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Staff Discussion Paper/Document d'analyse du personnel—2025-12

Last updated: August 14, 2025

2024 Methods-of-Payment Survey Report: Cash in an Era of Alternatives

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DOI: https://doi.org/10.34989/sdp-2025-12 | ISSN 1914-0568

Acknowledgements

We thank Meredith Kunza and Maryam Akbar from Ipsos for their collaborative efforts in implementing the survey. We thank all colleagues from the Bank of Canada Currency Department in Ottawa, Toronto, and Montreal who assisted in testing the 2024 survey questionnaire in both English and French. We thank Chris Henry and Joy Wu who drove the questionnaire testing and shared insights from previous years. We are grateful to the Product Development Team for their help with the new questions on banknote quality.

We thank Currency Economic Research and Analysis team members who provided valuable insights for the survey's implementation and data analysis. In particular, we thank Hong Yu Xiao who shared knowledge on notes in circulation estimates, and Kim P. Huynh who provided valuable feedback that shaped the report. Finally, we extend extra gratitude to Saika Pacouloute who helped finalize this report.

We also thank our currency colleague Céline Armstrong for presenting preliminary results of this report at the Toronto Agency Operations Centre, and we thank our reviewers Scott Hendry, Youming Liu, Jeffrey Stewart, Julia Couillard and all others who provided comments and suggestions on the report. On this note, we also thank all participants at the Bank of Canada Access to Cash workshop in May 2025, who raised questions and comments regarding the results.

The views expressed in this paper are solely those of the authors and may differ from official Bank of Canada views. No responsibility for them should be attributed to the Bank of Canada.

Abstract

The Methods-of-Payment (MOP) Survey tracks consumer use of cash and other methods of payment. We present core findings from the 2024 MOP Survey, highlighting results from both the survey questionnaire and subsequent three-day shopping diary. Although cash holdings have increased in nominal terms, we find that cash usage remains unchanged since 2020. Mobile and other alternative payment methods continue to grow in importance. The 2024 MOP Survey also collects new data on how consumers perceive bank note quality.

Topics: Bank notes, Digital currencies and fintech, Financial services
JEL codes: D83, E41

Résumé

L'enquête sur les modes de paiement vise à suivre l'utilisation de l'argent comptant et d'autres modes de paiement par les consommateurs. Nous présentons les principales conclusions de l'enquête de 2024, en mettant en évidence tant les résultats du questionnaire que ceux du journal d'achats de trois jours. Bien que les avoirs en argent comptant aient augmenté en termes nominaux, nous constatons que l'utilisation de l'argent comptant reste inchangée depuis 2020. Les paiements mobiles et les autres modes de paiement continuent de gagner en importance. L'enquête de 2024 recueille également de nouvelles données sur la perception des consommateurs à l'égard de la qualité des billets de banque.

Sujets : Billets de banque, Monnaies numériques et technologies financières, Services financiers
Codes JEL : D83, E41

1 Introduction

In this paper, we present the findings from the Bank of Canada's 2024 Methods-of-Payment (MOP) Survey. This is the seventh iteration of the MOP survey since it was launched in 2009 and the fourth since it became digital-only in 2021 (Henry, Shimoda and Zhu 2022).[1] It focuses on Canadians' handling of cash, in terms of holdings, withdrawals and use at the point of sale. Additionally, the survey monitors trends in ownership, use and perception of payment cards and alternative payment methods.[2] The 2024 MOP Survey provides the following key insights into the Canadian payments landscape:

- **Cash use is stable.** Measures of cash purchases are similar to what has been observed since 2020 across all dimensions, including volume and value shares, number of purchases and transaction size (Henry, Shimoda and Rusu 2024b).
- **Nominal cash holdings have increased.** The mean value of cash on hand rose slightly in nominal terms, from $140 in 2023 to $156 in 2024. Withdrawals from automated banking machines (ABMs) and bank branches have also increased, in terms of both the number and the size of withdrawals.
- **Mobile payments are gaining popularity at the point of sale.** In 2024, almost 5% of transactions were made using mobile payments, compared with less than 3% in 2023 and 2022. Using a mobile payment form is the most popular alternative to paying with cash and cards and merits continuous monitoring.

The report is organized as follows: **Section 2** provides an overview of the 2024 MOP Survey. **Section 3** provides insight into cash management, perceptions and the adoption of alternatives to cash. **Section 4** describes methods of payment used for daily purchases in terms of volume and value shares, average number and value of transactions, and methods of payment used in the past week. **Section 5** concludes the report. Tables are presented in **Section 6** and charts in **Section 7**. The Appendix provides additional background information as well as insights into the main analysis.

[1] Data collection for the 2009, 2013 and 2017 MOP surveys featured paper-based mail-out invitations and survey instruments in addition to email invitations and online survey instruments. Starting in 2021, the MOP surveys became annual and exclusively online.

[2] As in previous MOP survey reports, this report contains only point estimates. For early work on variance estimation for MOP survey estimates, see Chen, Felt and Henry (2018).

2 The 2024 Methods-of-Payment Survey

2.1 Overview

This section provides an overview of the 2024 MOP Survey. The survey consists of two parts:

- a survey questionnaire (SQ) asking respondents to report information related to banking, payment card use, cash management, yearly and weekly payments, and perceptions of various payment methods
- a diary survey instrument (DSI) for respondents to input details of purchases and cash withdrawals over a three-day period—not all SQ respondents chose to complete the DSI, and not all DSI respondents participated for the full three days

Together with our survey partner, Ipsos, we collected data between mid-October and mid-November 2024. All respondents completed the SQ and DSI online using a computer, tablet or smartphone.

Slightly more than 4,000 individuals completed the 2024 MOP Survey SQ, 60% of whom also completed at least one day of the DSI. The SQ sample is based on quota sampling with quotas set by age, gender and region. Both the SQ and DSI samples are calibrated to match the Canadian population across key demographics.[3]

Table 1 shows a timeline of the MOP surveys and other consumer-focused payments surveys that the Bank has designed and conducted, along with their key features. Selected results from previous surveys are included in this report for comparison.

2.2 Updates in 2024

The contents of the MOP survey instruments are regularly reviewed and updated. They reflect current policy questions and capture changes in the Canadian payments landscape, such as emerging payment methods or regulatory changes.

Access to cash

As it did in 2023, the SQ for the 2024 MOP Survey included questions to understand Canadians' access to bank notes. We asked respondents to rate how easy or difficult they find it to get to an ABM or a bank branch when they need to withdraw cash. Chen, O'Habib and Xiao (2024) compare this subjective measure of access to cash with an objective distance-based measure and find the two measures are aligned and lead to similar conclusions about cash accessibility in Canada. Given that the infrastructure to access cash is constantly evolving, ongoing monitoring is necessary for assessing how changes in access affect consumers' use of and demand for cash (Huynh, Shcherbakov and Stenzel 2025).

[3] See Chen, Felt and Henry (2018) for a comprehensive overview of the calibration methodology and Appendix A.2 of Henry, Shimoda and Zhu (2022) and Henry, Shimoda and Rusu (2024b) for details on its implementation in the most recent MOP surveys. See **Appendix Section E** for an assessment of the quality of the calibrated data.

Payment costs

The Bank of Canada aims to understand the costs consumers face when making payments and how these costs can influence their payment choices. In the SQ for the 2024 MOP Survey, we included several questions on banking fees, such as monthly chequing account fees, annual credit card fees and transaction fees for debit card payments and cash withdrawals. These questions are updated versions of questions previously included in the 2017 MOP Survey. In this report, similar to previous reports, we provide basic statistics on bank account fees but do not provide an in-depth analysis of the consumer costs for transactions.

Bank note quality

The Bank is responsible for issuing new bank notes put into circulation. It also performs quality control as part of its mandate to supply bank notes of good quality that satisfy public demand.[4] Bank research on note quality finds that polymer bank notes, first introduced in 2011, have a significantly longer lifespan than paper notes (Paskarathas et al. 2017). Yet, low-denomination bank notes circulate for a shorter period than high-denomination notes before being deemed unfit (Rojas et al. 2020).

The quality of bank notes in circulation is affected by the broader infrastructure for retail cash distribution and the Canadian circulation environment. Since the Bank already monitors the physical quality of notes received at its operating centres, we are interested in how Canadians assess the quality of bank notes. The SQ for the 2024 MOP Survey therefore contains new questions on assessing the physical condition of bank notes. We asked respondents to rate the condition of the $5 and $50 notes they were holding in their wallets, purses or pockets. If they were not holding any, we asked about the $5 and $50 notes they last held or used.[5]

Restructuring the survey questionnaire

We partially restructured the SQ to best reflect the Bank's monitoring priorities. The resulting change in the order of the questions may have affected some estimates. Indeed, the literature shows that responses to questions at the end of long surveys, in particular, may be of a reduced quality due to providing multiple identical answers on a sequence of questions (known as straightlining); see, for example, Herzog and Bachman (1981). Tired respondents may also opt for the response that requires the least cognitive effort (Roberts et al. 2019). Our SQ adjustments may have impacted recall-based estimates of payment methods used in the past year and past week, as shown in **Appendix Section F**.

[4] Quality control is performed at the Bank's wholesale operating centres in Montréal and Toronto, where unfit notes are removed from circulation. To evaluate the quality of notes in circulation, the Bank also regularly samples unprocessed notes from each region of the country.

[5] The Eurosystem conducts a public opinion poll every two years as well as an ongoing online poll (since 2012) to gain an insight into public perceptions of note quality. Both polls focus on the quality of the €5 and the €50 bank notes; see Deinhammer and Ladi (2017).

3 What's in your wallet?

This section focuses on the availability and adoption of payment methods, while Section 4 discusses their use at the point of sale. We cover primarily cash and payment cards (debit, credit and prepaid cards), but we also report on alternative payment technologies.

3.1 Cash

3.1.1 Cash holdings

The MOP survey measures two types of cash holdings:

- *cash on hand* consists of the bank notes that Canadians hold in their wallets, purses and pockets at the time of the survey
- *other cash holdings* accounts for the notes held elsewhere, for example, in drawers or safes at home or in vehicles[6]

The first three columns of **Table 2** report on cash on hand. We show the mean and median cash-on-hand holdings and the share of Canadians with no cash on hand. About 80% of Canadians had some cash on hand in 2024. This share has been fairly consistent since 2022, stabilizing at a level higher than it was before the COVID-19 pandemic but lower than the levels observed in 2021, when there were more health concerns about the use of bank notes.[7]

Among Canadians holding bank notes in their wallets, purses or pockets, the average value amounted to $156 in 2024. Relative to 2023, these cash holdings nominally increased by $16 (an 11% increase). The mean amount of cash on hand, as measured in the SQ for the MOP Survey, has been rising steadily since the inception of the survey in 2009. The particularly large increase in 2021, during the pandemic, was likely driven by precautionary motives; see Henry, Shimoda and Zhu (2022). In 2024, the increase in mean cash on hand was mainly due to larger cash holdings among the upper three deciles; see **Appendix C**. The median had been stable at $70 since 2021, but it increased slightly in 2024 by $5 (a 7% increase).

As shown in **Chart 2**, some of the increase could be explained by inflation. Real cash-on-hand holdings (adjusted for inflation) have been quite stable on average since 2017, with small variations around the time of the pandemic.[8]

With respect to denominations held, Canadians appear much more likely to hold small denominations of $5, $10 or $20 than large denominations of $50 and $100 in their wallets, purses or pockets (**Table 3a**). However, in recent years, we have measured an increase in the share of Canadians holding large denomination notes on hand, while the share of those holding small denomination notes was more stable. Cash on hand is used mostly for cash transactions. The relative increase

[6] See definitions in **Appendix A**.

[7] Questions on cash holdings changed in 2022 (with a new "Prefer not to answer" response option). This change may affect comparability with previous surveys.

[8] Because bank notes are nominal, and since we are primarily interested in payment behaviour rather than real consumption, we focus on nominal cash and other values in this report.

in the share of Canadians holding large denominations may have been driven by the high inflation rates observed in Canada after the COVID-19 pandemic. This also reflects trends observed in the overall demand for bank notes, where large denominations in circulation are gaining in importance relative to small denominations; see **Chart 1**.

The last three columns of **Table 2** report on other cash holdings, that is, cash held by Canadians *outside of* their wallets, purses or pockets. We show the mean and median of other cash holdings and the share of Canadians without such holdings.

Other cash holdings is a store of value rather than being used for purchases, and only 22% of Canadians had this type of cash holding in 2024. The mean is particularly sensitive to large influential observations among the smaller subsample of respondents with other cash holdings. Therefore, the median is usually the preferred statistic. In 2024, the estimated median value for other cash holdings (among those with non-zero other cash holdings) was $200, down from $240 in 2023 (a 17% decline) but identical to estimates for 2021 and 2022. With respect to denominations held, Canadians who store cash outside of wallets, purses or pockets are more likely to hold $20 notes than other types of notes (**Table 3b**). In general, the shares of Canadians holding each denomination in their other cash holdings have not changed much over the past three years.

3.1.2 Cash withdrawals

Cash withdrawals from ABMs and bank branches and cashback on debit card purchases are presented in **Table 4**. The reported measures for each channel are the percentage of Canadians who made a withdrawal in the past week, the average number of withdrawals made in the past month and the average withdrawal size. Most of these measures increased in 2024 but still remain lower than pre-pandemic levels.

About 32%, 8% and 6% of Canadians made withdrawals in the past week using an ABM, a bank branch or cashback on debit card purchases, respectively. On average, Canadians made ABM withdrawals 2.1 times per month in 2024, compared with only 1.7 times per month in 2023. They also withdrew money through bank branches 0.5 times per month on average in 2024, compared with 0.4 times per month in 2023. Finally, they received cash back at a retailer using a debit card 0.5 times per month in 2024, compared with 0.4 times in 2023. While these frequencies are up from 2023, they remain below pre-pandemic levels measured in 2017.[9]

Average withdrawal sizes also increased for the three types. The average size of withdrawals from ABMs increased by $22 to $176 (a 14% increase), that of withdrawals made through bank branches increased by $34 to $303 (a 13% increase) and that of withdrawals by cashback increased by $22 to $102 (a 27% increase). The rise in the average value of an ABM withdrawal, the most common withdrawal method, closely mirrors that of cash-on-hand holdings.

[9]The monthly figure has been based on reported *weekly* frequency since 2021, while it was based on reported *monthly* frequency before that. Shortening the recall period aims at reducing recall bias. See the table note of **Table 4** for more information on how the survey questions used to measure cash withdrawals have changed over time.

3.1.3 Cash perceptions

In addition to questions related to cash management, the MOP surveys also ask respondents a series of questions about their perceptions of cash and alternative payment methods. We report several perceptions relating to cash, including plans to go cashless, views on the ease of withdrawing cash and assessments of the condition of bank notes. **Appendix D** shows the evolution of views on the acceptance, cost, ease and security of cash and other common methods of payment, as presented in previous reports.

Chart 3 shows results from a question asking whether respondents plan to stop using cash in the future. We estimate that in 2024, 79% of Canadians did not plan to go cashless. Only 8% planned to eventually go cashless, and 13% were already cashless. These proportions are very similar to those in 2022 and 2023. Since the question was first introduced in 2019, our measures for the percentage of cashless Canadians has fluctuated between 10% and 19%, peaking in April 2020 at the onset of the COVID-19 pandemic. However, slightly more than half of respondents who reported being cashless still held some cash on hand. These Canadians could be carrying cash for precautionary purposes, considering cash is the most widely accepted method of payment (Welte et al. 2024).

In 2023, for the first time, the MOP survey included questions to gauge how Canadians assess the ease or difficulty of accessing ABMs or bank branches to withdraw cash; see Henry, Shimoda and Rusu (2024b). Using the 2023 MOP Survey data, Chen, O'Habib and Xiao (2024) reveal alignment between subjective perceptions and distance-based metrics of cash accessibility in Canada. The 2024 MOP Survey asked the same set of questions about the perceived access to cash. Respondents answered using a five-point Likert scale. **Chart 4** shows the distribution of responses in 2023 and 2024. In 2024, getting to an ABM was either easy or very easy for 67% of Canadians, similar to 68% in 2023; 12% of them felt it was difficult or very difficult, compared with 11% in 2023. In terms of withdrawing cash from a bank branch, it was easy or very easy to get to a branch for 61% of Canadians, compared with 63% in 2023; 17% felt it was difficult or very difficult, compared with 15% in 2023. Overall, the 2024 measure of perceived ease of accessing ABMs and branches for withdrawing cash is similar to that observed in 2023.[10]

Chart 5 shows the results from new questions on the perceived quality of bank notes. The questions asked respondents to describe the condition of $5 and $50 notes on a five-point Likert scale ranging from "Poor (heavy wear or tears)" to "Excellent (crisp/new)." If respondents indicated holding a given denomination, they were asked about the condition of the note(s) they held ($5 held; $50 held). If they did not hold a given denomination at the time of the survey, they were asked to assess the condition of the note of this denomination that they had last used or held ($5 last held; $50 last held).[11]

[10] We focus on aggregate estimates of perceptions about access to cash. With respect to geographical disparities across Canada, Chen, O'Habib and Xiao (2024) find that rural and urban Canadians have similar perceptions about the ease of ABM access but different perceptions about access to branches. An update of this research based on 2024 MOP Survey data is forthcoming.

[11] The response rates for this question were affected by whether the respondents were holding or not holding the bank note(s) targeted by the question. Respondents who were not currently holding a given denomination tended to answer "Don't Know / Not sure" at a higher rate than those who held the $5 or $50 on hand. See also the note for **Chart 5**.

Generally, most Canadians rated bank notes as being in good condition. Specifically, 55% of consumers holding a $5 note found it to be either very good or excellent. Among those recalling the last $5 note that they held, slightly less than half (46%) still said that it was of at least very good quality. The rating was better for the $50 note than for the $5. Almost three-quarters of Canadians gave a good rating to their $50 notes, and this percentage hardly depended on whether the note was currently in their possession or was previously held.

3.2 Payment cards

Nearly all consumers in Canada have adopted payment cards. Based on our data, 99% of Canadians owned a debit card in 2024. **Table 5** shows that debit card adoption has been high and stable since 2009. Many Canadians have also adopted credit cards. The rate of credit card ownership measured in the MOP surveys has been stable overall in the past few years, with about 9 out of 10 Canadians owning a credit card (88% in 2024).[12] In **Appendix D**, we also show that Canadians' views on the acceptance, cost, ease and security of card payments have been stable over the last few years.

Against the background of high card adoption in Canada, the MOP surveys also monitor how these cards are linked to online payment accounts or mobile wallets. Debit cards appear to be linked less often than credit cards. The percentage of debit card owners who linked their debit card climbed to 27% in 2024, compared with 23% in 2023, and the percentage of credit card owners who linked their credit card was 43% in 2024, compared with 42% in 2023.

In addition to debit and credit cards, consumers can use prepaid cards to make payments. The left-most columns of **Table 5** provide statistics on ownership of the two most common types of prepaid cards in Canada:

- store-branded prepaid cards (prepaid store cards), for which the balance loaded on the card can be used only at the respective store
- prepaid credit cards branded as Visa, MasterCard or American Express, for which the funds on the card can be used wherever card payments from the respective card network are accepted

Our measure of the share of Canadians owning prepaid store cards dropped to 5% in 2024, less than half of the estimated ownership rate in 2023 (11%) but close to the 2021–22 estimates. Despite these fluctuations, the adoption rates have clearly been lower since 2021, compared with rates in 2017 and before. Possible explanations are that consumers are either switching to virtual and mobile versions of these prepaid cards (digital prepaid store cards or e-gift cards) or spending the funds at a faster rate. In both cases, they might discard the prepaid card soon after receiving it.[13] Ownership of prepaid credit cards, branded by card networks, dropped sharply before 2021 and has been around 9% since 2022.

Table 6 displays estimates of the fees associated with owning a bank account. In 2024, 66% of

[12] Credit card ownership was lower in segments of the population with lower age, education or income levels, as shown in **Appendix B**.

[13] Respondents may also have under-reported the digital prepaid store cards they own given the wording of the question in the SQ, which refers to cards but does not explicitly mention their digital versions.

Canadians with a bank account had a monthly fee associated with their account. Some bank account holders have their fee waived or refunded, which was the case in 2024 for 31% of Canadians with a monthly bank account fee. The distribution of monthly bank account fees was similar to those of previous years. Because the fee brackets have changed in the different iterations of the MOP survey, we group them into three levels of fees: low, intermediate and high. Each level is defined in the note for **Table 6**. Fewer than 20% of bank account holders who paid a monthly fee have a low-fee account (below $5 per month).

Finally, **Table 6** also reports the share of credit card owners who revolved on their credit card debt in the past month. A revolver is a credit card owner who does not pay off their entire monthly balance and is charged interest. In 2024, 33% of Canadians with a credit card revolved their debt in the past month. This is slightly higher than the 29% observed in 2023, and may reflect more difficult economic conditions for some consumers.

3.3 New payment technologies and alternatives

In addition to cash and cards, Canadians can potentially adopt a number of alternative payment methods, including mobile payment methods, Interac e-Transfers®, online payment accounts or even cryptocurrencies.[14] **Chart 6** shows the share of Canadians who used an alternative payment method in the past year. In 2024, Interac e-Transfer was the most common alternative method of payment, with just under half of Canadians having used it in the past year. The second most common alternative payment method was mobile payment, which just over a third of Canadians used. The relative importance of alternative payment methods appears to be unchanged since 2022, with e-Transfers being the most common, mobile payments the second-most and online payment accounts the third; see Henry, Shimoda and Rusu (2024b).[15]

Mobile payments include any purchase made using an application, or app, on a smartphone. This includes linked-card payments using a digital wallet app, payments using bank account apps (mostly Interac e-Transfers), online payment account apps (e.g., PayPal) and store-branded apps. Nearly 60% of mobile payers reported using a digital wallet app, corresponding to around 20% of Canadians. Bank account apps were also common, with 16% of Canadians having used it in the past year. Online payment account and store-branded apps, however, were used by less than 10% of Canadians in the past year.

