

# Taking Caution: Financial Consumers and the Cryptoasset Sector

**June 28, 2018**



ONTARIO  
SECURITIES  
COMMISSION

INVESTOR OFFICE

# TABLE OF CONTENTS

<b>Executive Summary</b> .....	<b>1</b>
<b>Background</b> .....	<b>7</b>
<b>Methodology</b> .....	<b>12</b>
<b>Key findings</b> .....	<b>13</b>
<b>Conclusion</b> .....	<b>22</b>
<b>Notes</b> .....	<b>24</b>

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**Over the past 12 months, Bitcoin, digital tokens, and other cryptoassets have captured significant public attention.**

**This report, prepared by the Investor Office of the Ontario Securities Commission (“OSC”), sheds light on financial consumers’ views on and understanding of cryptoassets (commonly referred to as “cryptocurrencies”), as well as the attitudes and behaviours of cryptoasset owners.**

**It incorporates the results of a survey of over 2,500 Ontarians carried out by Innovative Research Group Inc. (“Innovative”) in March 2018, as well as background research by the Investor Office. For purposes of this report, “Ontarians” refers to Ontarians aged 18 and older.**

# EXECUTIVE SUMMARY

## Ontarians are approaching cryptoassets with caution

The results of this survey indicate that the vast majority of Ontarians are approaching cryptoassets with caution. Only a small percentage own cryptoassets, and those who do own them tend not to spend substantial sums of money acquiring them.

However, Ontario's large population means that even small percentages can collectively translate into substantial numbers—numbers sufficient to concern the OSC as a securities regulatory authority.

Also of concern is that the survey found many Ontarians are confused about whether token generation events, initial coin offerings, and initial token offerings (referred to in this report as "ICOs") are subject to regulation.

**Most ICOs are subject to securities regulation.** Securities regulatory authorities recently released new regulatory guidance for businesses considering launching ICOs, discussed in this report.

## Five per cent of Ontarians currently own cryptoassets

Based on recent population estimates,<sup>1</sup> this figure translates into over **500,000** Ontarians currently holding at least some cryptoassets. An additional 4 per cent of Ontarians owned cryptoassets in the past but no longer do.

Men aged 18-34 were substantially more likely to report owning a cryptoasset than the general public, with 14 per cent reporting that they currently own a cryptoasset.

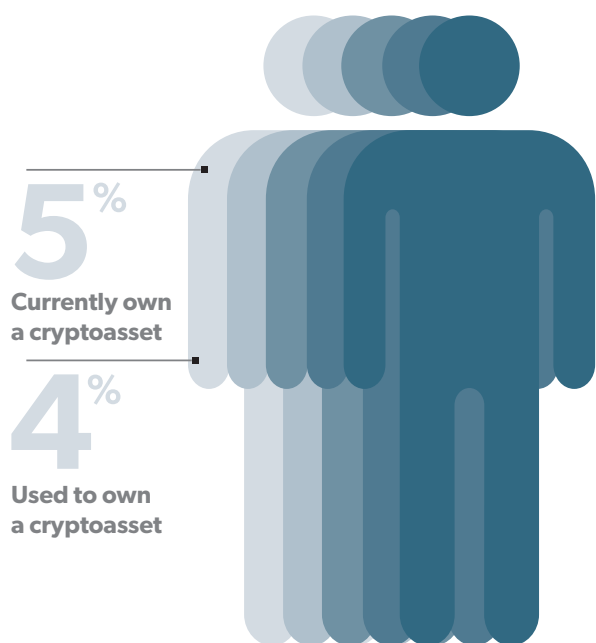
Past and present cryptoasset owners cited multiple, often overlapping reasons for acquiring cryptoassets:

**Enthusiasm for technology:** 46 per cent said they acquired cryptoassets out of interest in new technologies, while 18 per cent cited blockchain technology's potential to prevent loss and fraud.

**Speculation:** 42 per cent said they acquired cryptoassets in the hope of selling them at a higher price later.

**Medium of exchange:** 25 per cent said they acquired cryptoassets because they wanted to make payments anonymously, 23 per cent said they wanted to use cryptoassets to make payments in Canada or the U.S., and 14 per cent said they wanted to use cryptoassets to make international remittances.

**Skepticism in institutions:** 12 per cent said they acquired cryptoassets because they have low trust in banks, and 11 per cent said they acquired cryptoassets because of low trust in government.



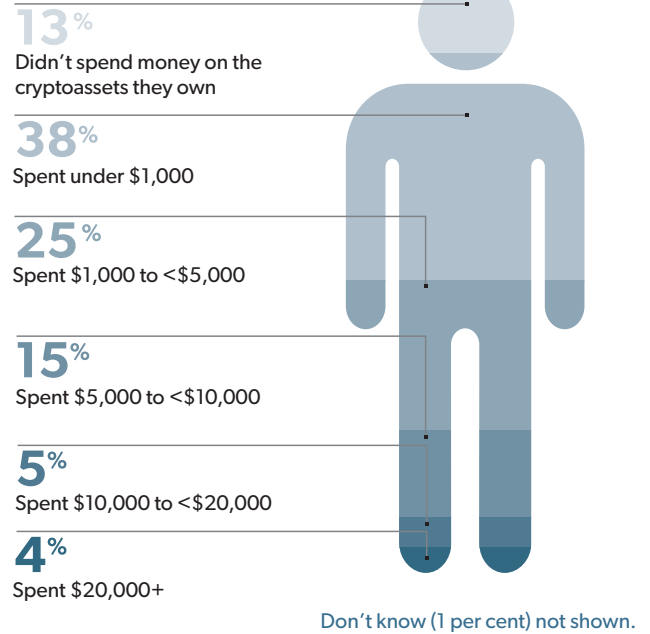
## Half of cryptoasset owners spent under \$1,000 on their cryptoassets

For the most part, cryptoasset owners have not spent substantial amounts of money acquiring the cryptoassets they own, with half spending under \$1,000, and 90 per cent spending under \$10,000. However, 9 per cent of cryptoasset owners—translating to about **50,000** Ontarians—reported

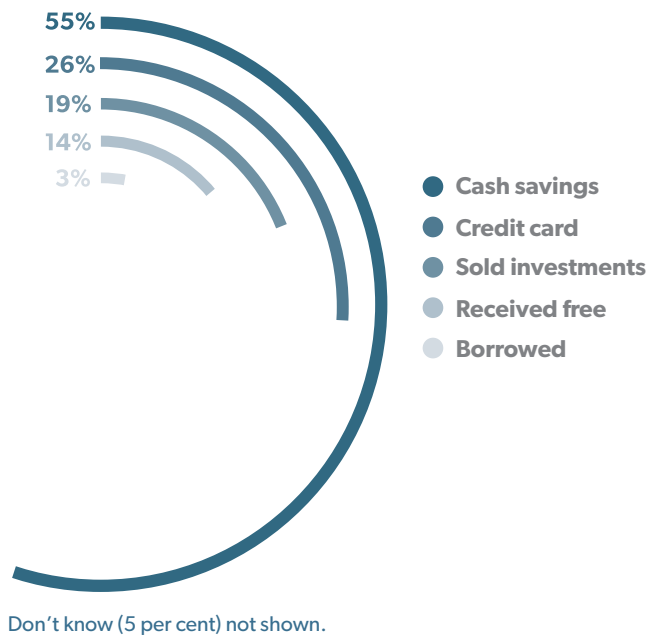
spending \$10,000 or more acquiring cryptoassets.

Most past and present cryptoasset owners used cash savings to purchase cryptoassets. Of those who used a credit card or otherwise borrowed money, more than 2 in 3 have paid back the money they borrowed in full.

