Insights

by Capital Markets & Accounting Advisory Services

September 2019

Demystifying the Debits and Credits of Cryptocurrencies

Background

Cryptocurrency seems to be the buzzword in recent months, especially after Facebook launched its own cryptocurrency, Libra in June 2019. Other popular cryptocurrencies are Bitcoin, Ether and Ripple, just to name a few.
What is a cryptocurrency and what does it do? Cryptocurrencies are mainly used as a medium of exchange for goods and services, somewhat like a currency. However, there are some key differences from traditional currencies like MYR, USD, SGD, etc.

Key differences between cryptocurrencies and traditional currencies

- A cryptocurrency is a digital currency with no physical form and requires an online transaction to work. Cryptocurrencies are transferred using 'blockchain' technology, which is a form of ledger that is encrypted.
- Cryptocurrencies are not legal tender and mostly are not issued or backed by any government or state, unlike traditional currencies.
- Cryptocurrencies do not involve a central repository like a central bank. It takes away the need of a 'middleman' to perform a transaction.

The challenge for accountants is how to account for the cryptocurrencies, given that it has some but not all the characteristics of a traditional currency. This article analyses the accounting treatment of cryptocurrencies from the perspective of an entity that holds cryptocurrency ("holder") and an entity that issues cryptocurrency ("issuer").

Holders of cryptocurrency

Cryptocurrency is an asset of the entity that holds the cryptocurrency because it is a resource that is controlled by the entity as a result of a past event (for example, the issuer would have bought the cryptocurrency in the past).

Whilst there are specific accounting standards for assets such as MFRS 116 for property, plant and equipment and MFRS 138 for intangible assets, there is no specific MFRS that deals with the accounting of cryptocurrencies. Careful thought is required to determine the appropriate accounting treatment. Understanding the terms of the cryptocurrency and its purpose are important considerations in determining the accounting treatment.

Holders of cryptocurrency (continued)

Which standard should holders apply?

In IFRS and MFRS, there is a 'waterfall hierarchy' that applies when determining which standard to apply to a particular transaction. A step-by-step elimination process is required to determine the appropriate MFRS. Entities should consider the scope paragraph of the relevant standards when making this assessment. Judging the application of an MFRS by referring to its title alone is not sufficient.

Deciding which MFRS to apply is critical because different recognition and measurement requirements may apply, which means that cryptocurrencies could potentially be recognised (or derecognised) in different periods or measured at different amounts depending on which accounting model applies. Let's apply the 'hierarchy test' to decide which MFRS applies to holders of cryptocurrencies. The thought process and accounting considerations are analysed as follows:

Are cryptocurrencies cash or currency?

Like traditional currencies, cryptocurrencies are mainly used as a means of exchange, however, unlike cash or currency, cryptocurrencies have not been used as a medium to directly set the prices of goods or services. Whilst cryptocurrencies may be accepted to settle some transactions, the price of the goods or services is still determined by units of cash or currency. Hence unlike cash, they are not directly related to the setting of prices for goods or services in an economy.

Also, the application guidance of MFRS 132 'Financial Instruments: Presentation' states that in addition to being used as a medium of exchange, cash is expected to be used as the monetary unit in pricing goods or services to such an extent that it would be the basis on which all transactions are measured and recognised in financial statements. Cryptocurrency is typically not used as a medium of exchange to such an extent. As cryptocurrencies do not currently have the characteristics of cash, they are not accounted for as cash or currency.

Are cryptocurrencies financial assets other than cash?

A financial asset is defined in MFRS 132 as either:

i. cash;
ii. an equity instrument of another entity;
iii. a contractual right to:
    a) receive cash or another financial asset from another entity;
    b) exchange financial assets or financial liabilities with another entity under particular conditions; or
iv. a particular contract that will or may be settled in the entity's own equity instruments.

Cryptocurrencies are not equity instruments as they do not provide the holder with a residual interest in the assets of an issuer after deducting all its liabilities. Cryptocurrencies typically do not give the holder a contractual right to receive cash or another financial asset (such as the right to receive debt or equity instruments of another entity). Neither does it give the holder a right to exchange financial assets or financial liabilities with another entity. Lastly, it is not a contract that will or may be settled in the holder's own equity instruments.