[14] For a full definition of each term, see **Appendix A**.

[15] The SQ questions in the 2024 MOP Survey about use of payment methods in the past year and past week are not directly comparable to questions in previous survey years; see **Appendix F**.

4 How do you pay?

Using results from the DSI in the 2024 MOP Survey, we now describe how Canadians make purchases at the point of sale. We present the volume and value shares of purchases paid with different methods of payment as well as the average number and value of transactions overall and by the main methods of payment. We also provide a closer look at online and contactless purchases. Finally, we present complementary evidence from the SQ based on respondents' recall of their payments in the past week. Together, these estimates provide information about the payment methods most commonly used by Canadian consumers for day-to-day purchases.

4.1 Shares by method of payment

First, we consider volume and value shares of various payment methods. A payment method's *volume* share is the percentage of purchases that are made using it, relative to the total number of purchases. *Value* share, by contrast, is a percentage indicating how much of the total dollar value of all purchases is made using a given payment method.

4.1.1 Overall shares of purchases

Chart 7 shows the volume and value shares of cash, debit (either chip and personal identification number [PIN] or online), contactless debit, credit (chip and PIN or online), contactless credit, mobile and other payment methods. The "other" category includes the use of Interac e-Transfers, stored value cards (prepaid credit cards and prepaid store cards), online payment accounts, cheques, cryptocurrencies or coupons. Included here are both in-person and online purchases. In 2024, the shares of most methods of payment remained stable compared with their levels in 2023.

Cash shares have remained stable at the point of sale since 2021. In 2024, cash was used in 21% of all purchases, compared with 20% in 2023. The value share of cash stood at 11% in 2024, the same as in 2023. In terms of both the volume and the value, cash was the third-ranked method of payment at the point of sale, behind credit and debit—as it has been in all MOP surveys since 2020.

Debit cards continued to be the second-most common method of payment at the point of sale, with overall volume and value shares of 23% and 22%, respectively, in 2024. Debit purchases can be made online or in person, and in-person debit purchases can be either chip and PIN or contactless (tap-and-go). Debit purchases made either with chip and PIN or online accounted for 6% of purchase volume in 2024 and 10% of purchase value. Contactless debit shares were larger, accounting for 16% of purchase volume and 13% of purchase value.

As in previous years, credit cards were the most prevalent method of payment. In 2024, they accounted for 46% of overall purchase volume and 56% of purchase value. Similar to debit, credit purchases can be classified as either online, chip and PIN, or contactless. Chip and PIN or online credit payments accounted for 14% of purchase volume and 26% of purchase value in 2024. Contactless credit shares were larger, accounting for 33% of purchase volume and 30% of purchase value.

In 2024, the overall debit and credit shares declined slightly compared with previous years. Because contactless card payments can also be made on mobile devices, card shares may be partly explained by more Canadian consumers paying with a card stored on their phone. Felt, Welte and Talavera (2024) show that the vast majority of mobile payments are card payments made with a phone. Although mobile payments accounted for less than 5% of all purchases in terms of both volume and value in the DSI, they gained more importance in 2024 than in most recent years. In the DSI, we also observe that most mobile payments were in-person contactless payments.[16] We acknowledge that the DSI-based estimates of mobile purchases could underestimate actual use of mobile payments. For example, MOP survey respondents might have reported their mobile purchases made with a linked card as contactless credit or debit card purchases.

Finally, other methods of payment made up 6% of the volume and 8% of the value of purchases in 2024. Online payment accounts made up the largest share of alternative payment methods, at just under 2% of all purchases and 2% of overall value. Prepaid store cards and e-Transfers each made up around 1% of purchases.

4.1.2 Shares of in-person and online purchases

Chart 8 provides a closer look at *in-person* payments, with a focus on contactless payments. Contactless payment methods are popular in Canada. We show the volume and value shares of in-person purchases made using contactless (tap-and-go) credit, debit and mobile payments as well as cash and other in-person methods of payments. We started measuring contactless mobile payments in the DSI in 2023.

In 2024, almost two-thirds of in-person payments were contactless. This corresponds to about half of the total value of in-person purchases reported in the DSI. While overall contactless shares in 2024 were similar to those in 2023 and credit card payments remained the most used contactless payment method, contactless mobile payments have become more prominent. The slow but steady expansion of contactless methods of payments observed over the past few years also seems to displace chip and PIN card payments rather than cash payments.

Finally, **Chart 9** shows the value share of online purchases in the DSI (computed for both all purchases and retail purchases) and compares them to the share of online Canadian retail sales (e-commerce) in Statistics Canada data. A change in the relative share of online versus in-person purchases may affect the payments landscape because the methods of payment that can be used vary by purchase channel. The online share of all purchases, which has been reported in previous MOP survey reports, was 23% in 2024, an increase of 2 percentage points from 2023. For retail purchases in particular (groceries/drugs, gas, personal attire, hobby/sporting goods and durable goods), the online value share was 19%, an increase of around only half a percentage point from 2023. For external validation, we compare these changes to Statistics Canada data on changes in the share of e-commerce sales by Canadian retailers.[17] Because the Statistics Canada data use a different definition of retail sales, we do not compare point estimates but rather trends from 2023

[16] For chart readability in **Chart 7**, we do not break out contactless mobile payments from other mobile payments.

[17] The data are from Table 20-10-0056-01: "Monthly retail trade sales by province and territory." We use retail sales with North American Industry Classification System codes of 44–45, made in October, November and December (in alignment with the 2024 MOP Survey fieldwork).

to 2024. Statistics Canada data also indicate a small increase in the e-commerce share of about 0.5 percentage points.

4.2 Number and size of transactions

To better understand trends in methods of payment, we also report the average number and size of transactions made in the DSI from the 2024 MOP Survey. In **Chart 10**, we show transactions overall and by purchase channel (in person versus online). In **Chart 11**, we show transactions by the method of payment (cash, debit card and credit card).

Chart 10a shows the average number of transactions made per person in the three-day DSI, both overall and by channel.[18] In 2024, an average of 3.1 transactions were made over the three reporting days. Of these, 2.6 transactions were made in person, and 0.5 were made online. **Chart 10b** shows the average size of in-person and online purchases. Overall, the average purchase size in the DSI was $47. The average size of in-person purchases was $43, while online transactions had a higher average size of $72.

Chart 11a shows the average number of transactions made with each of the three main methods of payment: cash, debit cards and credit cards. Card purchases can be chip and PIN, contactless or online. The average number of cash purchases was 0.6 in 2024. An average of 0.6 debit purchases was also made over the course of three days, compared with 1.4 credit card purchases. **Chart 11b** shows the average size of cash, debit and credit purchases, that is, the average dollar value of transactions made using a given method of payment. The average size of cash purchases was $25. The average debit purchase was $47, and the average credit purchase was $57.

Overall, the number and size of transactions, as recorded in the 2024 DSI, have remained generally stable since 2020.[19] In this sense, Canadian consumers appear not to have substantially altered their behaviour at the point of sale. The number of credit purchases far exceeded cash or debit. Online purchases continued to remain higher in average value but comparatively low in frequency. Cash and debit continued to be used for smaller purchases, while credit was used for larger ones.

4.3 Use in the past week

We also provide recall-based estimates of which methods of payment were used, as measured in the SQ of the 2024 MOP Survey. In **Chart 12**, we show the percentage of Canadians who used a given method in the past week.[20] Credit cards were used by the largest share of Canadians (57%), followed by debit cards (48%) and cash (37%). More than one-third of Canadians had used cash in the past week. With respect to card payments, contactless payments were the type of transactions used by most. For alternatives to cash and physical debit and credit cards, mobile payments and

[18] For this calculation, we include only respondents who completed all three days of the diary. We use a specific set of calibration weights for that subsample.

[19] The median number of purchases and median size of purchases are basically unchanged over the period (not reported).

[20] As mentioned previously, estimates of payment methods used in the past week may have been affected by a change in the placement of the corresponding question in the 2024 SQ. Therefore, we do not show or discuss trends here. In **Appendix F**, we provide a short analysis of the impact of the 2024 change in question placement.

Interac e-Transfers came first. These results align with the payment choices observed in the 2024 DSI.

5 Conclusion

The MOP Survey provides perspective on the consumer side of payments, with a focus on cash use. Conducted every year since 2020, the survey results show that use of traditional payment methods—cash and cards—has held steady. In 2024, Canadians paid with cash for one in five purchases, and almost four out of five held cash on hand in their wallets, purses or pockets. They held more cash than in 2023 because more of them held higher denominations. The percentage of Canadians self-identifying as cashless remained at 13% in 2024, the same as in 2023.

As the sole issuer of Canadian bank notes, the Bank of Canada needs to understand the current and future demand for cash. The MOP Survey data are an important monitoring tool. While cash use at the point of sale has been resilient over the past few years, changes might still be on the horizon. While the steady decline in cash payments observed before the COVID-19 pandemic has not resumed in Canada, the evolution of the cash landscape is different in other countries. In the United States, for instance, cash payments as a share of total payments have been declining by 2 percentage points every year since 2021 (Bayeh et al. 2025).

The future of cash will depend on many factors. Four important examples of these factors are consumer preferences, payment innovations, cash accessibility at branches and ABMs, and merchant acceptance.

First, consumer preferences for cash and alternatives matter strongly, and preferences of younger generations may shape the future of the payments landscape. While older Canadians tend to use cash more often, many younger Canadians are adopting a wide range of payment methods, including digital innovations. Payments using mobile devices, for instance, are emerging as an alternative payment method.

Second, mobile payments could potentially induce a shift from physical wallets to digital wallets and thus decrease the demand for cash. Based on the 2024 MOP survey, more than a third of Canadians paid with their mobile device in the past year. Also, almost 5% of purchases in the DSI for the 2024 MOP Survey were made using mobile devices. The DSI shares of mobile purchases may, however, underestimate the true share of purchases paid by mobile shares, partly due to respondents' reporting behaviour. In the DSI, respondents might report a payment made with a card stored on their mobile device as either a card payment, a mobile payment or both. Because many consumers own and use smartphones, we continue to monitor the landscape of mobile payments (Felt, Welte and Talavera 2024). An accurate capture of mobile payments will be important in future MOP surveys.

Third, access to cash may also affect the demand for cash. In the 2024 MOP Survey, we carry forward questions from the 2023 MOP Survey on Canadians' perceptions of their access to ABMs and bank branches. For example, in 2024, two out of three Canadians felt it was either easy or very easy to get to an ABM, while just above 10% found it difficult or very difficult to get to one; these numbers are very similar to the 2023 measures.

Fourth, consumers' payment choices necessarily depend on which payment methods merchants accept. Likewise, merchants might decide to accept payment methods that consumers want to use

(Huynh, Nicholls and Shcherbakov 2022). Data from the DSI can provide an indirect measure of merchant acceptance (Chen and Wu 2025), and the Bank also surveys merchants directly on their acceptance of methods of payment (Welte et al. 2024; Welte and Wu 2023; Huynh, Nicholls and Nicholson 2019). Both estimation methods show the vast majority of merchants continue to accept cash at the point of sale.

The Bank of Canada promotes access to safe, fast, modern, reliable and convenient methods of payment for all Canadians, now and into the future. Against this background, the Bank uses the annual MOP surveys to closely monitor demand for, use of and access to cash as well as the ongoing developments in the payments landscape. The insights from the MOP Survey also provide empirical foundations to the research program on the future of cash and bank notes, and they inform the Bank's views on the global payments ecosystem.

6 Tables

Table 1: Bank of Canada program of consumer survey research

Date	Survey	Acronym	n - survey	n - diary	Mode
Nov. 2009	Methods of Payment	MOP	6,868	3,405	Paper + online
Nov. 2013	Methods of Payment	MOP	3,663	2,599	Paper + online
Dec. 2016	Bitcoin Omnibus	BTCOS	1,997		Online
Nov. 2017	Methods of Payment	MOP	3,123	2,187	Paper + online
Dec. 2017	Bitcoin Omnibus	BTCOS	2,623		Online
Dec. 2018	Bitcoin Omnibus	BTCOS	1,987		Online
Aug. 2019	Cash Alternative	CASW0	2,235		Online
Dec. 2019	Bitcoin Omnibus	BTCOS	1,987		Online
Apr. 2020	Cash Alternative	CASW1	4,192		Online
Jul. 2020	Cash Pulse	CPS	1,998		Online
Nov. 2020	Cash Alternative	CASW2	3,893	2,084	Online
Apr. 2021	Cash Alternative	CASW3	2,565		Online
Aug. 2021	Cash Alternative	CASW4	3,500		Online
Nov. 2021	Methods of Payment	MOP	4,725	2,866	Online
Aug. 2022	Cash Pulse	CPS	2,002		Online
Nov. 2022	Methods of Payment	MOP	5,607	1,779	Online
Nov. 2023	Methods of Payment	MOP	3,970	2,484	Online
Nov. 2024	Methods of Payment	MOP	4,016	2,439	Online

Note: This table documents basic features of the Bank of Canada's consumer-focused payment surveys. The Currency Department's Economic Research and Analysis team designed the surveys, which were implemented in collaboration with Ipsos.

Table 2: Cash holdings

	Cash on hand			Other cash holdings		
	mean $	median $	% zero	mean $	median $	% zero
2009	72		5.1		100	47.3
2013	81		6.2		300	64.7
2017	106		11.1		215	56.2
2021	127	70	25.1	443	200	78.2
2022*	130	70	20.9	381	200	82.5
2023*	140	70	19.6	423	240	80.4
2024*	156	75	21.2	472	200	77.7

Note: *Cash on hand* is the amount of cash in a respondent's wallet, purse or pocket. *Other cash holdings* is the amount of cash not held in a bank but stored elsewhere, such as at home or in a car. Dollar values for mean and median *cash on hand* and *other cash holdings* are calculated using only respondents who reported a positive amount of each respective type of cash. Estimates are from the survey questionnaire in the Methods-of-Payment surveys, and calibration weights are used. The asterisk (*) signifies that the *% zero cash* calculation excludes respondents who selected "Prefer not to answer" when asked about their cash holdings. In the 2022, 2023 and 2024 surveys, 10%, 9% and 10% of respondents selected "Prefer not to answer," respectively.

Sources: Bank of Canada and Bank of Canada calculations

Table 3: Cash holdings by denomination

a. Cash on hand

	$100 %	**$50** %	**$20** %	**$10** %	**$5** %
2009	5	14	83	56	75
2013	4	11	71	48	62
2017	9	17	68	47	54
2021	12	23	73	50	65
2022*	13	23	74	49	66
2023*	14	24	74	50	69
2024*	17	27	72	50	69

b. Other cash holdings

	$100 %	**$50** %	**$20** %	**$10** %	**$5** %
2017	36	37	63	33	30
2021	47	56	60	46	46
2022*	37	42	60	37	41
2023*	45	47	63	38	42
2024*	40	46	63	40	42

Note: This table shows the percentages of respondents holding a given denomination, among those who reported having a positive amount of each type of cash holding (cash on hand and other cash holdings). *Cash on hand* is the amount of cash in a respondent's wallet, purse or pocket. *Other cash holdings* is the amount of cash a respondent holds outside of their wallet, purse or pocket. Other cash holdings are reported by denomination only for 2017 onward. Estimates are from the survey questionnaire in the Methods-of-Payment surveys, and calibration weights are used. The asterisk (*) signifies that the % calculation excludes respondents who selected "Prefer not to answer" when asked about their cash holdings. In the 2022, 2023 and 2024 surveys, 10%, 9% and 10% of respondents selected "Prefer not to answer," respectively.

Sources: Bank of Canada and Bank of Canada calculations

Table 4: Cash withdrawals

	ABM			Bank branch			Cashback		
	% made wd	mean #	avg. $	% made wd	mean #	avg. $	% made wd	mean #	avg. $
2009	50.0	4.3	113	18.1	1.6	236	19.8	1.9	60
2013	37.0	2.7	118	8.7	0.7	236	8.3	0.7	43
2017	27.0	2.3	140	3.1	0.6	289	7.9	0.9	56
2021*	28.1	1.6	154	5.8	0.3	340	3.4	0.2	74
2022*	28.7	1.7	156	5.5	0.3	226	4.4	0.3	55
2023*	29.9	1.7	154	6.0	0.4	269	4.8	0.4	80
2024*	31.9	2.1	176	8.0	0.5	303	6.3	0.5	102

Note: This table shows measures of cash withdrawals made from an automated banking machine (ABM) or bank branch or by cashback using a debit card. The *% made wd* columns reflect the percentage of respondents who made a withdrawal in the past week. The *mean #* columns show the average number of withdrawals made in the past month. The *avg. $* columns show the average size of a withdrawal. The data source used is the survey questionnaire in the Methods-of-Payment (MOP) surveys, and calibration weights are used. The asterisk (*) signifies that there were changes to the cash withdrawal questions, most notably in the 2021–24 MOP surveys compared with those of previous years. In 2009, 2013 and 2017, we consider a respondent to have made a withdrawal in the past week if they made at least three withdrawals in the past month. Beginning in 2021, the question asked directly about withdrawals made in the past week. The 2021–24 estimates are converted to monthly by multiplying by 4.345, which is the average number of weeks in a month. In 2009, 2013 and 2017, the average size was based on a question that asks about a "typical withdrawal." Beginning in 2021, the average size was calculated based on the total amount withdrawn in the past week divided by the number of withdrawals made. For this report, a new cleaning method was applied to 2021–24 data, and thus estimates published in prior reports may vary slightly from those shown in this table.
Sources: Bank of Canada and Bank of Canada calculations

Table 5: Card ownership

	Debit		Credit		Prepaid store card	Prepaid credit card
	% own	% linked	% own	% linked	% own	% own
2009	97		80		23	
2013	98		82		27	12
2017	99		89		27	21
2021	98	17	87	31	7	7
2022	98	20	90	36	8	9
2023	98	23	89	42	11	9
2024	99	27	88	43	5	9

Note: This table shows the rates of payment card ownership for debit, credit and prepaid (stored-value) cards, as measured from the survey questionnaire in the Methods-of-Payment surveys. Calibration weights are used. The *% own* columns show the percentages of respondents who reported owning at least one debit or one credit card, respectively. The *% linked* columns show the percentages of respondents who reported linking at least one card to an online payment account or mobile app among those who have at least one debit or credit card. In 2009, the two types of prepaid cards were included as a single category.

Sources: Bank of Canada and Bank of Canada calculations

Table 6: Bank account fees and credit card revolving

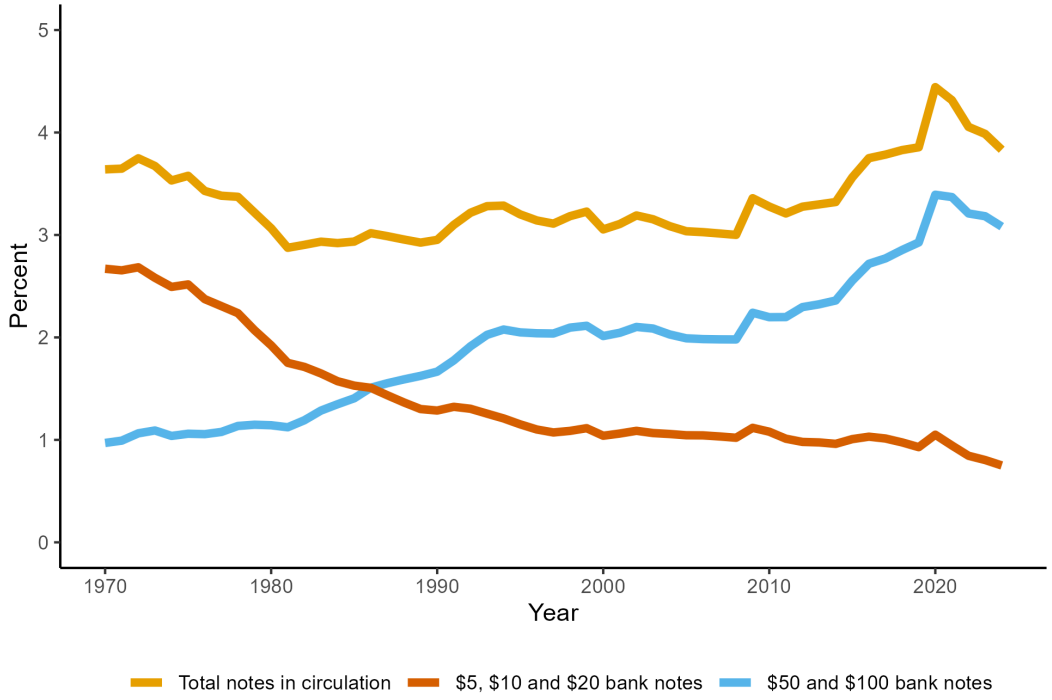
Year	Account fee %	Fee waived %	Monthly fee Low	Intermediate	High	Credit card revolver %
2017	73	44	32	58	10	30
2021	66	32	20	70	10	27
2022	63	31	16	74	10	27
2023	62	34	16	75	10	29
2024	66	31	17	75	8	33

Note: *Account fee* is the percentage of respondents with a bank account who reported having a monthly account fee. *Fee waived* is the percentage of respondents who reported that the fee was waived or refunded in the past month, conditional on having a bank account with a monthly fee. *Monthly fee* is the distribution of monthly bank account fees across three levels of fees: low, intermediate and high. Respondents who reported "Don't know/not sure" answers are excluded from the calculations. The fee brackets changed over time in the SQ. *Low* fees were under $5; *Intermediate* fees were $5–$25 in 2017, $5–$20 in 2021–23 and $5–$28 in 2024; *High* fees were higher than the *Intermediate* range for any given year. *Credit card revolver* is the percentage of respondents who did not pay their full credit card balance in the past month. The data source used is the survey questionnaire in the Methods-of-Payment surveys, and calibration weights are used.

