An Introduction to Accounting for Cryptocurrencies

MAY 2018
Table of Contents

Purpose of This Publication 1

Background 3
Scope 4

Accounting Issues 5
Is a Cryptocurrency an Asset? 5
Determining Which IFRS Standard to Apply 5
Is a Cryptocurrency Cash (or a Cash Equivalent)? 6
Is a Cryptocurrency a Non-cash Financial Asset? 7
Is a Cryptocurrency an Investment Property? 7
Is a Cryptocurrency an Intangible Asset? 8
Is a Cryptocurrency Inventory? 9
Other Considerations 9

Standard-Setting Activities 11

Disclosure 12

Tax Implications 14
Receiving Cryptocurrencies as Payment for Goods and Services 14
Using Cryptocurrencies to Acquire Goods and Services 15
Cryptocurrency Trading 15
Purpose of This Publication

This publication has been prepared to inform readers about digital currencies commonly referred to as “cryptocurrencies” and the primary issues involved in accounting for holdings of them under International Financial Reporting Standards (IFRS® Standards). This publication also includes a brief summary of some of the tax implications of investing in and transacting with cryptocurrencies.

We encourage management to investigate and better understand the key features of cryptocurrencies relevant to their business. In addition, preparers of financial reports should evaluate the appropriateness of their accounting policies for cryptocurrencies and ensure their disclosures about cryptocurrencies are sufficiently transparent to meet the needs of users. Preparers should consult with their professional advisors.

We encourage accounting standards-setters to undertake research in this area to better understand and evaluate the potential impacts of cryptocurrencies and to ensure the accounting for cryptocurrencies is relevant and useful.

We invite readers to contact us with any feedback or insights that could help us develop future publications on this topic.

Rosemary McGuire, CPA, CA
Director
Research, Guidance and Support
CPA Canada
277 Wellington Street West
Toronto ON M5V 3H2
Email: rmcguire@cpacanada.ca

Michael Massoud, CPA, CA, CPA (IL)
Principal
Research, Guidance and Support
CPA Canada
277 Wellington Street West
Toronto ON M5V 3H2
Email: mmassoud@cpacanada.ca
Disclaimer
This paper was prepared by the Chartered Professional Accountants of Canada (CPA Canada) as non-authoritative guidance. This paper does not represent the views of the Canadian Accounting Standards Board (AcSB) or the International Accounting Standards Board (IASB®). CPA Canada does not accept any responsibility or liability that might occur directly or indirectly as a consequence of the use, application or reliance on this material.

How transactions are recorded and disclosed in accordance with the applicable requirements of Canadian securities regulation is ultimately a legal matter and should be considered carefully. The information included in this publication is for general information purposes only and should not be used as a substitute for consultation with professional advisors.
Background

The word “cryptocurrencies” is often used as a blanket term for all crypto assets. For the purposes of this paper, we use the term cryptocurrencies to mean only those cryptocurrencies that are used as a medium of exchange and intended to act as an alternative to government-issued fiat currencies. Our focus is on only this specific subset of crypto-assets. These cryptocurrencies are without physical substance and generally not linked to any currency, or backed by any government, central bank, legal entity, underlying asset or commodity. For example, Bitcoin would be considered such a cryptocurrency while tokens that do not function as a general-purpose medium of exchange would not.

Holdings of cryptocurrencies allow individuals and businesses to transact directly with each other without an intermediary such as a bank or other financial institution. These cryptocurrency transactions rely on a key technology called blockchain technology. For an introduction to blockchain technology, refer to the CPA Canada publication *Technological Disruption of Capital Markets and Reporting?: An Introduction to Blockchain*

The rapid rise and volatility of cryptocurrencies have led to increased global interest and scrutiny by organizations, investors, regulators, governments, and others. Interested parties are concerned about the accounting and tax implications associated with cryptocurrencies.

During 2017, the market capitalization of cryptocurrencies increased by US$547 billion or 3,038%\(^1\) The most popular and widely used cryptocurrency is Bitcoin; however, there are over 1,500 cryptocurrencies in circulation.\(^2\) Each of these cryptocurrencies has its own unique features and characteristics which makes understanding and accounting for them particularly challenging.

