Crypto-instruments, classification and financial regulation

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Crypto-instrument regulation

- Crypto-instruments are a very heterogenous group distinguishing vouchers, currencies, securities and collective investment schemes

- Few crypto-instrument would normally attract financial regulation

- Regulations is desirable to establish sufficient transparency and certainty towards orderly market integration

- Persistent high price volatility should not deter from existing regulatory principles
Bali Fintech Agenda

• “There are an estimated 1.7 billion adults in the world without access to financial services. Fintech can have a major social and economic impact for them and across the membership in general” (IMF, 11 October 2018)

• “Possible wide-ranging benefits [from fintech], including: increasing access to financial service and financial inclusion; deepening financial markets; and improving cross-border payments and remittance transfer systems.” (Bali Fintech Agenda)

• "Adapt regulatory framework and supervisory practices for orderly development and stability of the financial system and facilitate the safe entry of new products, activities and intermediaries; sustain trust and confidence; and respond to risks. Many fintech risks might be address by existing regulatory frameworks […].” (Bali Fintech Agenda)
Crypto-instruments market capitalisation

Market capitalisation
Currency in circulation (right axis)
Broad money (right axis)

Source: Bank of Japan, Coinmarketcap.com, ECB, Federal Reserve, IMF. Currency in circulation seasonally adjusted for Euro Area and Japan; weekly averages for U.S. Broad money (M2) seasonally adjusted.
## Crypto-instrument types

<table>
<thead>
<tr>
<th>Rank</th>
<th>Issuer</th>
<th>Token</th>
<th>Classification</th>
<th>Market capitalisation (US$ billion)</th>
<th>Circulation (number of coins)</th>
<th>Maximum supply (number of coins)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bitcoin</td>
<td>BTC</td>
<td>Currency</td>
<td>126.9</td>
<td>17,164,575</td>
<td>21,000,000</td>
<td>Electronic cash. Original crypto-instrument based on a blockchain-based application</td>
</tr>
<tr>
<td>2</td>
<td>Ether</td>
<td>ETH</td>
<td>Voucher</td>
<td>46.2</td>
<td>100,856,390</td>
<td>Unlimited</td>
<td>Token to be used on Ethereum's decentralised platform for blockchain applications running smart contracts on a customised built blockchain. Offers possibility to issue own crypto-currencies.</td>
</tr>
<tr>
<td>3</td>
<td>Ripple</td>
<td>XRP</td>
<td>Voucher</td>
<td>17.7</td>
<td>39,315,683,476</td>
<td>100,000,000,000</td>
<td>Token for processing and sending payments used by banks and other payment providers including for cross-border transactions</td>
</tr>
<tr>
<td>4</td>
<td>Bitcoin Cash</td>
<td>BCH</td>
<td>Currency</td>
<td>13.6</td>
<td>17,251,625</td>
<td>21,000,000</td>
<td>Electronic cash. Hard fork of Bitcoin (all Bitcoin holders as of block 478558 are also owner of Bitcoin Cash)</td>
</tr>
<tr>
<td>5</td>
<td>EOS</td>
<td>EOS</td>
<td>Security</td>
<td>7.1</td>
<td>896,149,492</td>
<td>1,000,000,000</td>
<td>Token for blockchain technology focused on scalability and smart contracts based on a proprietary blockchain</td>
</tr>
<tr>
<td>6</td>
<td>Stellar</td>
<td>XLM</td>
<td>Voucher</td>
<td>5.3</td>
<td>18,766,734,471</td>
<td>104,125,061,584</td>
<td>Token for cross-border payments with focus on low-cost money transfers using the Stellar network</td>
</tr>
<tr>
<td>7</td>
<td>Litecoin</td>
<td>LTC</td>
<td>Currency</td>
<td>4.8</td>
<td>57,520,357</td>
<td>84,000,000</td>
<td>Electronic cash. Based on the Bitcoin blockchain</td>
</tr>
<tr>
<td>8</td>
<td>Cardano</td>
<td>ADA</td>
<td>Voucher</td>
<td>4.4</td>
<td>25,927,070,538</td>
<td>45,000,000,000</td>
<td>Token for smart contract blockchain platform</td>
</tr>
<tr>
<td>9</td>
<td>IOTA</td>
<td>MIOTA</td>
<td>Voucher</td>
<td>2.7</td>
<td>2,779,530,283</td>
<td>2,779,530,283</td>
<td>Token for distributed ledger applications based on Tangle to build internet-of-things (connecting internet enabled devices)</td>
</tr>
<tr>
<td>10</td>
<td>Tether</td>
<td>USDT</td>
<td>Collective investment scheme</td>
<td>2.7</td>
<td>2,657,140,346</td>
<td>3,080,109,502</td>
<td>Electronic cash based and backed by national currencies</td>
</tr>
</tbody>
</table>

Source: Coinmarketcap.com; token websites. 22 July 2018.
Regulatory history

- Crypto-instruments are the paper currencies of the twenty-first century

- Proliferation of paper currencies during the nineteenth century attracted considerable scrutiny and led to important innovations at instrument (specie backing) and institutional level (central banks)

- Regulation was guided by recognition that monetary innovation were beneficial to support commercial expansions while a new framework was seen as essential to provide for orderly financial conditions and provide adequate consumer protection.
Regulatory principles

- Regulation should aim to align crypto-instruments as much as possible within existing frameworks based on instrument properties and activities proportionate to the risks.

- Regulation at instrument level should be strictly based on functions of crypto-instruments and not the underlying technology.

- Main concerns are consumer protection and money-laundering and terrorism financing.

- Firms conducting investment services and activities in crypto-instruments should be subject to financial regulation and supervisions. Crypto-instruments that qualify as financial assets should similarly be subject to financial regulation.

- Regulation needs to encompass provisions for clients, financial crime and market abuse, financial markets and financial products and services in addition to other institutional and standards measures.
Regulation proposal

• Regulations should be guided by a strict classification regime of crypto-instruments

• Crypto-instruments should be subject to a transparent and verifiable classification regimes to facilitate integration with existing markets infrastructures

• Voluntary codes like the London Bullion Market Association’s global precious metals code or the Bank for International Settlement’s foreign exchange global code could serve as models