

# *Accounting for Cryptocurrencies*

## 加密货币的会计核算方法



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## *What is the issue?*

A cryptocurrency refers to a form of exchange that does not exist in physical form but only digitally. It is not linked to any physical currency, nor is it backed by any government, central bank, legal entity, underlying asset or commodity. However, it is often quoted in an exchange against other currencies. The most commonly known example of a cryptocurrency is the 'Bitcoin'.

Cryptocurrencies have been developed as a product of the blockchain technology and has gained much popularity. It is now used as a means to make payments for goods and services, to incentivize employees as well as simply held for investment purposes (legality-permitting or not). Since its introduction and especially in recent years, transaction volume has grown exponentially albeit also experiencing significant volatility in value.

Cryptocurrencies are initially 'mined' but could subsequently be bought, exchanged, awarded, or granted. It undoubtedly meets the definition of an asset. Mining cryptocurrencies is a specialized activity and the accounting for such activities warrant further research. This paper discusses how cryptocurrencies could be accounted for from the non-miner-holders' perspective. There are a number of potential options to account for them and each option will be discussed in brief, and/or dismissed, below, recognizing the fact that diversity has already emerged in practice.



# 什么是加密货币？

加密货币是一种可用作交易且无实物形态的交易媒体。加密货币既不与任何实际货币挂钩，亦不由任何政府、央行、法律实体、基础资产或商品提供担保。然而，加密货币通常以兑换其他货币的形式进行标价。目前，“比特币”是最广为所知的加密货币。

加密货币是发展区块链技术而延伸的产物，并越来越广受关注。如今，哪怕其合法性仍有待商榷，加密货币已被用于支付商品及服务、作为激励员工的赠与或作为投资工具而持有。自其问世以来，尤其是最近几年，尽管其价值经历了大幅波动，加密货币的交易量得到了指数级的增长。

加密货币只能通过计算机“挖矿”生成，这过程由“矿工”操作，一旦生成，随后即可通过购买、交换、奖励或授予等其他方式取得。毫无疑问，加密货币符合资产的定义。加密货币的挖矿属于专业化业务，其核算亟待进一步研究。本文将论述非矿工持有人应如何核算加密货币。目前，在实务中已经出现了多种对加密货币的核算方法，本文将对各项潜在的核算方法进行简要介绍并探讨其适用性。



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## ***What are our potential accounting options?***

**Cash** exist in the form of paper currency or coin and is issued by a government as a means of legal tender, e.g. the Renminbi issued by the People's Republic of China or the Pound issued by the United Kingdom. Since cryptocurrencies are not issued or backed by any government or state, it is not cash.

**Cash equivalents** are 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. Investments could be financial or non-financial. Due to the lack of an underlying physical asset, cryptocurrencies are not non-financial investment. Financial investments, either equity or debt, are derived from contracts between two counter parties. Since there is only one party to a cryptocurrency, it is also not a financial investment. Therefore, it fails the definition of a cash equivalent.

**Financial instruments** are contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Given there is no contractual relationship with any party, it is not a financial instrument either. By the same token, it is not a subsidiary, joint arrangement or associate.

**Properties, Plant and Equipment or Investment Properties** refer to assets, or to be precise 'properties', with physical form. Cryptocurrencies lack physical form so are not PPE or IPs.

**Leases (under the prevalent standard)** are arrangements whereby the lessor conveys to the lessee in return for payment the right to use an asset for an agreed period of time. There is only one party and one can hold onto a cryptocurrency for an unspecified period of time. It is not a lease. This conclusion is not expected to change under the new leasing standard.

