



Canadian Payments Forecast, 2022



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Introduction



Objectives

Canadian Payments Forecast, 2022, 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 2022 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 the 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 of payments across all of 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 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 eighth 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 2022, 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 and rising interest rates.

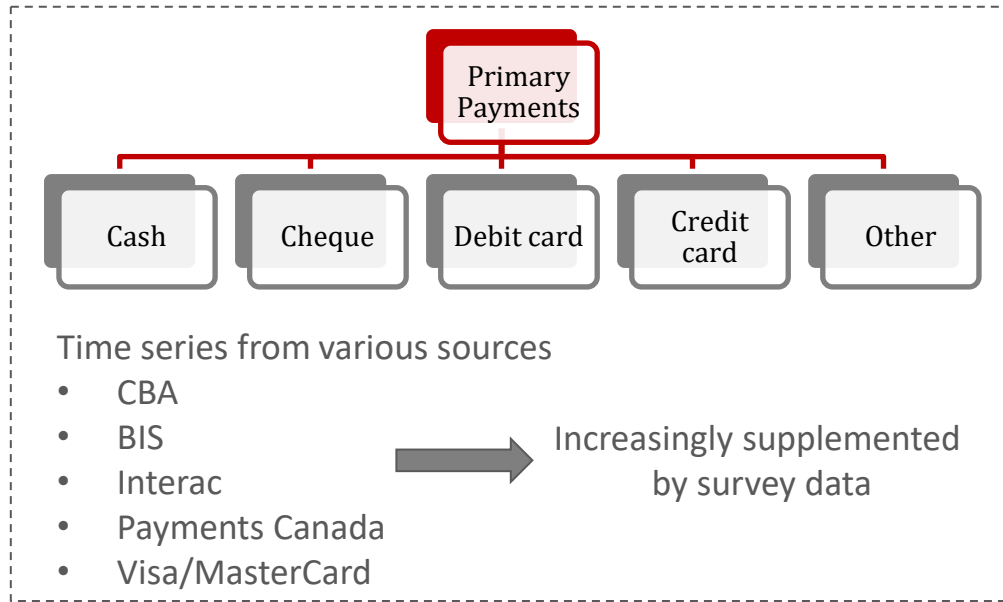
Many of our forecasts use the survey data that we collect from TSI's annual Canadian Consumer Payments Survey as inputs to our models. There can be substantial variation in the accuracy of survey data from year to year based on sampling error. As a result, from time to time we revise some time series 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 2021**. Where we have been unable to source key primary payment statistics for 2021 due, for example, to statistical lag, we have provided our own estimates. Projections are prepared for 2022 through to the end of 2026.

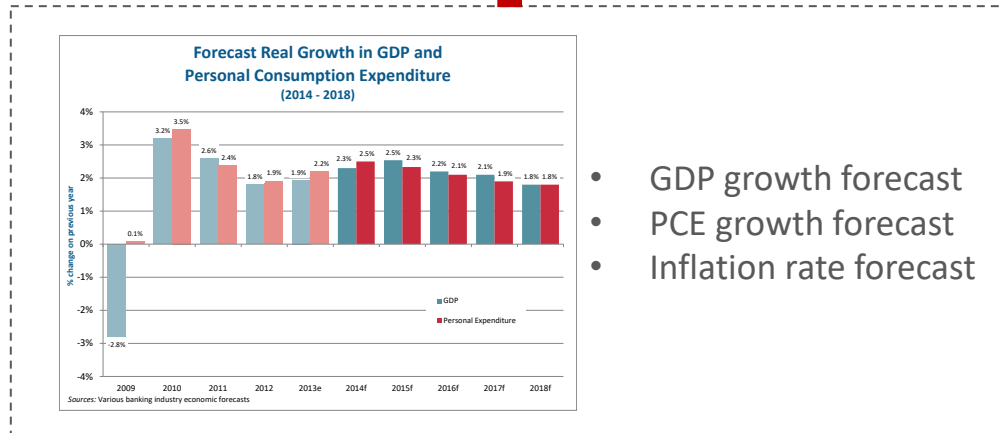
Forecasting, by its very nature, cannot be an exact science. The forecasts presented in this report represent what we believe to be the best view available of prospects for Canadian payments. However, the global economy is experiencing unprecedented turbulence at present and the cone of uncertainty around 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.

