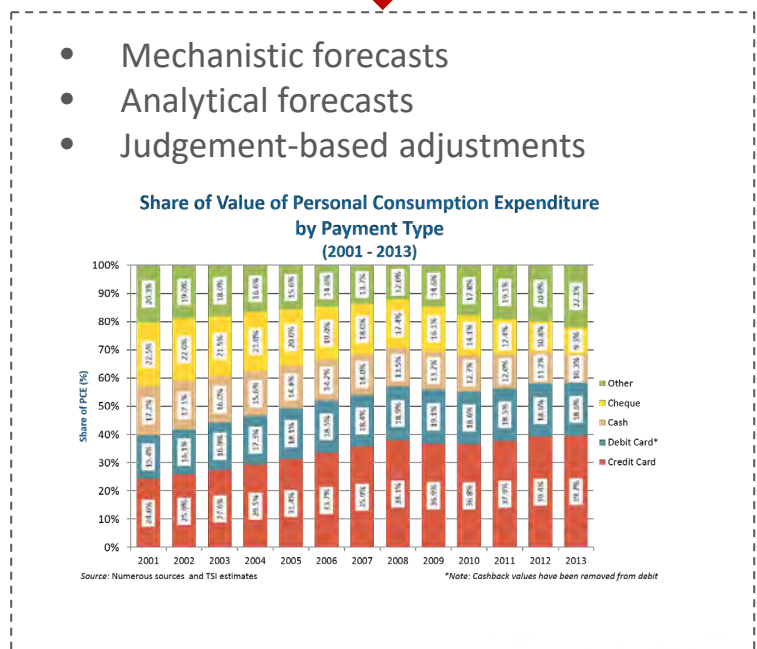
Canadian Payments Forecast: Forecasting Approach



- Forecasting**
- Time series analysis (turning points, trend, seasonal and cyclical variations)
 - Survey data analysis
 - Diffusion models and substitution models
 - Causal models
 - Multiple regression
 - Judgement

