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UNIFORM LAW CONFERENCE OF CANADA

PROGRESS REPORT – CASH PAYMENTS PROJECT

Presented by

Michelle Cumyn, McGill University

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UNIFORM LAW CONFERENCE OF CANADA

Memorandum

To:	JRs and delegates of the ULCC
From:	Michelle Cumyn
Date:	31 May 2024
Subject:	Cash Payments

This memo explains the purpose and scope of a new project on the topic of cash payments. I have agreed to chair the working group. The working group is not yet constituted. Any interested person is welcome to join in.

I have benefited from background research conducted by Codie Chisholm at Lawson Lundell LLP in Calgary and by McGill graduate Jack Ball. Codie researched the legislation across common law jurisdictions and provided a review of the legal literature, while Jack researched the context and policy issues surrounding cash as a method of payment. Jack produced a memo, which is attached below.

Legal Uncertainty

There is some legal uncertainty regarding the use of cash as a method of payment. It is unclear the extent to which a merchant (or more generally, a creditor) may validly refuse a payment in cash under current law.

The *Civil Code of Québec* contains the following provision:

> **1564.** Where the debt consists of a sum of money, the debtor is released by paying the nominal amount due in <u>*money which is legal tender at the time of payment*</u>.
>
> He is also released by remitting the amount due by money order, by cheque made to the order of the creditor and certified by a financial institution carrying on business in Québec, or by any other instrument of payment offering the same guarantees to the creditor, or, if the creditor is in a position

> to accept it, by means of a credit card or a transfer of funds to an account of the creditor in a financial institution.

This provision implies that a <u>*debtor may choose*</u> their preferred mode of payment amongst those listed within it, including cash. The provision is probably suppletive and not imperative, meaning that the parties may exclude or modify the rule by prior agreement. It would follow that a <u>*creditor may only refuse a payment in cash offered by the debtor if this mode of payment was excluded by the parties at the time of contracting*</u>. For instance, a merchant could state clearly on a sign at the entrance of a shop, or on a menu, that they do not accept payments in cash.

Article 1564 does not contemplate cases in which a creditor might justifiably refuse a payment in cash, for example if it involves a large sum of money.

Article 1564 refers implicitly to the federal *Currency Act*, which provides:

> **8 (1)** Subject to this section, <u>*a tender of payment of money is a legal tender*</u> if it is made
>
> (a) in coins that are current under section 7 [issued by the Royal Canadian Mint]; and
>
> (b) in notes that are current under section 7.1 [issued by the Bank of Canada].
>
> **(2)** A tender of payment in coins referred to in subsection (1) is a legal tender for no more than the following amounts for the following denominations of coins:
>
> (a) forty dollars if the denomination is two dollars or greater but does not exceed ten dollars;
>
> (b) twenty-five dollars if the denomination is one dollar;
>
> (c) ten dollars if the denomination is ten cents or greater but less than one dollar;
>
> (d) five dollars if the denomination is five cents; and
>
> (e) twenty-five cents if the denomination is one cent.

The Bank of Canada has issued statements suggesting that both parties must agree to a payment for it to produce any effect[1]. For instance:

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[1] See *Toronto-Dominion Bank v Spiller*, 135 DLR (3d) 572 (BCSC).

> Bank notes issued by the Bank of Canada, together with coins issued by the Royal Canadian Mint, are what is known as "legal tender." That's a technical term meaning the Government of Canada has deemed them to be the official money we use in our country. In legal terms, it means "the money approved in a country for paying debts."
>
> Today, money is not just bank notes but takes many different forms: credit cards, debit cards, cheques, and contactless payments using mobile devices. *You can pay with any of these forms of money*, even though they are not considered "legal tender." In fact, *anything can be used if the buyer and seller agree on the form of payment*. *So "legal tender" has little impact on our everyday lives*.[2]

For the Bank of Canada, the *Currency Act* does not imply that a creditor must accept a payment in cash within the limits set out in section 8(2).

Thus, it appears that in the common law provinces and territories other than Québec, *the creditor may refuse a payment in cash offered by the debtor*, in the absence of prior agreement to the contrary.

Codie Chisholm has found many pieces of legislation across the common law provinces and territories and at the federal level that contemplate the use of money or cash as consideration or for payment. Important statutes in the consumer context are the Sale of Goods Acts and the Factors Acts. In the Sale of Goods Acts, "money consideration" is not defined. According to Fridman, the normal method of payment is cash, though the seller can agree to any form of payment they wish[3]. Other statutes contemplate the use of cash for a variety of transactions[4].

Purpose and Scope of Uniform Act

Without encroaching on federal jurisdiction, a Uniform Act could bring clarity and uniformity to Canadian law, as follows:

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[2] Bank of Canada, "Past series. Canada's official notes and coins are called legal tender", online: https://www.bankofcanada.ca/banknotes/bank-note-series/past-series/

[3] GHL Fridman, *Sale of Goods in Canada* (Toronto, Thomson Reuters Canada Ltd, 2013) at 233.

[4] For example, the Business Corporations Acts, Securities Acts, Personal Property Securities Acts typically mention cash as a means of payment. See also: *Scrap Metal Act*, CCSM c S40; *Salvage Dealers Licensing Act*, RSNB 2016, c 111; *Mutual Fire Insurance Companies Act*, RSBC 1960, c 262; *Mutual Insurance Companies Act*, RSNS 1989, c 306; *Endangered Species Act*, SNL 2001, c E-10.1; *Wild Life Act*, RSNL 1990, c W-8; *Overholding Tenants Act*, RSNS 1989, c 329; *Bankruptcy and Insolvency Act*, RSC 1985, c B-3.

- clarify the meaning of “currency”, “money” or “cash” used in other statutes.

- enumerate or describe the modes of payment that are effective in discharging a monetary obligation.

- determine who, of the debtor or the creditor, may impose on the other their preferred mode of payment, and under what conditions.

With respect to scope, there is a question whether the Uniform Act should apply only to consumer transactions or whether its scope should be more general. There is a further question whether it should apply to all monetary obligations or only to those resulting from a contract.

Context

A Uniform Act should take into consideration the current context and its evolution in the foreseeable future.

Payment is a vital network akin in importance to communication, transportation, and energy networks. Malfunctions can have dire consequences for economic activity, as we saw in Canada during the 2022 Rogers communications outage.

Rapid technological change has created a multitude of new payment options, such as digital wallets and cryptocurrencies. Yet cash still possesses its unique advantages as a mode of payment and a store of value.

More specifically, the following points are fleshed out in Jack Ball’s memo:

- The use of cash as a means of payment has fallen during the past few decades. There was a sharp decline at the beginning of the COVID-19 pandemic, and the use of cash has been relatively stable since then. In Canada, cash is used in 22% of all purchases, and it accounts for 12% of the value of all purchases.

- Consumers are making fewer cash withdrawals, but the amount of cash withdrawn and held by consumers has increased. The pandemic accelerated the overall demand for cash in Canada and surveys show an increase in consumer cash holdings. This reflects confidence in the resilience of cash when other modes of payment are unavailable.

- Cash has unique benefits by virtue of being an offline currency: it is resilient, inclusive, and private.

- Cash also has unique drawbacks. It is expensive for retailers and financial institutions to handle, and its private and untraceable nature facilitates crime and tax evasion.

- Credit cards are the most popular mode of payment by Canadian consumers. Because of their high cost to merchants, the latter are generally not intent on discouraging cash. Were consumers to favor less expensive modes of payment, cash might lose its relative appeal.

- 10% of Canadians own cryptoassets (Bitcoin, Tether, Dogecoin, etc.). The vast majority hold them as an investment and not as a means of payment.

- There is no imminent danger that cash will disappear from the Canadian economy. The Bank of Canada is committed to its continued circulation and use.

- A minority of Canadians (the unbanked and the underbanked) are impacted by the rarefication of cash. They include the economically or socially vulnerable, the elderly, and persons living in remote communities, such as Indigenous peoples[5].

- The Bank of Canada is studying and planning for the possible release of a "central bank digital currency" (CBDC) that could replace cash or coexist with it. A CBDC is a digital currency that is issued by a central bank. The Bank of Canada has stated that the technology behind a CBDC in Canada would "need to enable person-to-person transfers with immediate settlement, offer a great deal of privacy (not anonymity), have very high resilience in the event of infrastructure failure and be universally accessible."[6]

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[5] See Option Consommateurs, *Argent comptant. Vers une mort annoncée?* by Alexandre Plourde, June 20, online : https://option-consommateurs.org/wp-content/uploads/2020/01/oc-argent-comptant-francais1.pdf.

[6] Bank of Canada, *Contingency Planning for a Central Bank Digital Currency* (Ottawa: Bank of Canada, 25 February 2020) at p 14.