Sources: Bank of Canada and Bank of Canada calculations

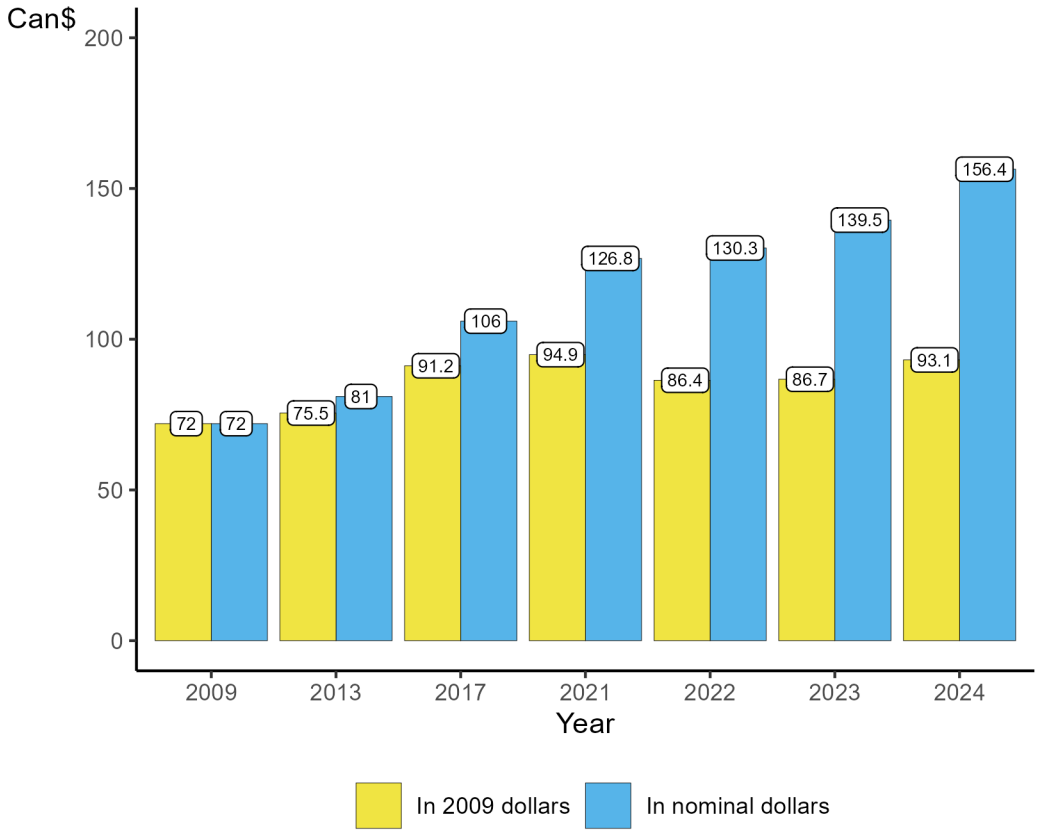
7 Charts

Chart 1: Aggregate demand for cash in Canada



Note: This chart shows the value of bank notes in circulation as a percentage of nominal gross domestic product (GDP) from 1970 to 2024. This measure is used to quantify aggregate cash demand in the economy. Notes in circulation are internal Bank of Canada data based on the Bank Notes Distribution System data on withdrawals by financial institutions at distribution centres located in regional distribution points across Canada. GDP data are from Statistics Canada Table 36-10-0104-01.
Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations
Last observations: Bank Notes Distribution System, 2024; GDP data, May 30, 2025

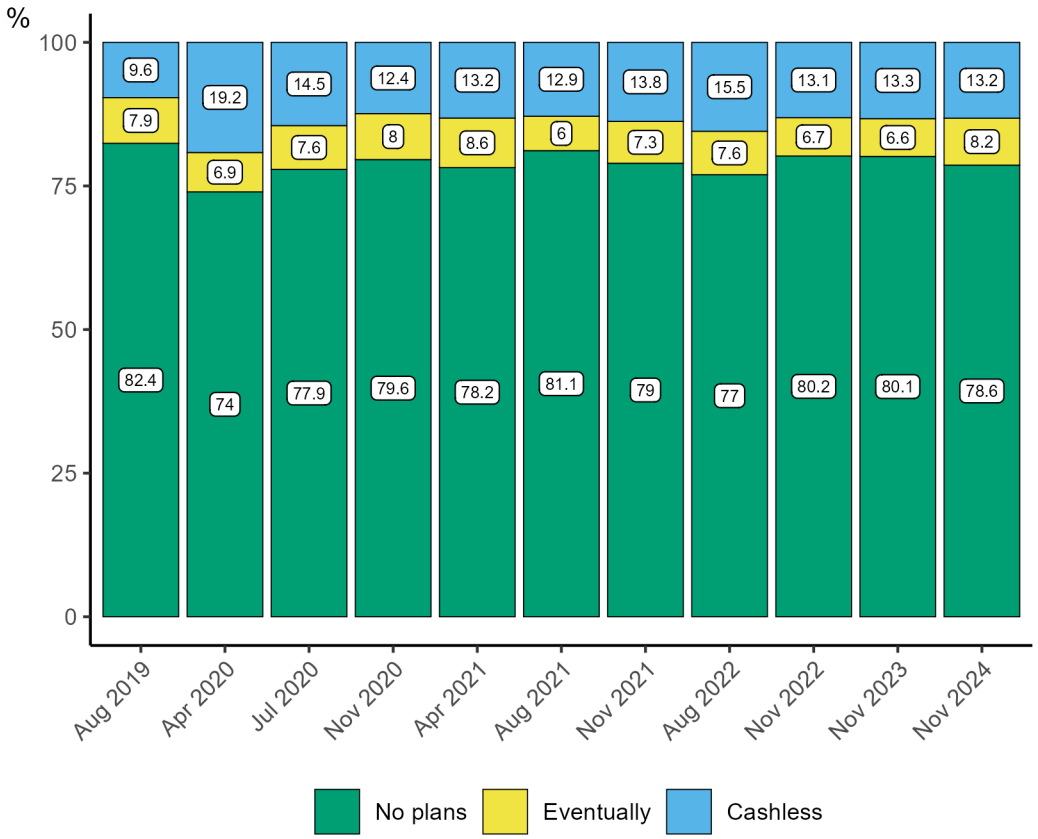
Chart 2: Inflation-adjusted cash on hand



Note: This chart shows mean cash on hand from the survey questionnaire in the Methods-of-Payment (MOP) surveys. Calibration weights are used. Mean cash on hand is expressed both in nominal terms (blue bars) and in 2009 dollars (yellow bars). Mean cash on hand expressed in 2009 dollars is the product of the nominal value and an adjustment factor. The adjustment factor is the complement of the percentage change in the consumer price index (CPI) in a given year, using 2009 as a base year. We use monthly, not seasonally adjusted CPI estimates in November to calculate adjustment factors for each year. CPI data are from Statistics Canada Table 18-10-0004-01.
Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations

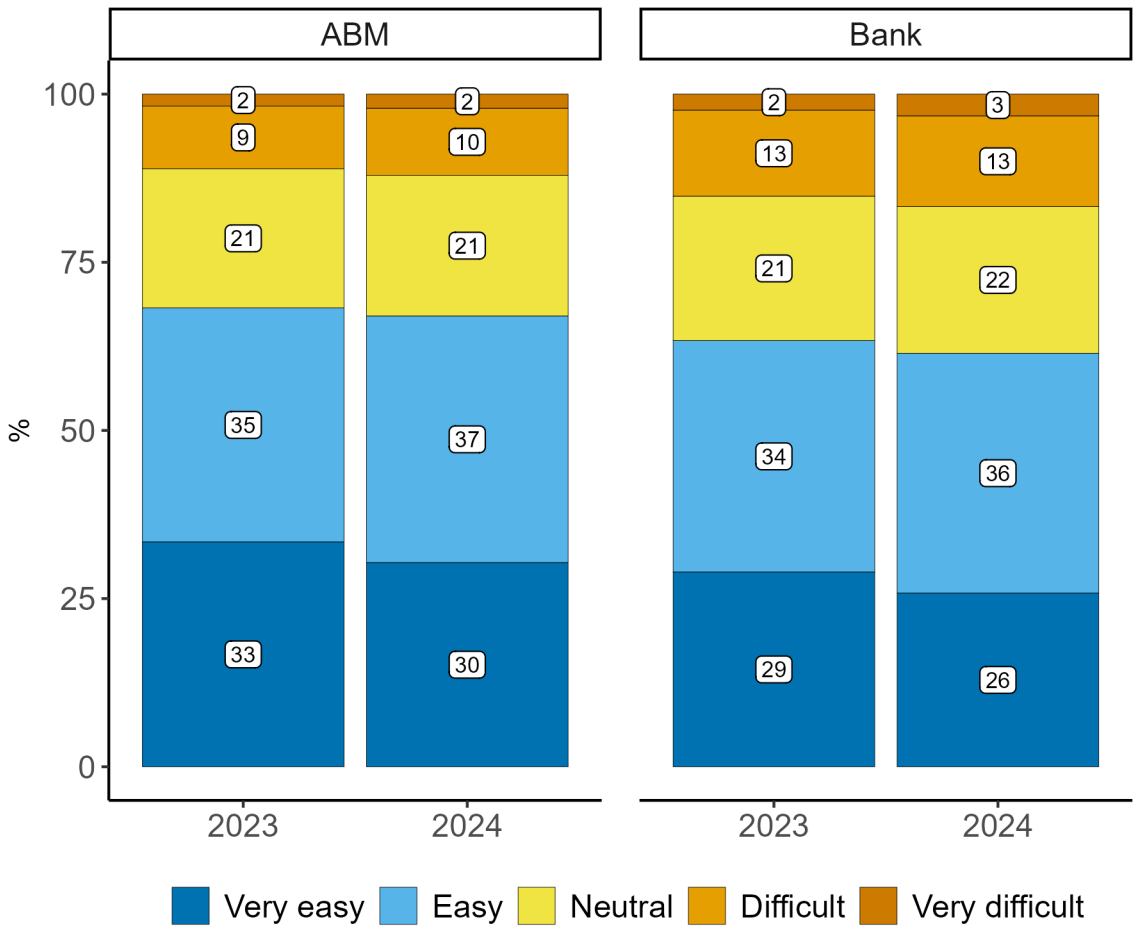
Last observations: MOP surveys, November 2024; CPI data, November 2024

Chart 3: Plans to go cashless



Note: This chart shows the distribution of responses to the question "Do you currently have any plans to stop using cash in the future?" in the survey questionnaire for the Methods-of-Payment surveys. Calibration weights are used. *No plans* indicates that the respondent answered, "No, I do not have any plans to stop using cash." *Eventually* indicates that the respondent answered either "Yes, in the next two years;" "Yes, two to five years from now;" or "Yes, more than five years from now." *Cashless* indicates that the respondent answered, "Yes, I have already stopped using cash." **Table 1** lists the Bank of Canada's consumer-focused payment surveys.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

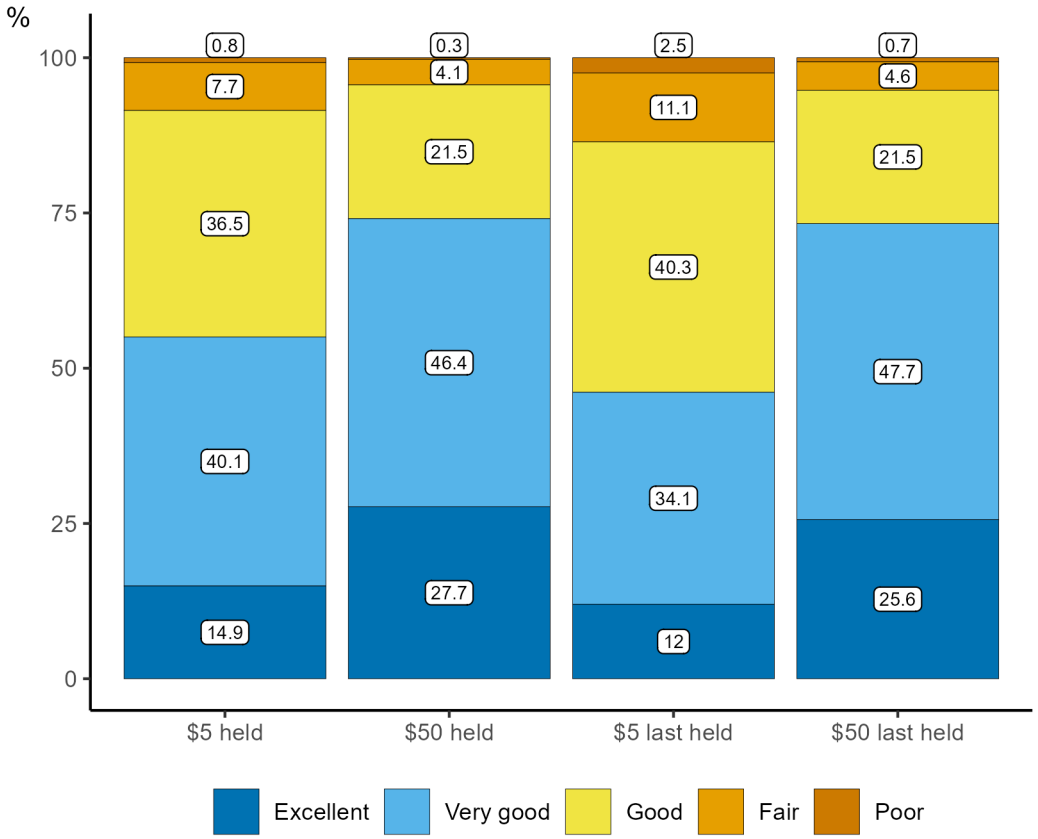
Chart 4: Perceptions of access to cash



Note: This chart shows the distribution of responses to the question "When you need to withdraw cash, how easy or difficult is it for you to ...? (a) Get to an ATM or ABM; (b) Get to a bank" in the survey questionnaire for the Methods-of-Payment (MOP) surveys. Calibration weights are used. "Unsure" responses are excluded. The responses from the 2024 MOP Survey are compared with those of the 2023 MOP Survey, when the question was first introduced. ATM means automated teller machine, and ABM means automated banking machine.
Sources: Bank of Canada and Bank of Canada calculations

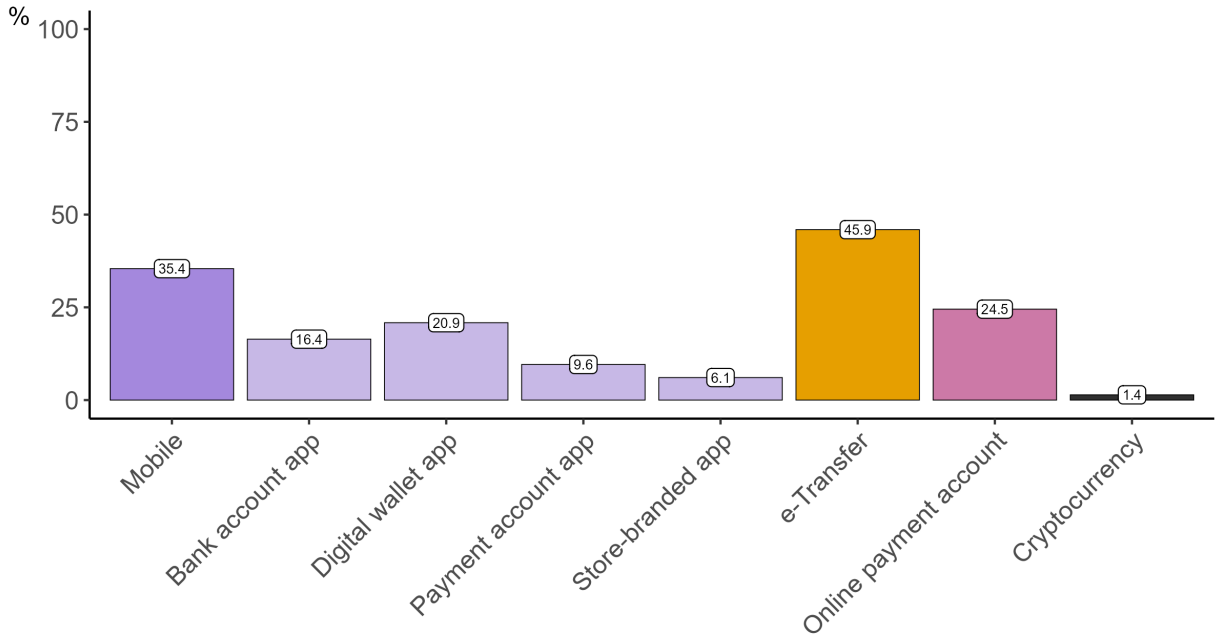
Last observation: November 2024

Chart 5: Reported bank note condition



Note: Respondents were asked one of two questions in the survey questionnaire for the 2024 Methods-of-Payment Survey, for each of the $5 and $50 denominations. If a respondent indicated holding a given denomination, they were asked to describe the condition of their note(s); if a respondent did not hold a given denomination, they were asked to describe the condition of the note(s) they last held or used. Response options were: Excellent (crisp/new), Very good (almost crisp/new), Good (with some folds and wear), Fair (quite a bit of wear), Poor (heavy wear or tears) and Don't know / Not sure. The shares of respondents who answered "Don't know" for the condition of their held $5 and $50 note(s) were 1.0% and 0.9%, respectively. The shares of respondents who answered "Don't know" for the condition of their last-held $5 and $50 note were 9.2% and 17.0%, respectively. Calibration weights are used.

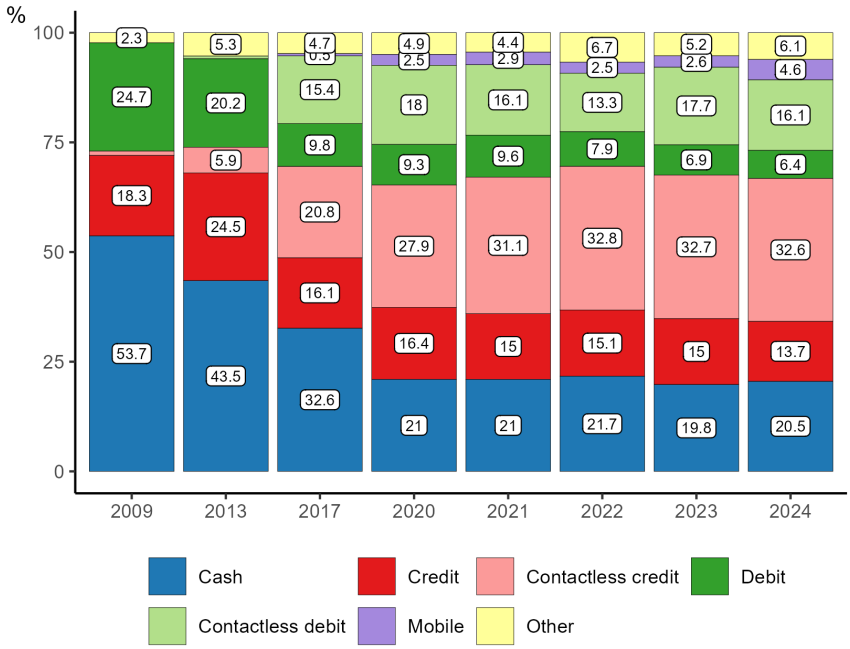
Chart 6: Adoption of alternatives to cash and cards (past year)



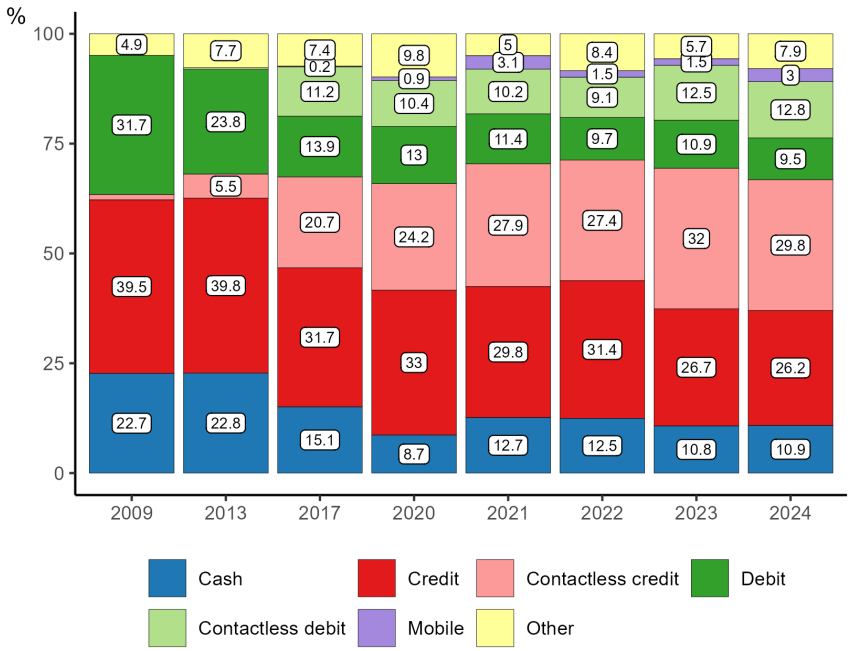
Note: This chart shows the percentage of respondents who recalled using various means of payment for a purchase from a store or business (in person or online) in the past year. *Mobile* comprises *Bank account app*, *Digital wallet app*, *Payment account app* or *Store-branded app*. Data are from the survey questionnaire for the 2024 Methods-of-Payment Survey, and calibration weights are used.