---

1. [https://coinmarketcap.com/charts](https://coinmarketcap.com/charts)
2. [https://coinmarketcap.com](https://coinmarketcap.com) as at February 6, 2018.
Cryptocurrency offerings such as “initial coin offerings” and “initial token offerings” are gaining traction in the global financial markets with over US$5 billion raised to date as of December 31, 2017. Securities regulators have raised concerns related to such offerings because of issues around volatility, transparency valuation, custody and liquidity, as well as the use of unregulated cryptocurrency exchanges. There is also a fundamental concern about whether these offerings constitute an offering of securities.

**Scope**
This publication addresses the accounting for holdings of cryptocurrencies acquired from third parties. The accounting by entities which mine cryptocurrency or undertake initial coin or token offerings is not addressed in this paper. Furthermore, some entities may hold cryptocurrency as an intermediary or as an agent and these circumstances are not addressed in this paper.

---

3 [www.coindesk.com/ico-tracker](http://www.coindesk.com/ico-tracker)
4 For example, see CSA staff notice 46-307, [www.osc.gov.on.ca/en/SecuritiesLaw_csa_20170824_cryptocurrency-offerings.htm](http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20170824_cryptocurrency-offerings.htm); SEC.gov | Chairman’s Testimony on Virtual Currencies: The Roles of the SEC and CFTC; and Initial Coin Offerings | FCA
Accounting Issues

Existing IFRS Standards do not explicitly refer to cryptocurrencies. The primary accounting questions are whether cryptocurrencies are assets and, if so, what type of asset in terms of IFRS Standards?

As previously noted, there are over 1,500 cryptocurrencies and more are being developed. Different cryptocurrencies can have different characteristics, and the reasons for acquiring them can vary, resulting in different accounting consequences. As a result, an accounting policy established for one cryptocurrency may not be appropriate for others. The discussion of accounting issues in this publication is not based on any specific cryptocurrency. Entities should evaluate each cryptocurrency holding separately based on their circumstances, the characteristics of the cryptocurrency and the characteristics of the market for it.

Is a Cryptocurrency an Asset?
Before considering whether a specific IFRS Standard might apply to a cryptocurrency, the question that must first be addressed is whether the cryptocurrency meets the definition of an asset. The definition of an asset in the IASB’s Conceptual Framework is “a present economic resource controlled by the entity as a result of past events.” “An economic resource is a right that has the potential to produce economic benefits.” Entities will need to assess whether each cryptocurrency held qualifies as an asset.

Determining Which IFRS Standard to Apply
Paragraph 7 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors requires the use of a specific IFRS Standard if it is applicable. Although, IFRS Standards do not explicitly refer to cryptocurrencies, the scope of an IFRS Standard may include items with the characteristics of cryptocurrencies and therefore be applicable.
Assuming the definition of an asset is met, the following standards provide guidance on the accounting for various asset classes and merit consideration to determine whether they address items with the characteristics of cryptocurrencies:

3. Investment properties (IAS 40 Investment Property)
4. Intangible assets (IAS 38 Intangible Assets)
5. Inventory (IAS 2 Inventories).

Is a Cryptocurrency Cash (or a Cash Equivalent)?

IAS 7.6 defines cash by stating: “Cash comprises cash on hand and demand deposits.” Additional detail is provided in paragraph AG3 of IAS 32 which states: “Currency (cash) is a financial asset because it represents the medium of exchange…”

Currency (including foreign currency) is generally accounted for as cash. The term “cryptocurrency” suggests that it is a currency; however, this does not mean it is necessarily cash for accounting purposes.