As none of the definitions of a financial asset are met, cryptocurrency held by an entity is not a financial asset.

Holders of cryptocurrency (continued)

Are cryptocurrencies inventories?

Inventories are assets that are held for sale in the ordinary course of a business. MFRS 102 ‘Inventories’ does not require inventories to be in physical form. A cryptocurrency is an inventory if an entity holds it for the purpose of sale in the ordinary course of business.
Some entities might actively trade in cryptocurrencies, purchasing them with a view to their resale in the near future, and generating a profit from fluctuations in the price or traders’ margin (“commodity-brokers”).

However, for entities that hold cryptocurrencies for investment purposes (involving capital appreciation) over extended periods of time, the definition of an inventory would likely not be met and accordingly MFRS 102 would not apply.

The measurement implications

Inventories are measured at the lower of cost and net realisable value.

Commodity-brokers might choose to measure their inventories (a commodity) at fair value less costs to sell, in which case the lower of cost and net realisable value measurement requirements of MFRS 102 does not apply. The term ‘commodity’ however is not defined in MFRS 102 hence it is not conclusive whether a cryptocurrency is a ‘commodity’.

Are cryptocurrencies intangible assets?

Cryptocurrencies are intangible in nature, so MFRS 138 ‘Intangible Assets’ comes to mind.

A cryptocurrency is an intangible asset because:

- it has no physical form;
- it is a non-monetary asset because it does not give the holder a right to receive fixed or determinable number of units of currency;
- it is a resource controlled by an entity from which future economic benefits are expected to flow to the entity; and
- it is identifiable, because it can be sold, exchanged or transferred individually.

The measurement implications

A cryptocurrency that does not meet the definition of a financial asset or inventory would fall within MFRS 138, where it is initially measured at cost and subsequently measured at cost less accumulated amortisation and impairment. Alternatively, in circumstances where there is an active market for the cryptocurrency, entities may apply the revaluation model and subsequently measure the cryptocurrency at fair value less accumulated amortisation and impairment under the revaluation model.

Entities may find it challenging to determine the useful life of a cryptocurrency. Accordingly in most cases, entities may conclude that cryptocurrencies have indefinite useful lives and accordingly no amortisation is expected.

Holders of cryptocurrency (continued)

Summary of possible accounting treatments

The table below summarises the possible accounting treatment for holders of cryptocurrencies:

Applicable standards	Accounting model	Initial measurement	Subsequent measurement	Movements in carrying amounts	
				Below cost	Above cost
Inventories (MFRS 102)	N/A	Cost	Lower of cost and net realisable value	Profit or loss	N/A
	Commodity broker-trader exception	Cost	Fair value less costs to sell	Profit or loss	Profit or loss
Intangible assets (MFRS 138)	Cost model	Cost	Cost *less* accumulated amortisation and impairment	Profit or loss	N/A
	Revaluation model	Cost	Fair value *less* accumulated amortisation and impairment	Profit or loss	Other comprehensive income

Conclusion from the holder's perspective

A cryptocurrency might be accounted for as either an inventory or an intangible asset, depending on the purpose it is held for. There are a range of possible accounting outcomes on how cryptocurrencies might be measured, in many circumstances at cost rather than fair value. This indicates the importance of understanding the nature and characteristics of the cryptocurrency, as well as the entity's business model and purpose of holding the asset.

This increases the importance of implementing specific accounting policies and ensuring their consistent application to similar transactions, as well as appropriate disclosures. Where an entity can evidence the existence of clearly distinguished portfolios of similar assets held for different purposes, different treatments may apply within an entity.

Issuers of cryptocurrency

Issuers of cryptocurrency raise funds via an Initial Coin Offering ("ICO"). An ICO allocates cryptocurrency instead of shares to investors or subscribers. Unlike shares, ICO tokens or cryptocurrency do not typically represent an ownership interest in the issuer, but they often provide access to a platform (if and when developed) and can often be traded on a crypto exchange.