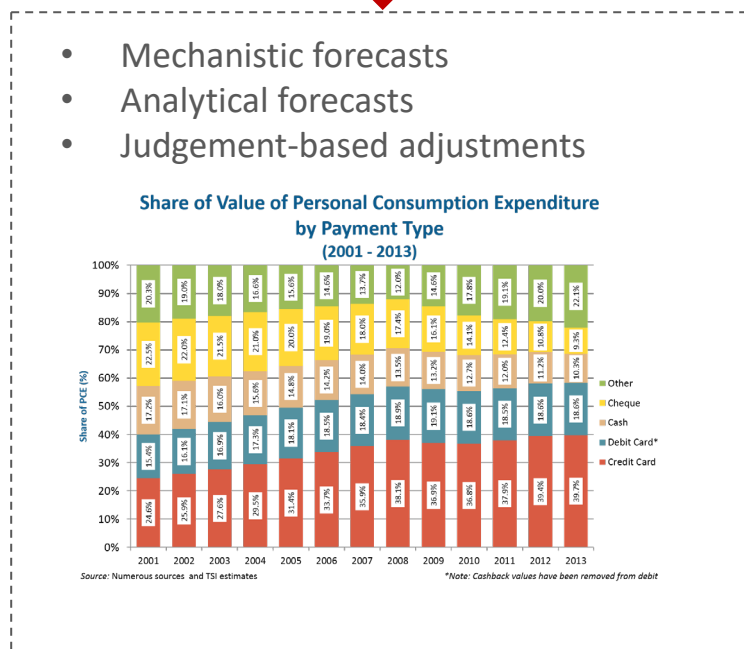
Canadian Payments Forecast: Forecasting Approach



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

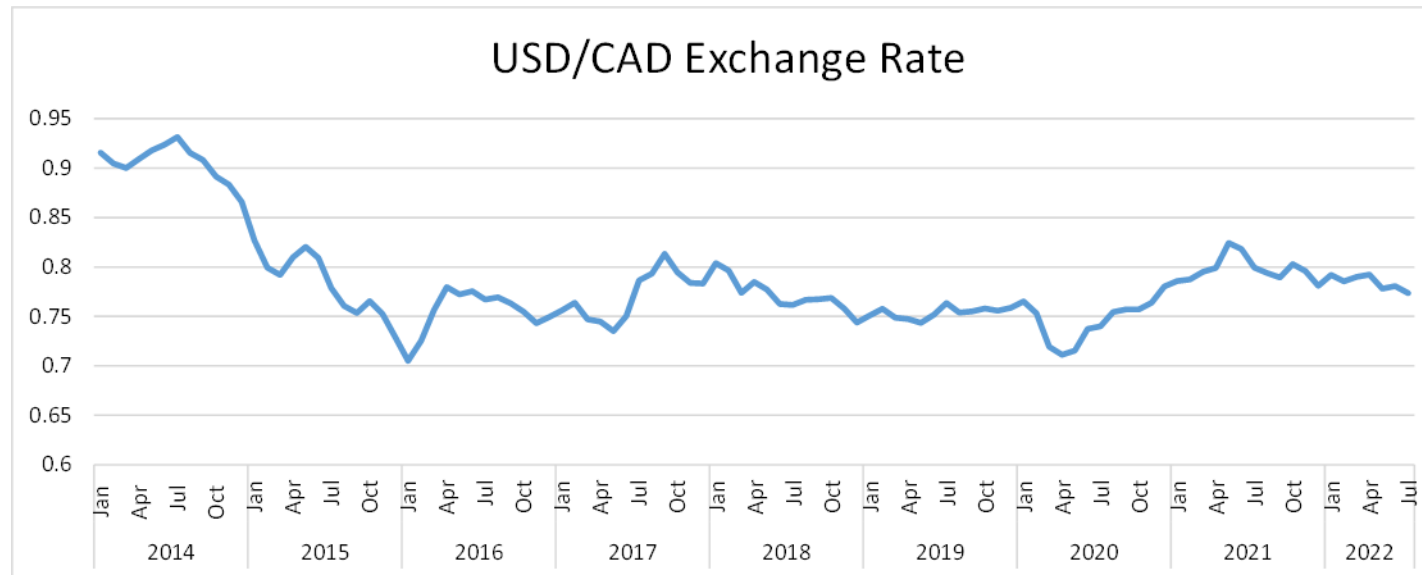


- GDP growth forecast
- PCE growth forecast
- Inflation rate forecast



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 1 Canadian dollar (CAD) was worth 0.77277 US dollars (USD), compared with 0.80332 at the time of publication in 2021. The average for exchange rate for 2021 was 0.79775.