It may be that some (but not all) cryptocurrencies can be used as a medium of exchange; indeed, that was the original purpose behind Bitcoin and some other cryptocurrencies. However, at this time it appears that cryptocurrencies represent a limited medium of exchange compared to most traditional fiat currencies. In part this is because, unlike established currencies such as the Canadian and U.S. dollar, they are not supported by a central bank or recognized as legal tender in most jurisdictions. In addition, some very large financial institutions in Canada and the U.S. have banned the purchase of cryptocurrencies on their credit card platforms. One institution cited “high volatility and risk as the leading factors behind their decision.”

Cryptocurrencies do not seem to meet the definition of a cash equivalent in IAS 7.6 which is “short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value”, since they do not have a short-term life and often have

significant short-term value changes. Furthermore, in some cases there are constraints on the liquidity of such currencies and their conversion to a fiat currency.

It is not likely at the current time that cryptocurrencies qualify to be accounted for as cash or a cash equivalent.

**Is a Cryptocurrency a Non-cash Financial Asset?**

A key characteristic of a financial asset is that the holder of the financial asset has the contractual right to receive cash or another financial asset from another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the holder. The holder of a cryptocurrency generally does not have any such contractual right. Therefore, cryptocurrencies do not seem to meet the definition of a non-cash financial asset in accordance with IAS 32 and IFRS 9.

However, certain contracts to buy or sell cryptocurrencies in the future (e.g., forward contracts or options) or other contracts that settle in cash based on movements in a particular cryptocurrency may meet the definition of a derivative and be subject to financial-instruments accounting.

**Is a Cryptocurrency an Investment Property?**

IAS 40.5 defines an investment property as “property (land or a building—or part of a building—or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both, rather than for:

1. use in the production or supply of goods or services or for administrative purposes; or
2. sale in the ordinary course of business.”

Some entities hold cryptocurrencies for capital appreciation, but cryptocurrencies are not property (i.e., land or buildings) as specified in the definition of investment property. Therefore, it does not seem that a cryptocurrency is investment property within the scope of IAS 40.
Is a Cryptocurrency an Intangible Asset?

An intangible asset is defined in IAS 38.8 as “an identifiable non-monetary asset without physical substance.” Cryptocurrencies are generally identifiable and without physical substance. Cryptocurrencies generally are non-monetary as they do not meet the definition of monetary assets in IAS 38.8 being “assets to be received in fixed or determinable amounts of money”.

Consequently, it appears that many cryptocurrencies are likely to meet the definition of intangible assets and are therefore within the scope of IAS 38.

A cryptocurrency within the scope of IAS 38 and eligible for recognition should be measured initially at cost. The cryptocurrency may be subsequently measured at either cost (i.e., the cost method) or at fair value (i.e., the revaluation method). It is likely that cryptocurrencies would qualify as indefinite lived intangibles, if there are no factors to indicate a definite useful life. Under the cost method, any impairment charge recorded under IAS 36 Impairment of Assets is recorded in the statement of profit or loss.

The revaluation method can only be used if there is an active market for the cryptocurrency. Appendix A of IFRS 13 Fair Value Measurement defines an active market as a “market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.” An entity wishing to use the revaluation method will need to establish that an active market exists for the cryptocurrency. If there is an active market for the cryptocurrency and if the revaluation method is elected as a policy, the statement of financial position would reflect its period-end fair value.

Under the revaluation method, the accounting for the change in fair value is more complex: increases in fair value are recorded in other comprehensive income (OCI), while decreases are recorded in profit or loss. Under IAS 38, there is no recycling of gains from OCI to profit or loss. However, to the extent that an increase in fair value reverses a previous decrease in fair value that has been recorded in profit or loss, that increase is reported in profit or loss. As a result, the cumulative effect on profit or loss includes the net decrease in fair value of the cryptocurrency over time. Similarly, a decrease in fair value that reverses a previous increase is recorded in OCI, resulting in the cumulative effect on OCI being the net increase in fair value of the cryptocurrency over time.

For information on the determination of the fair value of cryptocurrencies under IFRS 13, see Appendix A to this publication.
Is a Cryptocurrency Inventory?
IAS 38.3 notes that it does not apply to intangible assets held for sale in the normal course of business and that such intangible assets should be accounted for in accordance with IAS 2. Cryptocurrencies within the scope of IAS 2 would be measured at the lower of cost and net realizable value under the general inventory model required by IAS 2. As a result, decreases in net realizable value would be recorded in the statement of profit or loss while increases in net realizable value in excess of previously recorded decreases would not be recorded.