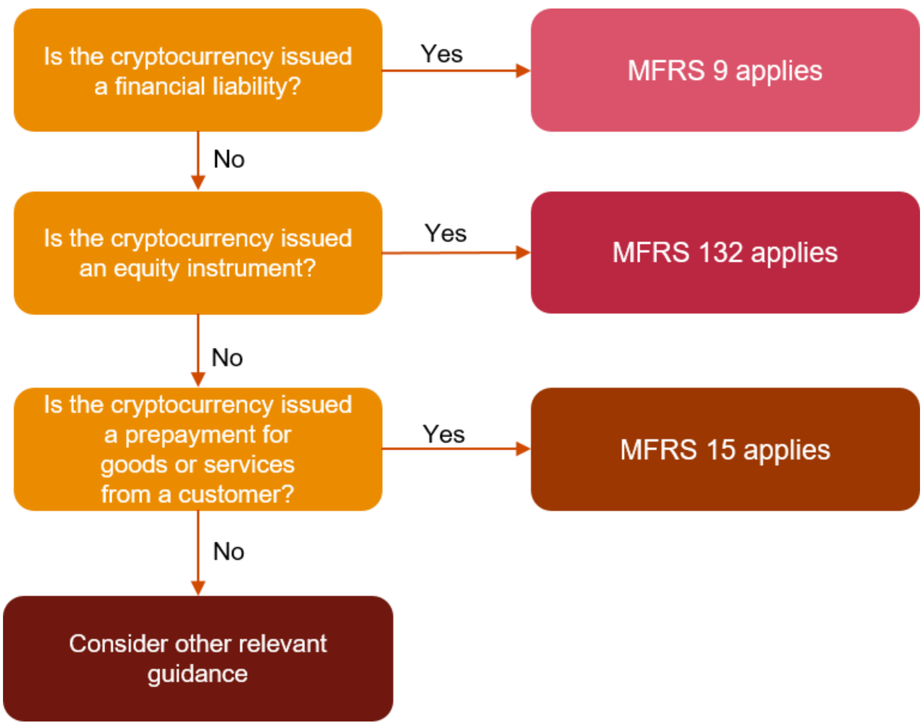
An issuer that receives cash as consideration in exchange for the cryptocurrencies would record a debit, typically an asset, for the consideration received. In some situations, the fact that the subscribers provide the majority of the funding might suggest the arrangement is a collaboration between the ICO entity and the subscriber. Hence it is possible that an ICO could create a joint arrangement, where further analysis in accordance with MFRS 11 'Joint Arrangements' is required.

The challenge for the issuer is to determine the accounting of the cryptocurrency issued, which is the credit side of the journal entry. The credit entry depends on the nature of the cryptocurrency issued, as well as the guidance of the applicable accounting standard.

Let's now apply the same hierarchy test under MFRS from the issuer's perspective. The accounting considerations are analysed below.

Which standard should issuers apply?

The decision tree below analyses the possible accounting standard that could apply to issuers of cryptocurrencies.



Issuers of cryptocurrency (continued)

Is the cryptocurrency issued a financial liability?

A cryptocurrency is a financial liability if the issuer has a contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the issuer. A cryptocurrency is also a financial liability if it will or might be settled in the issuer's own equity instruments where the amount of equity instrument exchanged is variable.

Many cryptocurrencies will not meet the definition of a financial liability as generally there is no contractual obligation to deliver cash at the outset and throughout the life of the cryptocurrency. However there may be situations where the issuer might provide refund of proceeds of up to the point of achieving a particular milestone. In those situations, the issuer might have a financial liability at least up to the point at which the refund expires.

Is the cryptocurrency issued an equity instrument?

Unlike ordinary shares, cryptocurrencies typically do not provide holders with residual interest in the assets of the issuer after deducting all of its liabilities. A holder of ordinary shares issued by an entity would typically have the rights to residual profits, dividends and entitlement to proceeds upon liquidation of the entity. However, cryptocurrencies do not give similar rights to its holders. Accordingly, cryptocurrencies are not equity instruments.

Is the cryptocurrency issued a prepayment for goods or services from a customer?

If the cryptocurrency is neither a financial liability nor an equity instrument, the issuer should consider whether the cryptocurrency is in substance a contract with a customer that should be accounted for in accordance with MFRS 15 'Revenue from Contracts with Customers'.
MFRS 15 will apply if:

i. the holder of the cryptocurrency is a customer;
ii. there is a 'contract' for accounting purposes; and
iii. the performance obligations or promises associated with the cryptocurrency are not within the scope of other standards.