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 then again in April of 2021 and 2022. 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.
- We have not included the preauthorized payments section this year again. Our time series analyses in this area have traditionally been based on the total commercial and consumers automated funds transfers provided by Payments Canada in their ACSS data. We are not able to separate the consumer portion out and hence to maintain consistency with other segments of the report we have kept it out again this year. Subscribers interested in the consumer survey data associated with preauthorized payments will find that in the Canadian Consumer Payments Survey 2022 report. We are likely to reinstate this section of the report in 2023, when we will have had a few years of consecutive quantitative data on preauthorized payments based on our survey findings.

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

- Over the last two years we have started to collect data on loyalty redemptions and wearables. We have included an analysis and forecast for wearable payments once again in this year's report. We will include an analysis of loyalty payments in the 2023 report should we have more meaningful time series data available on which to base our forecasts. Subscribers to the Canadian Consumer Payments Survey 2022 have access to the findings of survey data gained from the loyalty payments section. These are two emerging areas that are likely to gain in importance in future and will be dealt with in more depth in future editions of this report.
- 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 and forecast analysis on the same chart.
- We have moved the 'Consumer Payments in Perspective' section to follow the analysis of the Canadian economy. We believe that this improves the flow of the report since it provides a high-level summary across the full payments spectrum before delving into the more detailed analysis of each for of payment included in the study.

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

CERB – Canadian Emergency Response Benefit

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	2021	Real Growth (2020-2021)	2026	Real CAGR (2016-2021)	Real CAGR (2021-2026)
Gross Domestic Product (GDP)	\$2,496 bn	4.6%	\$xx bn	1.3%	x.x%
Personal Consumption Expenditure	\$1,325 bn	2.1%	\$xx bn	1.3%	x.x%
Retail Sales	\$680 bn	8.4%	\$xx bn	2.7%	x.x%
Population	38.4 m	1.1%	xx m	1.2%	x.x%

Sample

Economy rebounds in 2021

The Canadian economy rebounded in 2021, with a real growth in GDP of 4.6% over the year. GDP growth was not sufficient to offset the 5.3% pandemic-driven decline recorded in 2020.

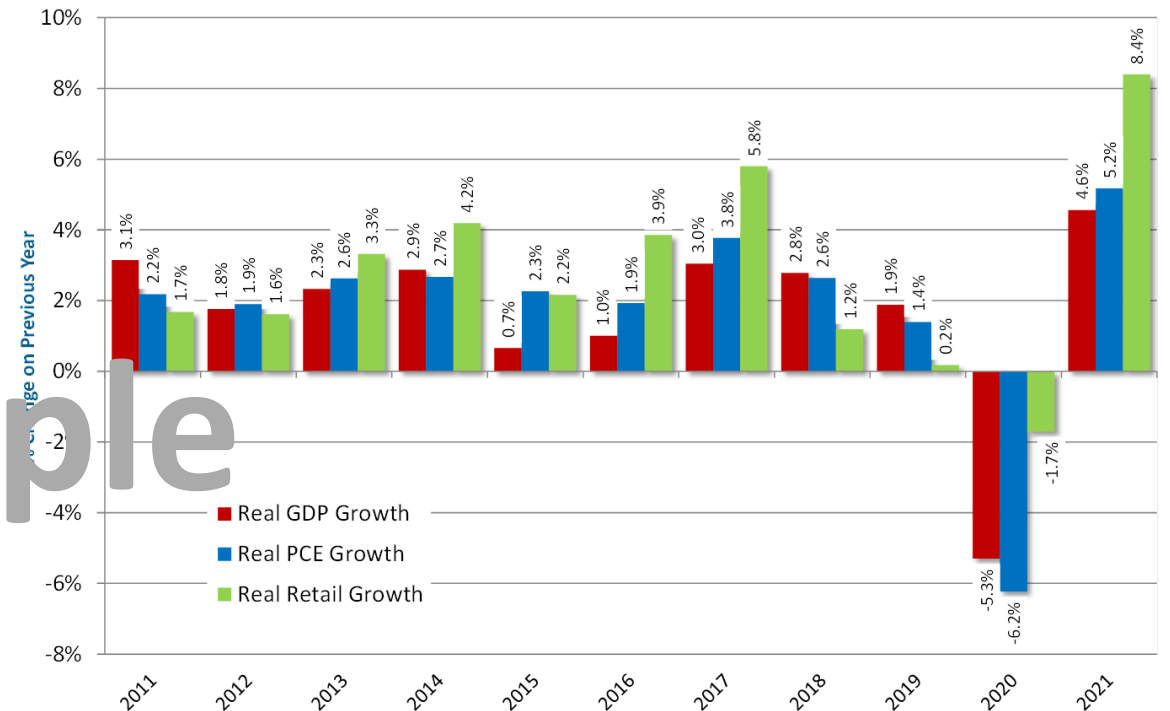
Real Personal Consumption Expenditure (PCE) increased by 5.2% in 2021 and was a major contributor to GDP growth over the year.