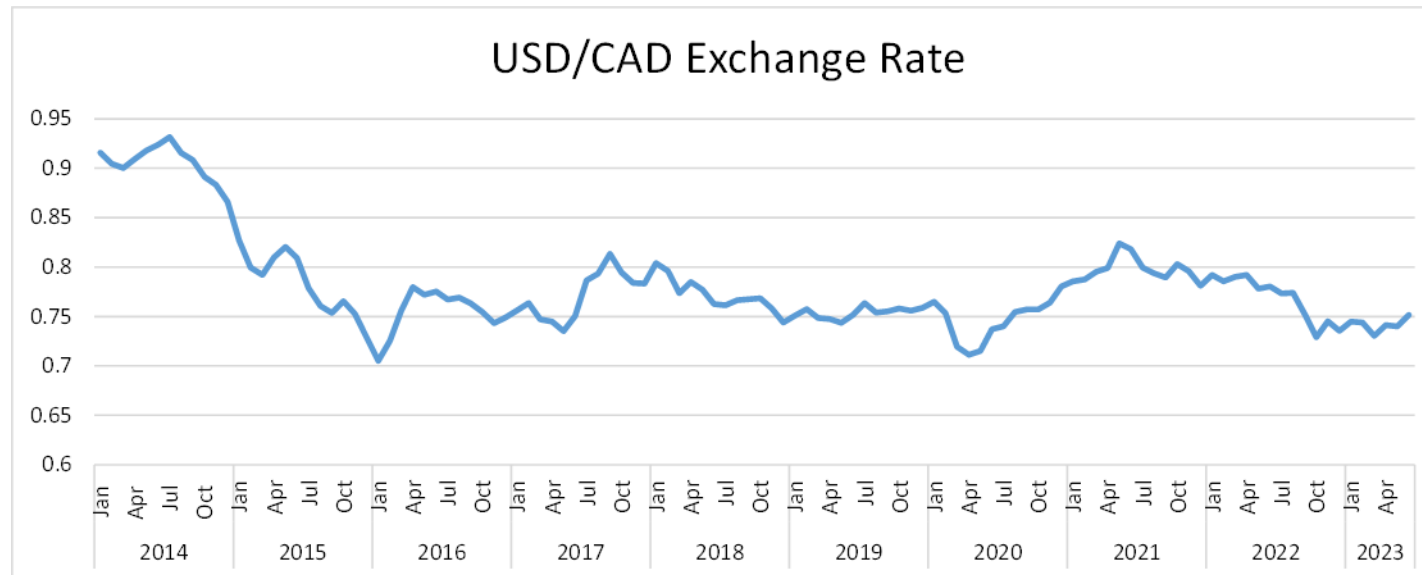


- GDP growth forecast
- PCE growth forecast
- Inflation rate forecast



Currency

- All revenue and investment figures included in this report are presented in Canadian dollars (CAD), unless otherwise specified.
- At the time of publication of this report one Canadian dollar (CAD) was worth 0.751623 US dollars (USD), compared with 0.77277 at the time of publication in 2022. The average for exchange rate for 2022 was 0.768977.



Some Notes on this Year's Report

- As a result of the rapidly changing global and local economic environment, the short- and medium- term economic future of Canada is likely to be structurally different from the past. The forecasts that we have presented are anchored in the base case scenario for the economy. Prospects for the Canadian economy could change as the Bank of Canada continues its attempts to curb inflation, with rising interest rates and deteriorating consumer and business confidence.
- There are also likely to be fundamental structural changes influencing consumer behaviour and payments in the Canadian market. We capture the behavioural component through the Canadian Consumer Payments Survey (CCPS), which was conducted at the height of the pandemic (April 2020) and every year since then. We believe that this has given us an excellent baseline against which to measure consumer behavioural changes in payments over the past three years and has helped inform us of the most likely paths forward.
- We have streamlined the way that we have done the historical economic analysis since it provides only a basic context for our current economic environment. The emphasis has been placed more on where we are headed, from an economic standpoint, than where we have been.
- In some cases, we rely on secondary data to examine historical patterns in the payments market. In several cases these time series undergo substantial revisions, which we then incorporate into our analysis. Statcan, for example, revises their economic time series for the previous five years almost every year. These are usually slight tweaks to the numbers. In other cases, the revisions are major. For example, the Canadian Bankers Association recently revised their bill payments by channel time series radically since the mobile component was grossly underrepresented in previous analyses. We have also revised our time series based on those revisions. A consequence of this is that the data presented in this report may not be strictly comparable with our previous reports in certain payment segments. We have taken pains to point this out in the report in situations where the impact is significant.

Some Notes on this Year's Report (cont'd)

- We have streamlined some sections to make the information included in the report more accessible, and easier to navigate. In some cases, this has been achieved by including the historic analysis and forecast on the same chart.
- Over the last three years we have started to collect data on loyalty redemptions and preauthorized payments through our Canadian Consumer Payments Survey. We will include analyses of loyalty and preauthorized payments in future editions of this once we have stable data on which to base our analyses and forecasts. Subscribers interested in loyalty redemption and preauthorized payment data are encouraged to consult our Canadian Consumer Payment Survey data (also available through a subscription).
- Subscribers to the Canadian Consumer Payments Survey 2023 have access to all the findings of survey data gained across all modalities. It provides additionally granularity on payment behaviour and is an essential resource for those interested in analyzing specific segments in more detail.

Document Navigation

- The Table of Contents and List of Charts and Tables contain hyperlinks to the sections, charts and tables in the document.
- In order to make navigation easier within the document, we have included hyperlinks on each page as follows:

Section Contents

- Clicking on the 'Section' block will take the reader to the start of the current section. Clicking on the 'Contents' block will take the reader to the Table of Contents.
- These navigation blocks are included on the bottom of all pages.
- The 'List of Charts and Tables', which follows the 'Contents' section, serves as a detailed table of contents.

Acknowledgements

- We would like to place on record our thanks to our subscribers to whom we are indebted for providing the financial backing for this project. We thank you for your input to the study—the information that you have provided as well as your unique insights and perspectives—and above all, for your continued financial support, which makes this study possible on a periodic basis.
- A continuing objective of ours every year is to obtain feedback from clients as to how we could improve the report. Our special thanks go to those subscribers who made the effort to engage with us in this process. We have used your valuable feedback to make modifications to the presentation, structure and content of the report.
- We would also like to record our thanks to all participants that contributed to this study, for the time and effort that they took to answer our questions and provide us with information. This study would not have been possible without their contribution.

