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B A C K G R O U N D E R S

# E-Money

Advances in technology enable a number of innovations that change the way Canadians pay for goods and services. Some products—for example, the debit card—offer a way to access funds in a bank deposit account and can be thought of as electronic payments, or “e-payments.” Other innovations offer a way to directly store monetary value in an electronic device or in a communications network. We call those electronic money, or e-money for short.

## What Is E-Money?

E-money is a digital alternative to cash.

It is monetary value that is stored and transferred electronically through a variety of means—a mobile phone, tablet, contactless card (or smart card), computer hard drive or servers.

E-money is usually issued by an institution upon receipt of funds and is given a value in a national currency, such as the Canadian dollar.

Examples of e-money include prepaid payment cards that use payment networks such as Visa or MasterCard, or account balances kept at online service providers such as PayPal. Both can be used for a range of purchases in different establishments.

Another type of e-money is decentralized, without an issuer and not denominated in national currencies. The most well-known example is the [Bitcoin](#), a digital currency that is used for transactions directly between users through a computer network.

## Why Do People Use E-Money?

People like e-money because it acts like cash: it can be as fast, convenient and confidential.

E-money meets the needs of consumers buying over the Internet who want to keep their personal and financial information private.

In person, people may prefer e-money over having to carry and count bills and coins. Merchants using e-money may save the cost of providing change and processing cash.

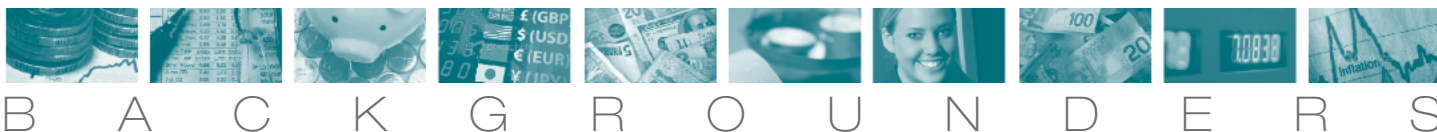
Technological progress also helps stimulate innovations. For example, the widespread adoption of the Internet and mobile devices allows for the creation of e-money products that do not require consumers and merchants to purchase card readers, terminals or other payment infrastructure.

## E-Money in Canada

There are fewer e-money products in Canada than in other countries. One reason for this is that e-payment systems—for example, contactless debit cards and credit cards—are popular and serve much the same function as e-money products by offering fast and convenient means of payment.

The e-money products we see most frequently in Canada are prepaid payment cards.





## E-Money and the Bank of Canada

Understanding and monitoring e-money products is an important part of the Bank of Canada's research agenda.

The Bank of Canada has several reasons to study e-money:

- We design, produce and distribute [Canada's bank notes](#). Although people still use cash, widespread adoption of e-money could change the demand for cash. You can read here about our research on this topic.
- We oversee Canada's [payment clearing and settlement systems](#). The Bank has a specific oversight role for payment systems that are systemically important, and it promotes the safety and efficiency of other payment systems that may affect the financial or economic welfare of Canadians.

For a more detailed discussion of e-money, please consult "[Electronic Money and Payments](#)" and a presentation that the Bank of Canada delivered to the Senate Committee on Banking, Trade and Commerce on 2 April 2014. You can read the [statement](#) or presentation [slides](#).

## Selected Bank of Canada E-Money Research:

Charles Freedman. 2003. "[Reflections on Three Decades at the Bank of Canada](#)." "Closing Remarks." In *Macroeconomics, Monetary Policy, and Financial Stability*, Proceedings of a conference held by the Bank of Canada, June 2003.

Joshua Gans and Hanna Halaburda. 2013. "[Some Economics of \[Private\] Digital Currencies](#)." Bank of Canada Working Paper No. 2013-38.

Gerald Stuber. 1996. "[The Electronic Purse: An Overview of Recent Developments and Policy Issues](#)." Bank of Canada Technical Report No. 74.

Warren Weber. "[The Efficiency of Private E-Money-like Systems: The U.S. Experience with State Bank Notes](#)".

Jonathan Chiu and Russell Wong. "[E-Money: Efficiency, Stability and Optimal Policy](#)".

Ben Fung, Miguel Molico and Gerald Stuber. "[Electronic Money and Payments](#)".

## Selected e-money reports produced by other central banks:

"[Virtual Currency Schemes](#)." A report prepared by the European Central Bank.

[A bitcoin primer](#) from the Federal Reserve Bank of Chicago.

[Presentation on bitcoin](#) prepared by the Federal Reserve Bank of St. Louis.

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