VIEWPOINT

ACCOUNTING FOR DIGITAL CURRENCIES

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Accounting for Transactions and Holdings

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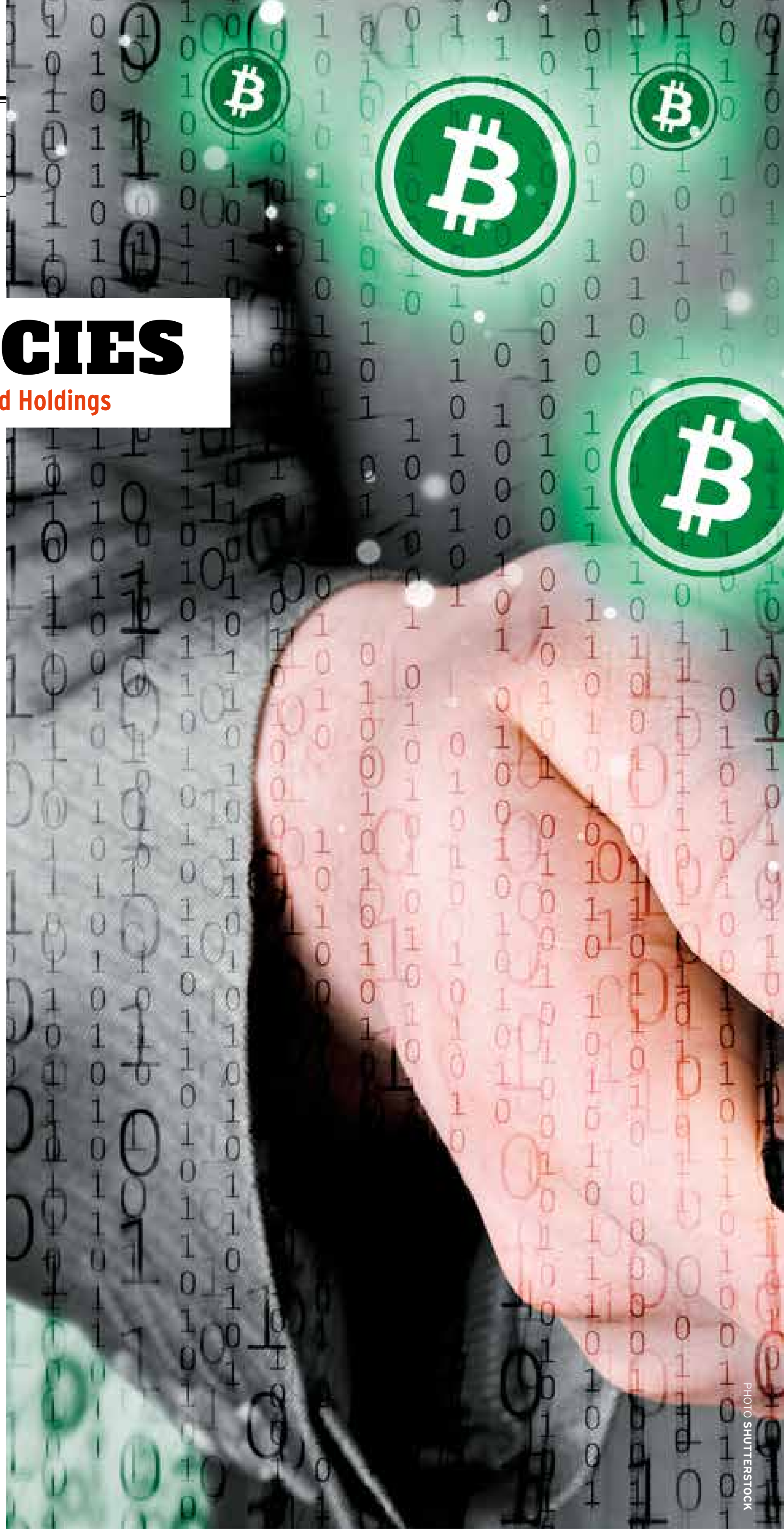
The advent of digital currencies, both as a medium of business transactions and a store of value, poses a pressing question for the accounting profession: How to account for digital currency transactions and holdings? Accounting standard-setters have not issued any official guidance on this, thus leaving it to accountants and auditors to exercise judgement and professionalism when applying existing accounting standards to financial statements elements based on digital currencies.

DIGITAL CURRENCY TRANSACTIONS

Because of the label "currency", when companies exchange digital currencies for real goods or services, it is intuitive to apply FRS 21 *The Effects of Changes in Foreign Exchange Rates* to account for such transactions. However this approach is debatable because it is not clear whether a digital currency, such as Bitcoin, can be considered as being equivalent to a currency. FRS does not formally define "currency", though the term usually refers to money issued by a government that is generally accepted as a medium of exchange within an economy. For example, the Inland Revenue Authority of Singapore (IRAS) clarified in early 2014 that Bitcoin and other digital currencies do not fall within the definition of "money" or "currency".