List of Abbreviations used in this Document

We use the following abbreviations in this report:

ABM – Automated Banking Machine

bn – billion

CAGR – Compound Average Growth Rate

CCPS – Canadian Consumer Payments Survey

CPI – Consumer Price Index

FI – Financial Institution

GDP – Gross Domestic Product

GDV – Gross Dollar Volume (the total value of credit card transactions)

k – thousand

m – million

PCE – Personal Consumption Expenditure

trn – trillion

TSI – Technology Strategies International Inc.

The Canadian Economy



Economic Highlights

Indicator	2022	Real Growth (2021-2022)	2027	Real CAGR (2017-2022)	Real CAGR (2022-2027)
Gross Domestic Product (GDP – current\$)	\$2,783 bn	3.4%	\$3,277 bn	1.5%	1.5%
Personal Consumption Expenditure (PCE – current\$)	\$1,470 bn	4.8%	\$1,773 bn	1.4%	1.4%
Retail Sales (current\$)	\$735 bn	1.3%	\$889 bn	1.8%	1.5%
Population	39.3 m	2.3%	41.4 m	1.5%	1.1%

Retail sales exceeded \$735 bn in 2022

Canadian retail sector sales increased by 8.1% to \$753 bn in 2022. Over the past two years (2021 and 2022) more than \$127 bn has been added to retail sales. In part this was due to the post-pandemic rebound in retail purchases, but it is also indicative of the relatively high inflation environment over this period, indicating.

Automotive sales remained the single most dominant category in the retail sector in 2022, amounting to \$189 bn, adding just \$4.5 bn over the year, compared to the \$29 bn added in the peak rebound period of 2021. Automotive sales' share was 25.6% of total retail sales in 2022.

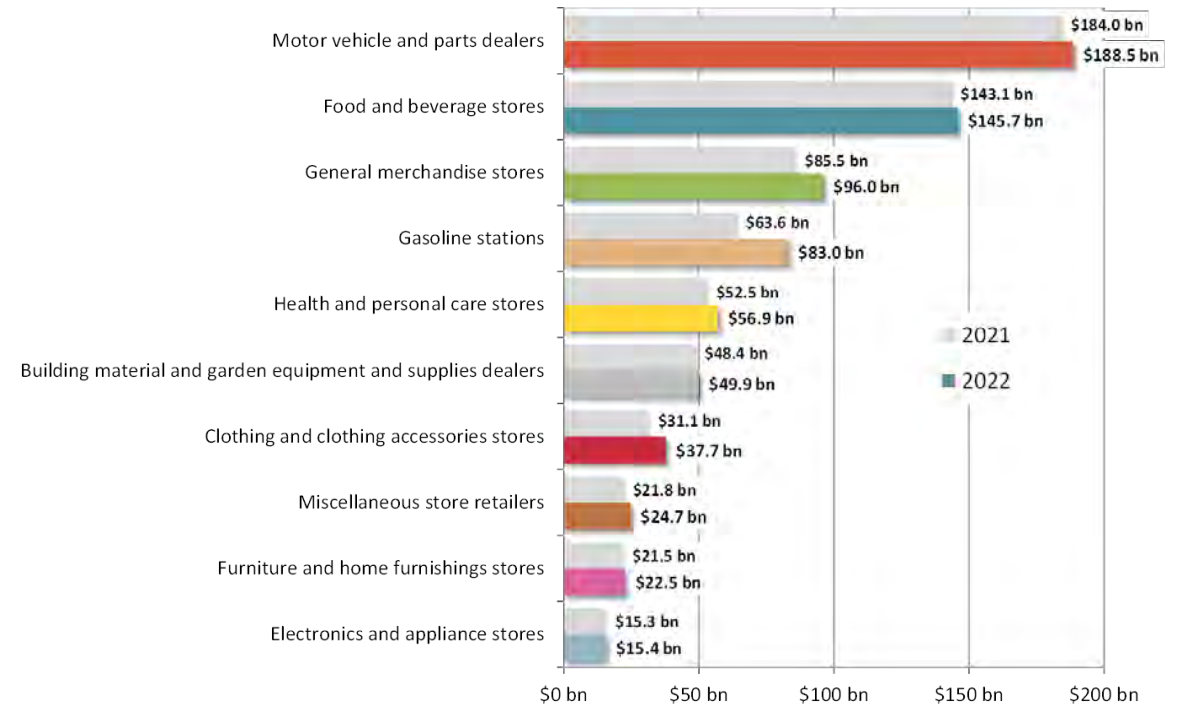
Non-auto retail sales weighed in at \$647 bn in 2022, growing by 10.2% in nominal terms over the year vs. only 2.5% for automotive sales.

