Cryptocurrencies: beyond the hype

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Any views expressed in this presentation are those of the presenter and not necessarily those of the BIS
Who?

Committee on Payments and Market Infrastructures

BANK FOR INTERNATIONAL SETTLEMENTS
Agenda

- Crypto-what?
- The death of bitcoin
- The birth of tokens
- Concluding thoughts
Crypto-what?
Asia Murphy (aka blk icon kylo ren)...

i still don't get bitcoin

Julian Tescher Retweeted

yolo contendere
@Theophite

Replying to @am_anatiala

imagine if keeping your car idling 24/7 produced solved Sudokus you could trade for heroin

3:49 PM · 16 Aug 18

159 Retweets 569 Likes
Any appetite for starting a FinTech lexicon? Some offerings:

- "Peer to Peer" = using a new intermediary
- "Soft infrastructure" = intangible assets
- "Thought leader" = will talk for food
- "Disruptor" = will talk for money
- "Accelerator" = concept office for showcasing real estate
- "Sprint" = brief internship
- "as a Service" = rented
- "Sharing economy" = rented
- "Cloud" = rented
- "Blockchain" = database
- "Mining" = environmental catastrophe
- "Proof of work" = lottery
- "Proof of stake" = plutocracy
- "Consensus" = surprisingly difficult thing involving a lot of politics
- "Digital nomad" = contractor
- "Digital native" = see millenial
- "Millenial" = marketing cohort
- "Platform" = balance sheet arbitrage
- "Gig economy" = labour rights arbitrage
- "Ecosystem" = fiefdom
- "Hyper-personalisation" = stalking
- "Paradigm shift" = change
- "AISP/PISP/PIIISP/PCI-DSS/PSD2" = I work in payments. save me.

By Angus 6 days ago
Electronic

Central bank issued

Widely accessible

Peer-to-peer

CBCC (wholesale)

CBCC (retail)

The money flower

Bech and Garratt (2017)
Supervisory and regulatory framework

Tokens under securities law - overview

Are rights conferred in the form of uncertificated securities?
- token
- pre-sale
- pre-financing

Are derivatives created?

Not a security
Possibly payment token

Not a security
possibly utility token*

Suitable for mass standardised trading?*

Security (Effekte) asset token

* If the sole purpose of the token is to confer digital access rights to an application or service and if the token can actually be used in this way at the point of issue, FINMA will not classify it as a security (utility token).
The death of bitcoin
Bitcoin

Closing price and market capitalisation

<table>
<thead>
<tr>
<th>USD '000s</th>
<th>USD bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>750</td>
</tr>
<tr>
<td>16</td>
<td>600</td>
</tr>
<tr>
<td>12</td>
<td>450</td>
</tr>
<tr>
<td>8</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>150</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
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</tbody>
</table>

Q2 16 Q4 16 Q2 17 Q4 17 Q2 18

Bitcoin price volatility\(^1\)

<table>
<thead>
<tr>
<th>USD</th>
<th>Ratio</th>
<th>Mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,000</td>
<td>1.25</td>
<td>1.0</td>
</tr>
<tr>
<td>3,200</td>
<td>1.00</td>
<td>0.8</td>
</tr>
<tr>
<td>2,400</td>
<td>0.75</td>
<td>0.6</td>
</tr>
<tr>
<td>1,600</td>
<td>0.50</td>
<td>0.4</td>
</tr>
<tr>
<td>800</td>
<td>0.25</td>
<td>0.2</td>
</tr>
<tr>
<td>0</td>
<td>0.00</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Average daily transactions\(^3\)

<table>
<thead>
<tr>
<th>Number (lhs):</th>
<th>Value (rhs):</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 10 12 14 16 18</td>
<td>0 2 4 6 8 10</td>
</tr>
</tbody>
</table>

Sources: CoinDance; CoinDesk; www.blockchain.info; authors’ calculations.