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The Pros and Cons of Cash and Other Payment Methods: A Policy Review

To:	Prof. Michelle Cumyn, ULCC Cash Payments Working Group
From:	Jack Ball
Date:	5 April 2024
Subject:	Cash Payments – Policy Issues

Table of Contents

I. Overview

1. This Memo surveys policy issues surrounding cash as a method of payment, with a focus on the possible impacts of the disappearance and/or rarefication of cash. The Memo's main findings are:

   A. Cash use in Canada has fallen over the past few decades but has been stable since the onset of the COVID-19 Pandemic. Cash is used in 22% of all purchases and accounts for 12% of the value of all purchases.[1]
   B. Cash has unique benefits by virtue of being an offline currency: it is resilient, inclusive, and private.
   C. Cash also has unique drawbacks. It is a particularly expensive form of payment for retailers and financial institutions to handle, and its private and untraceable nature facilitates crime and tax evasion.
   D. While cash is not at risk of imminently disappearing in Canada, the Bank of Canada is considering introducing a "central bank digital currency" (CBDC), which could replace cash or coexist with cash.

2. Why do payment methods matter? They may seem somewhat arbitrary, with the difference between cash and card being a matter of practicality, availability, or personal preference. However, payment is a vital network in our modern, specialised economies, akin in importance to communication, transportation, and energy networks.[2] Malfunctions in these networks can have dire consequences for economic activity, as we saw in Canada during the 2022 Rogers Communications Outage.[3] As Krüger and Seitze explain in a study commissioned by the German central bank:

   > If the flow of money stagnates, the real flow of goods and services will follow suit. Not only that, financial markets would also be hugely hampered by problems in payment transactions. This, in turn, would have an adverse impact on the real economy.[4]

3. Any major changes to payment networks should be, and generally are, approached with caution, in order to maintain financial stability. However, we are also in an era of rapid technological change, which has created a multitude of new payment options, such as digital wallets and cryptocurrencies. These rapid innovations in payment methods incentivize rapid adoption as well as competition between private businesses and states. Yet as this Memo demonstrates — and as the Bank of Canada among many other public institutions and experts acknowledge time and time again — cash still provides various

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[1] Bank of Canada, *2022 Methods-of-Payment Survey: Cash Use Over 13 Years*, by Chris Henry, Doina Rusu and Matthew Shimoda (Staff Discussion Paper) (Ottawa: Bank of Canada, 30 January 2024); Bank Of Canada, *Contingency Planning for a Central Bank Digital Currency*, (Background Materials) (Ottawa: Bank of Canada, 25 February 2020).
[2] Krüger, Malte, and Franz Seitz. "Costs and benefits of cash and cashless payment instruments: overview and initial estimates." *Study commissioned by the Deutsche Bundesbank* (2014) at p 12.
[3] Zadikan, Michelle, and Iva Poshnjari, "Rogers Pledges five-day credits as Bay Street weighs outage impact" *Bloomberg*, 12 July 2022 https://www.bnnbloomberg.ca/rogers-outage-could-cost-canada-s-economy-142m-analyst-1.1790982.
[4] Krüger at p 12.

unique advantages, despite having been steadily overtaken by electronic payment methods in much of the industrialized world.

a. Research Questions and Approach

4. You have asked me to address the following research questions:

   A. Policy issues surrounding the disappearance or rarefication of cash, specifically:

      i. The importance of cash when there is a generalized breakdown in technology, as experienced on July 8, 2022, with the Rogers network outage

      ii. The effect on low-income households, people in remote communities, including Indigenous peoples, persons who are physically or mentally challenged, including the elderly, and new Canadians who do not have access to banking services at all, or do not have access at a reasonable cost: the unbanked or underbanked.

      iii. Costs for businesses of using cash because cash is burdensome and presents a risk of theft as well as the cost of intermediation of financial institutions and monetary services providers in the form of fees for transactions

      iv. Privacy concerns

         - As they related to digital payments generating data concerning the identity and location of the payer, the amount of the transaction and the types of goods or services that are being purchased.
         - The desire for privacy and the use of alternative digital currencies such as cryptocurrencies, and whether these could undermine national currencies and the role of central banks.
         - The Bank of Canada's consideration of introducing a digital currency that would resemble cash in its chief characteristics.
         - Commitments by the Bank of Canada to maintain cash in circulation as much as possible.

   B. What forms are monetary payments likely to take in the future?

5. To these questions, I add the following, in order to contextualize the Memo:

   A. What are the current trends in cash usage?

      i. In Canada?

      ii. In foreign comparator jurisdictions?

6. I will approach these questions in the order laid out in the Table of Contents, above.

7. This Memo is, first and foremost, a literature review of studies and reports by economists and sociologists on the subject of cash payments and other related topics in monetary policy. I have focused primarily on Canadian research while also drawing on some foreign sources where appropriate. I synthesize these various strands of the literature and, where possible, make predictions of my own.

II. Current Trends in Cash Usage

8. This section of the Memo surveys reports from Canada and other countries in order to understand current trends in payment methods, particularly the use of cash. The overall takeaways are:
   - cash use in Canada has declined in the past few decades but has been relatively stable since the Pandemic; and
   - rates of cash use depend on a multitude of interrelated factors, including the legal context surrounding payments, consumer and merchant culture, and demographics.

a. Canada

9. The Bank of Canada publishes annual reports on payment methods in Canada, the most recently available being their 2022 Report.[5] These reports are produced by surveying Canadians through a questionnaire and a diary where participants record their payments and cash withdrawals over the course of three days.

10. The 2022 Report does not analyze or justify its survey-style research technique in any detail. Yet it is worth noting that this methodology depends for the accuracy of its results on honest answers to the questionnaire and entries in the diary. The fact of participating in a survey must not distort the choices that the actors make. Some foreign central banks' reports acknowledge that surveying is but one of several methods of gathering data on consumer payment behaviour. Economists may also gather payment data by estimating either cash withdrawal amounts or the purchases that can generally be settled in cash by deducting card transactions from the total volume of transactions.[6] As stated in a 2014 study on cash payments commissioned by the Deutsche Bundesbank (Germany's central bank):

> The nature of cash payments makes collecting statistics on the value and number of transactions difficult. Cash is an 'offline' method of payment, and a cash transaction is not separately recorded. Many users feel that it is precisely this that makes cash particularly advantageous.[7]

I point this out only to suggest that we should approach the Bank of Canada's payment methods statistics with some caution. However, since this data comes from a major Canadian institution, I assume that they are relatively accurate. They are in any event the best available statistics.

11. The Bank of Canada summarizes the results of its 2022 Report as follows:

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[5] Bank of Canada, *2022 Methods-of-Payment Survey: Cash Use Over 13 Years*, by Chris Henry, Doina Rusu and Matthew Shimoda (Staff Discussion Paper) (Ottawa: Bank of Canada, 30 January 2024).
[6] Krüger at p 20.
[7] Krüger at p 20.

- While cash use has declined over the long term, cash is still used on a regular basis. The share of cash purchases has been stable since the onset of the COVID-19 pandemic. Cash was used for 22% of all purchases in 2022, accounting for 12% of the value of purchases.
- The use of contactless payments has increased in the long-term. In 2022, 63% of debit card and 68% of credit card in-person payments were made using the tap-and-go feature.
- Consumers are making fewer ABM cash withdrawals over time, but the amount of cash withdrawn and held by consumers has increased. The pandemic accelerated the overall demand for cash in Canada and our surveys also show an increase in consumer cash holdings.[8]

In the remainder of this section, I will unpack and explain these findings.

12. Cash can serve both as a method of payment and as a store of value. The 2022 Report approximates this distinction by measuring "cash on hand" and "other cash holdings." Cash on hand is "cash that Canadians hold in their wallets, purses or pockets" and which is most likely used for purchases.[9] Other cash holdings, by contrast, is "cash held outside wallets, purses or pockets, such as at home or in a vehicle" and which "is more likely to be used as a <u>store of value</u> rather than for purchases."[10] When cash is used as a store of value, it acts as an alternative to money held in a bank account; it is stored for future use, rather than kept on hand for day-to-day transactions.

13. Cash use as a method of payment has two statistical aspects: the *volume* share of cash (the percentage of transactions completed using cash) and the *value* share (the dollar amount of cash purchases relative to total purchases). Since 2009, when the Bank of Canada began surveying payment methods, both of these aspects of cash usage have declined. In 2009, 54% of purchases were completed using cash, accounting for a 23% value share. In 2022, 22% of purchases were completed using cash, accounting for a 12% value share.[11] Notably, there was a sharp decline in the volume and value shares of cash payments at the beginning of the COVID-19 Pandemic. However, cash has stabilized since then, suggesting that while cash use has decreased, it is not likely to disappear in the short term.[12] Further to this point, the rates of surveyed consumers who said that they have no plans to go cashless has consistently hovered just below 80% since 2020.[13] And the average cash on hand increased at a much faster rate than inflation from 2009 to 2021 before decreasing in real terms in 2022.[14] Nonetheless, the percentage of Canadians who report having no cash on hand has been steadily increasing, reaching 25% in 2021.[15]

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[8] Bank of Canada, *2022 Methods-of-Payment Survey*
[9] Bank of Canada, *2022 Methods-of-Payment Survey* at p 3.
[10] Bank of Canada, *2022 Methods-of-Payment Survey* at p 3, emphasis added.
[11] Bank of Canada, *2022 Methods-of-Payment Survey*.
[12] Bank of Canada, *2022 Methods-of-Payment Survey* at p 10.
[13] Bank of Canada, *2022 Methods-of-Payment Survey*.
[14] Bank of Canada, *2022 Methods-of-Payment Survey* at p 3.
[15] Bank of Canada, *2022 Methods-of-Payment Survey* at p 3.