Retail sales, which had experienced a relatively modest real rate of decline of only 1.7% in 2020, increased by a very healthy 8.4% in real terms in 2021. This was largely as a result of a consumer spending spree in the wake of the era of economic lockdowns and limits to mobility. It represents a major component of growth in PCE.

The real growth rates in GDP, PCE and retail sales mask the effects of inflation that took hold in 2021. GDP grew by a whopping 13.1% in nominal terms over the year. While the inflation rate, as measured by the Consumer Price Index (CPI), was only 3.4% for the year, the GDP deflator was 8.1% indicating that there were significant inflationary forces at play outside of the consumer sphere affecting other components of GDP, such as business investment and government expenditure.

The nominal growth rate for PCE was 8.1% in 2021, compared with a real growth rate of 5.6% over the year.

Annual Change in Real GDP, PCE and Retail Sales
(2011-2021)



Source: Statistics Canada

PCE increases to \$1.33 trillion in 2021

In 2021, Personal Consumption Expenditure (PCE) on Goods and Services (PCE) amounted to \$1,325 bn (in current dollars), adding almost \$100 bn to the 1,227 bn recorded in 2020. This was an increase of 8.1% in nominal terms over the year, compared with a decrease of 5.6% during 2020.

Over the period 2016 to 2021, real growth in PCE edged up at 1.3% p.a. (CAGR), on par with the real growth in GDP over the same period. Over the past 15 years, real PCE growth has outstripped real GDP growth by 0.6% p.a. on average.

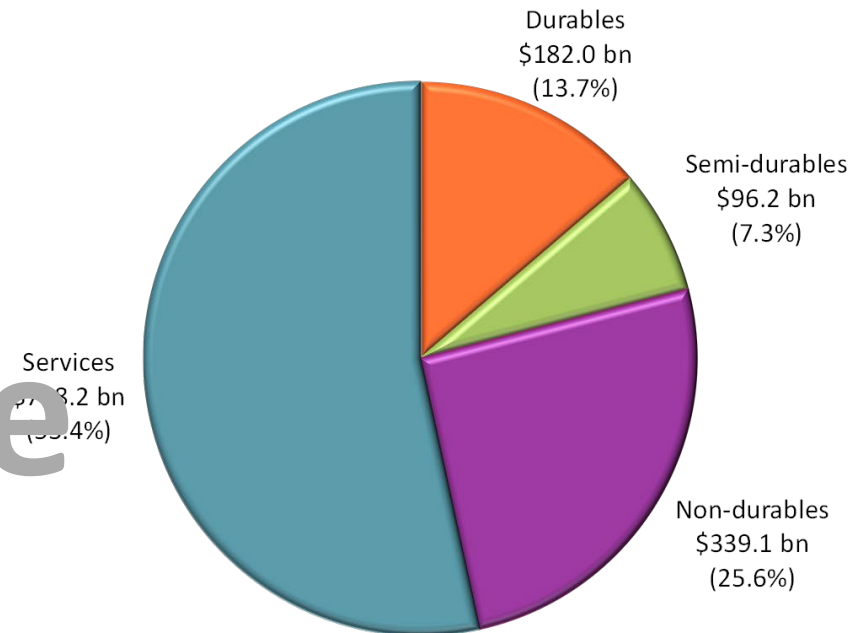
Expenditure on services, which includes anything from paying a dentist bill, to internet and communications services, to eating at a restaurant, continues to dominate PCE, and added about \$44bn to PCE over the 2021 year, making it the biggest contributor to overall PCE growth. Nominal growth in services came in at 8.5% over the year.

