Pottery Research is an organization that uses knowledge of law and financial markets, where it interacts, to assist investment and business stability in Sub Saharan Africa. Through the provision of business, analysis and education reports, Pottery Research builds its expertise in this interaction in a way that is useful to investors and stakeholders.
In this Analysis Report, Pottery Research explores the business issues involved in Initial Coin Offerings (ICOs) and virtual currencies.

Introduction
The Law and Finance of Virtual Currencies

The advent of virtual currencies poses challenges for law. This is the same for financial markets. The challenge for law, is seen in divergent regulatory statements on virtual currencies. The challenge for financial markets, is evident in financial institutions responding differently to the adoption of virtual currencies. This Analysis Report will discuss the interaction between these issues. It does this through the lens of law and financial markets interaction.

The Analysis Report will discuss a number of preliminary issues, before settling on a discussion on the legitimate regulatory expectations that investors can have. We specifically focus on tokens\coins, which have been created using the technology underpinning the prominent virtual currencies such as bitcoin, ether etc. These tokens are what investors use to participate in Initial Coin Offerings (ICOs).

Novelty
Bitcoin, Ethereum and Technology

Bitcoin is credited with giving the world the infrastructure necessary to transact tokens of value. This is what bitcoin, as a cryptocurrency, does in the context of block chain technology. Parties transfer and create bitcoins amongst themselves and this is facilitated through a peer to peer system which records the transaction through a ledger. This is done over the power of an internet connection without the usual intermediaries of banks, brokers or governments. The second famous cryptocurrency – ethereum, effectively built and developed a better system for transacting tokens of value. Ethereum was introduced in 2015 and with this, came the concept of decentralized smart contracts. This concept is what has given rise to ICOs and their potential to change how business is conducted.
The Ethereum blockchain has continued to provide infrastructure for transactions in digital tokens (i.e ether coins). It is the case that most ICOs are participated in, through ether coins. More importantly, it provided the ability for creating secondary digital tokens of value. These secondary tokens are allocated to users, as their keys to accessing the subject of an ICO. It is also possible that coin holders may exchange the virtual currency\token and even trade in them, as you would trade currencies, commodities and securities on an exchange. This creates a market in the virtual currency\token, with the value determined by the traditional market forces of demand and supply.

The secondary virtual currencies\tokens are purchased through fiat money (i.e Sterling, U.S Dollars or EUROs). The capital raised from the issue of these virtual currencies\tokens is then used to fund development of a project, digital platform or software. Alternatively, it could simply be a store of value. The more popular the project becomes, the more valuable your access to it. “Access” here means the use of the software, or the coin holder’s participation in the project. Buying your access at an early stage allows you, the story goes, to buy at an undervalue.

Law’s Question for Financial Markets
Rights and Obligations in Tokens

The process of creating secondary tokens and distributing them to users\investors in return for a primitive digital token (e.g ether or bitcoin) is called an ICO process. A comprehensive paper on blockchain technology calls this a novel distribution channel for assets. (Economics of Initial Coin Offerings, Dr Avtah Sehra, Phillip Smith and Phil Gnomes, page 5). The legal eye looks at this and considers it to be a security, however most issues of virtual currencies make a point that it is far from this. This Analysis Report explores some of the difficulties in this analysis.

The central legal question is (usually) whether the virtual currency\token can be constituted as a security. This would bring with it a raft of regulation. But asking this question alone misses the point and versatility of virtual currencies. Because regulators have taken a variety of approaches to virtual currencies and ICOs, they are not only at risk of being constituted as a security, but they are also at risk of being constituted as commodities, money, property, loans, deposits, collective investment schemes, FX contracts, structured products, derivatives and insurance.

Pottery Research’s view is that the characterization ultimately depends on the context in which the relevant virtual currency\token is used. Because virtual currencies\tokens are versatile, it is important to avoid strict legal classifications. This world is not so neatly divided.
Blockchain and Financial Markets
Another trend?

Blockchain technology has significant potential to make financial markets more efficient. In particular, Micheler and von der Heyde in page 4 of the paper “Holding, Clearing and Settling Securities through Blockchain” postulate that the technology has been said to make it possible for trading, clearing and settlement to merge into one real time process that does not involve relationships with multiple intermediaries.

Micheler and Von Der Heyde suggest that with an application of blockchain technology to financial markets, there is little need, the suggestion goes, for separate trading, clearing and settlement venues. There is no exposure to the risk of one central provider failing. Buyer and seller can interact directly with each other. They can exchange securities and cash directly and in real time.

Micheler and Von Der Heyde point out that not much would change, on a front end user – interface basis. Investors can access their portfolio much like they currently do through electronic devices. But while at present, the interface is a record kept by an intermediary who is connected to another intermediary who is connected to yet another intermediary, what they would see in a distributed ledger/blockchain environment would be the master record.

“Some believe block chain technology is the only way to ensure transparency in financial markets after the 2007/08 financial crisis.”
Micheler and Von Der Heyde remind us however: Technology has had a significant impact on financial markets. But this does not make it predictable.

When computers were introduced into financial markets, there was excitement about replacing paper with electronic settlement. The reform did not lead to creation of new systems that may have reflected the apparently vast possibilities offered by the technology.

On the other hand, the system resembled the paper settlement and holding system. It was simply on a computer, but the fundamentals never changed.

“It is important to bear in mind that although block chain has vast potential, it may very well provide optics to existing business infrastructure.” (Micheler and Von Der Heyde)
“Bitcoin eliminates the apparent need for trusted intermediaries, i.e. central banks, and investment companies etc, to arrange or influence exchanges of value.”
Tokens

Primitive and Secondary

The Analysis Report does not delve into the complexities that comprise the mining and use of bitcoin, either etc. In understanding the world of virtual currencies, one needs certain pillars. These are: cryptography, block chain technology and consensus mechanisms.