Chart 7: Payment shares

a. Volume shares



b. Value shares

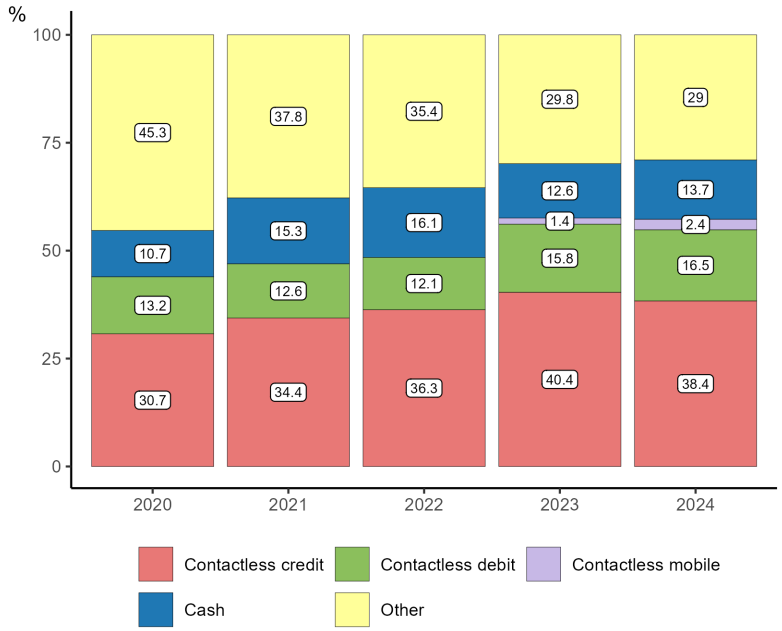


Note: This chart shows the share of purchases by payment method. Panel a shows the shares according to the number of purchases, while panel b shows the shares by dollar value of purchases. *Mobile* refers to transactions made with a mobile payment app, whether in person or online. Data are from the diary survey instruments in the 2009, 2013, 2017, 2021, 2022, 2023 and 2024 Methods-of-Payment surveys and the November 2020 Cash Alternative Survey. Calibration weights are used. Shares in 2021 may have changed compared with previous reports due to an adjustment in the weights used.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: Methods-of-Payment surveys, November 2024; Cash Alternative Survey, November 2020

Chart 8: Contactless shares of in-person purchases

a. Volume shares

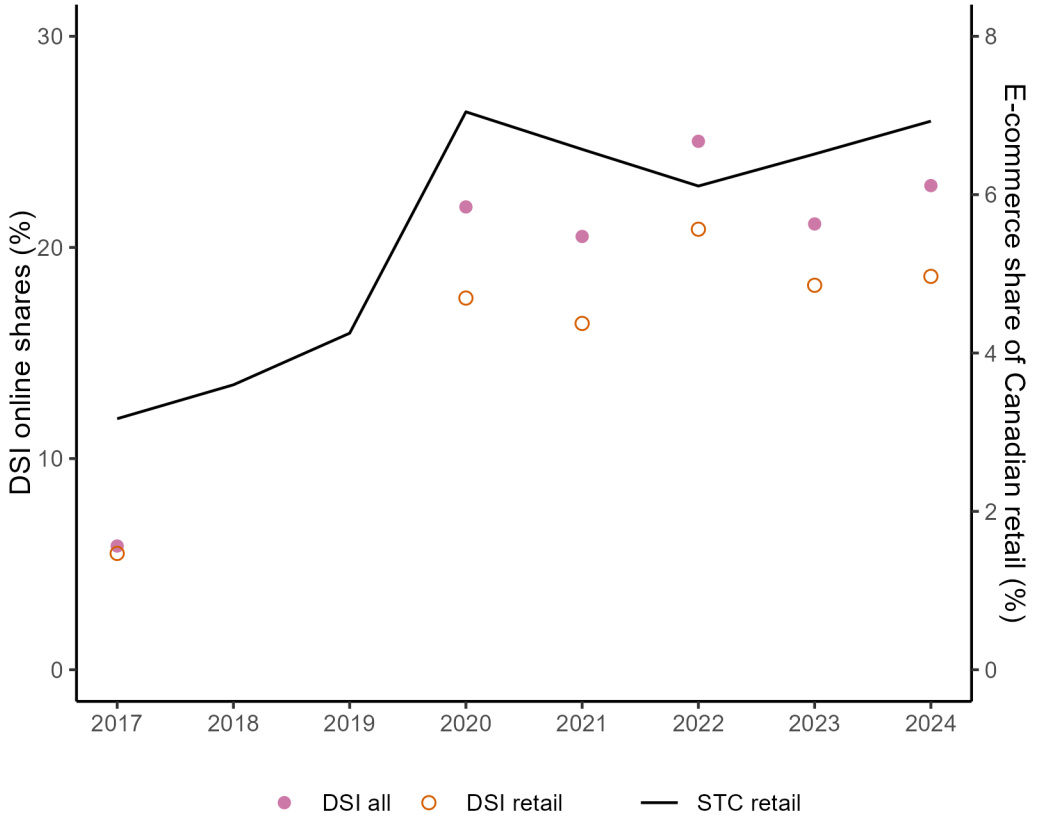
b. Value shares



Note: This chart shows the share of in-person purchases by payment method. Panel a shows the shares according to the number of purchases, while panel b shows the shares by dollar value of purchases. The volume share of a given method of payment is the share (%) of all in-person purchases made using that payment method. The value share is the dollar-value share (%) of all purchases made using a given payment method. Data are from the diary survey instruments in the November 2020 Cash Alternative Survey and the 2021, 2022, 2023 and 2024 Methods-of-Payment surveys. Calibration weights are used. We started measuring contactless mobile payments in 2023.
Sources: Bank of Canada and Bank of Canada calculations

Last observations: Methods-of-Payment surveys, November 2024; Cash Alternative Survey, November 2020

Chart 9: Online shares

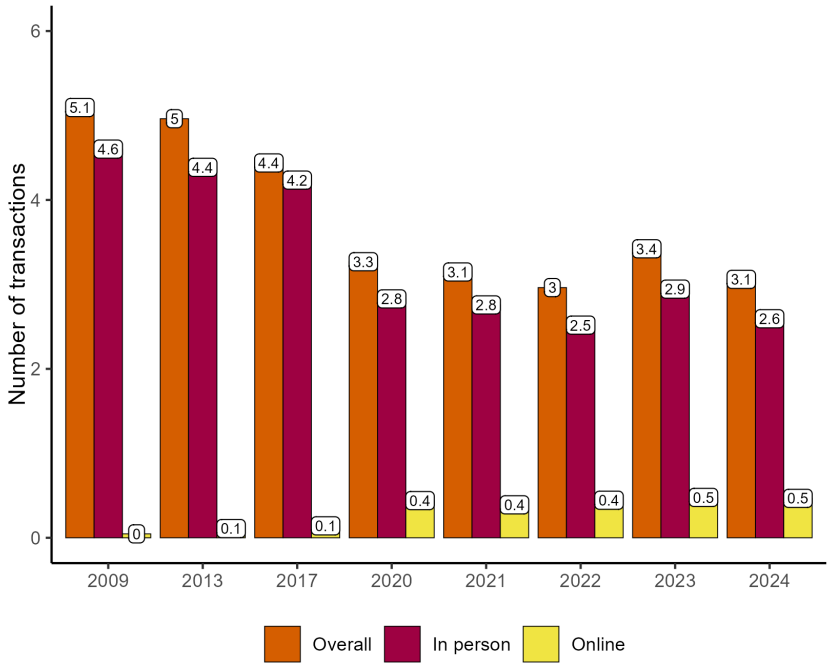


Note: This chart shows two measures of the share of online purchases: those in the diary survey instruments (DSI) (left axis) and in the Canadian retail sales in Statistics Canada data (right axis). *DSI all* refers to the online share (in value) of all purchases in the diary survey instrument of the MOP surveys. *DSI retail* refers to the online share (in value) of purchases in the categories that correspond to retail trade (groceries or drugs, gas, personal attire, hobby or sporting goods and durable goods). Data are from the DSI in the 2017, 2021, 2022, 2023 and 2024 Methods-of-Payment surveys and the November 2020 Cash Alternative Survey. Calibration weights are used. *STC retail* refers to the share of Canadian retail sales that are e-commerce sales, based on Statistics Canada's monthly retail sales data (see Table 20-10-0056-01). They reflect the (seasonally unadjusted) dollar values of total and e-commerce retail sales in the fourth quarter for businesses classified as North American Industry Classification System codes 44–45. We use the sum of monthly sales over the fourth quarter because that quarter aligns with the timing of the MOP survey data collection. We compute the relative share of e-commerce sales.
Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations

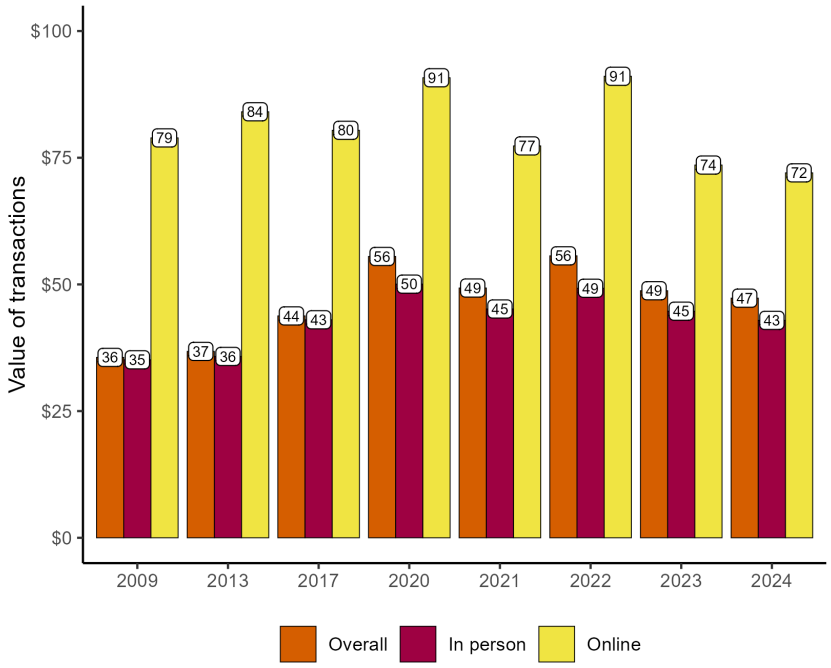
Last observations: MOP surveys, November 2024; Statistics Canada retail data, 2024Q4

Chart 10: Number and size of purchases, overall and by transaction channel

a. Average number of purchases



b. Average size ($) of purchases

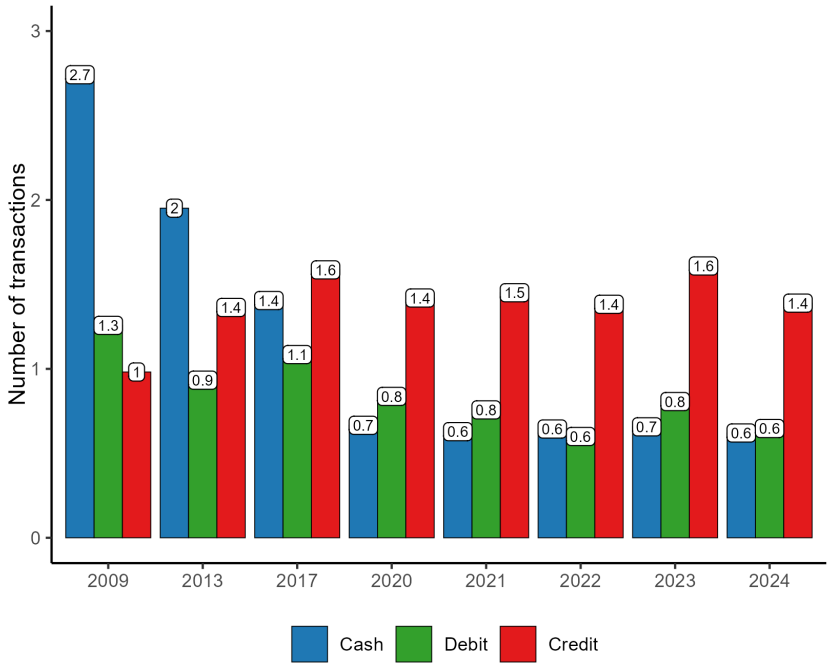


Note: This chart shows the number and size of purchases overall and by channel: in person and online. Panel a shows the average number of purchases per diary, based on respondents who completed all three days of the diary survey instruments in the 2009, 2013, 2017, 2021, 2022, 2023 and 2024 Methods-of-Payment surveys and the November 2020 Cash Alternative Survey. Panel b shows the average size of purchases. Calibration weights are used.
Source: Bank of Canada and Bank of Canada calculations

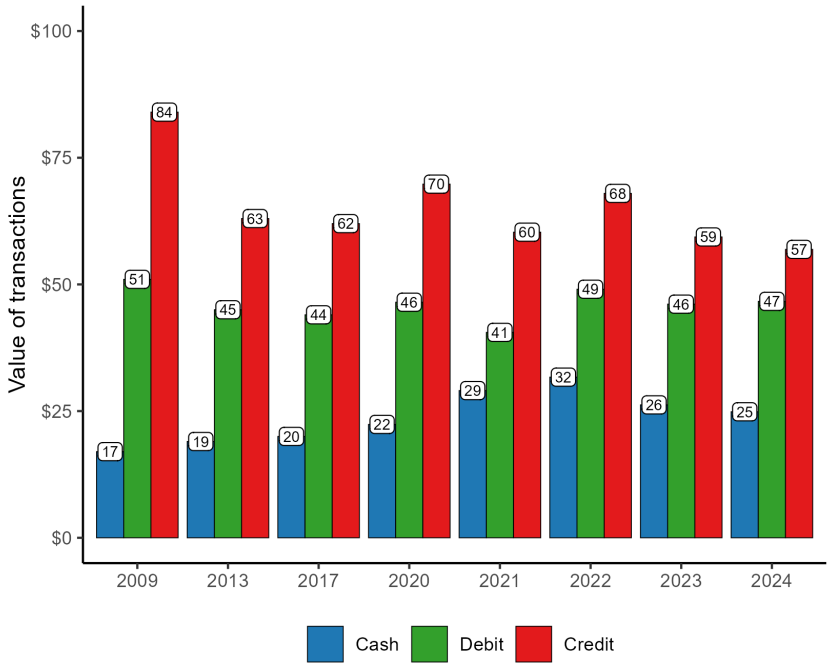
Last observations: Methods-of-Payment surveys, November 2024; Cash Alternative Survey, November 2020

Chart 11: Number and average size of purchases, by method of payment

a. Average number of purchases



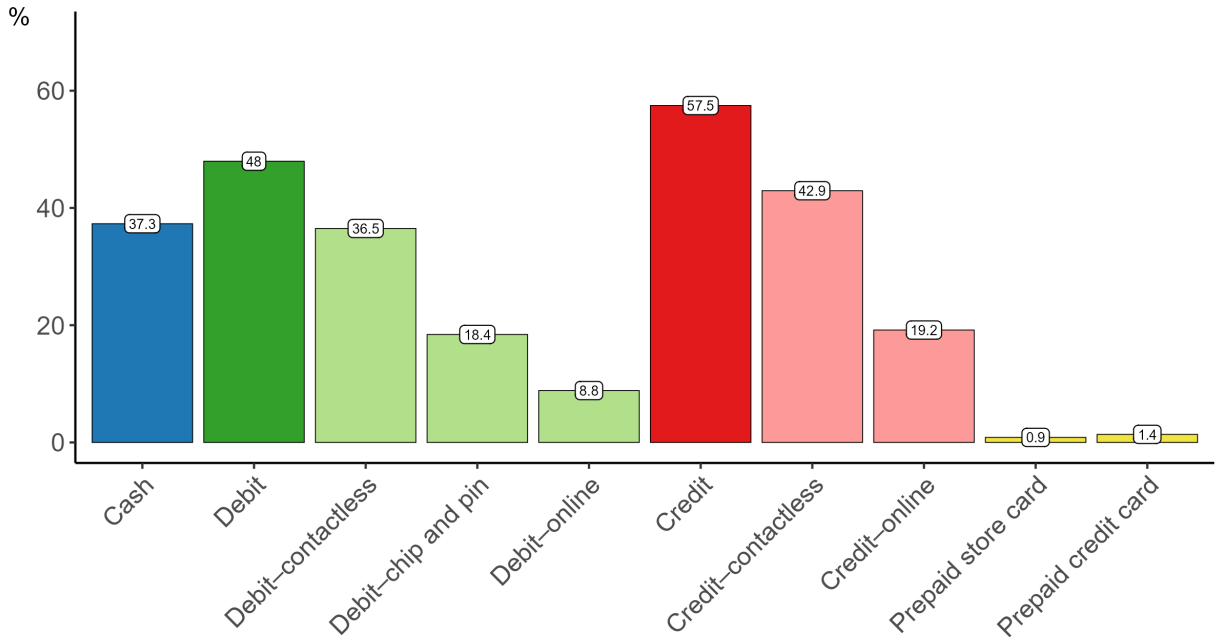
b. Average size ($) of purchases



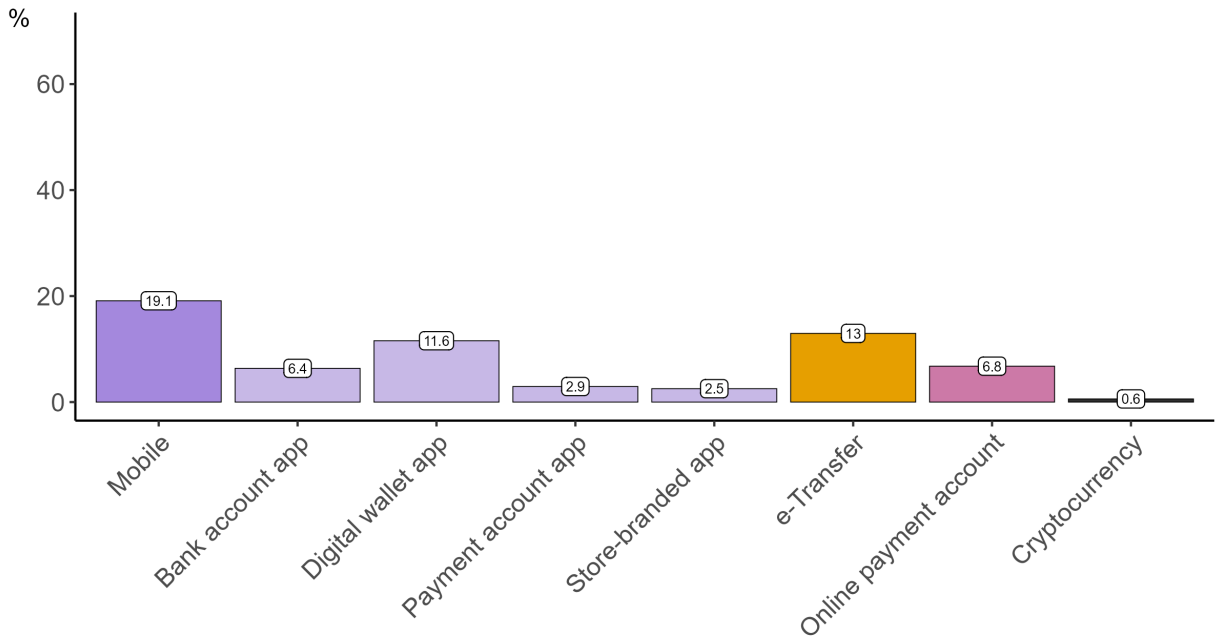
Note: This chart shows the number and size of purchases by payment method: cash, debit card and credit card. Both debit and credit include tap and go as well as chip and PIN, or personal identification number, and online payments. Panel a shows the average number of purchases per diary survey instrument (DSI), based on respondents who completed all three days of the DSI in the 2009, 2013, 2017, 2021, 2022, 2023 and 2024 Methods-of-Payment surveys and the November 2020 Cash Alternative Survey. Panel b shows the average size of purchases. Calibration weights are used.
Sources: Bank of Canada and Bank of Canada calculations
Last observations: Methods-of-Payment surveys, November 2024; Cash Alternative Survey, November 2020

Chart 12: Use of payment methods in the past week

a. Cash and cards



b. Mobile payments and alternatives



Note: This chart shows the percentage of respondents who recalled using various means of payment for a purchase from a store or business (in person or online) over the past week. Panel a shows cash and cards, while panel b shows alternatives. *Mobile* comprises *Bank account app*, *Digital wallet app*, *Payment account app* or *Store-branded app*. Data are from the survey questionnaire for the 2024 Methods-of-Payment Survey, and calibration weights are used.

Appendix

Appendix A defines some terminology used in the report. **Appendix B** breaks down the main statistics by demographic group. **Appendix C** provides additional information on cash management variables, particularly their distributions. **Appendix D** shares the results of questions on the perceptions of features of various payment methods not included in the main part of the report. Finally, beyond the usual data quality assessment in **Appendix E**, **Appendix F** analyzes the impacts of changing the location of some questions in the survey questionnaire on the results.