However, the accounting is different for commodity broker-traders. IAS 2.5 defines commodity broker-traders as “those who buy or sell commodities for others or on their own account, for the purpose of selling in the near future and generating a profit from fluctuations in price.” Broker-traders measure inventories of commodities at fair value less costs to sell and changes in value are recorded in profit or loss (IAS 2.3(b)). While this accounting result will seem logical to many, it is available only to those entities that meet the definition of a broker-trader.

Other Considerations
IAS 38 specifically excludes certain intangible assets from the scope of the standard. Cryptocurrencies are not listed among the assets scoped out of IAS 38. There is, however, a scope exemption in paragraph 7 of IAS 38 for expenditures on the exploration for and development and extraction of oil, gas and mineral deposits or similar non-regenerative resources, and insurance contracts because these “activities or transactions are so specialized that they give rise to accounting issues that may need to be addressed in a different way.” The view has been expressed that a cryptocurrency may be a “non-regenerative” resource because it is limited to a certain number of units and is “mined.” However, cryptocurrencies are clearly different from oil, gas and minerals and therefore are not “similar non-regenerative resources.” The view has also been expressed that IAS 38.7 can be applied by analogy to cryptocurrencies. However, the IASB has explicitly limited this scope exception to particular circumstances. Accordingly, it appears it is not appropriate for preparers to extend the exception in IAS 38 to the accounting for cryptocurrencies.

Paragraph 19 of IAS 1 Presentation of Financial Statements allows that “in extremely rare circumstances” management may conclude that compliance with a requirement in an IFRS Standard would be so misleading that it would conflict with the objective of financial statements. Application of IAS 1.19 is not appropriate in accounting for cryptocurrencies.
IAS 8.10 allows management to use its judgment to develop an accounting policy in the absence of an IFRS Standard that specifically applies to a transaction. However, as discussed above, it appears that one of the IFRS Standards would apply to a cryptocurrency holding (which IFRS Standard may depend on the specific facts and circumstances). As such, it appears it would be inappropriate for management to apply IAS 8.10.
Standard-Setting Activities

Concerns have been raised that the current application of IFRS Standards, particularly the application of IAS 38 and the measurement of cryptocurrencies at cost, is not reflective of economic substance and does not provide relevant information to users of financial statements. As a result, accounting standards-setters and other bodies are actively looking at this area. For example:

- Accounting for cryptocurrencies was discussed by the AcSB’s IFRS Discussion Group (IDG) at its January 2018 meeting. The IDG recommended that this topic be discussed by the AcSB to determine whether it should be raised to the IASB or the IFRS Interpretations Committee. At its March 2018 meeting, the AcSB agreed to refer this issue to the IASB.

- At the IASB’s January 2018 meeting, the IASB discussed the possibility of having a research project relating to cryptocurrencies. At this meeting, several IASB members questioned whether there is diversity in practice to such an extent that users have made ill-informed decisions that would justify the IASB spending resources on it. Others have indicated, though, that the IASB should consider providing some guidance. One approach would be to assess whether the scope of some existing standards could be amended to address commodities and digital currencies as opposed to creating new standards for them. This might expedite the standard-setting process and cover a wider range of transactions.

- The US Financial Accounting Standards Board (FASB) staff are researching the topic.

CPA Canada will continue to monitor these and other developments and their potential implications for financial reporting in Canada.

Disclosure

Entities should comply with the disclosure requirements of the IFRS Standards they use in accounting for cryptocurrencies (e.g., IAS 2, IAS 38, IFRS 13) However, given the complexity and volatility associated with cryptocurrencies, entities should consider whether additional disclosures about their cryptocurrency holdings are necessary.