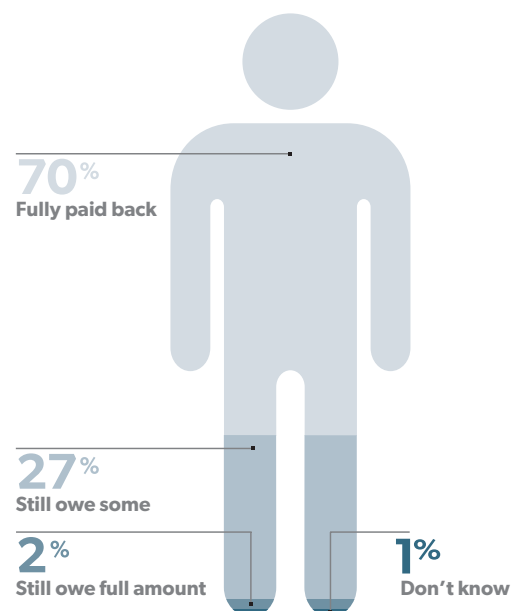
### Money spent acquiring cryptoassets



### Method of funding cryptoasset purchase



### Borrowers/credit card users who still owe money on their purchase



## About 1.5 per cent of Ontarians have participated in an ICO

This percentage translates to about **170,000** Ontarians who have participated in an ICO. This includes individuals who participated in an ICO but later transferred their digital tokens to someone else. The survey also indicates that almost 7 in 10 ICO participants looked into whether they

could trade or sell the coin or token being offered.

These results are subject to a higher degree of uncertainty, however, given the relatively small number of respondents who reported participating in an ICO.

### What ICO participants researched before acquiring digital tokens

Whether the token can be traded or sold

68%



Where the business is located

58%



What the token lets users do

46%



The management team

46%



The business plan

44%



Whether the ICO is regulated

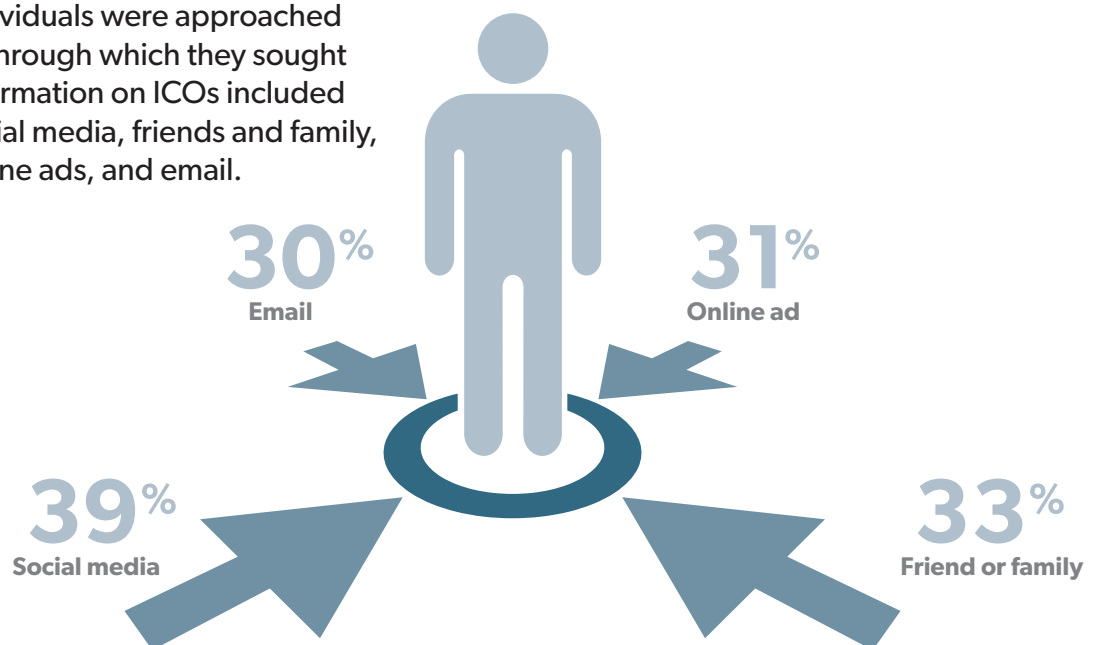
29%



Don't know (1 per cent) not shown.

## Over 1 in 10 Ontarians (12 per cent) have been approached about or sought information about an ICO

Top channels through which individuals were approached or through which they sought information on ICOs included social media, friends and family, online ads, and email.



## Cryptoasset trading platforms are the most common vehicle for acquiring cryptoassets

Almost half (46 per cent) of past and present cryptoasset owners reported acquiring cryptoassets on an online cryptoasset trading platform.

Trading platform users reported using a variety of platforms based in North America, Europe, and Asia.

Many users reported having issues using these platforms, including:

Halt in trading: **21%**

Problems withdrawing money: **20%**

Problems funding account:<sup>2</sup> **16%**

Didn't understand fees: **15%**

## Where past and present cryptoasset owners acquired cryptoassets



Don't know (3 per cent) not shown.

## Ontarians are aware of cryptoassets, but less familiar with the details

We asked Ontarians how familiar they were with "cryptocurrencies" (a term commonly used to refer to cryptoassets), and found that while most Ontarians had heard of them before, very few would feel comfortable explaining the details to others.

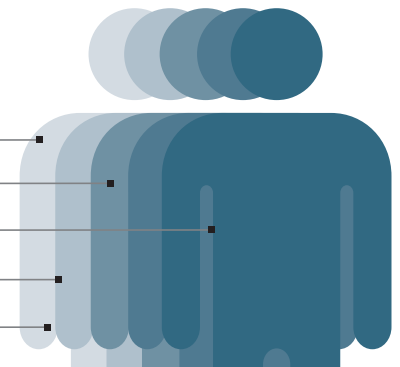
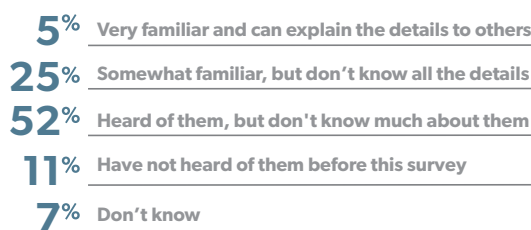
Respondents were most likely to report having heard of Bitcoin (81 per cent), Bitcoin Cash (25 per cent), Litecoin (13 per cent), and Ether (11 per cent) rounded out the top four most recognized cryptoassets.