14. The price of a good or service can have a strong influence on the likelihood that a consumer will pay in cash. When a purchase is below $15, there is a higher likelihood that a consumer will pay in cash than if the value of the purchase is just above that threshold: in 2019, cash remained the most popular payment method for transactions under $15 in Canada.[16] Purchases below $15 provide an opportunity to spend lower value denominations like $5 and $10 bank notes, whereas larger value purchases will generally result in "larger amounts of change given to the consumer, known as 'the burden of coins.'"[17] Small value transactions are waning, however. While 60% of purchases recorded in the 2009 report were under $20, only 40% of purchases were under $20 in 2022.[18] This trend may be contributing to the decrease in cash usage. There are simply less opportunities where consumers feel it makes sense to pay in cash rather than through some other method.

15. The use of cash as a store of value, rather than as a payment method, has exhibited slightly different trends. The percentage of Canadians without any other cash holdings (cash stored in the home and not for use in day-to-day purchases) has increased from 47% in 2009 to 78% in 2021, and 82% in 2022.[19] However, the overall demand for cash has accelerated since the Pandemic, with other cash holdings rising slightly above pre-pandemic levels recorded in 2019.[20]

16. This trend in the use of cash as a store of value may indicate a shift in the general way consumers think about cash and its usefulness. Whereas cash previously acted primarily as a mode of payment, consumers seem increasingly aware of its usefulness as a store of value. This trend may also suggest that while the per capita use of cash is falling, those who still use cash are using much more than previously (for purchases and/or as a store of value). While not explicitly claimed in the Bank of Canada's 2022 Report, I suspect that this trend is related to a growing awareness of the resilience of cash relative to other payment methods, as I will discuss below.[21] As Engert suggests,

> One aspect of holding larger notes as a store of value is related to increased demand during periods of political turmoil, recession or financial crisis, when such notes provide a safe store of 'outside money' — in contrast to the 'inside money' balances held in the banking system.

If Engert is correct then, as a general observation, it may be that recent disruptive events such as the COVID-19 Pandemic and the 2022 Rogers Outage have highlighted this particular use of cash, particularly to risk adverse consumers.

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[16] Engert, Walter, Ben Fung, and Björn Segendorff. *A tale of two countries: Cash demand in Canada and Sweden*. No. 376. Sveriges Riksbank Working Paper Series, 2019 p 9
[17] Bank of Canada, *2022 Methods-of-Payment Survey* at p. 11.
[18] Bank of Canada, *2022 Methods-of-Payment Survey* at p. 11.
[19] Bank of Canada, *2022 Methods-of-Payment Survey* at p. 4.
[20] Bank of Canada, *2022 Methods-of-Payment Survey* at p. 4.
[21] Bank of Canada, *Contingency Planning*.

17. Regarding other payment methods, the volume and value shares of payments by card (per the 2022 Report) were as follows:[22]

- **Debit cards**: 21% of all transactions and a 19% value share;
- **Credit cards**: 48% of all transactions and a 59% value share; credit cards were the most dominant payment method.

18. The 2022 Report does not contain volume and value shares for the remaining payment methods, but provides the following statistics regarding rates of adoption:[23]

- **Interac e-transfer**: used by 51% of Canadians in the past year;
- **Online payment accounts**, such as PayPal: used by 32% of Canadians in the past year;
- **Digital currency**, such as Bitcoin: used by 2% of Canadians in the past year, and owned by 10% of Canadians in 2022;
- **Mobile Apps** (bank account management apps, digital wallet apps, payment account apps, and store-branded prepaid card apps): 37% of Canadians used one of these types of apps in the last year.

19. In sum, the increasing reliance on electronic payment methods and the growth of the digital economy[24] have led to a decrease in cash usage in Canada, but this downward trend has plateaued since the Pandemic. Cash use has declined but does not appear likely to imminently disappear.

b. Foreign Comparator: Sweden

20. In general, there remains a lot of disparity in cash usage across different countries. Rates of cash usage are a highly national phenomenon, depending greatly on the local legal and cultural context.[25] Even in regions that are economically integrated, such as the European Union, payment method rates vary greatly.[26] The heterogeneity of consumer payment behaviour limits the usefulness of comparisons between countries, because there are so many factors at play.[27]

21. With these limitations in mind, in this section, I will survey the trends in cash payments in Sweden. I have chosen this Sweden as a comparator because it attracts a lot of attention in the payment methods literature for being the least cash-dependant country in

[22] Bank of Canada, *2022 Methods-of-Payment Survey* at pp 8, 21 (see chart).
[23] Bank of Canada, *2022 Methods-of-Payment Survey* at p 6.
[24] Engert at p 1; Garratt, Rodney, and Maarten R.C. van Oordt. "Privacy as a public good: a case for electronic cash." (2021) 129:7 J of Political Econ 2157 at p 2171.
[25] In France, for instance, merchants can be fined for not accepting cash: République Française, "Paiement en espèces," online: https://www.service-public.fr/particuliers/vosdroits/F10999?
[26] European Central Bank (ECB), *Consumers' Payment Preferences and Banking Digitalisation in the Euro Area*, by Justus Meyer and Frederica Teppa, (Working Paper Series No 2915) (Frankfurt: ECB, 2024) at p 22.
[27] ECB, *Consumers' Payment Preferences* at p 22.

the world.[28] As such, it may provide a window into the future of payment in Canada, if cash disappears in the coming years.

22. In 2022, the most recent year where these statistics are available, only 34% of Swedish consumers reported having made a cash payment in the past thirty days, according to the Swedish central bank.[29] In 2018, only 13% of payments in Sweden were made using cash, compared with a European average of nearly 80%.[30] Note that Sweden's 2018 volume share is significantly lower than Canada's 2022 volume share. Further, as of 2019, the value of bank notes relative to Sweden's GDP had declined continuously since 1945, unlike most other advanced economies where the cash-to-GDP ratio stabilized in the 1980s.[31] The value of cash in Sweden currently sits around 1%, which has led economists to claim that cash can "no longer be seen as an important form of money" in the country.[32] In terms of other payment methods, in 2018 Sweden was the country where the most non-cash transactions per capita were made.[33]

23. Comparing Sweden and Canada in a 2019 paper, Walter Engert et al claim that Canadian merchants are less interested in going cashless than their Swedish counterparts in part because of the difference in handling costs between debit and credit card transactions:

> in Sweden, consumers have been moving away from cash and toward debit cards for P2B payments, while in Canada, consumers have been moving toward mostly credit cards for P2B payments … Given that debit cards tend to be less expensive for merchants than credit cards are (due to, e.g., lower interchange fees on debit cards), it is perhaps not surprising that merchants in Sweden report a greater willingness to move away from cash acceptance than merchants in Canada.[34]

The implication seems to be that in Canada, merchants tend to view cash as a cheaper alternative to credit card payments. In Sweden, on the other hand, the dominance of the cheaper debit cards makes cash less appealing to merchants. The handling costs of different payment methods will be discussed in detail in Section IV of this Memo.

24. Another factor behind the country's low cash use is that in Sweden, unlike in Canada, merchants can unilaterally refuse to accept cash.[35] This factor is not determinative, since merchants generally want to cater at least to some degree to consumer preferences. However, this legal context does allow Swedish merchants more margin to influence consumer payment behaviour by refusing to accept cash. Rates of cash usage can be driven not just by consumers but also by merchants.

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[28] Arvidsson, Niklas. *Building a cashless society: The Swedish route to the future of cash payments*. (Berlin: Springer Nature, 2019); see also, generally, Engert.
[29] Sweden, Sveriges Riksbank, *Payments Report 2022*, (Stockholm: Sveriges Riksbank, 2022).
[30] Fabris, Nikola. "Cashless society–the future of money or a utopia?" (2019) 8:1 *Journal of Central Banking Theory and Practice* 53 at 55.
[31] Engert at p 1
[32] Arvidson at p 5.
[33] Arvidson at p 41.
[34] Engert at p 12.
[35] Arvidson at p 24.