Semi-durables experienced the highest growth rate over the year – 17.8% in nominal terms – reflecting the strong bounce-back in consumer demand in this category.

Durables, which is also subject to highly cyclical swings, grew at 11.1% over the year, reaching \$182 bn, representing almost 14% of total PCE.

Non-durables tends to be the most stable of PCE categories, recording a nominal growth rate of 5.1% in 2021, the lowest of PCE categories.

Components of Personal Consumption Expenditure (2021)



Source: Statistics Canada

Debit



Debit Highlights

Indicator	2021	Growth (2020-2021)	2026	CAGR (2016-2021)	CAGR (2021-2026)
Interac Debit Payments					
<i>Value (includes cashback)</i>	\$267.1 bn	6.1%	\$xx bn	3.7%	x.x%
<i>Volume</i>	5,947 m	4.6%	xx m	1.8%	x.x%
<i>Value of Average Transaction</i>	\$44.91	1.4%	\$xx	1.9%	x.x%
Interac Debit Merchants	465,000	-1.1%	xx	1.1%	x.x%

Sample

Value of debit card payments increases in 2021

The value of debit card payments dropped by a modest 1.4% in 2020 as the lockdown measures and other mobility restrictions related to the pandemic took hold. In 2021, the value of debit payments (including cashback) increased by 6.1% to \$267.1 bn, more than offsetting then 2020 decline even when superimposed on the long-term debit growth rate.

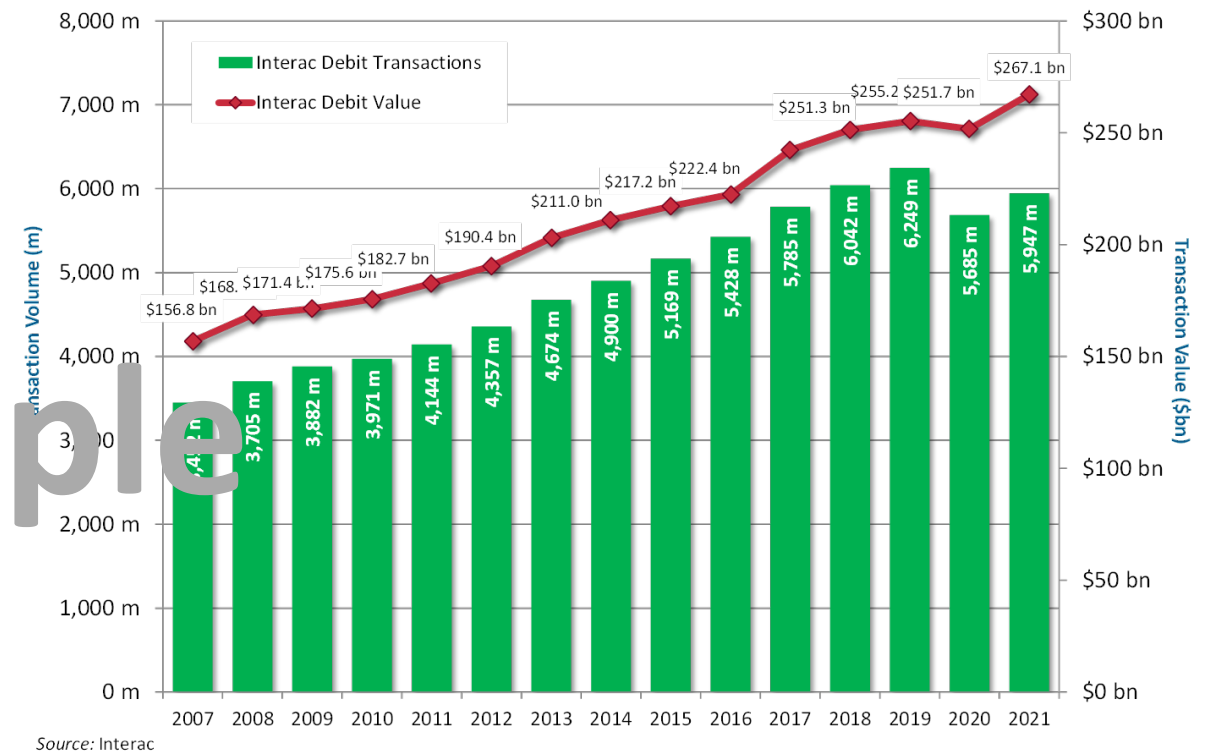
In 2021, there were 5.95 bn debit card transactions, an increase 4.6% over the year, compared with the decrease of 9.0% in 2020, indicating that transactions volumes have not recovered at the same rate as transaction values.

