VAT and Blockchain

What is blockchain?

VAT and blockchain transactions

Blockchain and the tax authorities

Questions
VAT and Blockchain

What is blockchain?
What is blockchain?

Blockchain is not Bitcoin: Bitcoin is an “application”, and blockchain is the “operating system”

Nobody trades in blockchain; they trade on blockchain

Standard definition: “A decentralized and distributed ledger in which transactions made using cryptocurrencies are recorded publicly and chronologically”

A better definition: “Blockchain is an internet-based technology which allows transactions and accounting records to be made more efficiently and more securely”
How does blockchain work?

Someone in a network requests a transaction

The transaction is broadcast to other computers (nodes) in the network

The network of nodes validates the transaction using agreed algorithms

The transaction is complete

The new block is added to the network’s blockchain, in a way which is permanent and unalterable

The verified transaction is combined with other transactions to create a new block of data for the ledger
Everyone trusts a central authority (intermediary) for validating/approving transactions. This is:

- Inefficient
- Vulnerable
- Expensive
Decentralized adaptive system where you trust the network to validate transactions. This is:

- Efficient
- Secure
- Resilient
**What kind of operations might benefit from using blockchain?**

- Multiple parties share data
- Multiple parties insert data
- Requirement for verification
- Intermediaries add complexity
- Interactions are time sensitive
- Transactions interact

A rule of thumb is that if a business operation meets **4 out of these 6** conditions, Blockchain might be an appropriate solution.
What kind of industries might use blockchain?

Current state

- Producers
- Logistics
- Food Processor
- External Agencies
- Distributor
- Retailer

Proposed Future state

- Producers
- Government
- Food Processor
- External Agencies
- Distributor
- Retailer
- Barcode Supplier
- Logistics

PwC's Digital Services
Confidential information for the sole benefit and use of PwC's client.
VAT and Blockchain

VAT and blockchain transactions
**Blockchain and VAT: the essentials**

VAT remains a transactional tax: blockchain only changes the platform of exchange

**VAT still applies to blockchain transactions**

The same questions endure:
- What is being supplied?
- By whom?
- To whom?
- Where?
- When?
- For how much?
- Et cetera...
Blockchain and VAT: the challenges

Unit of exchange: blockchain may require crypto-currencies or crypto-tokens – this may restrict participation in the platform.

Tax authorities (as yet) accept payment of VAT only in fiat currency, so they want the fiat value of the VAT charge at the moment of transaction.

Cryptocurrency needs to be exchanged into fiat, but the value of cryptocurrency can be volatile.

Significant uncertainty over the treatment of blockchain and units of exchange under the law.
Blockchain and UK law

Minimal case-law from the UK courts: FTT accepted exemption of Bitcoin in *Coinstar*
Revenue and Customs Brief 9 (2014) provides HMRC’s current guidance:

- Mining is outside the scope
- Verifying and arranging transactions and exchanging cryptocurrencies/tokens are exempt

VAT is *still chargeable* on taxable supplies where consideration is paid in cryptocurrencies, with VAT due as the sterling value of the cryptocurrency at the time the transaction took place.
Blockchain and EU law

*Skatteverket v Hedqvist* [2014] (C-264/14):
“the exchange of traditional currencies for units of the ‘bitcoin’ virtual currency and vice versa... are transactions exempt from VAT, within the meaning of [Article 135 (1)(e) PVD]”

**What does this mean?**
Bitcoin or other cryptocurrencies are deemed like fiat currencies, a form of money
Issues, exchanges **of** and transactions in such cryptocurrencies will be **exempt**
Transactions on blockchain **using** such crypto-currencies remain **taxable** in the normal way
# VAT/GST treatment of Bitcoin around the world

<table>
<thead>
<tr>
<th>VAT/GST status of cryptocurrencies</th>
<th>Jurisdiction (examples*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency (exempt)</td>
<td>European Union; Australia; Switzerland</td>
</tr>
<tr>
<td>“Means of settlement” (exempt)</td>
<td>Japan</td>
</tr>
<tr>
<td>Commodity / service / intangible property (taxable)</td>
<td>United States; Canada; Israel; Singapore; India (likely)</td>
</tr>
<tr>
<td>Not subject to taxation: no rulings</td>
<td>South Korea (partly illegal); Mexico; Turkey; Saudi Arabia</td>
</tr>
</tbody>
</table>

*All subject to attributes of the coin, future rulings and clarifications from the relevant tax authorities*
**VAT Treatment of Crypto-tokens**

Crypto-token: a digital, encrypted representation of an equity, asset, utility, usage or right... and more

Token Issuance (TI): the issuance of crypto-tokens in order to raise finance

In the UK, the treatment of a token will likely depend on the nature of its exact attributes and we would usually recommend seeking a ruling from HMRC on the treatment of each token type.

<table>
<thead>
<tr>
<th>Type of token</th>
<th>UK treatment of issuance</th>
<th>UK treatment of exchange</th>
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</thead>
<tbody>
<tr>
<td>Equity</td>
<td>Outside the scope*</td>
<td>Exempt</td>
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<tr>
<td>Security</td>
<td>Outside the scope*</td>
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<tr>
<td>Utility/Usage</td>
<td>Taxable depending on attributes</td>
<td>Taxable depending on attributes</td>
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</table>

* Subject to Kretz conditions being met
VAT and Blockchain

Blockchain and the tax authorities
Why HMRC & other tax authorities are interested in blockchain

Blockchain is already being used by HMRC to design potential border controls and could in theory be used to comply with several HMRC initiatives:

• Making Tax Digital for Business
• Treasury inquiry into closing the ‘VAT gap’
• Split Payment of VAT
• Preventing MTIC (Missing Trader) fraud
The Proof of Concept working
# Invoices Out

**Create New Invoice**

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</tbody>
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Tax POC
Tax Authority Role

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VAT and Blockchain

Questions
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