25. Yet another factor is the use of Swish for person-to-person payments in Sweden. Swish is an electronic payment service available on smartphones in Sweden that allows for real-time transactions between consumers without fees. A transaction can be completed in a matter of seconds, making it a user-friendly and efficient alternative in situations where people traditionally used cash, such as "splitting a bill in a restaurant, transferring money for purchases of gifts or tickets, buying a hot dog and a coffee at the sports arena, or even paying pocket money to kids."[36] In Canada, Interac e-Transfer is often used in such situations, but it is not used as often per-capita as Swish in Sweden.[37] I would speculate that this may be because Swish is better integrated into the broader payment network than Interac e-Transfer, which cannot be used for transactions between individuals and businesses.

26. It bears mentioning that since Swish is a mobile payment system, unlike cash, it relies on having a smartphone. While smartphones may appear ubiquitous, they are not universal in Canada. Statistics Canada's 2020 survey on smartphone use found that while 96% of Canadians aged 15-44 — and 87% of those aged 45-64 — have a smartphone, only 54% of seniors do. Therefore, smartphones still constitute a real barrier to the use Swish or any other digital payment method, especially for the elderly, and this barrier does not exist with cash.[38] Furthermore, a child receiving pocket money via Swish would need to have a smartphone.

III. Benefits of Cash

27. Proponents of cash, including central banks, often highlight its resilience, inclusivity, and privacy.[39] Cash is the only form of money that can does not depend on third parties or special technology (e.g., smartphone apps or card readers),[40] it is "offline"[41] and anonymous,[42] it is not easily traceable, and does not require a bank account.

28. These characteristics of cash provide benefits while also enabling certain forms of criminal and tax-evasion activity. This section will delve into the benefits of cash, and the following section, into its drawbacks.

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[36] Arvidson at p 24-25.
[37] Engert at p 39 – see volume share/value share graph.
[38] Statistics Canada, "So Long Landline, Hello Smartphone," 11 May 2023, online: https://www.statcan.gc.ca/o1/en/plus/3582-so-long-landline-hello-smartphone
[39] Bank Of Canada, *Contingency Planning*; European Central Bank (ECB), "The Role of Cash" (2024), online: *European Central Bank* < https://www.ecb.europa.eu/euro/cash_strategy/cash_role/html/index.en.html >.
[40] ECB, "The Role of Cash"
[41] Krüger at p 20.
[42] Borgonovo, Emanuele, et al. "Money, privacy, anonymity: What do experiments tell us?" (2021) 56 *Journal of Financial Stability* 100934 at p 1

a. Resilient Payment Method

29. In their 2020 report on the prospect of developing a central bank digital currency (CBDC), the Bank of Canada noted that any planned CBDC would have to take into consideration the high level of resilience that the existing system of bank note cash offers, in order to effectively replace cash:

> Given its physical nature, cash is an extremely resilient method of payment that can be used for in-person transactions even when the physical infrastructure that other mechanisms rely on is compromised (e.g., because of a power outage).[43]

The resilience of cash is widely highlighted in the cash payments literature:

> One aspect of holding larger notes as a store of value is related to increased demand during periods of political turmoil, recession or financial crisis, when such notes provide a safe store of "outside money"—in contrast to the "inside-money" balances held in the banking system.[44]

And:

> …cash could be very significant in case of financial instability or failure of some important financial institutions. That is why it is very important that central banks and governments take care of financial stability and the stability of their banking systems.[45]

30. Numerous examples demonstrate the validity of these comments. Even in the almost-cashless Sweden, the Swedish central bank noted an uptick in the amount of cash being withdraw by Swedes when Russia invaded Ukraine in early 2022, suggesting that individuals sought out cash as a safeguard against possible instability in the region.[46]

31. In Canada, a recent example of the frailty of electronic payment methods was the 2022 Rogers Communications Outage. On July 8th, 2022, the Canadian telecom giant experienced a major service outage that knocked out connectivity, 911 availability, and payment services for more than 12 million customers.[47] Notably, the Interac network went down nationwide because it relied wholly on Rogers.[48] This impacted not only debit card payments but also Interac e-Transfer and some ATMs.[49] The estimated losses to the Canadian economy totalled approximately $142M across all sectors.[50] For consumers

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[43] Bank of Canada, *Contingency Planning* at p 5.
[44] Engert at p 14.
[45] Fabris at p 56.
[46] Sweden, Sveriges Riksbank, *Payments Report 2022*
[47] Christine Dobby, "Ottawa announces it will require telecoms to provide backup for each other during outages following Rogers system failure," *Toronto Star*, 11 July 2022 <https://web.archive.org/web/20220712040507/https://www.thestar.com/business/2022/07/11/ottawa-announces-it-will-require-telecoms-to-provide-back-up-for-each-other-during-outages-other-following-rogers-system-failure.html>.
[48] Star Staff, "Rogers says it has restored service for 'vast majority' of customers," *Toronto Star*, 8 July 2022 <https://www.thestar.com/news/gta/rogers-says-it-has-restored-service-for-vast-majority-of-customers/article_67e76bef-9f68-5c31-a351-cb6204684342.html>
[49] Star Staff, "Rogers says…"
[50] Gulliver, John, Hillel Nadler, and Hal S. Scott. "Cloud Adoption in the Financial Sector and Concentration Risk." (2023) *Wayne State University Law School Legal Studies Research Paper Series No 2023*, SSRN 4423902 at p 11.

with cash on hand, however, regular payments carried on. Cash is immune to these sorts of technological disruption. Under such circumstances, cash is a critical "fail-safe backup" payment system. [51] The economic impact of the Rogers Communications Outage would presumably have been worse if Canada had less — or no — cash in circulation.

32. The Rogers Outage highlighted the resilience of cash in comparison to other payment methods, which invariably require an internet connection, and should caution policymakers against decisions that will make Canada a more cashless society. [52]

33. Another policy insight we should draw from this incident of technological failure is that an overly centralized telecommunication system concentrates risks.[53] Luckily, Canada's economy seems to be able to spring back from systemic failures like the Rogers Outage without suffering serious long-term impacts.[54] However, since electronic payments are here to stay — Canada is not suddenly going to revert back to a primarily cash-based system — we need a system that is resilient and reliable.[55] Canada's payments network should aim to decentralize the technological reliance of payment methods by, for instance, making ATMs and debit machines reliant on more than one communication network.

b. Financial Inclusion

34. Financial exclusion is "the situation faced by people who have no relationship, or an insufficient relationship, with a mainstream financial institution, such as a bank or credit union, to meet all their financial service needs."[56] Put more broadly, it is the "inability to access necessary financial services in an appropriate form."[57]

35. Financial exclusion is experienced to varying degrees by unbanked and underbanked persons. The former group is well defined, representing individuals "without access to any services of mainstream banking institutions…typically measured by the number of adults without a bank account."[58] The underbanked, by contrast is less well defined[59] but

[51] Bank of Canada, *Unmet Payment Needs and a Central Bank Digital Currency*, by Christopher S. Henry, Walter Engert, Alexandra Sutton-Lalani, Sebastian Hernandez, Darcey McVanel, and Kim P. Huynh, (Staff Discussion Paper) (Ottawa: Bank of Canada 2023) at p. 3.
[52] Bank of Canada, *Unmet Payment Needs* at p. 3.
[53] Gulliver at p. 11.
[54] Gulliver at p. 11.
[55] Gannon, John P. L. "Lessons for Canada from International Approaches to Network Resiliency and Reliability." (Realising the Digital Decade in the European Union – Easier Said Than Done? Delivered at the 32nd European Conference of the International Telecommunications Society (ITS)) Econstor at p 6.
[56] Buckland, Jerry. *Hard Choices: Financial Exclusion, Fringe Banks, and Poverty in Urban Canada*. (Toronto: U of Toronto P, 2012) at p 3.
[57] Lamb, Laura. "Financial exclusion and financial capabilities in Canada." (2016) 8:2 *Journal of Financial Economic Policy* 212 at 214.
[58] Lamb at p 214
[59] Buckland at p 21.

generally represents those "whose relationship with mainstream financial institutions is tenuous in that they are unable to access all the banking services they need."[60] The question then becomes which particular banking services full inclusion depends upon (chequing accounts, mortgages, loans, etc.).

36. Individuals can become unbanked when a bank declines their application to open a bank account. This can result, for example, from a poor ChexSystems report, a verification service and consumer reporting agency that banks use to identify negative bank activities such as unpaid negative balances.[61]

37. If financial exclusion is understood narrowly as being unbanked, as it sometimes is,[62] Canada has a relatively low degree of financial exclusion.[63] Yet statistics on unbanked Canadians vary somewhat. In 2018, the Bank of Canada estimated that 99% of Canadians have a bank account.[64] However, a 2009 study estimated that 12-13% of Canadian adults are unbanked.[65] To add to this incongruity, a 1998 report found that 3% of adult Canadians were unbanked,[66] while another study estimates the rate to be between 3% and 15%.[67] These disparate statistics suggest that while being unbanked is well defined, it is difficult to measure.