In 2020, average transaction values increased by 8.4%, followed by a further increase of 1.4% in 2021, to reach \$44.91.

Over the past five years, growth in total annual debit card transaction volumes has averaged 1.8% p.a. (CAGR), while growth in total annual debit card transaction values was twice as high at 3.7% 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 19.4% of PCE by value in 2021, and 30.1% by volume.

**Value and Volume of Interac Debit Transactions
(2007 - 2021)**

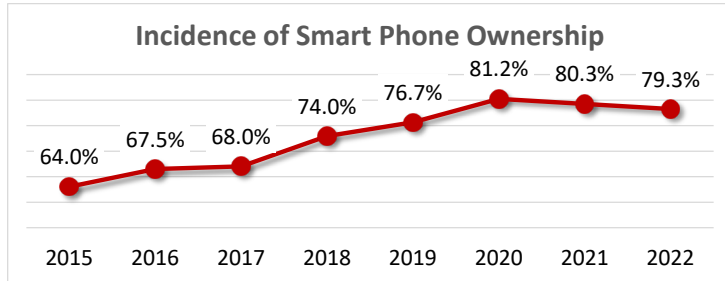


Mobile



Gap between Android OS and Apple's iOS widens

Smart phones remain the most dominant mobile connectivity device in Canada, with about eight out of ten adult Canadians (79.3%) owning a smart phone.

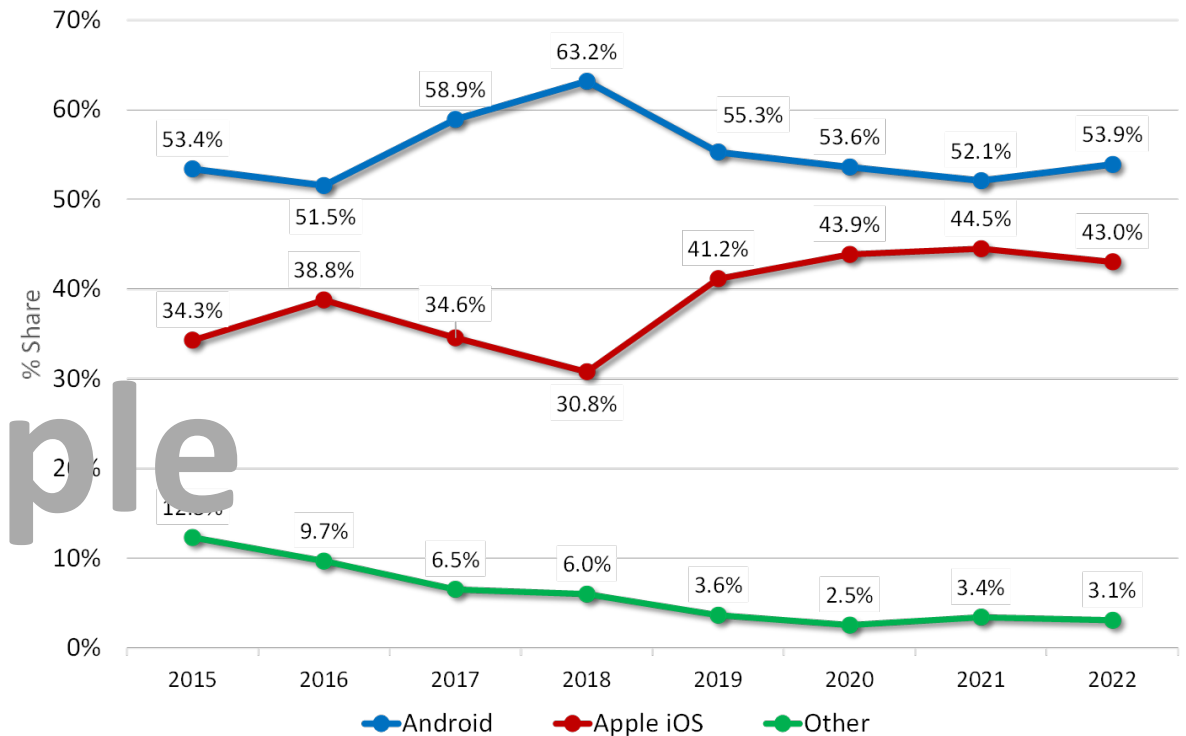


Android remains the most popular operating system of primary smart phones in Canada, increasing its share by 1.8% over the year to 53.9%. Android's increase in share was accompanied by a decrease in Apple iOS's share of the market to 43.0%, but also by a decrease of the shares of other niche operating systems.