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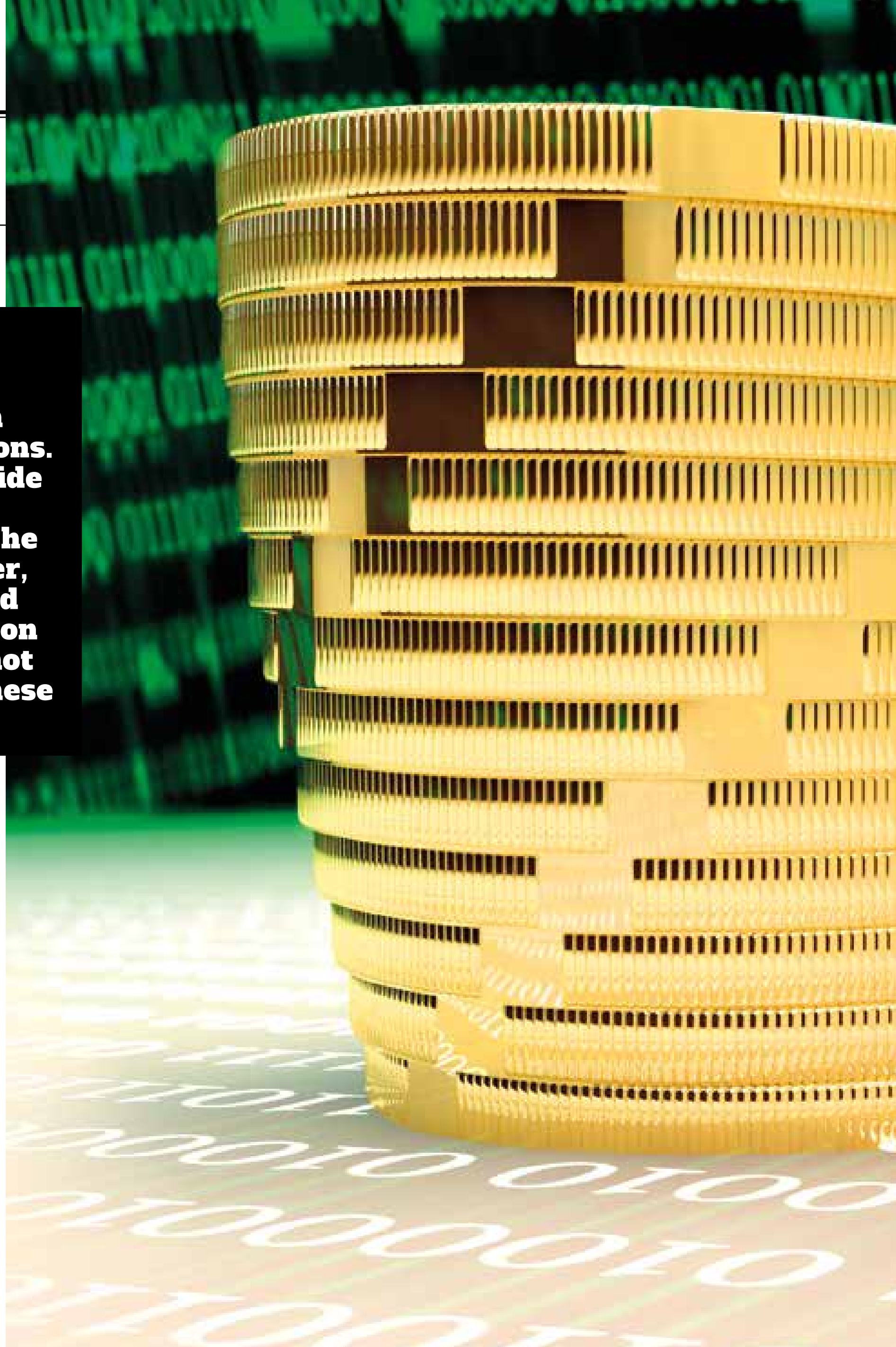
In addition, Bitcoin exchange rates with major world currencies are highly volatile. For example, the exchange rate of Bitcoin to the US dollar climbed from US$13 at the start of 2013 to a high of US$1,147, and closed at US$758 at the end of that year. In fact, Bitcoin's *daily* price changes in 2013 exhibited a standard deviation of 7.3%. Imagine a company that does business mainly in Bitcoin and has to translate its accounts into US or Singapore dollar for financial reporting purposes. The net foreign currency exchange gains or losses for each reporting period would have resulted in highly volatile earnings, making it difficult to ascertain the true business performance of the company.

If digital currencies are not considered money, transactions involving the exchange of digital currencies for goods or services may be viewed as barter trades and accounted for as non-monetary transactions. There is no specific accounting standard for non-monetary transactions, although one could refer to FRS 16 *Property, Plant and Equipment*, FRS 18 *Revenue*, and FRS 38 *Intangible Assets* for guidance. However, as discussed in the following paragraph, the barter trade approach may introduce some complications in determining the transaction amount for revenue recognition.