## 可采用哪些潜在的核算方法？

**现金**指政府以纸币和硬币形式发行的法定货币，如中国央行发行的人民币、英国央行发行的英镑等。由于加密货币并非由任何政府或国家发行或提供担保，因此不应被视为现金。

**现金等价物**指持有的期限短、流动性强、易于转换为已知金额现金、价值变动风险很小的投资，包括金融或非金融投资。由于缺少基础的实物资产，加密货币不属于非金融投资。金融投资（包括权益投资或债权投资）源自双方订立的合同。由于加密货币只涉及一方，因此不属于金融投资。所以，加密货币不应被视为现金等价物。

**金融工具**指使一方主体形成金融资产而使另一方主体形成金融负债或权益工具的合同。鉴于加密货币不涉及与其他方形成合同关系，因此不属于金融工具。同样的，加密货币也不属于对子公司、合营安排或联营企业的投资。

**不动产、厂房及设备或投资性房地产**指资产，更为准确地说，泛指有形的“不动产”。加密货币没有实物形态，故不应被视为不动产、厂房及设备或投资性房地产。

**租赁（根据现行准则）**指出租人向承租人让渡议定期间内资产的使用权，以换取租金付款的安排。然而，加密货币仅由一方持有且其持有时间不明确，因此不应被视为租赁。在新的租赁准则下，预计该结论也不会有所改变。

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**Exploration for and evaluation of mineral resource** provides guidance to the expenditures incurred when undertaking extractive activities to obtain mineral and other non-regenerative resource (one would expect those are with physical form). Arguably cryptocurrencies are ‘mined’ at inception. Even though the standard does not specifically prohibit resource without physical form, this standard only provides relief to costs incurred prior to the discovery of resource, rather than the cost incurred to obtain the resource. Therefore, it is also not an E&E asset.

**Inventories** are assets that are held for sale in the ordinary course of business, or used in the process of production for such sale, or in the form of materials or supplies to be consumed in the production process or in the rendering of services. We normally expect inventory to have a physical form but this is not necessarily the case. For example, setting aside whether cryptocurrencies are commodity-equivalents, commodity broker-traders that trade equity or debt securities account for these ‘security investments’ as inventory so long as they are measured at fair value through the profit and loss. Therefore, traders of cryptocurrencies could take advantage of this guidance. However, for entities that are not commodity broker-traders, since cryptocurrencies may not be traded in such frequency that they would be regarded as an entity’s ordinary course of business, they could fail the definition of inventory.

**Intangible assets** are identifiable non-monetary assets without physical substance. There are three parts to this definition, namely, (i) identifiable (ii) non-monetary and (iii) without physical form. Cryptocurrencies are assets and is separable (hence, meeting one of the two identifiable criterion) because it could be sold, transferred or exchanged individually. It is a non-monetary item because it is not money held nor assets to be received in fixed or determinable amounts of money. Last, it lacks physical substance. Given intangible asset is the ‘catch all’ category for all non-financial assets without physical form, it does seem that cryptocurrencies meet this definition under the current accounting standard.

**矿产资源的勘探和评估**为获取矿产及其他具有实物形态的非再生资源进行开采业务而发生的开支提供了相关指引。值得讨论的是，加密货币初始也是通过“挖掘”产生的。尽管准则并未明确禁止适用于无实物形态的资源，但其仅适用于发现资源前发生的成本而非获取资源而发生的成本。因此，加密货币也不应被视为勘探和评估资产。

**存货**指日常经营过程中持有待售的资产或在生产该等资产过程中使用的资产，或在生产或提供服务过程中消耗的物料或物资。存货通常具有实物形态，但并非所有情况均是如此。例如，先不考虑加密货币是否作为大宗商品的等同物，只要其按公允价值计量且其变动计入损益，买卖股票或债券的商品交易经纪人可将该等“证券投资”作为存货进行核算。加密货币的交易经纪人可以利用该指引。然而，对非商品交易经纪人的主体，由于加密货币的交易频率可能不足以被认定为是主体的日常经营活动，则不能利用该指引将加密货币作为存货核算。

**无形资产**指可识别的、无实物形态的非货币性资产。该定义包含三层含义：**(i)**可识别的；**(ii)**非货币性及**(iii)**无实物形态。由于加密货币可以单独出售、转让或交换，因此是可区分的资产（满足了两项可识别标准中的一项）。由于加密货币不属于持有的货币或为获取固定或可确定金额的货币而持有的资产，因此属于非货币性资产。除此之外，加密货币无实物形态。鉴于所有无实物形态的非金融资产会落入无形资产准则的适用范围，加密货币似乎符合现行会计准则规定的无形资产的定义。

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# *Accounting for Intangible Assets*

Intangible assets are recognized initially at cost. Subsequently, an entity could choose to measure them at cost or at fair value, less amortization (for intangible assets with finite lives). The fair value option is only available to those assets that have active markets. Also, fair value gains are taken through OCI while losses are taken through the P&L. And for intangible assets with infinite lives, they are not amortized.