As a proxy for testing Ontarians' substantive knowledge of

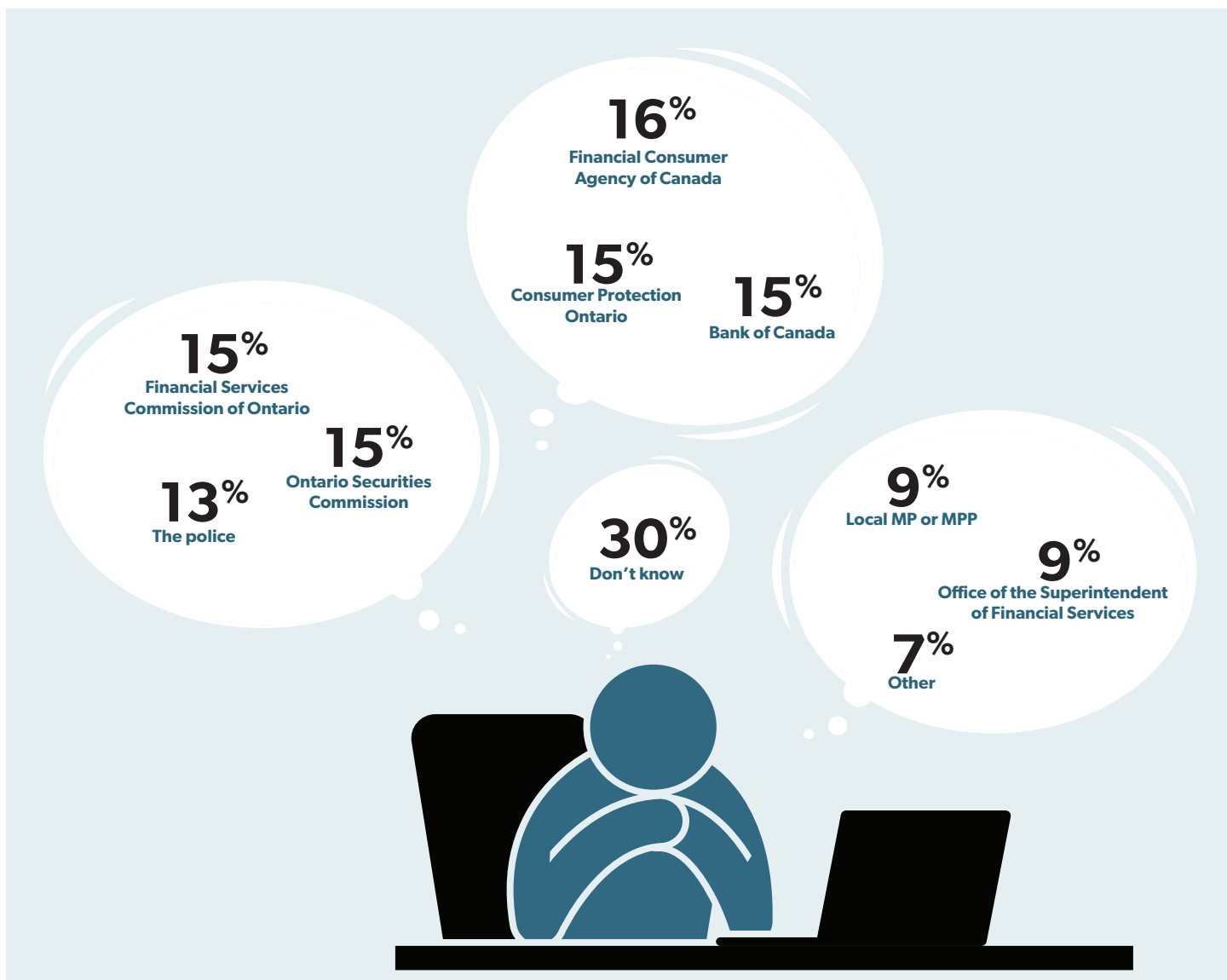
cryptoassets, we asked respondents to review six statements about Bitcoin and select the statements they believed to be true (the statements are listed on page 19).

About 1 in 3 (34 per cent) Ontarians identified a majority of these statements correctly, though only 3 per cent correctly identified all six statements. Current cryptoasset owners tended to score higher, with almost three in four (72 per cent) identifying a majority of these statements correctly, though only 15 per cent correctly identified all six statements.

## Familiarity with "cryptocurrencies"



## Where past and present cryptoasset owners would go with a complaint



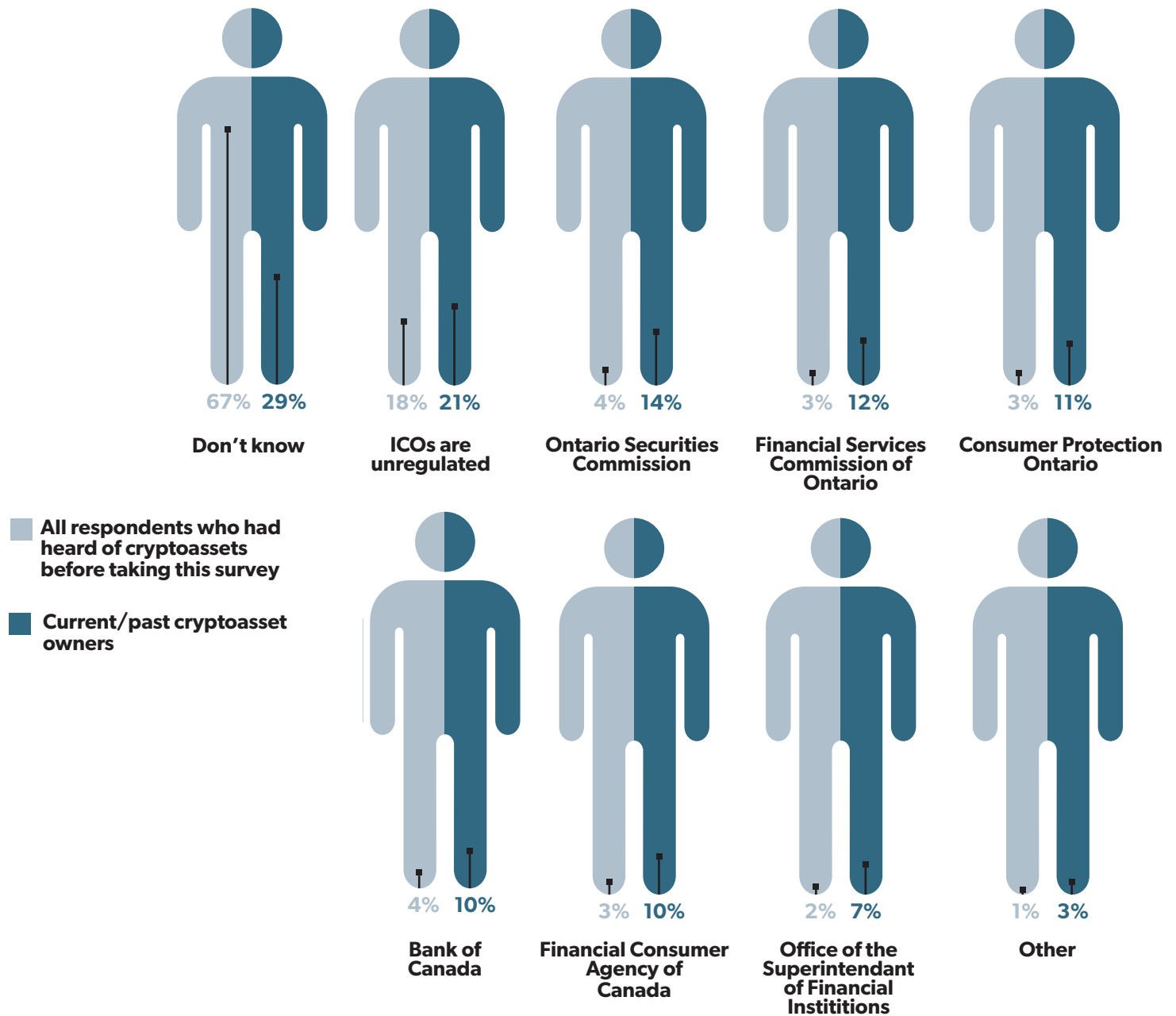
### Cryptoasset buyers aren't sure where to go with a complaint or who regulates ICOs

When given a list of organizations and asked where they would go with a complaint about a cryptoasset service provider, 30 per cent of past and present cryptoasset owners said they wouldn't know where they would go for help, and others split evenly between the various organizations listed. This may indicate that, to the extent cryptoasset buyers have complaints about their experiences with different cryptoasset service providers, these complaints may be diffused among different agencies.

In addition, when asked who they believe regulates ICOs, half of past and present cryptoasset owners responded either that they don't know who regulates ICOs or that they believe ICOs are not subject to regulation.

**This belief is incorrect.** The OSC regulates ICOs that constitute securities offerings. As part of its mandate, in June 2018, the Canadian Securities Administrators (CSA), of which the OSC is a member, published CSA Staff Notice 46-

## Who respondents believe regulates ICOs



308, *Securities Law Implications for Offerings of Tokens*,<sup>3</sup> which provides businesses that are considering offering digital tokens to the public with additional guidance on when securities may be involved and as

to how securities regulation may apply to an ICO. The Staff Notice also encourages businesses to consult with qualified securities legal counsel before launching an ICO.