IAS 1.9 states: “The objective of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions” and that the notes shall “provide information that is not presented elsewhere in the financial statements, but is relevant to an understanding of any of them.” IAS 1.17 requires an entity to “provide additional disclosures when compliance with the specific requirements in IFRS is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity’s financial position and financial performance.” However, IAS 1.31 notes that disclosure is not required if the information resulting from that disclosure is not material.

In addition to the disclosures required by a specific IFRS Standard, the following disclosures, among others, may also be relevant:

• a description of the cryptocurrency, its important characteristics and the purpose of holding it (e.g., investing, buying goods and services)
• the number of units of the cryptocurrency held at year end
• how the accounting policy was determined
• if the cost model is used, the fair value for the cryptocurrency together with the appropriate IFRS 13 disclosures.
• information on the market risk associated with the cryptocurrency (e.g., historical volatility).
In addition, there may be disclosures outside of financial statements that are required by securities regulators. Entities should consider what disclosures might be required for management’s discussion and analysis or other documents filed as continuous disclosure under securities rules.
Tax Implications

The Canada Revenue Agency (CRA) has stated that transactions involving cryptocurrencies are subject to income tax, and are characterized as a commodity and not considered to be a currency issued by a government of a country.\(^{12}\) Also, the treatment of specific transactions for the purposes of the Goods and Services Tax will generally follow the income tax treatment. As such, when using cryptocurrencies to purchase goods or services, the CRA treats this as a barter transaction. The impact of the CRA’s position will depend on whether the enterprise is providing goods or services in exchange for cryptocurrencies or using cryptocurrencies to acquire goods or services. Also, the tax consequences of trading in cryptocurrencies will be relevant for some enterprises.

Receiving Cryptocurrencies as Payment for Goods and Services

When an enterprise accepts cryptocurrency as payment for goods or services provided in the normal course of business, the CRA’s guidance on barter transactions states that the enterprise will be considered to have sold the goods or services at a price at which the enterprise would normally have charged a third party.\(^{13}\) The cost of the cryptocurrency to the vendor/service provider for future transactions will be this value. A future gain or loss on the disposal of the cryptocurrency will be either on account of income or capital, and the rationale for this determination is discussed below.

---

13 CRA Interpretation Bulletin IT-490, Barter Transactions, July 5, 1982
Using Cryptocurrencies to Acquire Goods and Services

The concept of valuing the property given up also applies to the purchaser of goods and services. For the purchaser, the cost of property received (or the value of services acquired) will be equal to the value of the property given up, being the cryptocurrency. As a gain or loss will arise on the disposition of the cryptocurrency, the enterprise will need to determine whether this will be on account of income or capital.

Cryptocurrency Trading

Where an enterprise disposes of cryptocurrencies, whether through a barter transaction or simply through trading, the enterprise must determine whether gains or losses are on account of income or capital. In particular, the cryptocurrency could be inventory or property acquired as an adventure in the nature of trade, and any future gain or loss will be on account of income. Alternatively, the property may be a capital property, meaning that future gains or losses will be on account of capital.

As no specific rules have been set for cryptocurrencies, the usual considerations for property transactions will apply. There are no hard and fast rules, but the factors that have been considered by the courts in deciding include the following:

• the frequency of transactions
• the holding period of the property
• whether there was an intention to acquire the property for resale at a profit
• the nature and quantity of the property held
• the time spent on the activity
• specific market knowledge of the taxpayer
• relationship to other business activities.

Greater certainty on how general tax principles will apply to cryptocurrency transactions may only become available when the government provides specific tax rules or guidance for cryptocurrency transactions or cryptocurrency transactions are dealt with as part of a tax court case.
Appendix A — Determining Fair Value of Cryptocurrency Assets under IFRS 13 Fair Value Measurement

In some cases, the fair value of cryptocurrencies may be accounted for or disclosed in financial statements. IFRS 13 defines fair value and sets out a framework for determining fair values under IFRS. The premise of valuation for an asset in IFRS 13 is an exit price (i.e., fair value should be determined based on the assumptions market participants would use when pricing an asset. In this context, a market participant is one that is independent of the other party; is knowledgeable, having a reasonable understanding of the asset and the transaction; is able and willing to enter into a transaction for the asset but is not compelled to do so).