The most important thing we take from this however, is the difference between primitive tokens (bitcoin and ether) and secondary tokens (tokens using bitcoin\ether technology).

A primitive token is transacted between parties. It incentivizes parties to reach consensus (the miners) as quickly as possible on the block chain ledger. The reward for this is supply of primitive tokens or transaction fees.

On the other hand a secondary token is created based on block chain technology. It gives access or rights to products/services, which serve as the economy that the secondary token is used in.
Trust and the Token
Beyond Centralisation

Block chain requires that individual computers all over the world verify transactions using open-source software. These are called miners and they compete to solve cryptographic puzzles and earn opportunities to add “blocks” of verified transactions to the chain. This gets the miners primitive tokens—bitcoins—in return. Based on this, tokens are the incentive to mine.

Sehra, Smith and Gnomes in the paper – Economics of Initial Coin Offerings – point out that through the above model, trust is created through expending energy in the mining process. This makes violation of the blockchain ledger economically unfavorable. Sehra, Smith and Gnomes continue that essentially, one can leverage network effects of the underlying blockchain and its cryptocurrency to create and issue (through an ICO process) secondary tokens for any purpose.

Power of the Token
Beyond Currencies

Blockchain technology allows the power of tokens to go beyond inventing new currencies. Starting from bitcoin, it eliminates the apparent need for a trusted intermediary, i.e central banks, and investment companies etc, to arrange or influence exchanges of value. Using the same theory, this can be achieved for other purposes. (Mike Orcutt, MIT Business Review: What the hell is an Initial Coin Offering? (2017)).

Taking an example. Crowdfunding is already considered a novel way of raising finance for business. However, blockchain technology can take it a step further. Crowdfunding platforms still charge fees, much like banks. This is because they are still intermediaries. Blockchain and its decentralisation potential can facilitate more intelligent crowdfunding through the concept of smart contracts. This, backed by ledger technology creates trust between investors and creators. Using this, businesses can raise funds by providing tokens. This represents value, which is itself exchanged for fiat money if sold.
Tokens in Action
Initial Coin Offerings

ICOs are topical. The novelty in this new method of financing is that it uses blockchain technology to verify transactions. Instead of voting rights or profits, derivative from a share of a company, holders of tokens get services, like the development of an app, for example. This is different to a primitive token, such as bitcoin or ether. Primitive tokens are exchanged for the token which serves as the subject of an ICO.

An ICO works similar to an initial public offering of securities, whereby a company issues shares to investors. However, with an IPO, what is being issued is a token. The legal characteristics of a share is generally well documented. The legal characteristics of a token is more complicated. As the reader will see from the analysis above, there are different types of tokens and they offer different types of things. This makes the legal analysis difficult.

Moving away from the legal, ICOs have generally met with success. Cloud storage is a good example of this. Companies are using blockchain technology, for example, to facilitate peer-to-peer buying and selling of storage space. The tokens are the method of payment for storage. This model, it is suggested, could challenge conventional providers like Dropbox and Amazon. (Mike Orcutt, MIT Business Review: What the hell is an Initial Coin Offering? (2017)). In addition, the process of an ICO is relatively straight forward with the right level of expertise. A typical team consists of someone building the blockchain, another issuing the secondary tokens and maintaining software. Entrepreneurs can pre-allocate tokens for themselves, developers and stakeholders. The ICO is then used to sell tokens to the public, if they are interested in using the new service or simply speculating on its success. If the value of the tokens rises, some people will have made valuable investments, whilst some will be left with minimal value. The consumer protection available to investors in other financial instruments is however not available with ICOs. Investors are at risk of being misled and various risk mitigation clauses are included in ICOs to avoid the issuer’s liability or responsibility. The lack of legal definitions across jurisdictions is a classic example of regulatory arbitrage.
Regulation
Conclusions and Legitimate Expectations

Pottery Research believes that virtual currencies and tokens in ICOs will be regulated as either: securities, commodities or money. These are common categories, but they do not exclude other legal classifications. For example, if it is used by holders to obtain profits or governance rights, it is natural for a regulator/investor to determine them as securities. This is especially the case if one promotes them as an investment. The average investor in this instance expects something in the form of returns, which may be monetary (cash) or governance related (voting rights). If it is considered scarce, with a lack of central authority and believed to have intrinsic value, then it may be considered a commodity. Lastly, if it is used as a medium of exchange for goods and services, it will be considered as money. The regulatory classification is dependent on the situation in which they are used. This means the regulation could be significantly wider, especially when tax and AML questions are involved. It is common practice however, that virtual currencies are captured within AML and KYC laws of many countries.

Pottery Research’s view is that regulators and judges will likely consider the issuance of virtual currencies and tokens as securities and seek to apply initial public offering regulations to fundraising via ICOs. This is primarily because monetary authorities (UK, China and the US) have cautioned the use of ICOs and in the case of the U.S, the SEC has made explicit statements that federal securities laws may apply to ICOs. Despite this however, models have been devised by ICO issuers to allow token issuance through ICO models not falling within securities regulations. The question of whether these models are effective in escaping securities laws can only be determined by a court or regulatory action.
Pottery Research
Preparing the Analysis Report

In preparing this Analysis Report, Pottery Research has relied upon and assumed, with reasonable verification, the completeness and accuracy of sources of information received from public resources. Where appropriate, Pottery Research has included these sources in the Analysis Report.

Pottery Research is under no responsibility to update this Analysis Report for events or circumstances arising on or after the date of this Analysis Report. This Analysis Report’s principal value is that it helps the general public in its understanding of legal issues connected with financial markets or a segment thereof.

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Yours sincerely

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