With a primary smart phone market share of 43.6%, Apple's share is substantially higher than that of its closest rival, Samsung, which has a share of 36.0%. LG devices trail in distant third place as the primary smart phone device of 5.7% of adult smart phone owners.

The average smart phone age has edged up over the past year, to 2.3 years vs 2.2 years in the 2021 survey.

Primary Smart Phone Operating System Ownership



Base: Respondents who own a smartphone: 2022 (n=1815)

Source: Canadian Consumer Payments Survey

Virtual Currencies



Canadians' resolve NOT to use a virtual currency in future falters

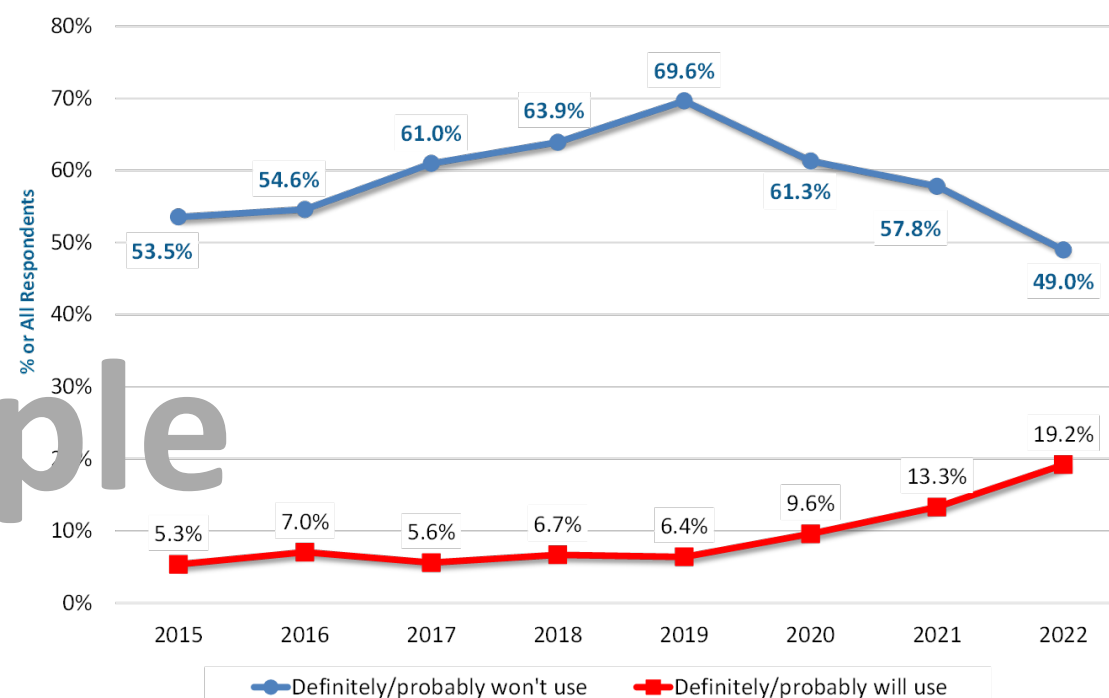
After rising consistently over the previous four years, the proportion of adult Canadians who DO NOT intend to use a virtual currency in the next twelve months fell further in 2022, from 57.8% in 2021 to 49.0% in 2022 consolidating the strong downward trend.

At the same time, the proportion of adult Canadians intending to use a virtual currency in the next twelve months rose from 13.3% in 2021 to 19.2% this year, consolidating the upward trend.

Early adopters are more than eight times as likely as laggards to anticipate possible usage of virtual currencies within the next twelve months.

Future usage intent declines with increasing age, with 34% of those in the 18-34 age group saying that they definitely or probably will use a virtual currency within the next twelve months, compared with 5% for those in the 55+ age group.

Virtual Currency Usage Intent Trend



Base: Total Sample 2022 (n=2290)

Source: Canadian Consumer Payments Survey

Canadian Payments Insights

In-depth insights into Canadian Payment Frontiers

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