# BACKGROUND

## Cryptoasset basics

Cryptoassets are designed to serve a variety of purposes. They may be used as, among other things, a store of value, a medium of exchange, or a right that lets you access a product or service. Cryptoassets that are primarily designed to be a store of value or medium of exchange (e.g., Bitcoin) are often referred to as “digital coins.” The term “digital tokens” commonly refers to cryptoassets created by a business, often to raise capital and often to allow users to access a service that the business plans to provide in the future.

What ties digital coins, digital tokens, and other cryptoassets together, and the reason they have captured the attention of many in the financial sector, is their novel way of recording transactions. Instead of maintaining a single set of records on a single system, duplicate records are kept and maintained by volunteers (more accurately, their computers) around the world. This means that, before a transaction

can settle, a critical mass of systems on the network need to agree that the transaction is valid. A subset of these computer systems (commonly referred to as “miners”) seek to add validated transactions to the ledger, called a “blockchain.” Miners typically receive rewards for successfully adding transactions to the blockchain.

Blockchain transaction records are secured using cryptography—this, together with maintaining duplicate records on multiple systems, is intended to make transaction records more difficult to tamper with.

What’s more, it generally means that people should not have to place trust in any single entity, such as a bank or clearinghouse, to maintain accurate records of their transactions.<sup>4</sup> For example, the maximum supply of Bitcoin is subject to a fixed cap, and its rate of growth is determined by a publicly available algorithm.

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## What do we know about the people who own cryptoassets?

Prior research in Canada and the U.S., including a short survey published by the OSC Investor Office in December 2017, indicates that cryptoasset owners tend to be young and male. One U.S. study found that men are more than twice as likely as women to own cryptoassets.<sup>5</sup>

It has been suggested that the fact that cryptoasset owners tend to be male may help explain significant fluctuations in cryptoasset prices. Researchers carrying out “bubble experiments,” in which participants play a game in which they trade a hypothetical asset with no intrinsic value, found

that the asset’s price tended to follow a more extreme boom-bust pattern when all of the “traders” were men.<sup>6</sup>

Stories about individuals reaping outsized returns from speculating in cryptoassets dominated headlines in late 2017, but speculation is not the only reason why individuals purchase and use cryptoassets. Some are skeptical of traditional financial services and seeking an alternative, and others are using them to pay for goods and services. Many start-ups and other businesses are using cryptoassets to raise capital.

## Alternative to traditional financial services

Cryptoassets began to emerge in the wake of the global financial crisis, with Bitcoin launching in 2009, and various “Altcoins” (digital coins meant as alternatives to Bitcoin) emerging beginning in 2011. Early adopters, who tended to be younger, tech-savvy users alienated by traditional financial services, were attracted to the notion of having a store of value not governed by any central authority. As one early adopter put it:

*As a millennial, I personally put much greater faith in scarce digital assets that are determined by math and auditable code, rather than a group of bankers at the [U.S.] Federal Reserve.<sup>7</sup>*

## Payment mechanism

While Bitcoin and other digital coins are often associated with “dark web” networks and ransomware, the number of legitimate payment uses for digital coins is growing. As of the date of this report, Canadians could use them to pay online for flights and hotel bookings, as well as for furniture, movies, music, games, and apps, among other items. A small, but growing, number of Canadian stores, largely in urban areas, also allow for payment in digital coins on premises. Some charities also accept donations in digital coins.<sup>8</sup>

That being said, the holding and trading of digital coins as a speculative asset has undermined their usefulness as a payment mechanism. A 2017

study found that 97 per cent of all bitcoins are held by 4 per cent of digital wallet addresses, noting that this concentration of ownership impedes their use as a payment mechanism by restricting their flow and availability.<sup>9</sup> Some entities stopped accepting digital coins as a form of payment in 2017 because of their price volatility.<sup>10</sup>

## Speculation

Media headlines, coupled with indications that the financial sector was beginning to regard cryptoassets as a legitimate asset class, including the launch of Bitcoin futures on two U.S. derivatives exchanges in December 2017, likely amplified individuals’ interest in speculating in cryptoassets over the course of late 2017.<sup>11</sup>

Cryptoasset trading platforms facilitate speculation by allowing for cryptoassets’ rapid purchase and sale. But because purchases and sales that occur within a trading platform do not take place on a blockchain—rather, platforms typically keep internal, centralized records of their users’ cryptoasset holdings—trading platforms are an attractive target for hackers. For example, the Japan-based Mt. Gox was the world’s leading Bitcoin trading platform until it filed for bankruptcy in 2014, reporting that it had lost almost 750,000 of its customers’ bitcoins due to hacking.<sup>12</sup>

In 2017, trading platforms also struggled to deal with a massive influx of customers hoping to make money by trading cryptoassets, with many customers reporting significant delays setting up accounts and withdrawing cash from these platforms.<sup>13</sup>

## Raise capital and access services

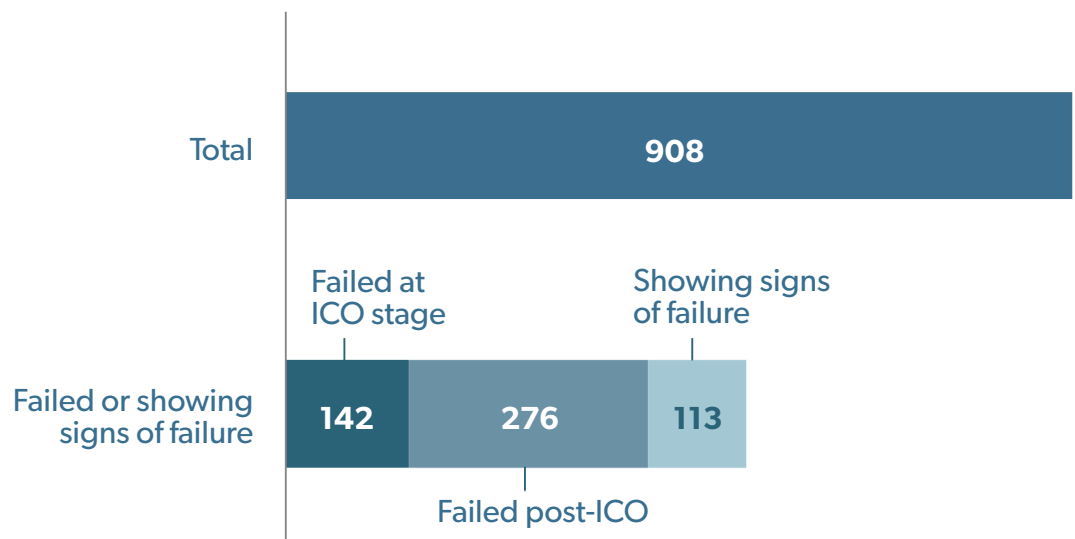
Many startups and other businesses began creating new cryptoassets—“digital tokens”—and offering them to investors as a way of raising capital. Digital tokens often are designed to provide access to a service that a business plans to offer in the future.