Food and beverages, the next biggest retail category, accounted for \$146 bn in sales in 2022, a dismal 1.8% higher than the previous year suggesting that, given the high inflationary environment, consumers have cut back in real terms.

General merchandise stores and gasoline stations, the next largest segments, and which accounted for 17.6% and 15.2% of non-auto retail trade respectively, added almost \$30 bn to their sales in 2022.

Retail sales represented 50.0% of PCE in 2022, a slight decrease from the 51.2% recorded in 2021.

**Canadian Retail Sales by Sector
(2022)**



Source: Statistics Canada

Cash



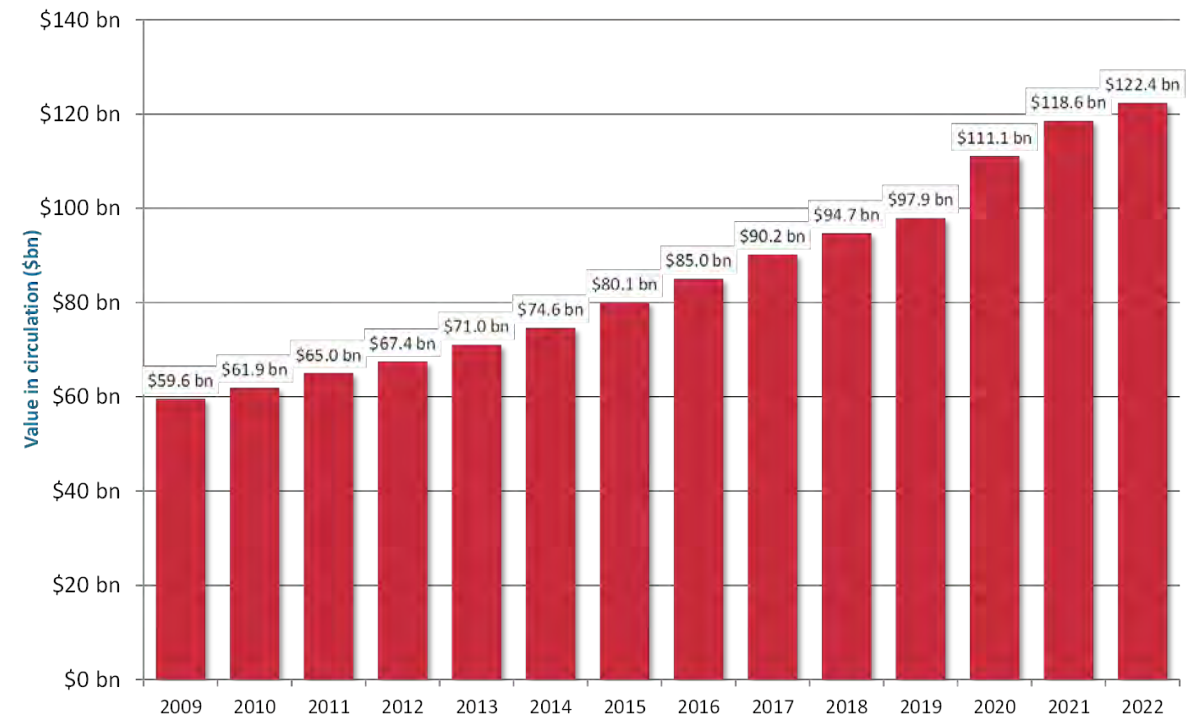
Cash in circulation increases modestly in 2022

The value of cash in circulation increased modestly in 2022, growing by 3.2% over the year, about half the rate of growth recorded in 2021, and reaching \$122.4 bn. Growth in 2021 was also about half of that in 2020, the height of the pandemic. Even though there was a sharp pull back in cash purchases during the various waves of the pandemic light, consumers and businesses stockpiled cash as an emergency source of funds. The lower growth in cash in circulation throughout 2021 and 2022 was a result of fewer businesses and consumers feeling the need to stockpile cash as well as drawing down on stockpiled cash reserves.