1 Ninety-day moving averages. 2 Ratio of standard deviation to mean. 3 Monthly averages. For bitcoin, estimated transaction value in USD;
The birth of tokens
Tethers, **CAN** be redeemed for USD but **no obligation**

**Audit**

The Client represents that Tether tokens are issued on the Bitcoin blockchain via the Omni Layer Protocol and can be redeemed from the Tether Limited for fiat currency. The Omni Protocol is an open source software that allows for issuance and redemption of digital currency tokens such as Tethers. During our procedures, F LLP utilized the Omniexplorer.info website to trace that the balance per the Omniexplorer.info website matches the information provided by the Client; however F LLP has not performed any procedures around the parameters or completeness / accuracy of the Omni Layer Protocol or the Omniexplorer.info website during our examination.

“Legal” section of Tethers Terms of Use

3  **PURCHASE AND REDEMPTION OF TETHERS:** The Site is an environment for the purchase and redemption of Tethers. Once you have Tethers, you can trade them, keep them, or use them to pay persons that will accept your Tethers. However, Tethers are not money and are not monetary instruments. They are also not stored value or currency.

There is no contractual right or other right or legal claim against us to redeem or exchange your Tethers for money. We do not guarantee any right of redemption or exchange of Tethers by us for money. There is no guarantee against losses when you buy, trade, sell, or redeem Tethers.
Better Than Banking
Your financial well-being starts now.

✔️ Zero-fees  🛍️ Earn Dala Rewards  🚨 Trustworthy & Secure

You won’t get a bank account in the traditional sense. Every user who downloads and registers with Wala will receive a Dala wallet. You can deposit, withdraw, purchase, send payments, pay bills and do just about anything with a Dala wallet. It is like a bank account, but holds Dala digital money.
Liquidity
Tokenising securities will create liquidity, making it possible to transfer assets to other parties, opening up greater opportunities for new and existing investors.

Accountability
Compliance monitoring and reporting through our tested RegTech solution will lead to companies becoming more responsible to their stakeholders.

Transparency
Tokenise is creating an open market to know what securities are on offer at what price. Investors will now be able to understand the depth of the market, allowing price discovery.
Concluding thoughts
Restrained

21
**Swipe and gone**

### Advanced economies

- Japan
- Switzerland
- Euro area
- US
- Australia
- Canada
- Britain

### Emerging-market economies

- Russia
- Saudi Arabia
- Singapore
- India
- Turkey
- South Africa
- Brazil
- Mexico
- South Korea

Source: "Payments are a-changin’ but cash still rules", by M. Bech, U. Faruqui, F. Ougaard and C. Picillo, BIS, Mar 2018

* 2009-16

Economist.com
ergo
mundane
/ˈmʌndɪn, ˈmæn-ˌdeɪn/

adjective

1. lacking interest or excitement; dull.
   "his mundane, humdrum existence"
   synonyms: humdrum, dull, boring, tedious, monotonous, tiresome, wearisome, prosaic,
             unexciting, uninteresting, uneventful, unvarying, unvaried, unremarkable, repetitive,
             repetitious, routine, ordinary, everyday, day-to-day, quotidian, run-of-the-mill,
             commonplace, common, workaday, usual, pedestrian, customary, regular, normal;
             More

2. of this earthly world rather than a heavenly or spiritual one.
   "according to the Shinto doctrine, spirits of the dead can act upon the mundane world"
   synonyms: earthly, worldly, terrestrial, material, temporal, secular, non-spiritual, fleshly, carnal,
             sensual; rare sublunary
             "the mundane world"
Questions?
More information

- Central bank cryptocurrencies
  - [https://www.bis.org/publ/qtrpdf/r_qt1709f.htm](https://www.bis.org/publ/qtrpdf/r_qt1709f.htm)
- Money in the digital age: what role for central banks?
  - [https://www.bis.org/speeches/sp180206.htm](https://www.bis.org/speeches/sp180206.htm)
- Payments are a-changin' but cash still rules
  - [https://www.bis.org/publ/qtrpdf/r_qt1803g.htm](https://www.bis.org/publ/qtrpdf/r_qt1803g.htm)
- Central bank digital currencies
  - [https://www.bis.org/cpmi/publ/d174.htm](https://www.bis.org/cpmi/publ/d174.htm)
- Benoît Cœuré and Jacqueline Loh: Bitcoin not the answer to a cashless society
  - [https://www.bis.org/review/r180313a.htm](https://www.bis.org/review/r180313a.htm)