These offerings are variously referred to as “initial coin offerings,” “initial token offerings,” or “token generation events” (this report refers to these events as “ICOs”). Businesses raised an estimated US\$5.6 billion in 2017 (including over US\$200 million reportedly raised by Canadian businesses) selling digital tokens.<sup>14</sup> Total token sales for 2018 have already surpassed this total, with businesses selling an estimated US\$9.7 billion in digital tokens in the first five months of 2018 alone.<sup>15</sup>

In 2017, the CSA granted two start-up companies relief from certain securities regulations so that they could raise money via an ICO, subject to the companies’ compliance with conditions intended to protect token purchasers.<sup>16</sup>

Consumer protection is especially important for ICOs given their, at best, mixed outcomes for token purchasers. One study found that nearly half (46 per cent) of the 902 digital tokens launched in 2017 had already failed by February 2018, including 276 tokens that failed post-ICO, “either due to [the business team’s] taking the money and running, or [the business’] slowly fading into obscurity.”<sup>17</sup> Another 113 tokens (12 per cent) were showing signs of failure by this time, “either because their team has stopped communicating on social media, or because their community is so small as to mean the project has no chance of success.”<sup>18</sup> Overall, returns from digital tokens have been trending downward since early 2017.<sup>19</sup>

### Digital tokens launched in 2017



## Cryptoassets and consumer protection

Regulators' focus on cryptoassets intensified in 2017. In August 2017, the CSA issued a Staff Notice highlighting that many ICOs, digital tokens, and cryptoasset trading platforms may be subject to securities laws, and that the cryptoasset sector raises investor protection concerns relating to "volatility, transparency, valuation, custody and liquidity," the risk of harm from "unethical practices or illegal schemes," and the risk that purchasers may not understand the nature of the products they are purchasing.<sup>20</sup> Regulators in other jurisdictions, including the U.S. Securities and Exchange Commission ("SEC"), issued similar warnings.<sup>21</sup>

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*Alleged cryptoasset fraud,  
January-February 2018*

**US\$1.4 billion**  
(equivalent to  
**US\$9 million a day**)

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Late 2017 and early 2018 also saw countless fraudsters enter the cryptoasset market, selling unsuspecting individuals a variety of worthless "crypto"-branded products tied to fake businesses or fake assets, including real estate, gold, and diamonds.<sup>22</sup> This trend has continued into 2018, with US\$1.4 billion worth of various cryptoassets allegedly having been stolen by digital token and other

cryptoasset fraudsters in the first two months of 2018 alone—approximately US\$9 million a day.<sup>23</sup> A recent investigation by the *Wall Street Journal* of 1,450 purported ICOs found that 271 of these offerings—nearly 1 in 5—displayed red flags of fraud, including "plagiarized investor documents, promises of guaranteed returns and missing or fake executive teams."<sup>24</sup>

This period also saw a series of cyberattacks and other problems affecting different players in the cryptoasset market. One report found that more than 10 per cent of total ICO proceeds are lost as a result of cyberattacks.<sup>25</sup> The day after Bitcoin hit its peak price (December 18, 2017),<sup>26</sup> the owners of a major South Korean trading platform filed for bankruptcy, disclosing that a cyberattack resulted in the loss of 17 per cent of its assets.<sup>27</sup> Early 2018 saw allegations of price manipulation on major trading platforms, as well as the theft of over US\$500 million from a Japanese trading platform.<sup>28</sup>

Shortly after Bitcoin futures contracts began trading in the United States in December 2017, the CSA issued an investor alert reminding investors of the inherent risks associated with cryptoasset futures contracts due to, among other factors, volatility in underlying cryptoasset markets.<sup>29</sup>

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**1,450** digital token offerings reviewed  
**271** displayed red flags of fraud

*Wall Street Journal, 2018*

The CSA also issued an investor alert on cryptoasset trading platforms in June 2018, emphasizing the key investor protections that may be absent from such platforms.<sup>30</sup>

Regulators in other jurisdictions, as well as banks and social media companies, also responded to concerns about fraud, cyberattacks, and market manipulation in cryptoasset markets. South Korea, a country that served as a major cryptoasset trading hub, applied new restrictions to cryptoasset trading; China, another major trading hub, banned cryptoasset trading altogether.<sup>31</sup> In the United States, companies seeking to launch Bitcoin ETFs withdrew their applications in response to investor protection concerns raised by the SEC.<sup>32</sup>

Several major Canadian and foreign banks announced that they would be blocking credit (and in some cases debit) card purchases of cryptoassets, citing cryptoassets' volatility and, in the case of bans on credit card transactions, the potential that purchases

will expose clients to debt levels they cannot repay.<sup>33</sup>

And by the end of March 2018, Google, Facebook, and Twitter had all announced new restrictions or bans on cryptoasset-related advertising, each amid reports of widespread use of social media advertising by fraudsters promoting fake digital tokens and other products.<sup>34</sup>

As noted above, in June 2018, the CSA issued additional guidance for businesses considering raising capital through ICOs. In response to many taking the position that securities laws do not apply to ICOs, the CSA provided guidance on the potential application of, and possible approaches required to comply with, securities legislation. The CSA highlighted that the risk of loss to investors can be high when it comes to these types of offerings and encouraged businesses to contact their local securities regulatory authority to discuss possible approaches to complying with securities laws.<sup>35</sup>

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**The OSC wanted to better understand Ontarians' views on and understanding of cryptoassets, as well as the attitudes and behaviours of cryptoasset owners in Ontario. Gathering this type of information helps us better understand the needs of Ontarians and identify potential investor protection concerns. To this end, the OSC Investor Office engaged Innovative to carry out a survey of Ontarians focused on cryptoassets. The sections of this report that follow discuss the results of this survey.**

# METHODOLOGY

## Survey background

Innovative conducted the survey online among a sample of 2,667 Ontarians aged 18 or older, including an oversample of 1,506 men aged 18-34. This group was oversampled because of its higher expected propensity, based on prior research, to own cryptoassets compared to the rest of the public. The oversample was intended to capture a better understanding of the characteristics and motivations of cryptoasset owners. The survey was in field between March 14 and 22, 2018.

Because “cryptocurrency” is a more widely recognized term than “cryptoasset,” the survey questions asked respondents about “cryptocurrencies” rather than “cryptoassets.” This report, however, uses the term “cryptoassets,” because it more accurately reflects the variety of ways in which people use cryptoassets, including for speculation and to access products or services offered by a business.

The survey sample has been weighted down to n=1,000 by age, gender and region using the latest Statistics Canada Census data to reflect the actual demographic composition of the adult population residing in Ontario.

Since the online survey was not a random probability-based sample, a margin of error cannot be calculated. The Marketing Research and Intelligence Association prohibits statements about margins of sampling error or population estimates with regard to most online panels.

*Note:* Graphs may not always total 100 per cent due to rounding values rather than any error in data. Sums are added before rounding numbers.



# KEY FINDINGS

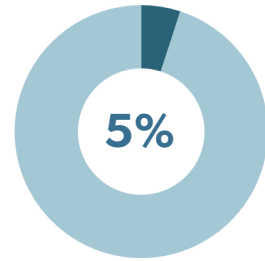
## Cryptoasset ownership

About 1 in 10 Ontarians own or used to own cryptoassets, with 5 per cent reporting that they currently own cryptoassets, and 4 per cent reporting that they owned cryptoassets in the past. Based on recent estimates of Ontario's adult population,<sup>36</sup> this translates into over 500,000 Ontarians currently owning cryptoassets.

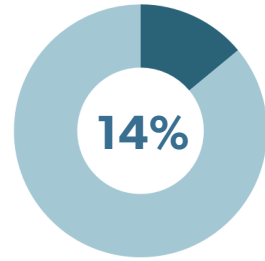
Men 18-34 are more likely to own a cryptoasset than any other demographic group, with 14 per cent reporting that they currently own a cryptoasset. Ownership levels were also slightly higher among Toronto residents.

Current cryptoasset owners were most likely to report owning Bitcoin, with Ether, Litecoin, Bitcoin Cash and Ripple rounding out the top five.

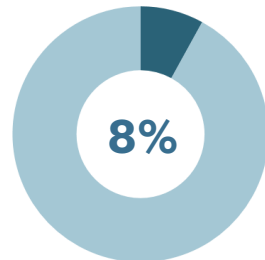
Those who own cryptoassets tend not to have spent substantial amounts of money on them, with half reporting having spent less than \$1,000 on the cryptoassets they own.