A customer is a party that has contracted with an entity to obtain goods or services that are an output of the entity's ordinary activities in exchange for consideration. Consider a scenario where the issuer uses the consideration received in the ICO to develop a software platform. The cryptocurrency could provide the holder with access to the platform which might be operated as part of the issuer's ordinary activities. This might result in the holders meeting the definition of a 'customer'. Accordingly, proceeds from the ICO could be recognised as a revenue of the issuer. The principles of MFRS 15 would apply to determine when or over which period the proceeds from the sale of cyrptocurrencies is recognised as revenue.

Care should be exercised in assessing whether there are legally enforceable rights and obligations created for both parties during the ICO. MFRS 15 would not apply if a 'contract' does not exist. Entities should examine all relevant documents including purchase agreements and accompanying offering documents to assess if enforceable rights and obligations are created.

Issuers of cryptocurrency (continued)

Other relevant guidance

If the cryptocurrency issued does not fall into any of the categories above, the issuer should apply MFRS 108 'Accounting Policies, Changes in Accounting Estimates and Errors' to determine the appropriate accounting treatment. Issuers do not have a free choice to decide which accounting policy to apply. Judgement is required to determine the accounting policy that provides the most relevant and reliable information to users of financial statements.

The issuers must examine the ICO offering documents and understand what exactly is being offered to the investors/ subscribers. In situations where rights and obligations arising from the documents or their legal enforceability are not clear, legal advice might be needed before concluding on the relevant terms.

It is unlikely that from a commercial perspective, investors/ subscribers will contribute funds during the ICO without creating an obligation for the issuer. We observe that issuance of cryptocurrencies are likely to fall within MFRS 15.

What's next?

The key observation is that there is no specific MFRS that applies to accounting for cryptocurrencies. Questions have been raised to the International Standards of Accounting Board ("IASB") on whether a separate IFRS should be issued on cryptocurrencies. However, there may not be a 'one standard fits all' solution' when it comes to cryptocurrencies. Also, the issuance of a new standard typically takes a long time given the due process involved. This may not be the ideal way forward as cryptocurrencies are so dynamic that there may be a list of new questions to be addressed by the time a new standard is issued.

There were also discussions at the IASB on whether cryptographic assets such as cryptocurrencies should be excluded from the scope of MFRS 138 to allow for fair value measurement. Some believe that, given the nature of cryptocurrencies and volatility in its fair value, it seems counter-intuitive that in most cases, cryptocurrencies are measured in the financial statements at cost rather than fair value based on existing IFRS. For example, the volatility in market value of cryptocurrencies is not reflected in the financial statements. Only commodity broker traders may measure cryptocurrencies at fair value less costs to sell, with changes captured in profit or loss. In rare circumstances, fair value is possible under the intangible asset model, however fair value movements above cost would be reflected in other comprehensive income rather than profit or loss. Excluding cryptocurrencies from MFRS 138 however may create other challenges such as assessing which other intangible assets have similar characteristics and should therefore also be excluded. At the time of writing this article, the IASB has not made any decision on prescribing a separate measurement model for cryptocurrencies.

Issuers of cryptocurrency (continued)

What's next? (continued)

In June 2019, the IASB Interpretation Committee ("IFRIC") issued an agenda decision outlining the accounting considerations for holders of cryptocurrencies, which are consistent with the thoughts expressed in this article.

As it stands, issuers and holders would need to consider various factors including the purpose of the cryptocurrency, terms and conditions, facts and circumstances, and the hierarchy test in MFRS to determine the appropriate accounting treatment. Accountants would therefore need to continue monitoring the developments at the IASB and the IFRIC to see if any new guidance is issued and its impact on accounting for cryptocurrencies.

Do you have any further questions on accounting for cryptocurrencies?

Contact:
Sukhsharan Kaur Amarjit Singh
Assurance Senior Manager from PwC Malaysia CMAAS
Email: sukhsharan.kaur.amarjit.singh@pwc.com
Tel: +60 (3) 2173 1081

Stay up to date with the latest developments in financial reporting and capital markets

CMAAS's monthly newsletter "Accounting & Capital Markets Round-Up" features 3 hot topics written in a way that you can easily access.

Click on this link to subscribe and receive the newsletter in your inbox as soon as it is released each month. The newsletter is accessible via mobile phone as well.