A Key definitions

Table A-1: Definitions of cash holdings (survey questionnaire, or SQ)

Concept	Definition
cash on hand	amount of cash in the respondent's wallet, purse or pocket at the time of the survey
other cash holdings	amount of cash the respondent keeps in locations other than their wallet, purse or pocket (for example, cash kept in a car, house or other safe place)—does not include banks

Table A-2: Definitions of transaction types (diary survey instrument, or DSI)

Concept	Definition
purchase	any good or service purchased from a store, business, institution or government service (in person or online) or from another person—does not include pre-authorized payments, bill payments, business expenses, donations or gifts
withdrawal	cash obtained from an automated banking machine or bank branch

Table A-3: Definitions of payment instruments (SQ and DSI)

Concept	**Definition**
cash	coins and bank notes
debit card	card issued by a bank that gives the holder electronic access to a bank account for making payments and withdrawals from an automated banking machine
credit card	card allowing a holder to purchase goods and services on credit, both in person and online, and pay the credit card company later
prepaid card issued by Visa, Mastercard, American Express	card that comes loaded with funds at the time of purchase and features the Visa, Mastercard or American Express logo—can be used both online and in person
store-branded prepaid card	card issued by a retailer such as Tim Hortons or Walmart that can be used only at stores belonging to that retailer—can usually be reloaded with funds
contactless payment (tap-and-go)	feature of most debit and credit cards that allows the user to pay by waving or tapping the card over a terminal without entering a personal identification number, swiping or inserting the card—can also be used for mobile payments (e.g., tapping to pay with a linked credit card using a digital wallet)
Mobile payment application (app)	any application (including bank accounts, digital wallets, online payment accounts and store-branded apps such as the Scotiabank app, Apple Pay and the Starbucks app) on a smartphone that allows the user to make purchases
Interac e-Transfer®	method of transferring money from one person to another using an email address or a mobile phone number
online payment account	account, such as PayPal, that is not affiliated with any particular bank but that can store funds and be used to make purchases or transfer money on the internet—can be loaded using a credit card or by linking to a bank account
cryptocurrency	digital currency and payment method, such as Bitcoin, with accounts and transactions listed in a public, shared database and often secured through special protocols called cryptography

B Breakdown of main estimates by demographics

In this section, we provide a breakdown of select cash management and payment statistics by core demographic groups. **Table B-1** reports cash holdings and withdrawals from automated banking machines by group. **Table B-2** reports credit card ownership as well as volume shares for cash, debit, credit and mobile payments.

In the breakdown by gender, it appears that men use cash more than women do, with higher average and median cash holdings, higher withdrawal frequency and withdrawal size, and a higher share of cash volume relative to women. By contrast, women use credit cards for a slightly higher share of purchases.

By age, young respondents reported higher cash holdings as well as more and larger withdrawals than older age groups. However, the oldest age category (55 years and older) have the highest fraction of respondents reporting that they hold some cash and that they use cash for a higher volume of purchases. Credit card ownership is also higher for older demographics. Mobile payment methods also show some disparity in use across age groups, with Canadians aged 18–54 using mobile payments for more than 6% of purchases, and those aged 55 and older using them for only about 2% of purchases.

Splitting the sample by education level also yields differing results across groups. Altogether, university-educated Canadians have larger average cash-on-hand holdings. They also have the highest credit volume shares, in association with higher rates of credit card ownership. In contrast, the least-educated Canadians use cash and debit most frequently.

Canadians in the low income bracket tend to hold and withdraw less cash than other groups, but they use cash the most for transactions. They are also less likely to own a credit card and use credit cards relatively less for paying. Their volume shares of mobile payments are also low, on average.

In the 2024 Methods-of-Payment Survey, rural and urban respondents reported similar cash holdings and cash withdrawals. Credit card ownership was also similar between both groups. Rural Canadians use cash and debit for more of their purchases, however, while those in urban areas use credit and mobile payments at a higher volume.

Table B-1: Cash estimates, by select demographic groups

		Cash on hand			*ABM withdrawals*		
		Avg ($)	Median ($)	% holding	% made wd	Mean #	Avg. $
Overall		156	75	78.8	31.9	2.1	176
Gender	Male	176	80	77.9	37.6	2.5	183
	Female	138	70	79.8	26.5	1.8	166
Age	18–34	204	80	74.6	34.2	2.8	202
	35–54	134	60	72.4	30.9	2.0	153
	55+	144	80	86.8	31.1	1.7	173
Education	High school	146	75	78.4	34.5	2.5	166
	College	150	75	75.7	30.1	1.8	177
	University	176	80	82.2	30.0	1.9	191
Income	<$45k	140	60	79.8	36.4	2.3	143
	$45–$85k	166	80	81.1	34.1	2.4	184
	>$85k	163	80	76.9	29.8	2.0	188
Area	Rural	154	95	76.0	29.8	2.2	163
	Urban	159	75	79.4	32.7	2.1	181

Note: Cash on hand is the cash in a respondent's wallet, purse or pocket. *Avg ($)* and *Median ($)* are the average and median cash on hand, for respondents who reported holding cash. *% holding* is the percentage of respondents who reported holding cash on hand. ABM withdrawals are withdrawals from an automated banking machine. *% made wd* is the percentage of respondents who made a withdrawal from an ABM. *Mean #* is the mean monthly number of ABM withdrawals. *Avg ($)* is the average amount withdrawn from an ABM. All estimates are calculated using the survey questionnaire in the 2024 Methods-of-Payment Survey, and calibration weights are used.

Table B-2: Credit card ownership and volume shares, by select demographic groups

		Credit card	*Volume shares*			
		% own	Cash	Debit	Credit	Mobile
Overall		88.3	20.5	22.5	46.2	4.6
Gender	Male	88.4	22.6	22.2	45.4	4.5
	Female	88.3	17.8	22.9	47.6	4.9
Age	18–34	80.7	18.9	22.4	45.3	6.3
	35–54	89.7	15.2	24.4	47.9	6.3
	55+	92.8	26.3	20.9	45.4	2.2
Education	High school	80.6	27.0	26.6	36.4	4.0
	College	92.3	18.0	23.4	47.4	5.2
	University	95.6	15.1	16.7	57.1	4.9
Income	<$45k	77.3	30.6	25.8	36.6	1.2
	$45–$85k	90.8	23.1	25.3	41.9	3.3
	>$85k	92.4	16.2	19.5	52.0	6.6
Area	Rural	87.4	27.1	27.3	39.7	2.7
	Urban	89.8	20.1	21.3	47.3	5.0

Note: The *% own* column shows the percentages of respondents who reported owning at least one credit card in the survey questionnaire of the 2024 Methods-of-Payment (MOP) Survey. Cash volume is the volume share of cash (% of transactions made with cash, in a given demographic); debit, credit and mobile are the volume shares associated with those payment methods. All volume shares are from the diary survey instrument in the 2024 MOP Survey, and calibration weights are used.

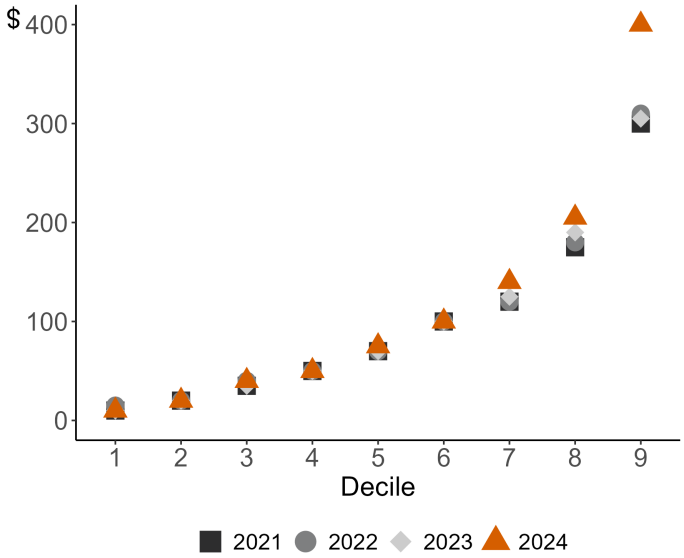
C Additional results on cash management

In the 2024 Methods-of-Payment Survey, we note an increase in average cash holdings, withdrawal frequencies and withdrawal amounts (**Tables 2 and 4**). To better understand the reasons for these results, we conduct additional analysis on cash management variables.

C.1 Distributions

Chart C-1 shows that the 2024 increase in average cash-on-hand holdings is mainly due to a growth in cash holdings among the upper three deciles.

Chart C-1: Cash-on-hand decile averages



Note: The chart shows decile averages of the cash-on-hand variable, cleaned and winsorized at the 99th percentile. Data are from the survey questionnaire of the 2021, 2022, 2023 and 2024 Methods-of-Payment surveys. Calibration weights are used.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

Chart C-2 shows the percentage of Canadians making a given number of withdrawals in the past week (bars) as well as the corresponding mean withdrawal size (dashed lines). This chart illustrates where in the cash withdrawals distribution the overall increases in frequency and size are coming from.

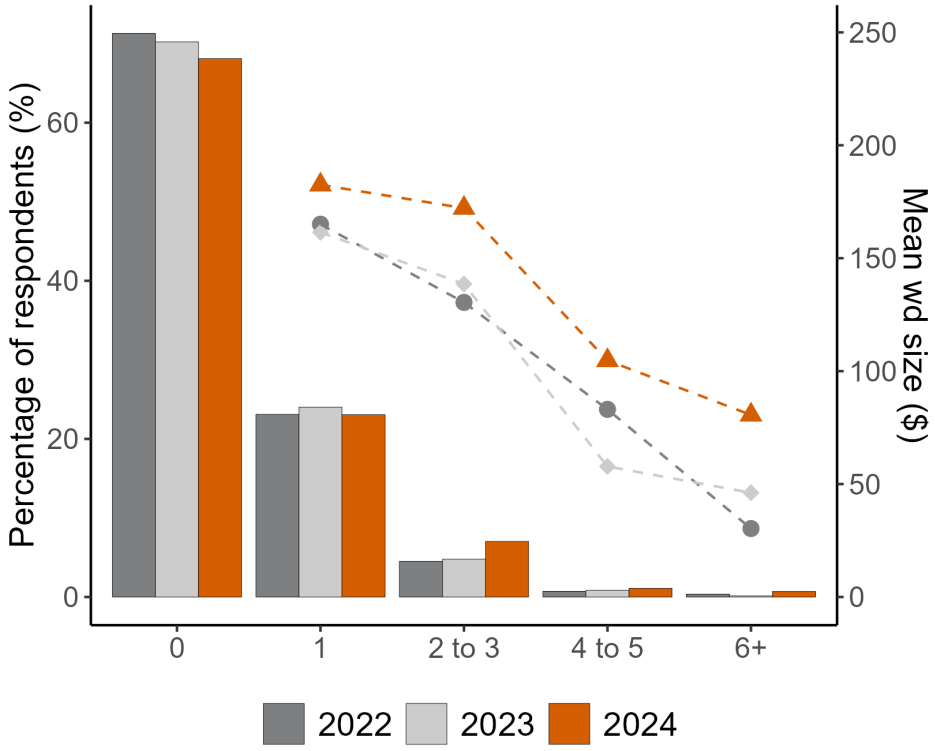
From 2022 to 2024, there was a small but consistent decrease in the percentage of consumers making zero withdrawals using an automated banking machine (ABM) or bank branch or receiving cashback. In parallel, we note a slight increase in the percentage of individuals reporting one to three withdrawals.

When we consider those making withdrawals, we observe a negative relationship between the number of monthly transactions and the mean withdrawal size for all withdrawal types (ABM, bank,

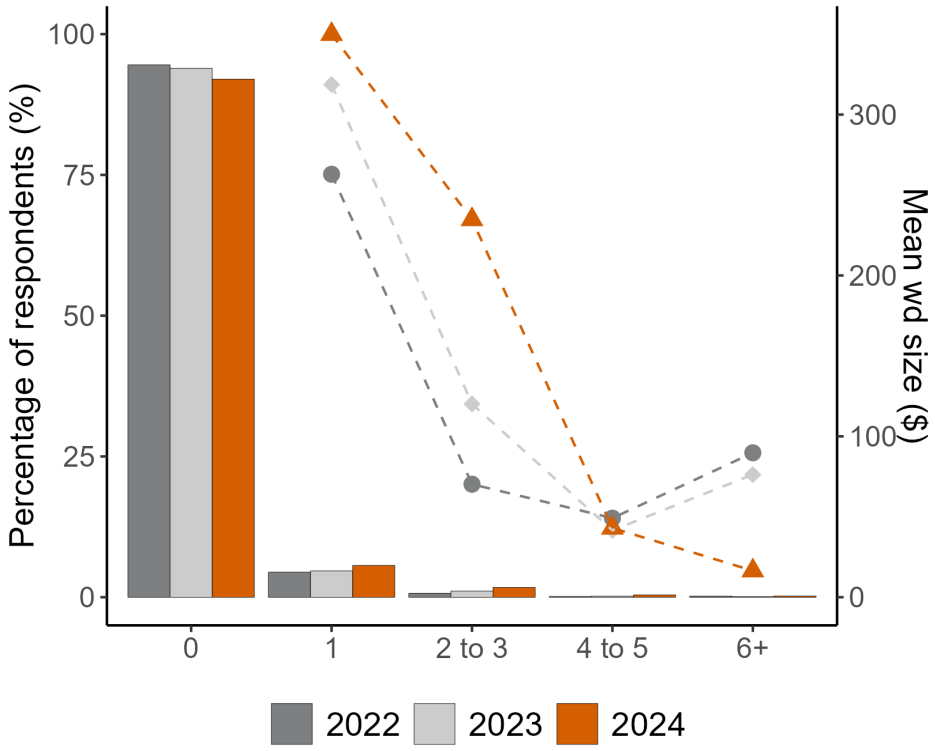
cashback) and all three years. People who withdraw cash more frequently tend to withdraw smaller amounts, on average.

Chart C-2: Withdrawal size versus frequency

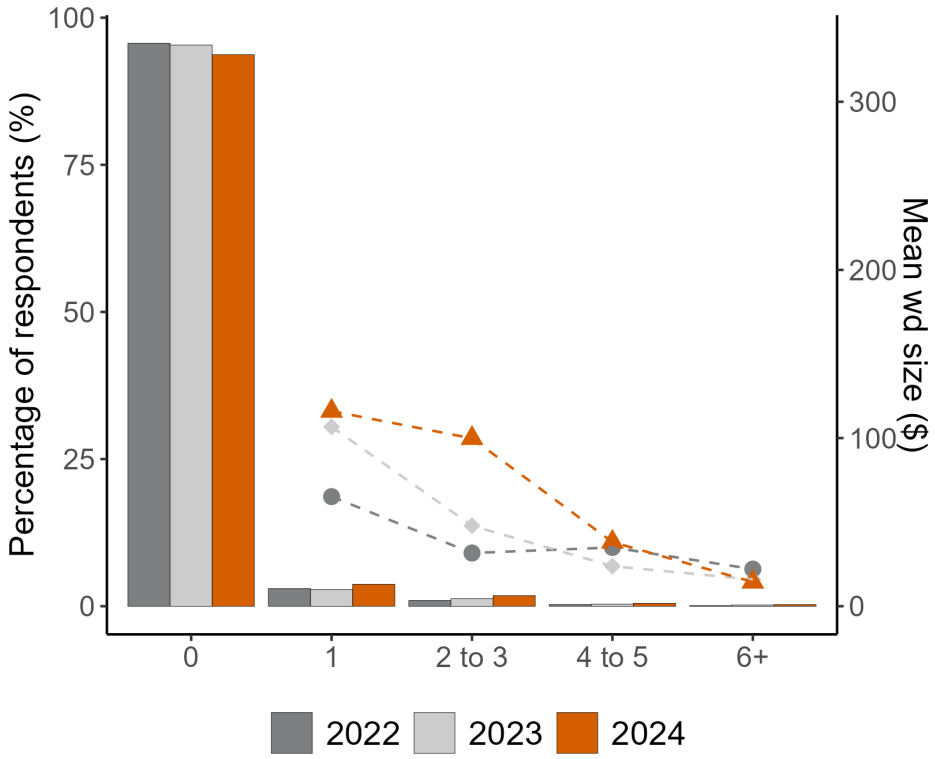
a. Automated banking machine



b. Bank branch



c. Cashback



Note: Each panel shows the percentage of respondents indicating a given number of withdrawals in the past week (bars; left axis), and their mean withdrawal (wd) size (lines; right axis). Both are taken from the survey questionnaire in the 2022, 2023 and 2024 Methods-of-Payment surveys. Calibration weights are used. We calculate the average withdrawal size by taking the total withdrawal amount ($) a respondent reported in the past week and dividing it by the number of withdrawals they reported in the past week. Total withdrawal amount is winsorized at the 98th percentile in each year.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

C.2 Trends by demographics

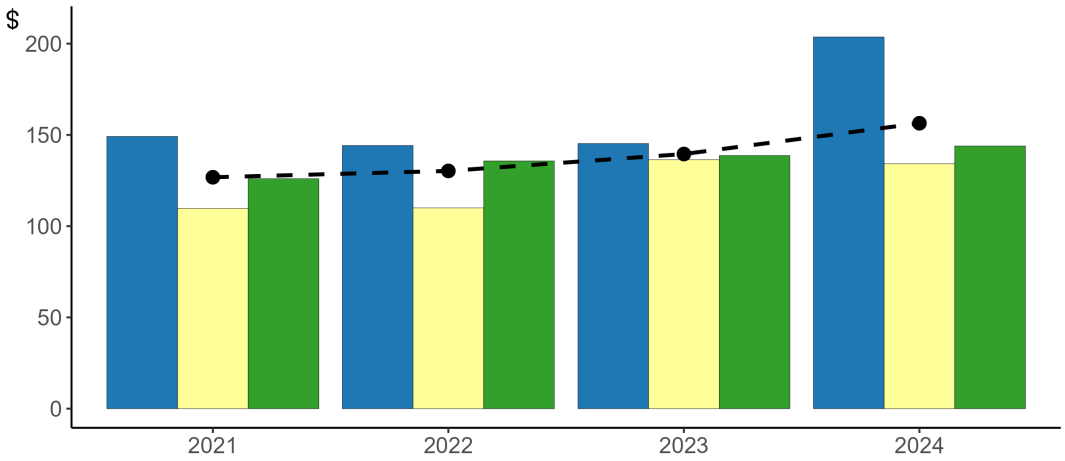
The overall increases observed in cash management estimates can also be further investigated by considering different demographic breakdowns.

Chart C-3 plots average cash on hand, ABM withdrawal frequency and ABM withdrawal size from 2021 to 2024, by age group. Increases in both cash on hand and withdrawal frequency in 2024 appear to be especially concentrated among Canadians aged 18–34.

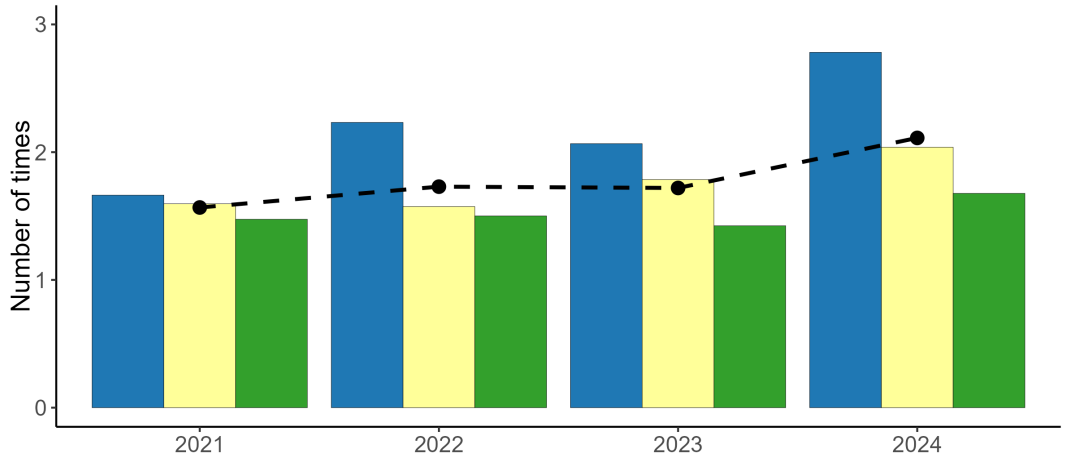
Chart C-4 plots average cash on hand, ABM withdrawal frequency and ABM withdrawal size from 2021 to 2024, by gender. The 2024 increase in the average withdrawal size, in particular, is concentrated among men.