38. The underbanked, on the other hand, are more vaguely defined and even more difficult to measure than the unbanked.[68] National survey data may not be as accurate for low-income communities as for more financially well-off demographics because they are less likely to have a long-term residence and a telephone, and more likely to experience homelessness.[69]

39. Indicators of being underbanked may include being denied a credit card or using a pawnshop or other fringe financial institution (FFI) such as a payday loan company.[70] FFIs are problematic because they charge exorbitant interest rates, do not contribute towards building credit score, and do not offer developmental services that support long-term need (e.g., savings accounts, investments, mortgages, etc.).[71] In other words, being underbanked often involves insufficient access to mainstream sources of credit. A British

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[60] Lamb at p 214.
[61] Baradaran, Merhsa. *How the Other Half Bank: Exclusion, Exploitation, and the Threat to Democracy*. (Boston: Harvard UP, 2015) at p 143; Motley Fool, "4 Ways Second-Chance Banking Can Give You a Fresh Start," *The Globe and Mail*, 12 Aug 2022 < https://www.theglobeandmail.com/investing/markets/markets-news/Motley%20Fool/9654297/4-ways-second-chance-banking-can-give-you-a-fresh-start/ >.
[62] Bank of Canada, *Contingency Planning*.
[63] See Buckland at p 21 for an overview of unbanked levels in other Northern countries.
[64] Bank of Canada, *Contingency Planning.*
[65] Lamb at p 214.
[66] Buckland at p 23.
[67] Anderson, John. "Why Canada Needs Postal Banking." (2013) *Canadian Centre for Policy Alternatives* at p 6.
[68] Buckland at p 25.
[69] Buckland at p 21.
[70] Buckland at p 24.
[71] Lamb at p 213.

Columbia study found that pay-day loan companies in Canada are legally entitled to charge up to $64.40 on a $280 10-day loan, the average pay day loan in Canada at the time; this amounts to a nominal annual percentage rate of interest of 839.5%.[72]

40. At least one analyst has argued for the establishment of a postal banking system in Canada to address the gap currently being filled by FFIs.[73] This proposal has also been floated in the United States.[74] Many countries around the world have successful postal banks (Japan, China, Germany, the UK, France, Italy, Switzerland, New Zealand, etc.).[75] These banks frequently provide a full range of financial services (including mortgages and loans) either of their own accord or in partnership with major private sector financial institutions.[76] A postal banking system in Canada could offer a more inclusive and affordable alternative to traditional banks, thereby reducing the market for the usurious cash-chequing and loan services provided by FFIs. Low-income Canadians should not have to pay more to use their money.

41. Financial exclusion has been trending upward both in Canada and in other industrialized countries over the past few decades, spurring "massive growth" in the fringe finance industry.[77] The main factors tending to lead to financial exclusion, whether that manifests as being unbanked or underbanked, are being in a low income/wealth bracket, being younger, having high levels of debt, having lower levels of education, and having larger families; on the other hand, rates of financial exclusion fall with home ownership.[78]

42. To add to the inequalities reinforced by financial exclusion, indigenous communities in Canada experience particularly high rates of financial exclusion:

> Aboriginal communities remain largely without banks or credit unions. […] While the major banks all have Aboriginal services, there are very few branches on reserves. There are 615 First Nations communities in Canada today and many other Métis and non-status communities. A quick tally of branches of banks and credit unions on reserve shows only 54.[79]

43. While I have not found research uncovering the degree to which unbanked and underbanked persons in Canada depend on being able to pay for things in cash, it is generally understood that cash supports financial inclusion.[80] This makes sense considering that, by definition, unbanked and underbanked persons do not have access to

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[72] Anderson at p 5.
[73] Anderson at p 7.
[74] Baradaran at p 9
[75] Anderson at p 8.
[76] Anderson at p 9.
[77] Lamb at p 212.
[78] Lamb at p 213; Buckland at p 24
[79] Anderson at p 7.
[80] See e.g., European Central Bank (ECB), *Consumers' Payment Preferences and Banking Digitalisation in the Euro Area*, by Justus Meyer and Frederica Teppa, (Working Paper Series No 2915) (Frankfurt: ECB, 2024)

the full range of electronic payment methods provided by banks and credit unions (e.g., debit cards for the unbanked, credit cards for the underbanked).

44. Additionally, any payment method that relies on a mobile app is inaccessible to those who do not have access either to a smartphone or to a robust internet connection. This barrier to full inclusion particularly impacts the elderly[81] and those who live in rural communities.[82] For these communities, cash likely plays a vital role in financial inclusion. However, as I will discuss in Section V, a CBDC may be able to contribute to financial inclusion in new ways that other electronic payment methods currently do not.[83]

c. Privacy

45. In their 2021 paper on the cash and privacy, Borgonovo et al articulate the central tension within payment privacy:

> The demand for payment privacy has two main sources. On the one hand, a demand for privacy may be formulated by individuals involved in illegal transactions ("illegal" or "pathological" demand for privacy). These agents need a medium of payment (MOP) that helps them reduce the probability of being incriminated. On the other hand, and more generally, any individual who is a risk-averse agent may desire privacy not to avoid legal sanctions but simply to ensure protection from external scrutiny from other parties directly or indirectly involved in the transaction (e.g., the government, other individuals, payment providers).[84]

This section will focus primarily on the second of these sources in order to explain the privacy benefits of cash. I will discuss the illegal demand for privacy in Section IV when I discuss the use of cash for criminal activity. Section V will discuss the competing legal and illegal demands for privacy in the context of CBDCs.

46. It can be helpful to think of privacy as a spectrum, from full publicity to partial privacy to full privacy. Partial privacy describes situations in which some personal information, while not made publicly accessible, is nonetheless shared with a third party, such as a bank, merchant, or app developer. In a typical purchase in Canada, only cash payments can guarantee full privacy.[85] Since cash transactions involve only buyers and sellers, and no third parties, buyers can remain virtually anonymous, apart from being physically present at the point of sale.

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[81] Statistics Canada, "So Long Landline, Hello Smartphone"
[82] Office of the Auditor General of Canada, "Connectivity in Rural and Remote Areas." Online: https://www.oag-bvg.gc.ca/internet/English/parl_oag_202303_02_e_44205.html
[83] See ECB, *Consumers' Payment Preferences* at p 7: Fintech companies have "started to offer (mobile) payment services to unbanked or underbanked people and small enterprises [in developing countries] to boost financial inclusion."
[84] Borgonovo at p 2.
[85] Borgonovo at p 2

47. When making purchases online or in person with a bank-issued credit or debit card, Canadian banks collect information regarding the goods and services purchased and considered. The official website of the Royal Bank of Canada (RBC), for example, states that RBC collects:

> Records of personal property, products or services purchased, obtained, or considered, or purchasing and other activities; [and] Information related to transactions arising from your relationship with and through us, and from other financial institutions, including point of sale details.[86]

RBC's website further states that they "do not sell personal information and have not sold personal information in the past 12 months" but that they do create reports containing "aggregated and de-identified information, not personal information" that are used "for business purposes such as market and product analysis, analyzing credit risk and product development and enhancement."[87] While it is unclear whether RBC sells aggregated and de-identified payments data, these statements do not appear to rule out such a practice.

48. There is a "strong incentive" for banks and other providers of payment platforms to monetize the payments data they collect.[88] This is possible without, as RBC states, sharing personal information. Garratt and van Oordt suggest in a recent article that monetizing aggregated data is an increasingly common and profitable practice:

> [W]ithout sharing user-generated data, commercial payment providers can employ payments data to cluster consumers into profiles that can be shared with third parties or used for marketing purposes on behalf of third parties. The effectiveness and profitability of such methods have grown in recent years, and the trend is expected to continue, with new advances in prediction tools (e.g., machine learning), increases in computational power, and a larger scale and scope of data gathering.[89]

49. Price discrimination — the practice of selling the same product at different prices to different buyers, in order to maximize sales and profits — is one clear example of how payments data can be used to the detriment of consumers.[90] Even aggregated and de-identified data can be used to price discriminate by clustering "future consumers into groups with different preferences based on observable characteristics."[91] These characteristics could, in theory, reflect prohibited grounds of discrimination such as race, gender, age, etc. The Office of the Privacy Commissioner of Canada similarly notes that financial institutions and payment card network operators can profile consumers and

[86] Royal Bank of Canada (RBC), "Global Privacy Notice" (2024) online: *Royal Bank of Canada* < https://www.rbc.com/privacysecurity/ca/global-privacy-notice.html >.
[87] See, e.g., RBC, "Global Privacy Notice"
[88] Garratt at p 2158.
[89] Garratt at p 2158.
[90] Garratt at p 2158-2159.
[91] Garratt at p 2158.

share this information with marketers and other agents.[92] As a caveat, I have not found empirical research regarding the rates at which price discrimination occurs in Canada.