**Ontarians**

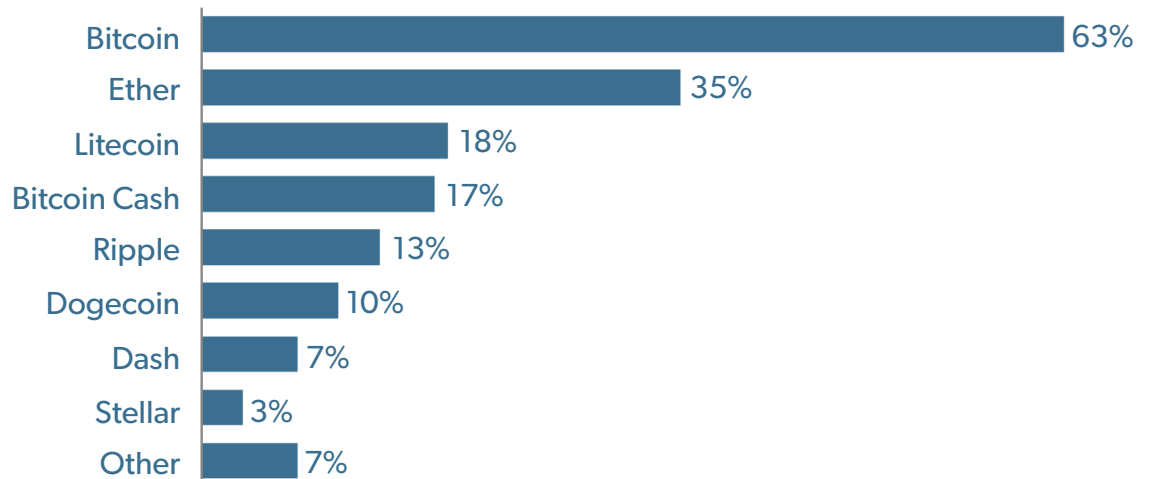


**Men 18-34**



**Torontonians**

### Most commonly owned cryptoassets



## Money spent acquiring cryptoassets



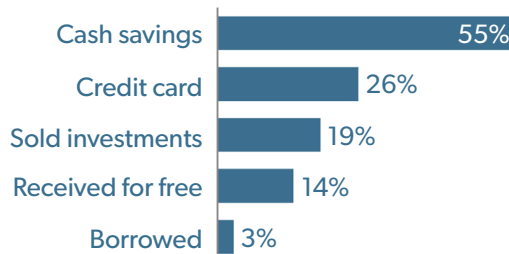
This figure includes 13 per cent who reported not spending any money on the cryptoassets they own—these individuals may include cryptoasset miners and participants in ICOs who received digital tokens for free.<sup>37</sup>

While the percentage of cryptoasset owners who report spending \$10,000 or more acquiring cryptoassets is relatively small (9 per cent, or about 0.45 per cent of Ontario's overall population), this still translates into about 50,000 Ontarians risking significant sums on cryptoassets.

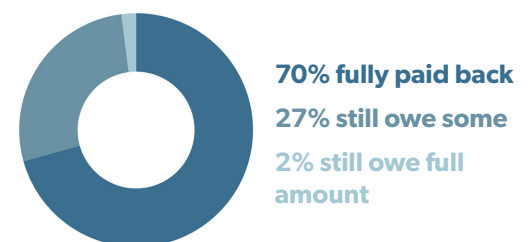
As would be expected, many current cryptoasset owners are recent purchasers, with 35 per cent reporting that they first acquired a cryptoasset within the three months prior to being surveyed, and a further 37 per cent reporting that they purchased sometime in the prior 12 months.

Most past and present cryptoasset owners reported using cash savings to buy the cryptoassets they own. Out of those who reported buying cryptoassets on credit, 70 per cent report that they have paid back the full amount owed, with a further 27 per cent reporting that they have paid some of the money back.

### Method of funding cryptoasset purchase

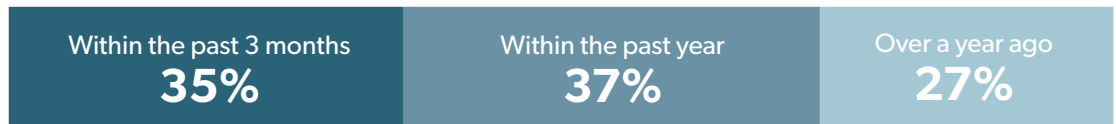


### Borrowers/credit card purchasers who still owe money on their purchase





## When owners first purchased cryptoassets



Don't know (1 per cent) not shown.

## Reasons for owning cryptoassets

Past and present cryptoasset owners reported acquiring cryptoassets for a variety of reasons.

### Enthusiasm for technology

The top reason past and present owners reported for holding a cryptoasset was interest in new technologies (46 per cent); 18 per cent cited blockchain technology's potential to prevent loss and fraud.

### Speculation

The second most common reason given was to sell at a higher price later (42 per cent). Many current cryptoasset owners closely track the prices of cryptoassets on various trading platforms, with 36 per cent reporting that they traded cryptoassets daily or weekly over the 12 months prior to being surveyed.

### Medium of exchange

Many past and present cryptoasset owners reported buying cryptoassets

to use them as a medium of exchange. One in four said they acquired cryptoassets so that they can make payments anonymously, 23 per cent said they acquired cryptoassets to make payments in Canada or the U.S., and 14 per cent acquired them to make international payments or remittances.

Many also reported using cryptoassets to pay for goods or services, with 23 per cent describing types of goods or services that they paid for using cryptoassets.<sup>38</sup> Respondents reported purchasing consumer products, collectables, consumption goods, digital and online services, and computer equipment and software using cryptoassets.

### Low trust in institutions

A minority (12 per cent) said they acquired cryptoassets because they don't trust banks, with 11 per cent also reporting that they own cryptoassets because they don't trust the government.

## Frequency of cryptoasset trading (over the 12 months prior to being surveyed)



Don't know (1 per cent) not shown.

## Reasons for not owning a cryptoasset

Most Ontarians who have never owned cryptoassets reported that they don't own cryptoassets because they don't understand or know enough about them.



Don't know (8 per cent) not shown.

## Acquisition channels

Past and present cryptoasset owners report acquiring cryptoassets through a variety of channels. The most common means of acquiring cryptoassets is through a cryptoasset trading platform, though a substantial number also acquired cryptoassets through mining. Sixteen per cent reported acquiring digital tokens in an ICO.

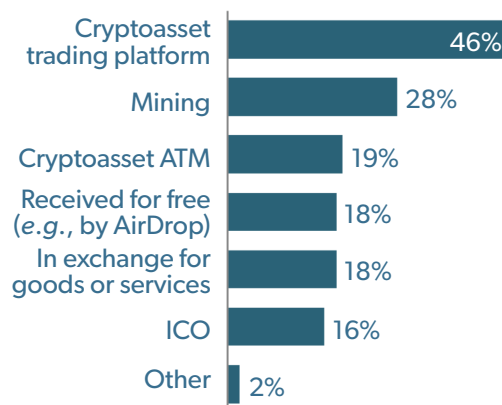
### Cryptoasset trading platforms

Most trading platform users reported holding an account with a platform based in the U.S. or Canada, though

a substantial number reported holding accounts with platforms based in Asia and Europe, reflected in the chart below.<sup>39</sup> Almost half (46 per cent) of trading platform users reported holding accounts with more than one platform.