Chart C-3: Cash management estimates by age

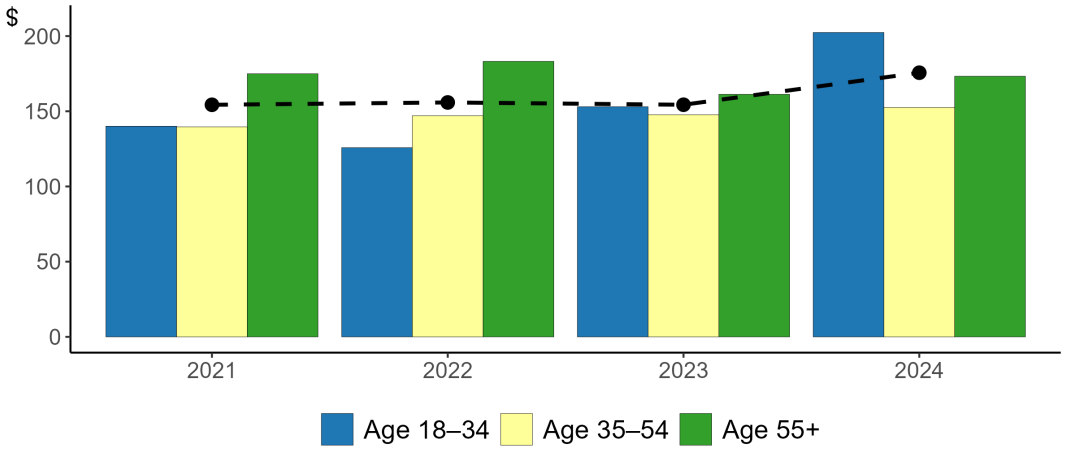
a. Cash on hand



b. Number of ABM withdrawals per month



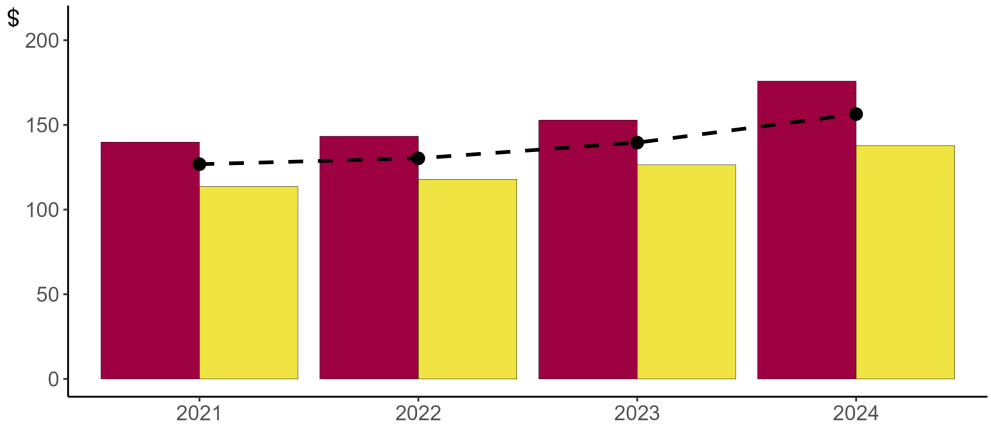
c. ABM withdrawal size



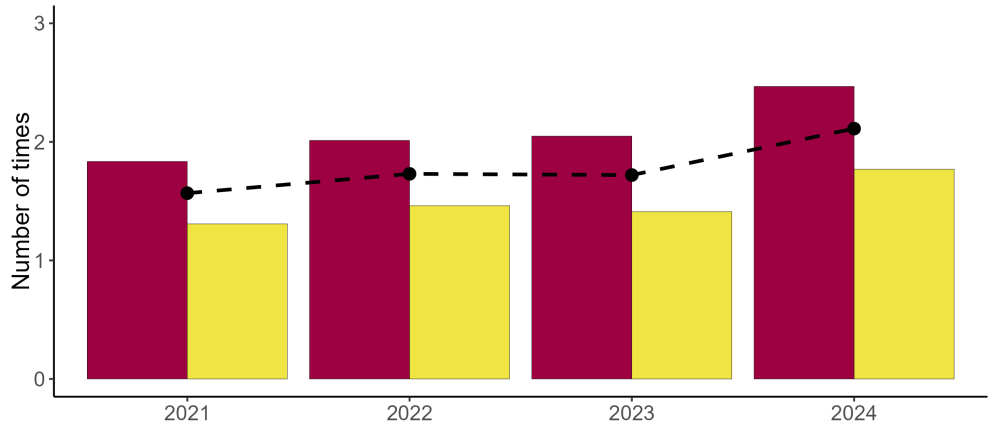
Note: All data are from the survey questionnaire in the 2021, 2022, 2023 and 2024 Methods-of-Payment surveys and calibration weights are used. ABM means automated banking machine. In each plot, the dashed line represents yearly overall averages.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

Chart C-4: Cash management estimates by gender

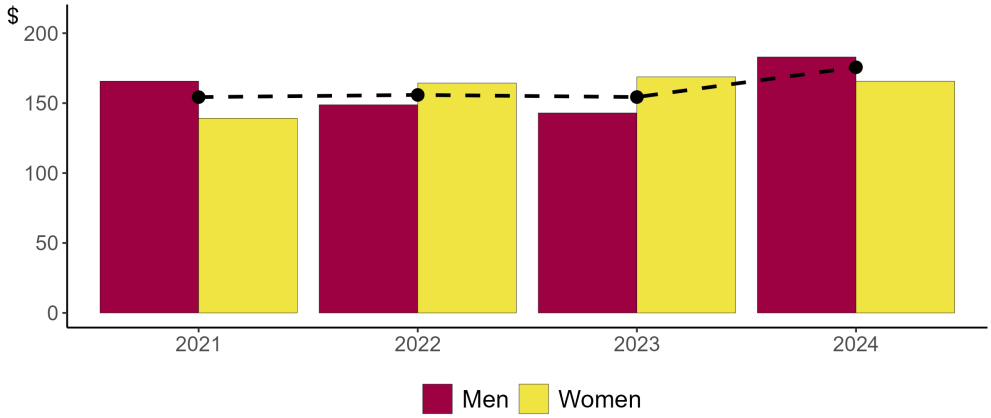
a. Cash on hand



b. Number of ABM withdrawals per month



c. ABM withdrawal size



Note: All data are from the survey questionnaire in the 2021, 2022, 2023 and 2024 Methods-of-Payment surveys, and calibration weights are used. ABM means automated banking machine. In each plot, the dashed line represents yearly overall averages.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

D Additional results on perceptions

Previous reports on the Methods-of-Payment (MOP) surveys include results from questions on the perceptions of features of various payment methods (Henry, Shimoda and Rusu 2024b). The 2024 MOP Survey included the same questions. We report the results in this Appendix. Note that the design of this series of questions changed in 2024 from large grids with all methods of payment presented in rows to more dynamic, progressive grids where each method of payment is tackled separately. This may have affected the 2024 measurements.

Chart D-1 shows Canadians' perceptions of four features of payment methods: acceptance, ease, cost and security. For definitions, see **Appendix A** of Henry, Shimoda and Rusu (2024b). Respondents were asked to rate these features on the following scale: very negative, negative, neutral, positive, very positive.

Perceptions about features of payment methods did not change significantly in 2024. More generally, views on various features have remained fairly consistent since the COVID-19 pandemic, with marginal year-over-year changes.

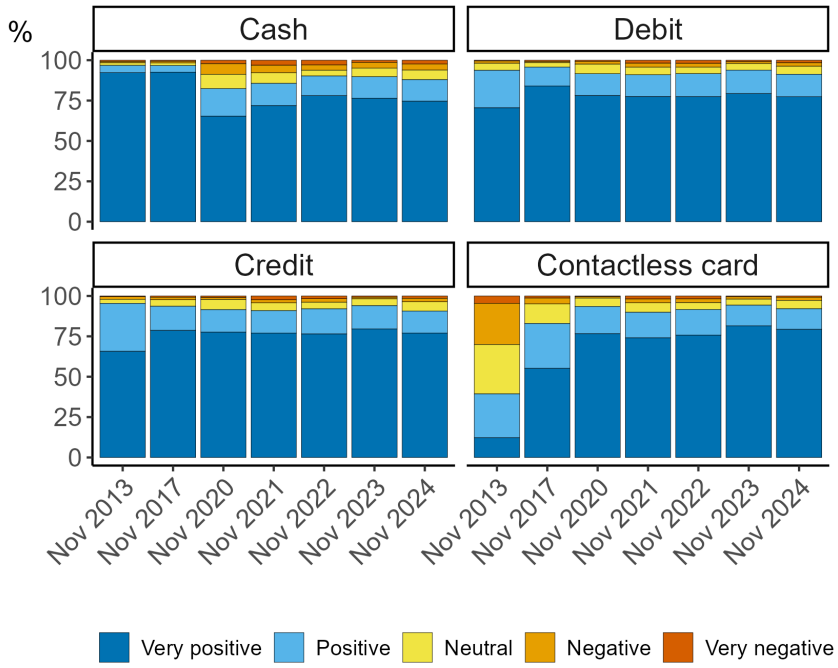
Chart D-2 further examines perceptions on access to cash by two associated variables of interest: having (or not having) made a withdrawal in the past week, and plans (or no plans) to go cashless, as reported in (Henry, Shimoda and Rusu 2024b). In addition, we provide a breakdown across urban and rural Canadians.

Perceptions of access to cash may relate to a person's lived experiences with making a cash withdrawal. For example, those who made a cash withdrawal in the past week tended to rate their ability to access cash more positively than those who did not. Inversely, individuals who have already stopped using cash were more likely than those who still use cash to see making a cash withdrawal as difficult or very difficult. Of course, the relationship can also be reversed: the perceived ease or difficulty of accessing cash can influence people's cash management behaviour.

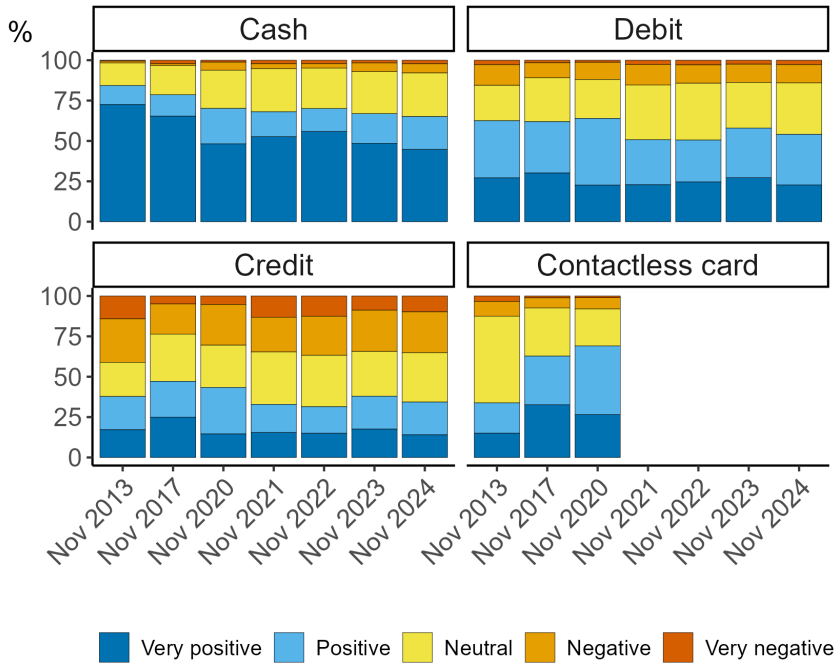
When comparing urban and rural settings, we find no clear differences in perceptions of access to automated banking machines, but rural Canadians were more likely than urban ones to negatively rate their ability to access a bank branch. This is in line with findings from Chen, O'Habib and Xiao (2024).

Chart D-1: Perceptions of payment features

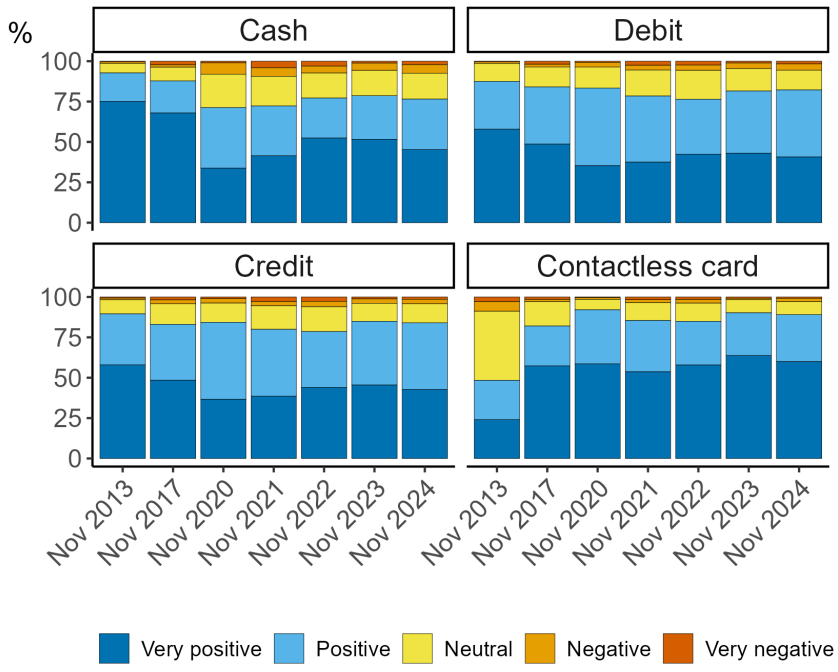
a. Acceptance



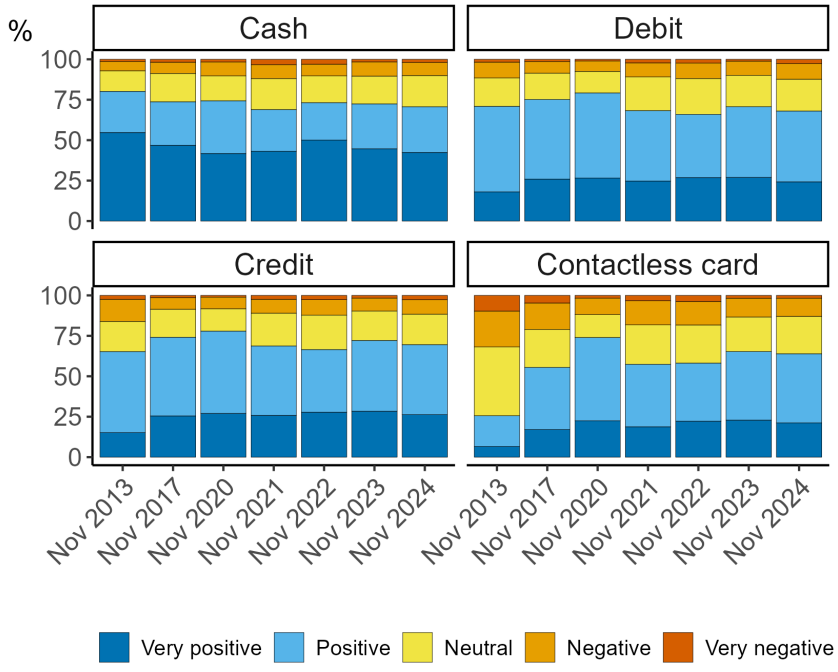
b. Cost



c. Ease



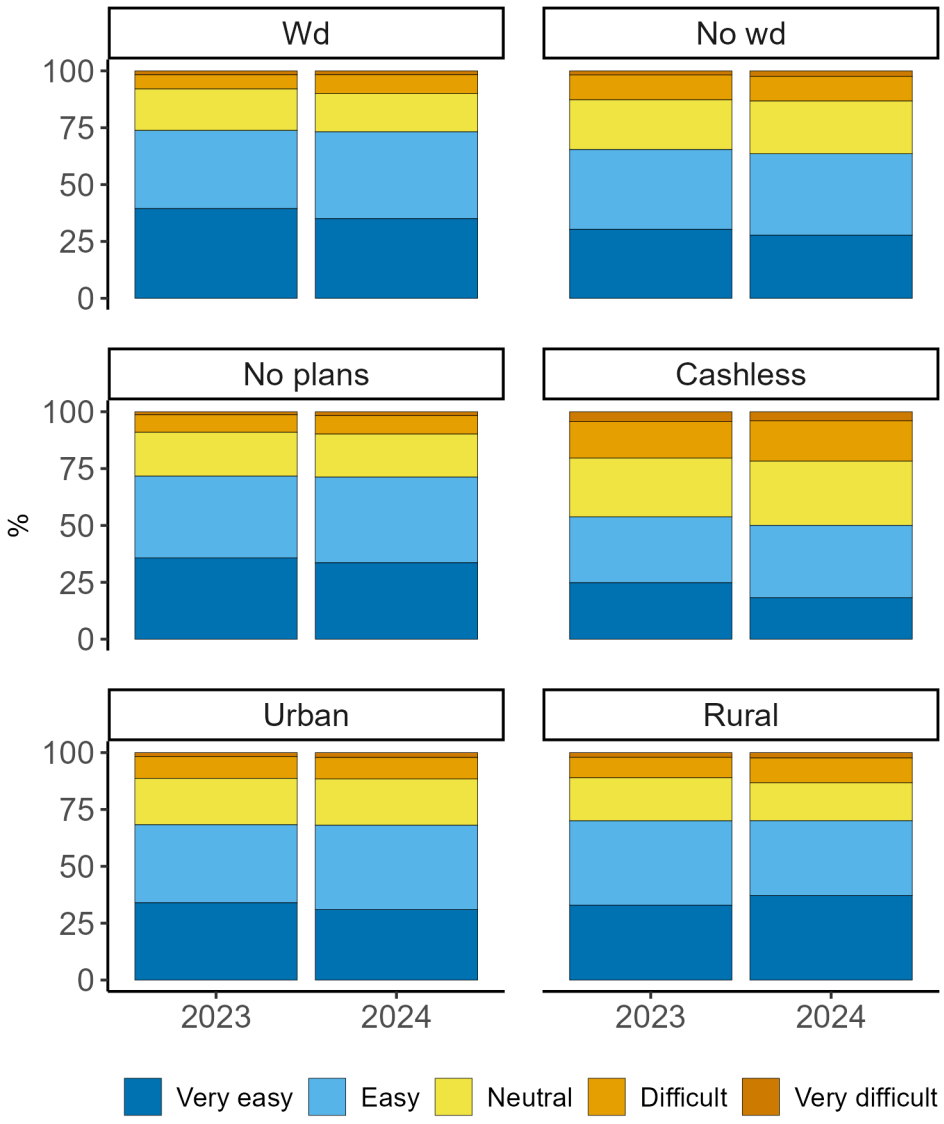
d. Security



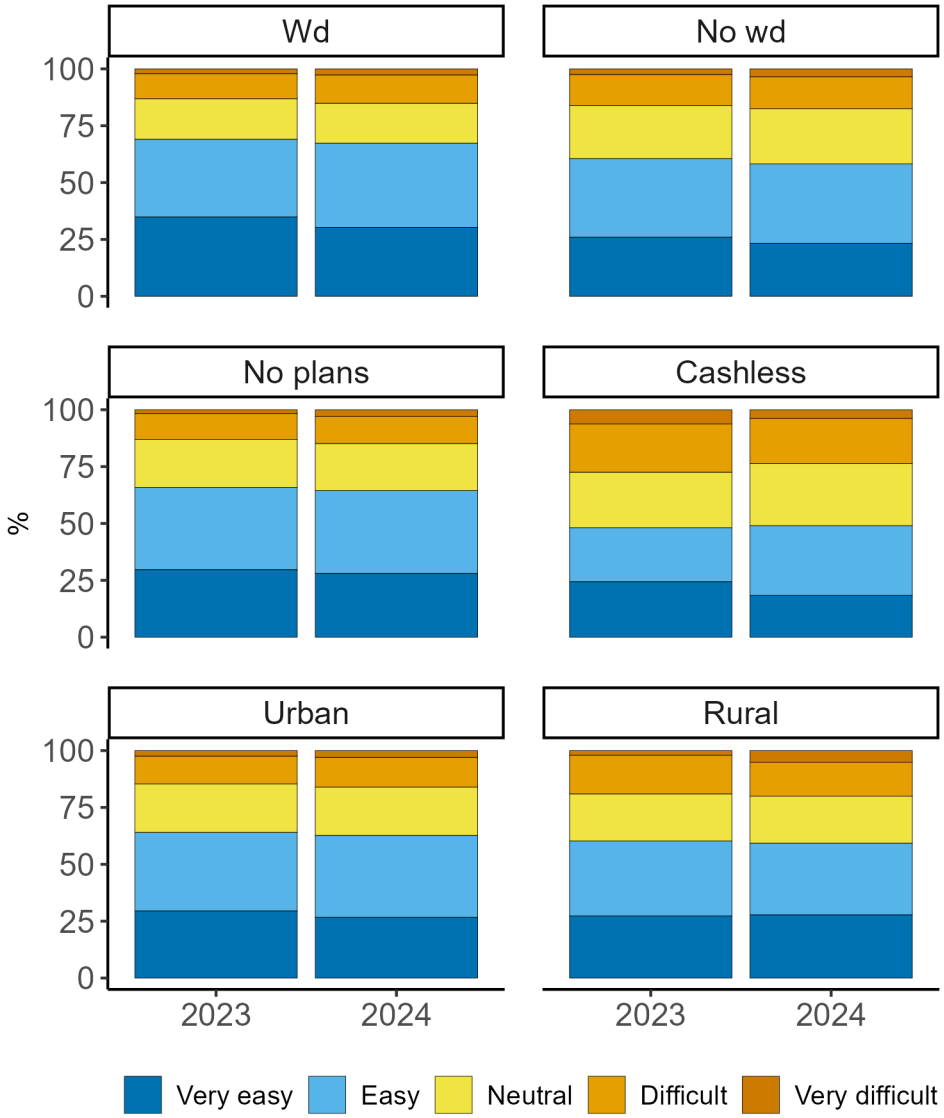
Note: These panels show the ratings of various payment features on a scale of 1 (very negative) to 5 (very positive), as reported in the survey questionnaire of the 2013, 2017, 2021, 2022, 2023 and 2024 Methods-of-Payment surveys and the November 2020 Cash Alternative Survey. Calibration weights are used. Definitions of the features are as follows: (a) *Acceptance*: How widely accepted the method of payment is in Canada (2013) or in the respondent's community (since 2017); (b) *Cost*: How costly it is to use the method of payment in Canada, taking fees, interest payments, etc. into consideration; (c) *Ease*: How easy or hard it is to use the method of payment in Canada; (d) *Security*: How risky or secure it is to use the method of payment in Canada, in the respondent's opinion. *Contactless card* is the contactless feature of a credit or debit card. *Credit* and *Debit* refer to chip and personal identification number (PIN) features only. The question on the cost of contactless cards was discontinued in 2021. "Unsure" answers are excluded from the calculation.
Sources: Bank of Canada and Bank of Canada calculations
Last observations: Methods-of-Payment surveys, November 2024; Cash Alternative Survey, November 2020

Chart D-2: Perceptions of access to cash

a. Automated banking machine (ABM)



b. Bank branch



Note: This chart shows the distribution of responses to the question: "When you need to withdraw cash, how easy or difficult is it for you to ....? (a) Get to an ATM or ABM; (b) Get to a bank." The distributions are calculated by group: "Wd" refers to respondents who made a withdrawal in the past week. "No wd" refers to respondents who made no withdrawal in the past week. "No plans" refers to respondents indicating they have no plans to go cashless."Cashless" refers to respondents who stated they have already stopped using cash. "Urban" refers to respondents in urban forward sortation areas (FSAs), and "rural" refers to respondents in rural FSAs. ATM means automated teller machine, and ABM means automated banking machine. Data are from the survey questionnaire in the 2023 and 2024 Methods-of-Payment surveys. Calibration weights are used. "Unsure" responses are excluded.
Sources: Bank of Canada and Bank of Canada calculations

Last observation: November 2024

E Data quality and validation

In this section, we provide data quality verifications:

- cross-validation of survey questionnaire (SQ) results with estimates from Statistics Canada
- a data quality check of the diary survey instrument (DSI) based on the cash identity
- a comparison of payment shares over the three days of the DSI

E.1 Data validation with Statistics Canada estimates

The SQ of the 2024 Methods-of-Payment (MOP) Survey contains three questions intended to cross-validate results with Statistics Canada estimates from the 2022 Canadian Internet Use Survey (CIUS), a probability-based survey. These questions are on the topics of internet access and cyber security. Altogether, while the CIUS and MOP surveys are not entirely comparable, the relative shares of responses are comparable, when ranked. This suggests an acceptable degree of alignment between the MOP data and those of Statistics Canada.