50. Cash, unlike electronic payment methods, does not involve interfacing with any third parties, and therefore does not create monetizable payments data. When consumers pay with cash, they therefore enjoy much higher levels of privacy and anonymity. And yet even though this is an obvious feature of cash, and privacy is increasingly understood to be an intrinsic good,[93] traceable payment methods are on the rise in Canada and around the world.

51. One reason for the rise in non-private payment methods may be, according to Garratt and van Oordt, that the practice of "inferences" obscures privacy risks and adds a larger social dimension into the problem of payment privacy. Payments data, like other forms of data, can increasingly be used to "make inferences about the purchasing habits of other individuals, even if those individuals have taken steps to protect their own data."[94] This practice disincentivizes individuals to protect privacy because

> [there are] differences between the private and social cost of information disclosure: information disclosed by others allows inferences about you. Hence, inference about you occurs regardless of your own choices to protect your information. Moreover, you do not bear the full or any cost of the information you inadvertently reveal about others. Both aspects induce a low willingness to take costly measures to protect privacy.[95]

As an example of the costliness of protecting privacy, an increasingly large section of the retail economy has shifted to e-commerce, where cash is not practical.[96] Fully protecting one's payment privacy, therefore, would mean opting out of this burgeoning and highly consumer-friendly sector of the retail economy.

52. In an apt analogy, Garratt and van Oordt compare to privacy to clean air:

> Consumers do not have to contribute to provide this public good. It is not like national defense or a public park. Rather, they have to take costly actions to preserve it. In that sense, privacy is like clean air. If an individual fails to protect their own privacy, then the amount of the public good is diminished (everyone faces a small increase in the probability that they will be price discriminated against), but that individual still benefits from the protection provided by others.[97]

Put another way, privacy has a social value and data harms "are collective and unknowable, making individual choices to reduce them impossible."[98] As a result privacy

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[92] Office of the Privacy Commissioner of Canada, "Electronic and Digital Payments and Privacy," (2016) online: *Office of the Privacy Commissioner of Canada* < https://www.priv.gc.ca/en/privacy-topics/technology/mobile-and-digital-devices/02_05_d_68_dp/ >.
[93] Cofone, Ignacio N. *The Privacy Fallacy: Harm and Power in the Information Economy*. (Cambridge, UK: Cambridge U P, 2024) at p 6.
[94] Garratt at p 2158.
[95] Garratt at p 2160.
[96] Garratt at p 2171.
[97] Garratt at p 2175.
[98] Cofone at p 7-8; see also Borgonovo at p 2-3.

has a moral hazard problem because "corporations have incentives to behave against our best interests, creating profitable harms after obtaining agreements."[99]

53. If cash disappears and is not replaced with some similarly anonymous alternative, we will be left with a system in which all payments can be traced and payment data, monetized. However, anonymous alternatives such as cryptocurrencies have begun to gain popularity, with many users of these payment methods expressly appreciating the anonymity these alternatives provide.[100] As I will discuss in Section V, it may be possible to develop a CBDC that would recoup some of the privacy we have lost with other modern payment methods.

IV. Drawbacks of Cash

a. Economic Burdens of Handling Cash

54. Much of the recent popular discourse around the burdens of cash for retailers centered the fears of infected bank notes during the COVID-19 Pandemic.[101] These fears led some retailers to stop accepting cash, at least temporarily, during the Pandemic.

55. A broader policy issue involving cash is the "resource costs" of different payment methods for retailers and financial institutions. The Bank of Canada measured these costs in a 2017 staff discussion paper based on 2014 data.[102] This data may no longer be entirely accurate, given recent shifts in payment trends, including the rise of contactless debit and credit card transactions, as well as financial institutions' continued efforts to minimize expenses. However, it does provide a general sense of the relative resource burdens of different payment methods.

56. The key findings of this 2017 Bank of Canada study were as follows:
- The costs of cash and card payments at the POS [point of sale] in Canada are non-negligible. Total resource costs amounted to $15.3 billion, which corresponds to 0.78 per cent of GDP.
- Stakeholders [e.g., retailers, financial institutions, consumers] incur costs in providing, accepting and using payments at the POS and their shares vary by payment method.
- Debit cards are the least costly in terms of total resource costs, followed by credit cards, whereas cash is the most costly.

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[99] Cofone at p 7-8; see also Borgonovo at p 2-3.
[100] Borgonovo at p 3.
[101] Toneguzzi, Mario, "Amid Concerns of Infection, Bank of Canada Encourages Retailers in Canada to Accept Cash," *Retailer Insider*, 2020 https://retail-insider.com/retail-insider/2020/04/amid-concerns-of-infection-bank-of-canada-encourages-retailers-in-canada-to-accept-cash/ ; CBC News, "Bank of Canada asks retailers to keep accepting cash despite COVID-19 concerns," *CBC*, 2020 https://www.cbc.ca/news/business/bank-of-canada-retail-cash-1.5531367.
[102] Bank of Canada, *The Costs of Point of Sale Payments*, (Staff Discussion Paper) (Ottawa: Bank of Canada, 2017).

- On average, debit cards are the least costly in terms of resource costs per transaction (volume) as well as resource costs per dollar transacted (value). Credit cards carry the highest resource cost per transaction, while cash is most costly in terms of resource costs per dollar transacted.
- Considering variable resource costs per transaction, cash is cheapest for transactions up to $6, while debit cards are the least costly for transactions larger than $6.
- If stakeholders make their payment choices based on their private costs alone, consumers would prefer to use credit cards, while retailers and financial institutions would prefer debit card payments.[103]

57. These private costs do not, however, tell the entire story of which stakeholders tend to prefer which payment methods. The Bank of Canada notes that payment method preferences for retailers and other stakeholders also depend "on the overall revenues and benefits those methods generate."[104] For example, even though debit cards are cheaper for retailers than credit cards, and retailers are under no legal obligation to accept credit cards, providing credit card payments can draw in more consumers, leading to greater revenues. Another 2017 Bank of Canada article, which surveyed the acceptance of different payment methods at the POS, found that merchants consider not only the costs incurred from accepting a given payment method but also "which payment methods consumers are likely to carry and prefer" when choosing which payment methods to acccept.[105]

58. The high rates of acceptance of more expensive methods of payment, such as cash and credit cards, is driven by "network externalities," or the phenomenon in economics where the value of a product or service increases as more people use it:

> By offering various consumer incentives, credit card companies promote the adoption and use of credit cards by consumers. As more consumers are carrying and using credit cards, more merchants are encouraged to accept credit cards, and this increases merchant acceptance, which in turn increases the benefits to consumers of carrying and using credit cards.[106]

While network externalities primarily benefit the demand side (consumers), businesses strategically design their products or services to capitalize on network effects by, for instance, accepting a more expensive form of payment such as cash or credit cards.

59. As of now, there does not appear to be any organized effort among Canadian retailers to stop accepting cash due to its resource costs. However, if cash usage rates were to drop too low to justify the high costs of handling cash, we may see such a campaign. The European organization EuroCommerce, which represents the retail and wholesale sector, has recently taken the position that retailers should be entitled to not accept cash if it is

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[103] Bank of Canada, *The Costs of Point of Sale Payments* at p iv.
[104] Bank of Canada, *The Costs of Point of Sale Payments* at p iv.
[105] Bank of Canada, *Acceptance and Use of Payments at the Point of Sale*, (Staff Discussion Paper) (Ottawa: Bank of Canada, Autumn 2017) at p. 14.
[106] Bank of Canada, *Acceptance and Use of Payments* at p. 24.

"economically not viable."[107] EuroCommerce claims that inflation, safety, and rising bank fees are increasing the handling costs for retailers of accepting cash, and that at the current rates of declining cash usage, cash will soon become economically unviable for retailers.[108]

60. In the European context, the burdens of cash for financial institutions are also noted from time to time. The disappearance of cash would allow financial institutions to reduce staff and decrease handling costs, which in 2017 were measured at 0.45% of the E.U.'s total GDP.[109]

61. While cash is clearly a relatively expensive form of payment for retailers and financial institutions, the disappearance of cash might bring about other expenses. If cash is replaced by CBDCs, this may bring about unexpected costs for retailers and financial institutions, given their largely untested nature. Any cost-saving argument in favour of going cashless should therefore be approached with caution.

b. Criminal Activity and Tax Evasion

62. Another drawback of cash is that it facilitates various forms of criminal activity and tax evasion. The elimination of cash would therefore hinder illegal activities, particularly those associated with drugs and money laundering, which often rely heavily on cash transactions because they are difficult to trace.[110] The move towards cashless transactions would also make counterfeiting money nearly impossible, further deterring criminal operations. Recent research on crime rates in the United States found that the increased adoption of cashless transactions has already led to a reduction in burglaries and overall crime rates.[111]