Cryptocurrencies have indefinite useful lives so would not be amortized. There are exchanges that trade certain cryptocurrencies. Given there are active markets (at least for the more popular ones like Bitcoins), they could be carried at fair value, if that measurement option is chosen, with fair value changes through OCI. And for those that are not actively traded, they could only be carried at cost.

## 如何按照无形资产进行核算？

无形资产以成本作为初始确认金额。随后，针对具有有限使用寿命的无形资产而言，主体可能选择以成本或公允价值扣减摊销进行后续计量。公允价值计量只适用于有活跃市场的资产。此外，公允价值利得计入其他综合收益，损失计入损益。使用寿命不确定的无形资产则无需摊销。

加密货币的使用寿命不确定，因而不予摊销。实务中已存在交易所对某些加密货币进行交易。对于存在活跃市场的加密货币，例如最热门的比特币，可以选择以公允价值计量，其公允价值变动计入其他综合收益。相较而言，没有活跃市场的加密货币则只能以成本计量。

## *Is the information produced the most relevant and useful?*

An intangible asset (for example a patent or brandname) has traditionally been an asset held for use in the production process with the primary objective to generate revenue from the entity's ordinary course of business. Even though the reference to production has been removed from the definition of an intangible asset, such a presumption is still reflected in how the standard is written through its initial and subsequent measurement basis.

As we highlighted at the beginning, cryptocurrencies are used as a means to make payments for goods (like cash) and services (like employee benefits), to incentivize employees (like share-based payments) and for investment purposes (like financial instruments or investment properties). Therefore, the purpose for holding an intangible asset is very different from holding a cryptocurrency. The accounting for a financial-like asset using a standard written for productive assets does not reflect the nature of such an asset nor the purpose of holding onto it.

Due to the fact that it is being used as a currency-equivalent or alternative investment vehicle, its most relevant measurement basis is probably at fair value through the profit and loss. This is akin to treating cryptocurrencies as a foreign currency or investment, which are largely carried at fair value with fair value changes through the profit and loss. However, it seems like we are 'stuck with' the intangible assets standard at present and either carrying it at cost or fair value through OCI does not provide the most relevant information to users. There is indeed an urgent need to "fill the gaap" on the accounting for cryptocurrencies.

## 核算方法是否提供了最相关且有用的信息？

无形资产通常指为用于生产过程而持有的资产，其主要目的是为了从主体的日常经营活动中产生收入。尽管无形资产的定义已不再提及生产，但准则规定的初始及后续计量基础仍对该假设有所反映。

如本文开篇所述，加密货币可用于支付商品（类似现金）和服务（如职工福利），作为员工激励的手段（类似以股份为基础的支付）或投资工具（类似金融工具或投资性房地产）。因此，持有加密货币的目的可能与持有无形资产的目的大相径庭。若采用针对生产性资产编写的准则核算类似金融资产的加密货币，无法反映该资产的性质及持有目的。

由于加密货币被用作货币等价物或另类投资工具，其最适用的计量基础可能是以公允价值计量且其变动计入损益。这类似于将加密货币作为一种外币或投资（大部分以公允价值计量且其变动计入损益）进行计量。但是，局限于现行准则的规定，目前我们似乎“只能”采用无形资产准则，而无论是以成本还是以公允价值计量且其变动计入其他综合收益的核算方法，均无法为报告使用者提供最为相关的信息。因此，如何修改和明确相关准则，规范加密货币的会计核算是一个亟待解决的问题。

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