Table E-1 shows the percentage of Canadians who have experienced different types of cyber security incidents in the 12 months before the survey. Receiving unsolicited spam and receiving fraudulent emails were the first and second most common cyber security incidents, respectively, in both the 2024 MOP survey and the 2022 CIUS.

Table E-1: Validation with Statistics Canada data—cyber security incidents in the past 12 months

	2023 MOP %	2024 MOP %	2022 CIUS %
Virus/computer infection	5	7	11
Identity fraud	3	4	6
Fraudulent emails	33	27	40
Unsolicited spam	-	42	60
Hacked accounts/fraud messages	4	5	8
Fraud sites asking for personal info	11	12	22
Fraudulent payment card use	17	22	9
Loyalty program points fraud	3	3	2
Demand to pay a cyber ransom	3	4	4
Other cyber security incident	2	3	4
No incident	59	45	30

Note: This table shows the percentage of respondents indicating that they had experienced a given cyber security incident within the past year. Our estimates are from the survey questionnaire in the 2023 and 2024 Methods-of-Payment (MOP) surveys, and calibration weights are used. Statistics Canada estimates are from the 2022 Canadian Internet Use Survey (CIUS).
Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations
Last observations: MOP surveys, November 2024; CIUS, 2022

Table E-2 provides the percentage of Canadians who have used various devices to connect to the internet within the three months before the survey. Smartphones were the device most frequently used, with 82% use in the 2024 MOP Survey and 85% use in the 2022 CIUS. Many have also used a laptop (62% in the 2024 MOP Survey and 67% in the 2022 CIUS).

Table E-2: Validation with Statistics Canada data—devices used to connect to the internet

	2023 MOP %	2024 MOP %	2022 CIUS %
Smartphone	81	82	85
Laptop	65	62	67
Tablet	39	40	45
Desktop computer	44	43	39
Media streaming device	12	20	23
Smart TV	28	30	42
Internet-connected wearable smart devices	7	12	15
Virtual reality devices	-	4	3
Connected vehicle devices	5	5	6
Other devices	2	11	17
None	1	1	6

Note: This table shows the percentage of respondents indicating that they had used a given device to connect to the internet in the past three months. Our estimates are from the survey questionnaire in the 2023 and 2024 Methods-of-Payment (MOP) surveys, and calibration weights are used. Statistics Canada estimates are from the 2022 Canadian Internet Use Survey (CIUS).
Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations
Last observations: MOP surveys, November 2024; CIUS, 2022

Finally, **Table E-3** shows the percentage of Canadians who have taken on certain activities to manage access to personal data. In both the 2024 MOP Survey and the 2022 CIUS, the most common activity was restricting location access. The second most common activity, in both surveys, was refusing data for ads.

Table E-3: Validation with Statistics Canada data—activities to manage access to personal data in the past 12 months

	2024 MOP %	2022 CIUS %
Restricted location access	42	61
Refused data for ads	41	59
Checked website security	38	42
Changed privacy settings	35	49
Don't know	8	9
None of the above	28	28

Note: This table shows the percentage of respondents indicating they had carried out a given activity to manage access to their personal data. Our estimates are from the survey questionnaire in the 2024 Methods-of-Payment (MOP) Survey, and calibration weights are used. Statistics Canada estimates are from the 2022 Canadian Internet Use Survey (CIUS).
Sources: Statistics Canada, Bank of Canada and Bank of Canada calculations
Last observations: MOP surveys, November 2024; CIUS, 2022

E.2 Payment diary cash identity

Cash identity is a gauge of response quality for the subsample of respondents who completed the DSI. Throughout the course of the diary, we are able to track respondents' cash inventory, assuming they accurately recorded each of their cash transactions. In past MOP survey reports, this measure has been reported in terms of cash error: the difference between reported cash holdings at the end of the diary and calculated final cash holdings based on purchases, withdrawals and initial holding entries (Henry, Huynh and Shen 2015).

In **Table E-4**, we report the absolute cash error. In 2024, most respondents had an absolute cash error of less than $5. Overall, the total cash error is comparable in 2023 and 2024. However, this could be due to a relatively large presence of respondents who did not report much, if any, cash use in the DSI, leading to low cash error.

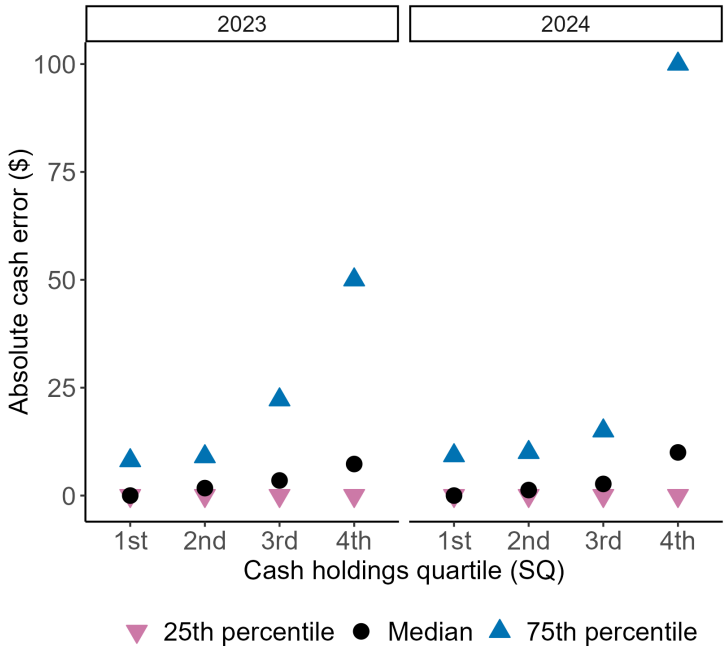
When we break down the DSI cash error by cash holdings quartiles from the SQ (**Chart E-1**), the median cash error appears to be generally higher for those who reported holding more cash on hand. In 2024, the 75th percentile of cash error among the highest quartile of cash carriers is about twice what was observed in 2023, indicating a decline in the quality of some reportings in the DSI.

Table E-4: Cash identity—absolute cash error

	2023 MOP		*2024 MOP*	
Abs. cash error	Count	%	Count	%
≤ $5	1,332	60	1,316	59
$5.01–$10	214	10	204	9
$10.01–$25	220	10	236	11
$25.01–$50	147	7	129	6
$50.01–$100	122	5	120	5
>$100	191	9	208	9
Total	2,226	100	2,213	100

Note: This table shows the distribution of respondents across brackets of the absolute cash error. Data are from the diary survey instrument (DSI) in the 2023 and 2024 Methods-of-Payment (MOP) surveys. Cash error is defined as the difference between reported cash holdings at the end of the DSI and calculated final cash holdings (equal to cash holdings at the start of the DSI, minus cash spent over three days, plus cash received over three days). Percentages may not add up to 100 due to rounding. Only data from respondents who completed all three days of the diary are used in the calculation. Calibration weights are used.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

Chart E-1: Absolute cash error, by quartiles of cash holdings



Note: This chart compares cash error percentiles in the diary survey instrument (DSI) of the 2023 and 2024 Methods-of-Payment (MOP) surveys, by cash holdings quartiles. DSI respondents are first divided into quartiles of cash holdings, based on their reported cash on hand in the survey questionnaire (SQ) of the 2023 and 2024 MOP surveys. Then, within each quartile, the 25th, 50th and 75th percentiles of absolute cash error are plotted. Calibration weights are used.
Source: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

E.3 Comparing diary survey instruments—three-day, one-day and all DSIs

Most DSI results presented in this report are based on all diaries, whether respondents participated for one, two or three days.[21] However, the DSI was initially designed as a three-day diary to capture payment methods that are used frequently but not necessarily on a daily basis. To validate the methods-of-payment shares obtained using all diaries, including incomplete ones, we compute payment shares based only on complete three-day diaries. We also compute payment shares based on the first diary day only, to get a better sense of what a one-day DSI would capture—and what it would miss. Note that a specific set of weights is used for calculations based on a subset of the sample of all DSI respondents. Resulting volume and value share estimates are presented in **Chart E-2**.

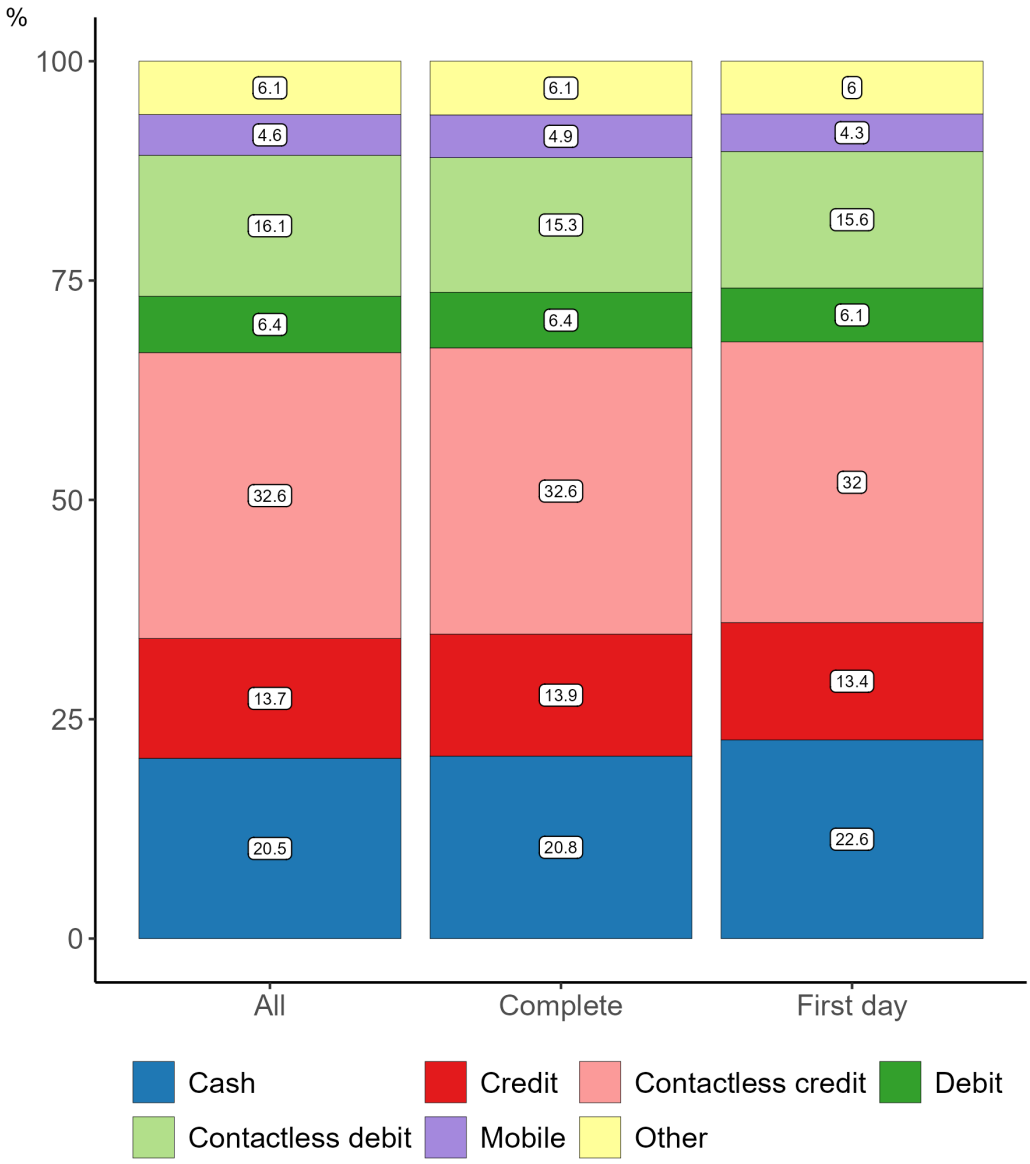
We find that volume and value shares are comparable when using all diaries or complete three-day diaries only. This is not surprising given that the vast majority of DSI respondents participate for three days (2,217 complete DSIs out of 2,439 total DSIs). However, when we use only the first day

[21] The number of transactions (**Chart 10a** and **Chart 11a**) is an exception where we use only the respondents who completed all three days.

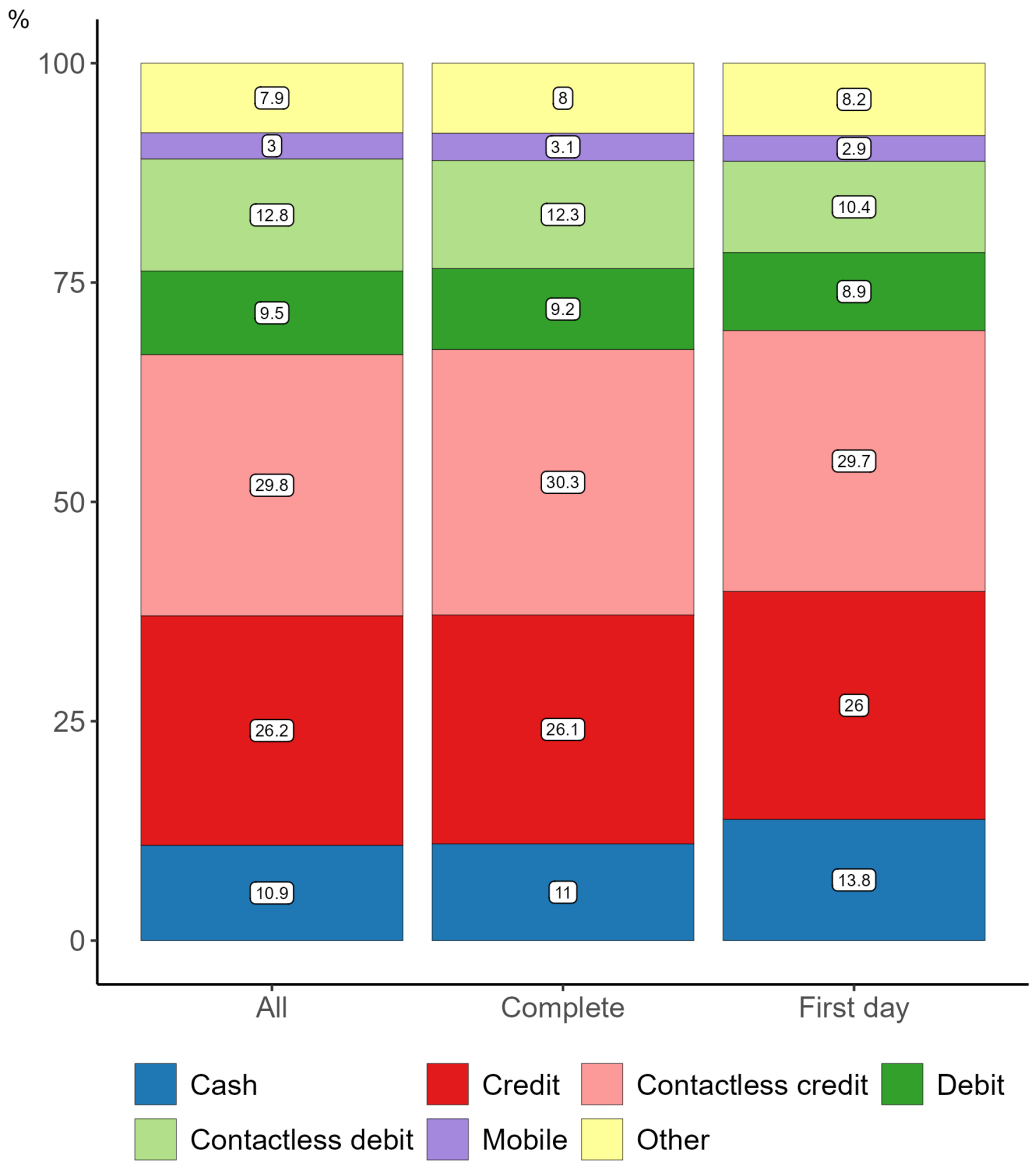
of the DSI, we find the distributions of volume and value shares change slightly. Cash volume and value shares were larger in the first day of the diary than in the following days, resulting in slightly lower average cash shares over multiple days (*All* and *Complete*).

Chart E-2: Comparison of payment shares: All DSIs, complete DSIs and one-day DSIs

a. Volume shares



b. Value shares



Note: These panels compare the volume and value shares for three samples of diary survey instrument (DSI) respondents in the 2024 Methods-of-Payment Survey. *All* is the total sample, including one-, two- and three-day diarists. *Complete* includes only respondents who completed all three days of the DSI. Finally, *First day* includes only purchases made on the first day of a DSI, regardless of whether respondents completed the subsequent diary days. Calibration weights are used.

F Analysis of the impact of changes in question placement

In the survey questionnaire (SQ) for the 2024 Methods-of-Payment (MOP) Survey, the order for several questions changed compared with previous versions. As shown in **Table F-1**, the sections that were moved to appear significantly later in the survey flow include questions on financial literacy, use of payment methods and discounts/surcharges at the point of sale. As a result, other sections appear earlier.

Moving some sections later could induce fatigue, causing respondents to provide lower-quality answers to the questions near the end of the survey (Herzog and Bachman 1981). Against this background, it is important to interpret the estimates resulting from these survey sections with caution, especially when drawing comparisons with previous waves of the MOP survey.

Table F-1: Structure of the survey questionnaire in 2022, 2023 and 2024

2022 MOP	2023 MOP	2024 MOP
Demographics	Demographics	Demographics
Financial literacy	Financial literacy	Main bank account
Payment methods use	Payment methods use	Main credit card/credit score
Discounts/surcharges at the point of sale	Discounts/surcharges at the point of sale	Payment cards/linked accounts
Main bank account	Main bank account	Cash holdings/management
Main credit card/credit score	Main credit card/credit score	Bank note quality [new]
Payment cards/linked accounts	Payment cards/linked accounts	Payment methods use [shorter]
Cash holdings/management	Cash holdings/management	Weather question [new]
Intentions to go cashless	Intentions to go cashless	Discounts/surcharges at the point of sale
Perceptions	Perceptions	Intentions to go cashless
Payments/online security	Payments/online security	Financial literacy
		Perceptions
		Payments/online security [shorter]

Note: This table shows the composition and order of sections in the survey questionnaires of recent Methods-of-Payment (MOP) surveys. The sections in blue are the ones most affected by the structural reorganization in 2024.
Source: Bank of Canada
Last observation: November 2024

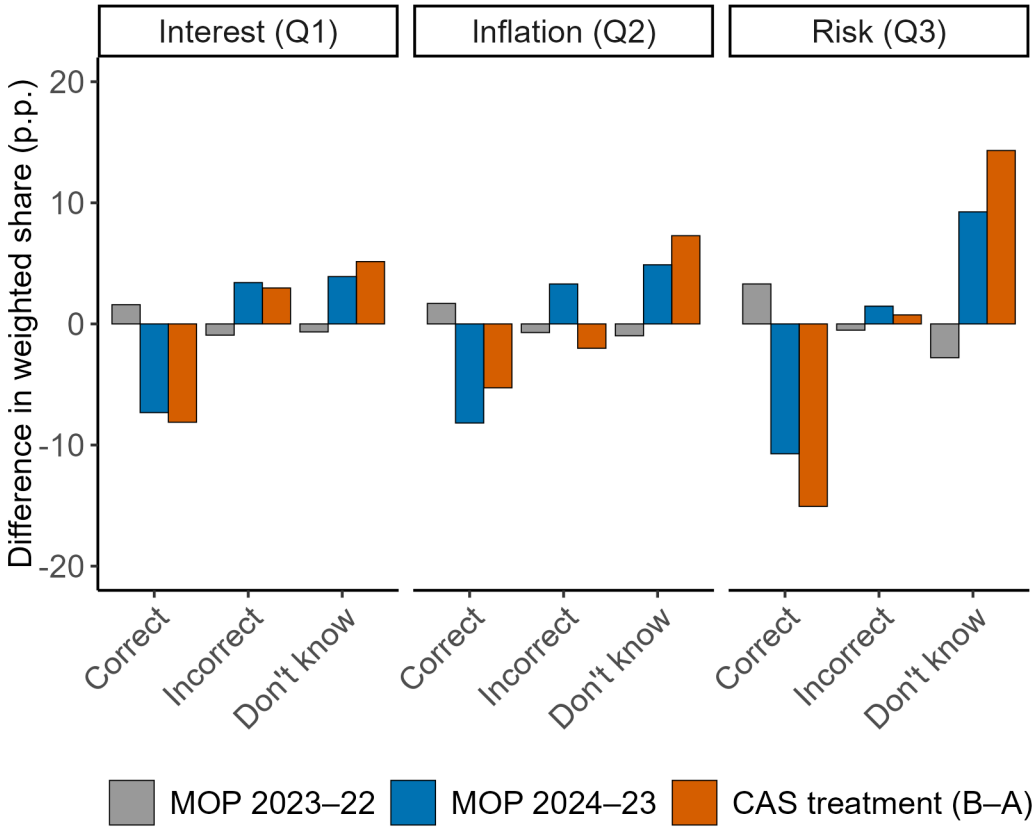
F.1 Impact on financial literacy estimates

In the November 2020 Cash Alternative Survey (CAS), placement of the financial literacy questions was randomized, with some respondents receiving the series of questions right at the beginning of the questionnaire (A), while others received them completely at the end (B). This A/B testing

setup is further described and analyzed in Chernesky, Huynh and Voia (forthcoming). In **Chart F-1**, we show the CAS A/B difference in proportions of correct, incorrect and "Don't know" (DK) answers, for the three financial literacy questions. We compare them with year-to-year differences in proportions of correct, incorrect and DK answers in the MOP surveys (2023–22 and 2024–23).