63. Transitioning to a cashless economy could also have positive economic impacts by reducing the shadow economy. Without cash, it would be more difficult for actors to eschew tax obligations. As a result, public revenues would increase, reducing deficits and public debt.[112] While the exact tax savings are difficult to predict, according to the Tax Justice Network's "State of Tax Justice 2023" report, Canada loses approximately $3.65bn per year from tax abuse.[113] To give a further sense of the scale of tax evasion, a UK study found "potential savings in tax evasion of £6bn for the UK."[114] However, many

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107 EuroCommerce, "For Retailers, 'Cash' is not always 'King,'" 24 January 2024, https://www.eurocommerce.eu/2024/01/for-retailers-cash-is-not-always-king/ at p. 1.
108 EuroCommerce, "For Retailers…" at p. 1.
109 Fabris at p 58.
110 Fabris at p 57.
111 Fabris at p 57.
112 Fabris at p 57.
113 Tax Justice Network, "State of Tax Justice 2023," (2023) online: *Tax Justice Network* < https://taxjustice.net/reports/the-state-of-tax-justice-2023/ > at p 75.
114 Fabris at p 57.

of the industries where cash is most prevalent (as a means of paying earnings and tips) are some of the lowest-paid industries, such as the service industry and "informal suppliers" such as nannies and house painters.[115]

64. On the other hand, some forms of criminal activity thrive in an electronic payments environment. The shift towards a cashless society therefore also brings new challenges, particularly in combating cybercrime. Phishing attacks and other forms of cybercrime are on the rise and pose a significant threat to individuals and financial institutions.[116]

65. Transitioning to a cashless society would make certain forms of criminal activity and tax evasion more difficult. However, all the other benefits and drawbacks of cash surveyed in this Memo are also relevant in determining the net-impact of the disappearance of cash. While such a determination is beyond the scope of the ULCC's cash payments project, it is important for us to understand the various competing policy objectives that intersect with the laws surrounding cash payments (i.e., all the pros and cons of cash surveyed in this Memo) in order to protect consumers and the broader stability of the Canadian economy.

V. Future Payment Methods

> "Even successful imaginaires will be unrealized in one sense or another, as the futuristic gloss around ideas like 'cashless society' or 'global information society' is replaced by a messy reality in which new and old coexist indefinitely."
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> - Batiz-Lazo et al, "How the Future Shaped the Past: The Case of the Cashless Society"[117]

a. Electronic Payments and Cryptocurrencies

66. As this Memo has demonstrated, the COVID-19 Pandemic accelerated the transition away from cash and towards electronic payments both in Canada[118] and abroad.[119] The rarefication of cash payments has gone hand in hand with the growing usage of debit and credit cards, digital wallets, and other payment apps. Yet the most recent Bank of Canada data on payment methods does not suggest that cash is at risk of disappearing in the short term. Since payment methods have unique pros and cons, as surveyed above, Canadian

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[115] Slemrod, Joel. "Cheating Ourseleves: The Economics of Tax Evasion." (2007) 21:1 *The Journal of Economic Perspectives* 25 at p 26
[116] Fabris at p 59.
[117] Bátiz-Lazo, Bernardo, Thomas Haigh, and David L. Stearns. "How the future shaped the past: The case of the cashless society." (2014) 15:1 *Enterprise & Society* 103 at p 127.
[118] Bank of Canada, *2022 Methods-of-Payment Survey*, at p 1.
[119] European Central Bank, *Consumers' payment preferences*.

consumers may generally value having a wide range of payment options available. It is convenient for the new and the old to coexist.

67. While these electronic methods of payment allow us to use national currencies in new ways, modern technology has also led to the creation of new currencies, such as Bitcoin and other cryptocurrencies. A cryptocurrency is a private digital currency, as opposed to a publicly issued physical currency like the Canadian dollar. A cryptocurrency is a "private supplies of means of payment that [is] produced and distributed using a decentralized, peer-to-peer transfer system, which is known as a blockchain technology or distributed ledger technology."[120]

68. Are cryptocurrencies the future of payment? For now, this seems unlikely, since cryptoasset ownership and use in Canada remain low. In 2022, the Bank of Canada reported that only 10% of Canadians owe any cryptoasset (Bitcoin, Tether, Dogecoin, etc.).[121] Of those who owned crypto, only 11% stated doing so for payment-related reasons.[122] The vast majority of those who owned crypto in 2022 owned it as an investment.[123] This suggests that, in Canada at least, the Canadian dollar is not currently under significant threat from private cryptocurrencies. However, the Bank of Canada has said in the past that it would consider a rise in popularity of cryptocurrencies a threat to monetary sovereignty, since this would reduce the government's ability to control monetary policies through prime interest rates and to "provide services as lender of last resort."[124]

b. Central Bank Digital Currencies (CBDCs)

69. While cash use for payments has remained relatively stable since the Pandemic, the Bank of Canada is currently studying and planning for the possible release of a CBDC that could, in theory, offer a digital cash-like alternative to compete with other electronic payment methods. A CBDC is a digital currency that is issued by, and a liability of, a central bank.[125] The Bank of Canada has stated that the technology behind a CBDC in Canada would "need to enable person-to-person transfers with immediate settlement, offer a great deal of privacy (not anonymity), have very high resilience in the event of infrastructure failure and be universally accessible."[126]

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[120] Borgonovo at p 1.
[121] Bank of Canada, *Cryptoasset Ownership and Use in Canada: An Update for 2022*, by Daniela Balutel, Christopher S. Henry, and Doina Rusu, (Staff Discussion Paper) (Ottawa: Bank of Canada, 2023) at p 4
[122] Bank of Canada, *Cryptoasset Ownership and Use*, at p 6.
[123] Bank of Canada, *Cryptoasset Ownership and Use*, at p 5.
[124] Bank of Canada, *Contingency Planning* at p 2.
[125] Ozili, Peterson K. "Central bank digital currency research around the World: a review of literature," (2023) 26:2 *Journal of Money Laundering Control* 215 at p 216.
[126] Bank of Canada, *Contingency Planning* at p 14.

70. Most countries are currently either working to implement a CBDC or establishing a contingency plan for possible future use.[127] As of November 2023, CBDCs had been launched in the Bahamas, Jamaica, and Nigeria.[128] Around 100 other countries are in the exploration phase, led by the central banks of Brazil, China, Europe, India, and the United Kingdom.[129]

71. There are various reasons why central banks are interested in issuing CBDCs, some of which relate directly to topics I have discussed above. Economists have tied CBDCs, for example, to the need to inhibit criminal activities that use cash[130] and the need to preserve "monetary sovereignty" by counteracting the rise of cryptocurrencies.[131] Some studies have also predicted that CBDCs would increase financial inclusion by enabling individuals to hold interest-bearing CBDC without needing to have a bank account[132] and to acquire certain privileges currently reserved for banks.[133]

72. Depending on the way a CBDC is designed, it could offer a private payment option for individuals without unnecessarily enabling criminal activities the way cash does:

> It is often conjectured that even if the government provides electronic cash, it will still require access to the payments data it generates in order to protect society and enforce criminal law. Others argue that the government could use payments data in Orwellian ways.18 Both of these concerns could potentially be addressed by preventing the government from having full access to payments data. If commercial parties were to provide the front end to government-issued electronic cash, then the processing of payments and storage of payments data could be designed such that the reconstruction of a consumer's payments history would require data disclosure by both the government entity and the commercial entity (e.g., after the court issues a warrant).[134]

In other words, if cash were to disappear, CBDCs may be able to simultaneously replace some of the benefits that come with cash, while avoiding key drawbacks. Figuring out how all this would all work technologically remains is unclear, especially given the Bank of Canada's stated plan to make its CBDC universally accessible.[135]

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[127] ECB, *Consumers' Payment Preferences* at p 3; Bank of Canada, *Contingency Planning*.
[128] Adrian, Tobias, Dong He, Tommaso Mancini-Griffoli, and Tao Sun, "Central Bank Digital Currency Development Enters the Next Phase," *International Monetary Fund*, 20 November 2023, https://www.imf.org/en/Blogs/Articles/2023/11/20/central-bank-digital-currency-development-enters-the-next-phase.
[129] Adrian et al, "Central Bank Digital Currency Development Enters the Next Phase."
[130] Ozili at p 217.
[131] Bank of Canada, *Contingency Planning* at p 2
[132] Ozili at p 218.
[133] Andolfatto, David. "Assessing the impact of central bank digital currency on private banks." (2021) 131:634 *The Economic Journal* 525 at p 525.
[134] Garratt at p 2177.
[135] Bank of Canada, *Contingency Planning* at p 14.

VI. Conclusion

73. This Memo has surveyed numerous policy issues regarding the possible rarefication and disappearance of cash. The main findings are as follows:

   A. Cash use in Canada has fallen over the past few decades but has been stable since the onset of the COVID-19 Pandemic. Cash is used in 22% of all purchases and accounts for 12% of the value of all purchases.[136]

   B. Cash has unique benefits by virtue of being an offline currency: it is resilient, inclusive, and private.

   C. Cash also has unique drawbacks. It is a particularly expensive form of payment for retailers and financial institutions to handle, and its private and untraceable nature facilitates crime and tax evasion.