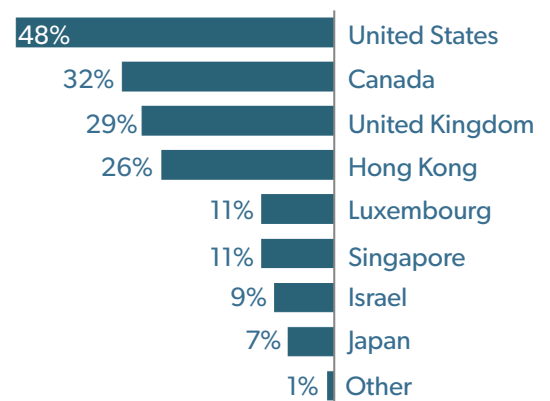
Many trading platform users reported encountering an issue with using at least one of the platforms they use, with a halt in trading and inability to withdraw money when they wanted it being the most common issues reported.

### Acquisition channels



Don't know (3 per cent) not shown.

### Trading platforms used (by country of origin)



## Issues reported by cryptoasset trading platform users

**21%**

Trading was halted.

**20%**

I couldn't withdraw money when I wanted it.

**16%**

I couldn't fund my account with cryptoassets when I wanted to.<sup>3</sup>

**16%**

I couldn't fund my account with money when I wanted to.<sup>3</sup>

**15%**

I didn't understand the fees I was paying.

**13%**

I couldn't withdraw cryptoassets when I wanted to.

**9%**

I couldn't reach anyone when I had a question or complaint.

**4%**

Other

**20%**

No issues/don't know

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## ICOs

Sixteen per cent of past and present cryptoasset owners, representing about 1.5 per cent of Ontarians overall, report having participated in an ICO. While this percentage appears relatively small, it translates into about 170,000 Ontarians. This total includes individuals who participated in an ICO but later sold their digital tokens to someone else.

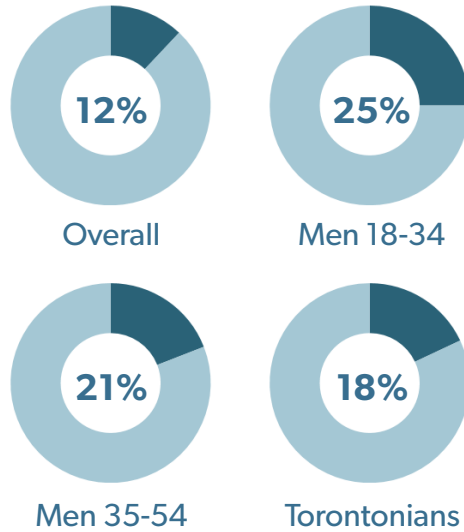
ICO participants were asked what information they researched before participating in an ICO. While the results are subject to a higher degree of uncertainty given the relatively small number of respondents who participated in an ICO, the results indicate that ICO participants were most likely to research whether they could trade or sell the digital token being offered (68 per cent) before participating in an ICO. Other matters participants reported researching included where the company offer-

ing tokens was located (58 per cent), what the coin or token offered allows them to do (46 per cent), the company's management team (46 per cent), and the company's business plan (44 per cent). Only 29 per cent reported researching whether the ICO was regulated.

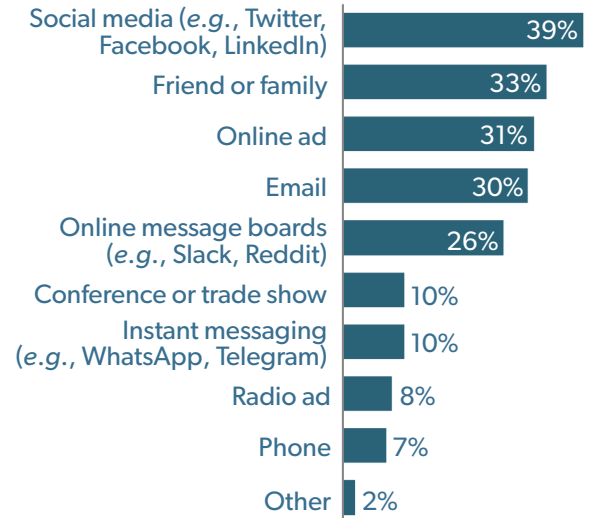
In contrast to the relatively low percentage of Ontarians who have participated in an ICO, 12 per cent of Ontarians report having been approached about or having sought information about an ICO. Men aged 18-54 and Torontonians were more likely to so report.

Individuals learned about ICOs through a variety of mediums: the most common medium was social media, such as Twitter, Facebook, or LinkedIn, but the second most common way was through a friend or family member.

### Ontarians who were approached or sought information about an ICO



### How Ontarians were approached about/sought information about ICOs



Don't know (2 per cent) not shown.

## Information requested by cryptoasset providers and platforms

We asked past and present cryptoasset owners what personal information they had to provide to their cryptoasset issuer(s) or platform(s), and the responses indicate that the information collection processes used by different issuers and platforms are less than consistent.

A majority of past and present cryptoasset owners reported having to provide their email address (56 per cent) or full name (52 per cent).

Only 31 per cent reported having to provide their home address, and 29 per cent reported having to show government-issued identification.

The sample proved too small for any reliable segmentation of responses based on the cryptoasset issuers or platforms respondents used.

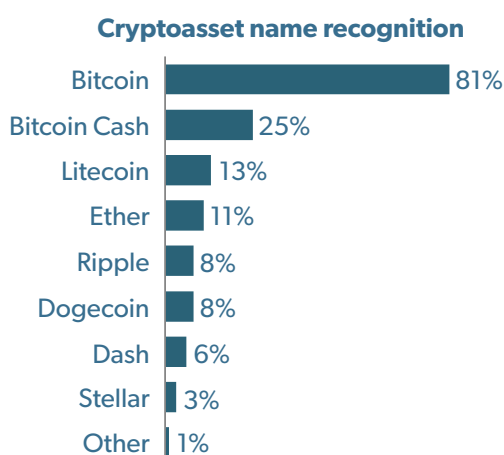
## Cryptoasset knowledge and awareness



Don't know (7 per cent) not shown.

About 4 in 5 (82 per cent) respondents reported having some familiarity with "cryptocurrencies," though only 5 per cent identified themselves as familiar enough to explain the details to others.

Bitcoin was by far the most recognized cryptoasset, with 81 per cent of respondents reporting having heard of it. Rounding out the top four most recognized cryptoassets were Bitcoin Cash, Litecoin, and Ether.



Don't know (12 per cent) not shown.

As a proxy for testing Ontarians' substantive knowledge of cryptoassets, we asked respondents to review six statements about Bitcoin and select the statements they believed to be true. The statements draw from a similar test carried out by the Bank of Canada in 2016, with an additional incorrect statement ("Bitcoin is secure from cyberattacks") added to the test.<sup>40</sup>

Only 34 per cent of Ontarians correctly identified four or more of these

Bitcoin knowledge test results	Ontarians overall		Cryptoasset owners	
	Correct	Incorrect	Correct	Incorrect
Bitcoin allows for direct transactions between two parties, without a third party involved ( <b>TRUE</b> ).	41%	11%	75%	23%
The total supply of Bitcoin is fixed ( <b>TRUE</b> ).	17%	35%	60%	38%
All Bitcoin transactions are recorded on a distributed ledger that is publicly accessible ( <b>TRUE</b> ).	16%	36%	64%	34%
Bitcoin transactions take place instantaneously ( <b>FALSE</b> ).	30%	22%	63%	35%
Bitcoin is secure from cyberattacks ( <b>FALSE</b> ).	44%	8%	67%	31%
Bitcoin is backed by the government ( <b>FALSE</b> ).	50%	2%	82%	16%
Don't know	48%		2%	

statements as true or false, and only 3 per cent received a perfect score. Knowledge levels were higher among cryptoasset owners, however, with 15 per cent receiving a perfect score and 72 per cent correctly identifying four or more of the six statements.

Roughly half of respondents did not complete this question, either because they had not heard of Bitcoin or other cryptoassets before this survey, or because they felt they weren't familiar enough with Bitcoin to complete the question. Cryptoasset owners tended to feel more confident responding to this question, with only 2 per cent opting out.