Plotting the CAS A/B difference in proportions reveals a pattern similar to the difference between the 2023 and 2024 proportions (where there was a change in question placement), while dissimilar to the difference between 2022 and 2023 (where there was no change in question placement). This suggests that the observed changes in financial literacy responses between 2023 and 2024 are likely driven by the change in the questions' location to later in the questionnaire. While not a rigorous assessment, this analysis emphasizes the need for caution when interpreting changes in estimates, or trends, from questions affected by a major questionnaire redesign.

Chart F-1: Financial literacy questions—comparison of surveys



Note: The financial literacy questions are asked in the survey questionnaire of the Methods-of-Payment (MOP) survey; see Henry, Shimoda and Rusu (2024a) for a description of the three questions (Q). First, we compute weighted proportions of correct, incorrect and "Don't know" answers for each question and each survey (using the standard weights for each survey), and then we obtain the differences. *MOP 2023–22* refers to subtracting the 2022 proportions from the 2023 proportions, *MOP 2024–23* refers to subtracting the 2023 proportions from the 2024 proportions and *CAS treatment (B–A)* refers to subtracting the Cash Alternative Survey (CAS) version A (financial literacy questions at the beginning of the survey) proportions from the CAS version B (financial literacy questions at the end of the survey) proportions.
Sources: Bank of Canada and Bank of Canada calculations
Last observations: MOP surveys, November 2024; CAS, November 2020

F.2 Impact on estimates of method-of-payment use

Chart F-2 and **Chart F-4** show estimates of the proportion of Canadians who have used various payment methods in the past week and past year, respectively, compared across waves of MOP surveys. Relative to 2023, we observe a decline in 2024 in the proportion of users of almost every method of payment, which is unexpected. However, these questions were moved to appear later in the SQ of the 2024 MOP Survey than in previous surveys. Therefore, the results should be interpreted with caution. It is possible the later section placement led to a decline in response quality, and thus responses cannot be directly compared across years.

To confirm this insight, we compare 2024 MOP Survey estimates with comparable estimates from

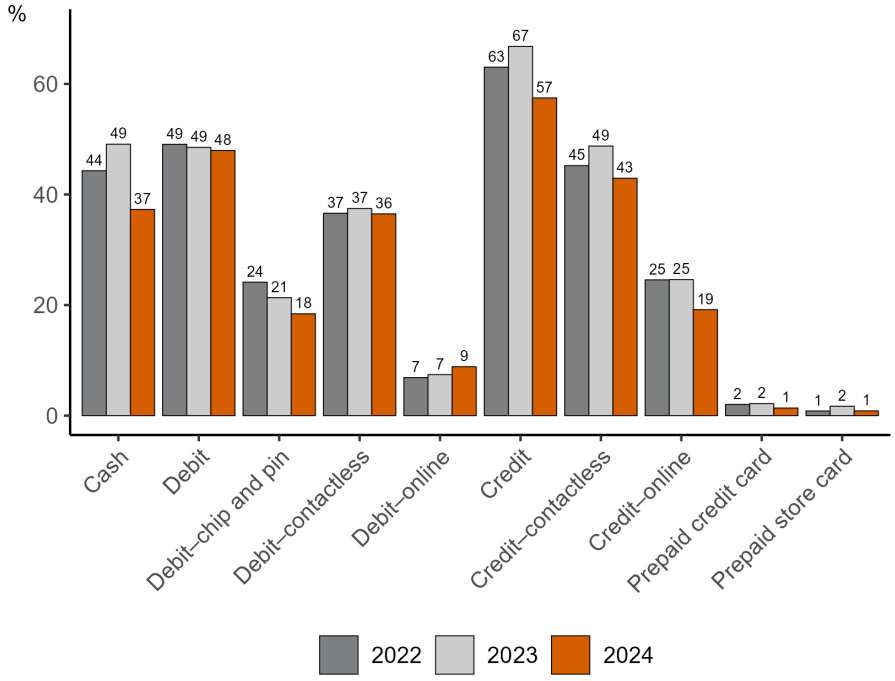
two separate sources. Estimates of the proportion of Canadians who have used various payment methods in the past week from the Canadian Financial Monitor (CFM) are presented in **Chart F-3**, and that for the past three months from the Digital Wallet and Payment Trends survey (DWPT) are presented in **Chart F-5**. Both are surveys conducted by Ipsos, with some overlap with the MOP surveys in terms of questions, sample source and methodology.

In the CFM (**Chart F-3**), the estimated share of Canadians using a method of payment in the past week increased in 2024 relative to 2023 for most payment methods. This is the case for cash, debit and all alternative methods of payment. Therefore, for use in the past week, the trends observed in the CFM are quite different than those in the MOP surveys (**Chart F-2**).

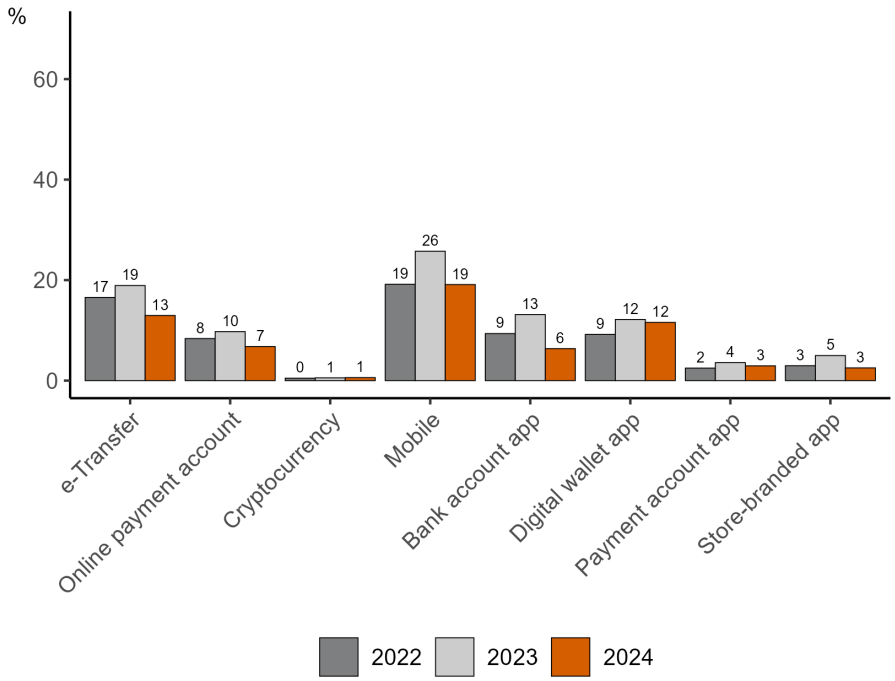
In the DWPT (**Chart F-5**), most proportions did not change much from 2023 to 2024, but the estimated share of Canadians using contactless payments, e-Transfers, online payment accounts and online cards in the past three months all rose slightly. This differs quite strikingly from the across-the-board declines observed for use of methods of payment in the past year in the 2024 MOP survey (**Chart F-4**).

Chart F-2: Use of payment methods in the past week (Methods-of-Payment surveys)

a. Cash and cards



b. Mobile and alternatives

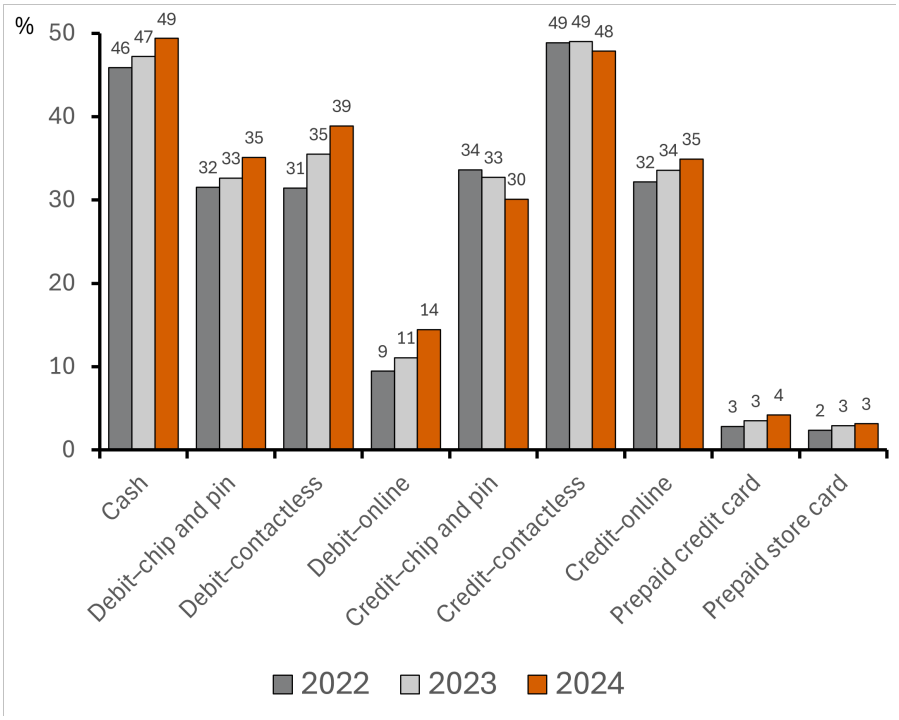


Note: These panels show the percentage of respondents who recalled using various means of payment for a purchase from a store or business (in person or online) over the past week. Data are from the survey questionnaire (SQ) in the 2022, 2023 and 2024 Methods-of-Payment (MOP) surveys. Calibration weights are used. In the 2024 MOP Survey, this question appears later in the SQ than in previous surveys. PIN means personal identification number.
Sources: Bank of Canada and Bank of Canada calculations

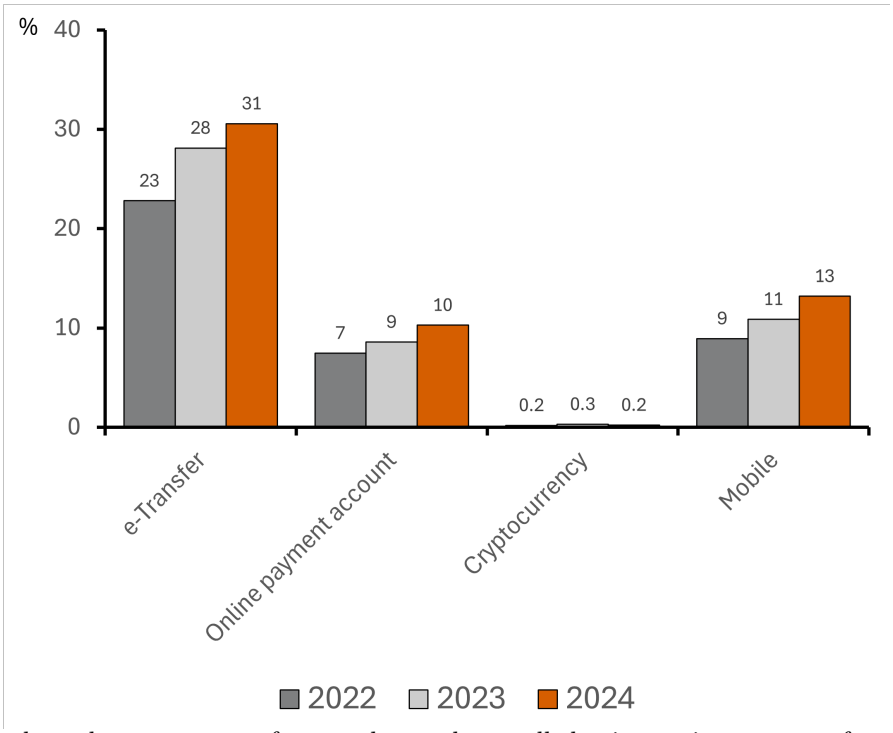
Last observation: November 2024

Chart F-3: Use of payment methods in the past week (Canadian Financial Monitor)

a. Cash and cards



b. Mobile and alternatives



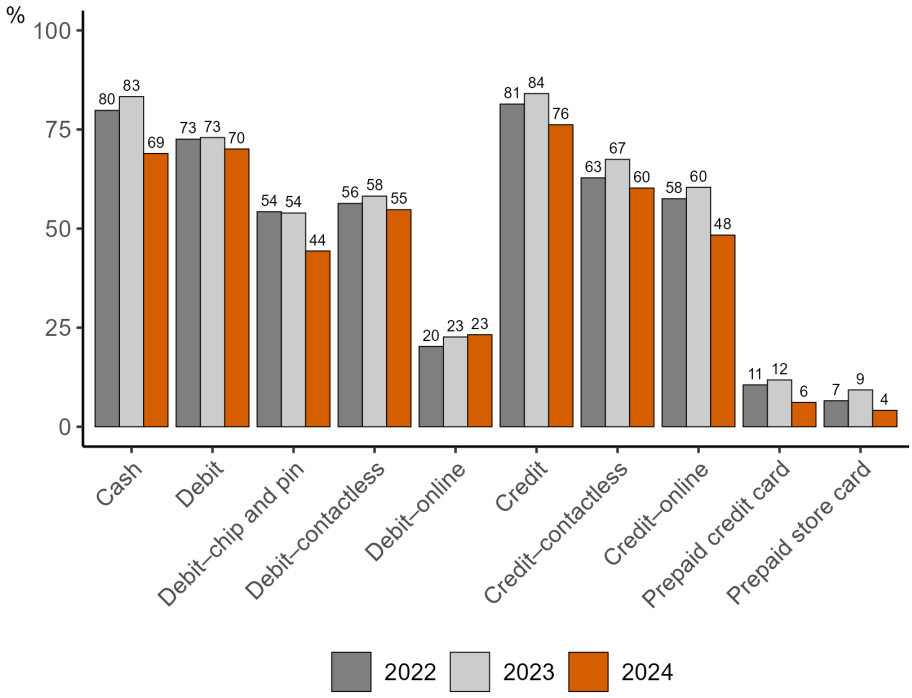
Note: These panels show the percentage of respondents who recalled using various means of payment over the past week in the Canadian Financial Monitor survey. Calibration weights are used. PIN means personal identification number.

Sources: Ipsos, Bank of Canada and Bank of Canada calculations

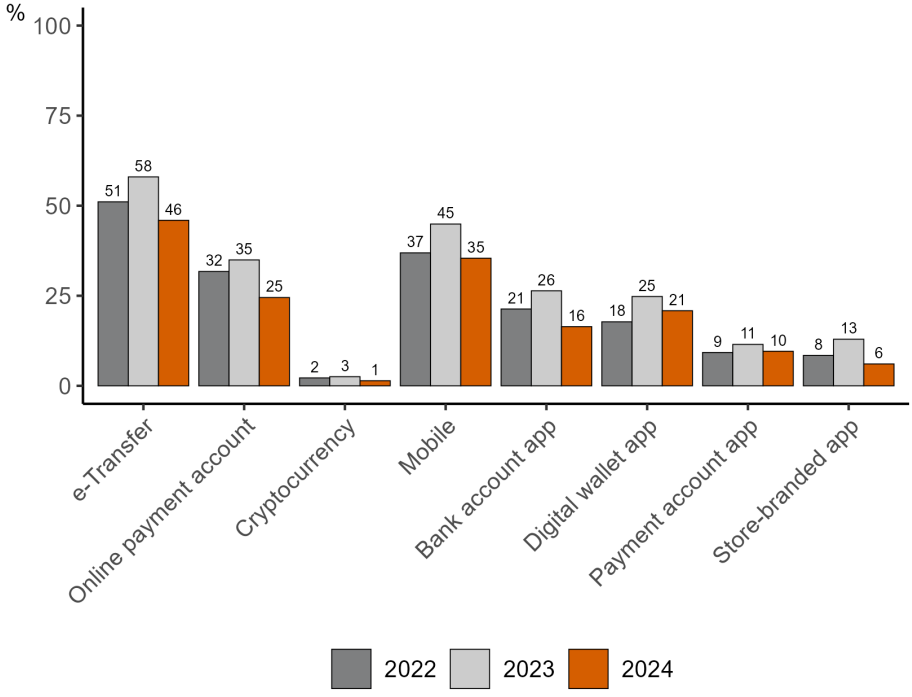
Last observation: 2024

Chart F-4: Use of payment methods in the past year (Methods-of-Payment surveys)

a. Cash and cards



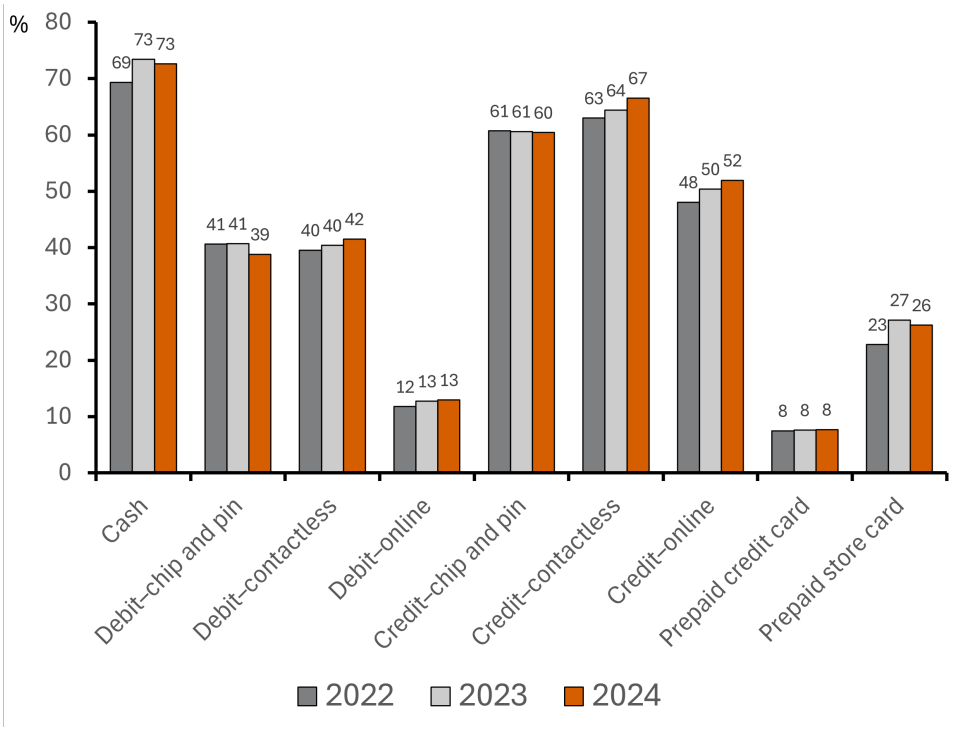
b. Mobile and alternatives



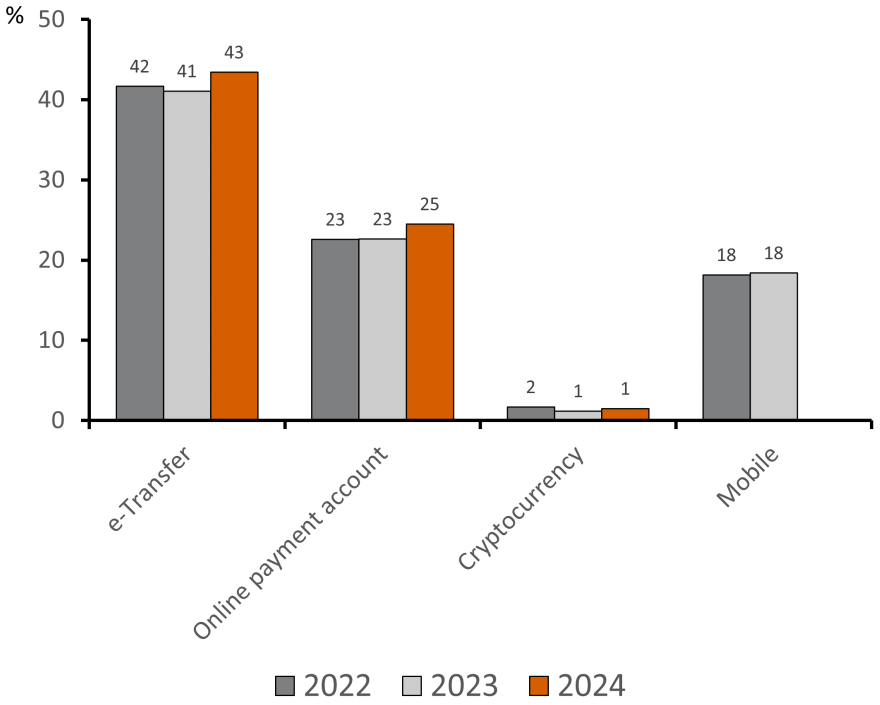
Note: These panels show the percentage of respondents who recalled using various means of payment for a purchase from a store or business (in person or online) over the past year. Data are from the survey questionnaire (SQ) in the 2022, 2023 and 2024 Methods-of-Payment (MOP) surveys. Calibration weights are used. In the 2024 MOP Survey, this question appears later in the SQ than in previous surveys. PIN means personal identification number.
Sources: Bank of Canada and Bank of Canada calculations
Last observation: November 2024

Chart F-5: Use of payment methods in the past three months (Digital Wallet and Payment Trends survey)

a. Cash and cards



b. Mobile and alternatives



Note: These panels show the percentage of respondents who recalled using various means of payment over the past three months in the Digital Wallet and Payment Trends survey. Calibration weights are used. PIN means personal identification number.
Sources: Ipsos, Bank of Canada and Bank of Canada calculations
Last observation: 2024

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