

Virtual currency and blockchain

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ACTL-IBFD-Conference:

Taxing the digital economy

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What is virtual currency?

Virtual currency:

digital representation of value without legal tender status



Cryptocurrency:

convertible virtual currency protected by cryptography



Coins

means of payment



Tokens

means of investment

Rise to popularity

2008

Bitcoin

2018

1586 currencies

Name	Market capitalization	Price
 Bitcoin	\$ 105 billion	\$ 6,137
 Ethereum	\$ 47 billion	\$ 469
 Ripple	\$ 19 billion	\$ 0.48

Tax challenges

The same rules for tokens and coins?

Status of virtual currency?

Recordkeeping requirements?

How to calculate taxable gain?

Guidance for taxpayers



Tax challenges

Asymmetric
information

Anonymity

**Third-party
reporting**

Low-value
transactions

Bitstamp

 **coindesk**

**ANTI-MONEY
LAUNDERING**

Blockchain

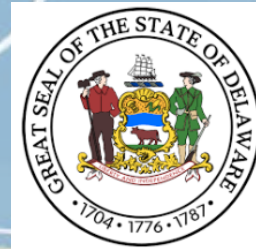
Distributed ledger running on interconnected computers that permits value transfers via the internet in a transparent manner.

Supply chain management

IBM |  MAERSK

 everledger

Recordkeeping





Transparency:
content and source
code visible to
anyone

Disintermediation:
*no central governing
body, consensus
mechanism*

Distributed ledger:
*every participant
has the same ledger
(no manual data
reconciliation)*

Secure:
*all data is encrypted
(public & private
keys)*

Time-stamped:
timestamp recorded
in a block

Immutability:
validated records
are generally
irreversible



**Security
issues**

**Environmental
impact: energy
consumption**

**Legal and
regulatory
uncertainty**

**Slow transaction
processing**

**Lack of
confidentiality**

**Technical
complexity**



- A. Bal, *Does the Tax Sector Need Blockchain?* (Apr. 2018), IBFD White Paper
- A. Bal, *Blockchain, Initial Coin Offerings and Other Developments in the Virtual Currency Market*, 20 Derivs. & Fin. Instrums. 2 (2018)
- A. Bal, *VAT Treatment of Initial Coin Offerings*, 29 International VAT Monitor 3 (2018)