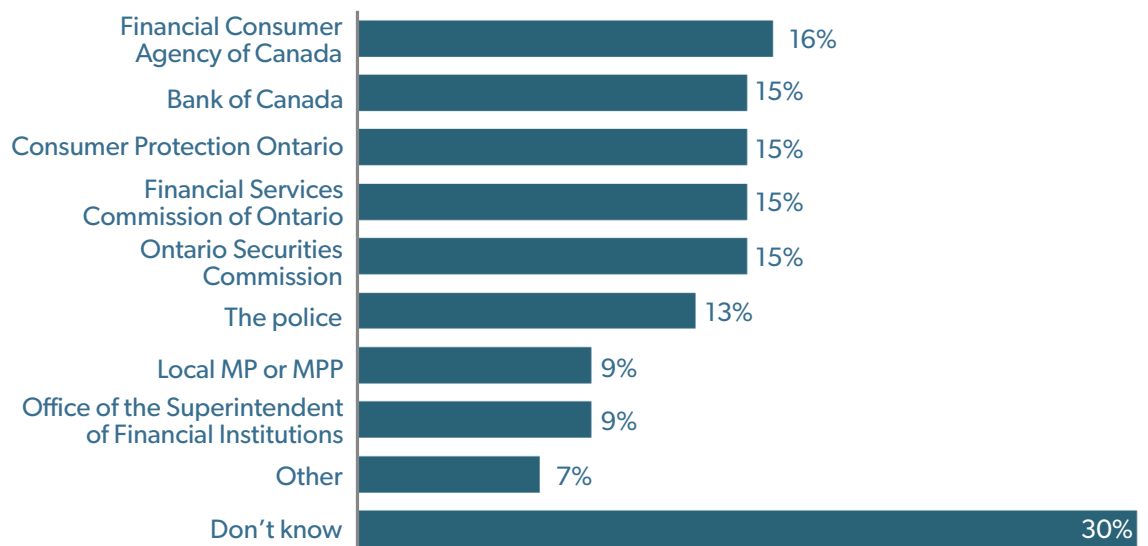
A surprising number of cryptoasset owners (16 per cent) incorrectly agreed with the statement that "Bitcoin is backed by the government." The Bank of Canada study referred to above found a similar result when testing the statement "Bitcoin is similar to other national currencies ... that are backed by the government."<sup>41</sup> The study's authors speculated that respondents may have misunderstood the question, and that a clearer statement reading "Is Bitcoin backed by a government?" might have yielded a greater share of correct answers.<sup>42</sup> This change in phrasing, adopted for this survey, does not appear to have had this effect.

## Cryptoasset complaints and regulation

The survey asked past and present cryptoasset owners where they would go for help if they had a problem involving the cryptoassets they hold or used to hold, and couldn't resolve it by talking to their cryptoasset issuer, trading platform, or other service pro-

vider. The results indicate that there is no clear consensus as to which regulator cryptoasset buyers would go to, and accordingly that consumer complaints may be being spread out over a number of different agencies.

**Where past and present cryptoasset owners would go with a complaint**



Respondents were also asked who they believe is responsible for regulating ICOs. Of the respondents who reported having heard of cryptoassets before being surveyed, most (67 per cent) didn't know who was responsible for regulating ICOs, and many believed that ICOs are not subject to reg-

ulation. Among the regulators listed in the survey question, respondents who had heard of cryptoassets, as well as past and present cryptoasset owners, were most likely to identify the OSC as responsible for regulating ICOs, but only by a narrow margin.

### Who respondents believe regulates ICOs



# CONCLUSION

## Most people are taking caution—but not everyone.

The survey findings suggest most Ontarians are approaching cryptoassets with caution. A relatively small percentage of Ontarians owns cryptoassets, and those who do tend to spend relatively small amounts buying them and fund their purchases with cash savings rather than debt. The reasons cryptoasset owners gave for purchasing cryptoassets also suggest that many are entering the sector largely out of curiosity, or interest in cryptoassets' practical use as a payment mechanism, rather than as a way to get rich quick.

This does not hold true for everyone, though. Nearly half of past and present cryptoasset owners bought cryptoassets to make a profit, and about 1 in 10 current cryptoasset owners spent \$10,000 or more acquiring cryptoassets. In addition, 29 per cent of past and present cryptoasset owners who borrowed money to buy cryptoassets still owe some or all of the money they borrowed.

While each of these groups represents a small percentage of Ontarians overall, they nonetheless collectively translate into tens of thousands of Ontarians taking significant, highly risky bets on cryptoassets—bets that may have a substantial impact on their financial wellbeing.

The OSC and other securities regulatory authorities have emphasized the significant risks associated with cryptoassets, and the Investor Office has developed several educational resources on [GetSmarterAboutMoney.ca/crypto](https://www.getsmarteraboutmoney.ca/crypto) on the characteristics and risks of different types of cryptoassets. The survey results indicate that, while many Ontarians are aware of and have some knowledge of cryptoassets, there remains a need for educational materials on this rapidly evolving sector.

While cryptoassets come with significant risks, the OSC recognizes the potential for innovative capital raising and different applications of blockchain technology to increase transparencies and efficiencies in the capital markets, and remains committed to engaging with fintech businesses through OSC LaunchPad.

As noted above, the CSA has issued new guidance for businesses looking to offer digital tokens and to help these businesses navigate securities law requirements.

That more than 1 in 10 Ontarians have been approached about, or sought information about, an ICO underlines the importance of continued regulatory focus on this area, especially given

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**The OSC Investor Office has developed educational resources on [GetSmarterAboutMoney.ca/crypto](https://www.getsmarteraboutmoney.ca/crypto) on the characteristics and risks of different types of cryptoassets, as well as cryptoasset trading platforms and other service providers.**



the significant and continuing activity by fraudsters seeking to take advantage of consumer interest in ICOs.

Confusion among Ontarians at large as well as cryptoasset owners as to whether ICOs are regulated is also of significant concern. The OSC will continue to be proactive in reminding Ontarians of its role in regulating ICOs that constitute securities offerings.

As part of this mandate, OSC staff, along with staff with other CSA members, are conducting active surveillance of digital coin and token offering activity to identify past, ongoing, and potential future violations of securities laws and conduct in the capital markets that is contrary to the public interest. CSA members have taken and intend to continue taking regulatory and/or enforcement action against businesses that do not comply with securities laws.

The significant number of cryptoasset owners who have experienced issues using cryptoasset trading platforms supports securities regulatory authorities' continued focus on these plat-

forms. The OSC and other CSA members are collecting information on a number of trading platforms operating in Canada and their compliance with securities laws. The OSC reminds Ontarians that, currently, there are no cryptoasset trading platforms recognized as an exchange or otherwise authorized to operate as a marketplace or dealer in Canada.

While the OSC has received many complaints and inquiries relating to cryptoassets over the past several months, the survey results indicate that different complaints and inquiries may be being directed to a variety of different regulators and agencies. The OSC will continue to work with other regulators and agencies to share information relating to developments in the cryptoasset sector.

The cryptoasset sector offers significant opportunities, as well as significant risks. The OSC will continue to monitor this sector as it develops and act to protect investors while also fostering innovation in the capital markets.

# NOTES

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36. See note 1 above.
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38. A majority (55 per cent) reported having used cryptoassets to make a payment or transaction in the 12 months prior to being surveyed. However, not everyone in this group used cryptoassets to purchase goods or services (many reported that they used cryptoassets to purchase other cryptoassets).
39. Respondents were asked to list each trading platform they have used to buy or sell cryptoassets. OSC staff used this data and research on the primary locations of the platforms respondents reported using to generate the data above. Responses that did not correspond to a known trading platform were excluded from this analysis.
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