   D. While cash is not at risk of imminently disappearing in Canada, the Bank of Canada is considering introducing a "central bank digital currency" (CBDC), which could replace cash or coexist with cash.

74. I thank the ULCC for the opportunity to contribute to this project.

[136] Bank of Canada, *2022 Methods-of-Payment Survey*.

VII. Bibliography

GOVERNMENTAL DOCUMENTS

Bank of Canada, *2022 Methods-of-Payment Survey: Cash Use Over 13 Years*, by Chris Henry, Doina Rusu and Matthew Shimoda (Staff Discussion Paper) (Ottawa: Bank of Canada, 30 January 2024).

Bank of Canada, *Acceptance and Use of Payments at the Point of Sale*, (Staff Discussion Paper) (Ottawa: Bank of Canada, Autumn 2017).

Bank of Canada, *Contingency Planning for a Central Bank Digital Currency*, (Background Materials) (Ottawa: Bank of Canada, 25 February 2020).

Bank of Canada, *Cryptoasset Ownership and Use in Canada: An Update for 2022*, by Daniela Balutel, Christopher S. Henry, and Doina Rusu, (Staff Discussion Paper) (Ottawa: Bank of Canada, 2023).

Bank of Canada, *The Costs of Point of Sale Payments*, (Staff Discussion Paper) (Ottawa: Bank of Canada, 2017).

Bank of Canada, *Unmet Payment Needs and a Central Bank Digital Currency*, by Christopher S. Henry, Walter Engert, Alexandra Sutton-Lalani, Sebastian Hernandez, Darcey McVanel, and Kim P. Huynh, (Staff Discussion Paper) (Ottawa: Bank of Canada 2023).

European Central Bank (ECB), *Consumers' Payment Preferences and Banking Digitalisation in the Euro Area*, by Justus Meyer and Frederica Teppa, (Working Paper Series No 2915) (Frankfurt: ECB, 2024).

Office of the Auditor General of Canada, "Connectivity in Rural and Remote Areas." Online: https://www.oag-bvg.gc.ca/internet/English/parl_oag_202303_02_e_44205.html .

Office of the Privacy Commissioner of Canada, "Electronic and Digital Payments and Privacy," (2016) online: *Office of the Privacy Commissioner of Canada* < https://www.priv.gc.ca/en/privacy-topics/technology/mobile-and-digital-devices/02_05_d_68_dp/ >.

République Française, "Paiement en espèces," online: https://www.service-public.fr/particuliers/vosdroits/F10999?

Statistics Canada, "So Long Landline, Hello Smartphone," 11 May 2023, online: https://www.statcan.gc.ca/o1/en/plus/3582-so-long-landline-hello-smartphone.

Sweden, Sveriges Riksbank, *Payments Report 2022*, (Stockholm: Sveriges Riksbank, 2022).

SECONDARY MATERIAL: MONOGRAPHS

Arvidsson, Niklas. *Building a cashless society: The Swedish route to the future of cash payments*. (Berlin: Springer Nature, 2019)

Baradaran, Merhsa. *How the Other Half Bank: Exclusion, Exploitation, and the Threat to Democracy*. (Boston: Harvard UP, 2015).

Buckland, Jerry. *Hard Choices: Financial Exclusion, Fringe Banks, and Poverty in Urban Canada*. (Toronto: U of Toronto P, 2012).

Cofone, Ignacio N. *The Privacy Fallacy: Harm and Power in the Information Economy*. (Cambridge, UK: Cambridge U P, 2024) at p 7-8.

SECONDARY MATERIAL: ARTICLES, WORKING PAPERS, & BOOK CHAPTERS

Anderson, John. "Why Canada Needs Postal Banking." (2013) *Canadian Centre for Policy Alternatives*.

Andolfatto, David. "Assessing the impact of central bank digital currency on private banks." (2021) 131:634 *The Economic Journal* 525.

Bátiz-Lazo, Bernardo, Thomas Haigh, and David L. Stearns. "How the future shaped the past: The case of the cashless society." (2014) 15:1 *Enterprise & Society* 103.

Borgonovo, Emanuele, et al. "Money, privacy, anonymity: What do experiments tell us?" (2021) 56 *Journal of Financial Stability* 100934.

Engert, Walter, Ben Fung, and Björn Segendorff. *A tale of two countries: Cash demand in Canada and Sweden*. No. 376. Sveriges Riksbank Working Paper Series, 2019.

Fabris, Nikola. "Cashless society–the future of money or a utopia?" (2019) 8:1 *Journal of Central Banking Theory and Practice* 53.

Gannon, John P. L. "Lessons for Canada from International Approaches to Network Resiliency and Reliability." (Realising the Digital Decade in the European Union – Easier Said Than Done? Delivered at the 32nd European Conference of the International Telecommunications Society (ITS)) Econstor.

Garratt, Rodney, and Maarten R.C. van Oordt. "Privacy as a public good: a case for electronic cash." (2021) 129:7 J of Political Econ 2157.

Gulliver, John, Hillel Nadler, and Hal S. Scott. "Cloud Adoption in the Financial Sector and Concentration Risk." (2023) *Wayne State University Law School Legal Studies Research Paper Series No 2023*, SSRN 4423902.

Krüger, Malte, and Franz Seitz. "Costs and benefits of cash and cashless payment instruments: overview and initial estimates." *Study commissioned by the Deutsche Bundesbank* (2014) at p 12.

Lamb, Laura. "Financial exclusion and financial capabilities in Canada." (2016) 8:2 *Journal of Financial Economic Policy* 212.

Ozili, Peterson K. "Central bank digital currency research around the World: a review of literature," (2023) 26:2 *Journal of Money Laundering Control* 215.

Slemrod, Joel. “Cheating Ourseleves: The Economics of Tax Evasion.” (2007) 21:1 *The Journal of Economic Perspectives* 25.

NEWS ARTICLES

Adrian, Tobias, Dong He, Tommaso Mancini-Griffoli, and Tao Sun, “Central Bank Digital Currency Development Enters the Next Phase,” *International Monetary Fund*, 20 November 2023, https://www.imf.org/en/Blogs/Articles/2023/11/20/central-bank-digital-currency-development-enters-the-next-phase.

CBC News, “Bank of Canada asks retailers to keep accepting cash despite COVID-19 concerns,” *CBC*, 2020 https://www.cbc.ca/news/business/bank-of-canada-retail-cash-1.5531367.

Christine Dobby, “Ottawa announces it will require telecoms to provide backup for each other during outages following Rogers system failure,” *Toronto Star*, 11 July 2022 < https://web.archive.org/web/20220712040507/https://www.thestar.com/business/2022/07/11/ottawa-announces-it-will-require-telecoms-to-provide-back-up-for-each-other-during-outages-other-following-rogers-system-failure.html >.

Motley Fool, “4 Ways Second-Chance Banking Can Give You a Fresh Start,” *The Globe and Mail*, 12 Aug 2022 < https://www.theglobeandmail.com/investing/markets/markets-news/Motley%20Fool/9654297/4-ways-second-chance-banking-can-give-you-a-fresh-start/ >.

Star Staff, “Rogers says it has restored service for ‘vast majority’ of customers,” *Toronto Star*, 8 July 2022 < https://www.thestar.com/news/gta/rogers-says-it-has-restored-service-for-vast-majority-of-customers/article_67e76bef-9f68-5c31-a351-cb6204684342.html>.

Toneguzzi, Mario, “Amid Concerns of Infection, Bank of Canada Encourages Retailers in Canada to Accept Cash,” *Retailer Insider*, 2020 https://retail-insider.com/retail-insider/2020/04/amid-concerns-of-infection-bank-of-canada-encourages-retailers-in-canada-to-accept-cash/.

Zadikan, Michelle, and Iva Poshnjari, “Rogers Pledges five-day credits as Bay Street weighs outage impact” *Bloomberg*, 12 July 2022 https://www.bnnbloomberg.ca/rogers-outage-could-cost-canada-s-economy-142m-analyst-1.1790982.

WEBSITES

EuroCommerce, “For Retailers, ‘Cash’ is not always ‘King,’” (24 January 2024), online: < https://www.eurocommerce.eu/2024/01/for-retailers-cash-is-not-always-king/ >.

European Central Bank, “The Role of Cash” (2024), online: *European Central Bank* < https://www.ecb.europa.eu/euro/cash_strategy/cash_role/html/index.en.html >.

Royal Bank of Canada, “Global Privacy Notice,” (2024) online: *Royal Bank of Canada* < https://www.rbc.com/privacysecurity/ca/global-privacy-notice.html >.

Tax Justice Network, "State of Tax Justice 2023," (2023) online: *Tax Justice Network* < https://taxjustice.net/reports/the-state-of-tax-justice-2023/ >.