Fair values are divided into a three-level fair value hierarchy based on the lowest level of significant inputs used in valuation models as follows:

- **Level 1**: quoted prices in active markets for identical assets or liabilities the entity can access at the measurement date
- **Level 2**: observable inputs other than Level 1 inputs
- **Level 3**: unobservable inputs.

IFRS 13 gives precedence to observable inputs over unobservable inputs.

Accordingly, the first step in considering the fair value of a cryptocurrency would be to determine whether an active market exists for that currency at the measurement date (i.e., whether a Level 1 valuation can be performed). An active market is one in which transactions take place with sufficient frequency and volume to provide pricing information on an ongoing basis. There may be
several markets for a particular cryptocurrency that meet the definition of an active market and each market may have different prices at the measurement date. In situations where there is more than one active market, IFRS 13 requires that the principal market for the asset be determined. The principal market will be the market with the greatest volume and level of activity for the relevant cryptocurrency which the entity holding the cryptocurrency can access.

Not all markets may be accessible to the entity even if they are “active.” For example, a market may be active, but only open to citizens of a particular country. Therefore, it is important to consider not only whether the market is active but how accessible it is to the reporting entity.

IFRS 13 also contains a tiebreaker if there is not a clear principal market (i.e., because there are several markets with approximately the same level of activity). In the case of a tie, IFRS 13 defaults to the most advantageous market within the group of active markets with the highest activity levels to which the entity has access.

The unit of account for the cryptocurrency also needs to be considered. For example, if some markets trade in fractions of units of cryptocurrency and others trade in single units, determining the appropriate market to use might be more complex.

Once the unit of account is determined, and if the asset’s fair value hierarchy category has been assessed as Level 1, valuation is at the market price for that unit of account times the number of units held. That is, there is no liquidity adjustment for the overall size of an entity’s position.

Many cryptocurrencies are volatile, and markets may remain open 24/7. The time at which a reporting entity values the cryptocurrency may therefore be important. For example, is the valuation at 11:59 p.m. on the last day of the reporting period or at the close of business on that day? This may represent a significant accounting policy. Consistency of application of that policy is required.

Not all cryptocurrencies will meet the criteria for Level 1 in the fair value hierarchy. It should also be noted that the hierarchy level of cryptocurrencies may evolve over time. For example, it is possible that a cryptocurrency previously valued using Level 3 inputs might become traded in an active market or vice versa.

IFRS 13 requires disclosures of how fair values are determined. The level of disclosure increases as one moves down the hierarchy because more judgment is typically required for Level 3 valuations than for Level 1. Disclosure also varies to some extent based on whether fair value is recorded in the statement of financial position or disclosed in the notes to the financial statements.
Appendix B—Where to Find More Information

This appendix provides links to external resources that may be useful:


3. The IFRS Discussion Group meeting on January 10, 2018, included cryptocurrencies on the agenda.
   a. Meeting report. [Link](www.frascana.ca/international-financial-reporting-standards/ifrs-discussion-group/search-past-meeting-topics/item85451.pdf)

4. The Accounting Standards Advisory Forum (ASAF) meeting on December 9, 2016, included cryptocurrencies on the agenda.
   b. Audio webcast—[Link](www.ifrs.org/-/media/feature/meetings/2016/december/asaf/asaf-audio/cryptocurrencies-ap5.mp3)
5. PwC. *Making sense of bitcoin, cryptocurrency, and Blockchain.*

6. PwC. *Cryptocurrency—despite its name—is not accounted for as currency.*


10. Canadian Standing Committee on Banking, Trade and Commerce. *Digital Currency: You Can't Flip This Coin!* June 2015. [https://sencanada.ca/content/sen/committee/412/banc/rms/12jun15/home-e.htm](https://sencanada.ca/content/sen/committee/412/banc/rms/12jun15/home-e.htm)