For example, in FRS 18, revenue recognised for non-monetary transactions is measured at the fair value of the goods or services received (fair value in FRS 18 is based on FRS 113 *Fair Value Measurement*). However, if the fair value of the goods or services received cannot be measured reliably, then revenue is measured at the fair value of the goods or services given up (FRS 18, paragraph 12). If a company accepts Bitcoin as payment for its goods or services in time periods when Bitcoin's value is relatively stable, the transaction can be measured at the market value of the Bitcoin received. However, in time periods when the price quotations vary substantially, possibly because of a significant decrease in the volume of activity in the Bitcoin market, the quoted



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Accounting should support, rather than dictate, business decisions. If more companies decide to adopt the use of digital currencies for the benefits that they offer, the ambiguities of and lack of clear guidance on the accounting must not become obstacles for these companies to do so.

prices may not necessarily represent Bitcoin's fair value (FRS 113, paragraph B37). In this scenario, the fair value of the goods or services given up may provide a more reliable measurement for the revenue recognised.

DIGITAL CURRENCY HOLDINGS

How should accountants value and report digital currency holdings of a company that arise from its business transactions? The current mixed model of measurement in financial reporting standards means that assets and liabilities can be carried at historical costs, modified historical costs, or at fair value. As a result, the valuation and reporting of a digital currency holding will largely depend on its classification in the statement of financial position.

We first discuss the feasibility of digital currencies being classified as financial assets. In FRS 32 *Financial Instruments – Presentation*, a financial asset is defined as:

(a) Cash;

(b) An equity instrument of another entity;

(c) A contractual right

- a. to receive cash or another financial asset from another entity, or
- b. to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity;

(d) A contract that will or may be settled in the entity's own equity instruments and is

- a. a non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments, or
- b. a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

According to this definition, it is apparent that if digital currencies are not considered cash, then they would not be considered as financial assets because they do not fit into any of the other categories.

If digital currencies are not financial assets, then financial reporting standards relevant to non-financial assets have to be considered. The three potentially relevant standards are FRS 2 *Inventories*, FRS 16 *Property, Plant and Equipment*, and FRS 38 *Intangible Assets*.

However, we would at this point rule

out FRS 16 because digital currencies are not assets held for use in the production or supply of goods and services, for rental to others, or for administrative purposes. Moreover, digital currencies do not possess physical substance, a major characteristic of fixed assets, as they are just strings of computer code.

By comparison, intangible assets seems to be a more suitable category for digital currencies, because FRS 38, paragraph 8, defines an intangible asset as an identifiable non-monetary asset without physical substance. FRS 38 allows for both the cost and revaluation models to be used to measure such assets. Given the existence of a liquid market where prices can be easily verified, it seems that the revaluation model will apply. Together with their non-depreciable nature, it is likely that digital currencies will be reported on the statement of financial position approximating their fair value. If this is the adopted reporting approach, the volatility in the value of digital currencies will translate into a volatile statement of financial position.

In addition to intangible assets, digital currency holdings may also be accounted for as inventories for certain types of companies. For example, for a company that simply holds the digital currencies for a shorter term to be used in barter trades, part of its business model probably relates to exchange of dissimilar goods or services (for example, an apparel company selling clothes in exchange for digital currencies, and in turn using digital currencies to exchange for other goods or services or for cash). Then the company should probably

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account for its digital currency holdings as inventories because they are "held for sale in the ordinary course of business" (FRS 2, paragraph 6). The valuation of such short-term holdings of digital currencies is usually based on the lower of cost or net realisable value.

Companies involved in the business of digital currency trading are also likely to account for digital currencies as inventories. For such companies, digital currencies are probably deemed as commodities and an option is to follow the approach of commodity traders-brokers to value their inventories at fair value less cost to sell. When such inventories are measured at fair value less cost to sell, changes in fair value less cost to sell are recognised in profit or loss in the period of the change (FRS 2, paragraph 3b).

THE QUESTION REMAINS

Our analysis of existing accounting standards reveals no clear solution to the problem of how to account for digital currency transactions and holdings. In addition, new standards or guidance to address this issue may not be available in the near future given that accounting standard-setting is usually a lengthy process and does not respond to innovations in the economy, such as digital currencies, in a timely manner.

However, accounting should support, rather than dictate, business decisions. While digital currencies have received recent bad publicity for price volatility, technical glitches, cyber fraud and cyber theft, a growing number of businesses (for example, Overstock.com, Zynga, Tomcar, etc.) are starting to accept digital currency payments. If more companies decide to adopt the use of digital currencies for the benefits that they offer, the ambiguities of and lack of clear guidance on the accounting must not become obstacles for these companies to do so. Accountants should embrace digital innovation in business transactions, and start to prepare themselves with the required knowledge to properly account for digital currency transactions and holdings. **ISCA**

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