The value of cash in circulation has grown by 6.3% p.a. (CAGR) over the period 2017 to 2022, higher than the ten-year average growth rate of 6.1% p.a. (CAGR).

Coins made up approximately \$3.1 bn of the total cash in circulation in 2022, the lowest level since 2006. Coins in circulation have decreased by almost 36% since 2019.

**Canadian Bank Notes and Coin in Circulation
(2009 - 2022)**



Source: Bank of Canada

Debit



Value of debit card payments increases in 2022

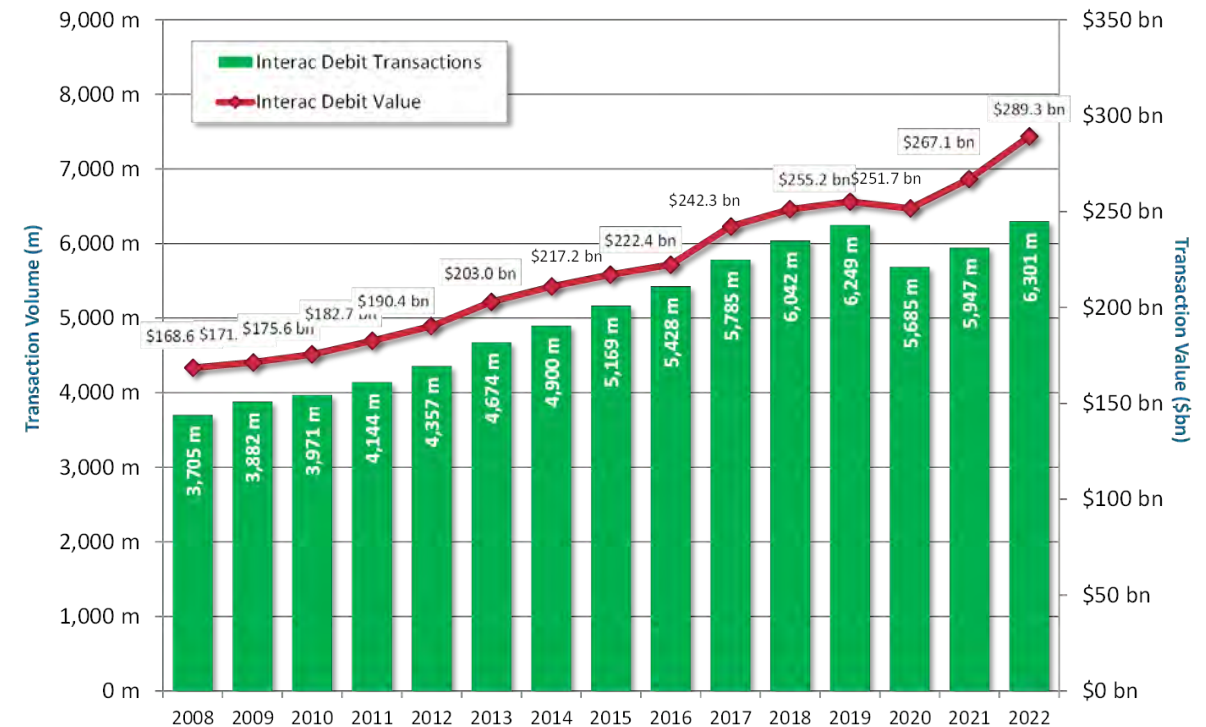
The value of debit card payments increased by 8.3% in 2022, reaching a total of \$289.3 bn, way surpassing the previous peak of \$255.2 bn recorded in 2019.

In 2022, there were 6.30 bn debit card transactions, an increase 5.9% over the year. Debit transaction volumes in 2022 were slightly higher than those in 2019.

In 2022, average transaction values increased by 2.2% to reach \$45.92. Over the past five years, growth in total annual debit card transaction volumes has averaged 1.7% p.a. (CAGR), while growth in total annual debit card transaction values was more than twice as high at 3.6% p.a. (CAGR). These average annual growth rates are lower than their historical trajectories, dragged down by the declines in 2020.

Debit card purchases (excluding Interac cashback) accounted for 18.7% of PCE by value in 2022, and 31.0% by volume.

**Value and Volume of Interac Debit Transactions
(2008 - 2022)**



Source: Interac

Canadian Payments Insights

In-depth insights into Canadian Payment Frontiers

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