

ESMA SMSG on the recent market developments: “The use of blockchain – as a public database or ledger”

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Disruptive computing paradigms

1



Mainframe
1970s

2



PC
1980s

3



Internet
1990s

4



Social -Mobile
2000s

5



Connected
World of Blockchain
2010s

Block Chain—powerful disruptive paradigm.

Definition. Core features

- A block chain is a type of database or ledger that takes a number of records and Puts them in a block (like collating them on to a single sheet of paper). Each block is then 'chained' to the next block, using a cryptographic signature.
- This allows block chains to be used like a ledger, which can be shared and corroborated by anyone with the appropriate permissions.
- Distributed. Public (Unpermissioned) or permissioned, Time stamped, Persistent.
- Ruled by Solidarity: the integrity of ledger is being maintained by reaching a consensus among participants.

Recent developments:

B has attracted 971 mln. USD of venture capital investments.
More than half of this amount in 2015 alone.

- Estonia: government registers hosting all citizen and business-related information -The Keyless Signature Infrastructure (KSI). LHV Pank established a unit CUBER (Cryptographic Universal Blockchain Entered Receivable).
- GB: LSE signed on to a trade settlement-focused blockchain initiative alongside a team that includes the CME Group and French bank Société Générale. The LSE is also a partner in an unpermissioned blockchain project led by IBM and the Linux Foundation.
- US: SEC approved the use of the blockchain as a share ownership register for online retailer Overstock.com.
- Australia: the ASX, has revealed its plan to use blockchain technology to upgrade its current system for clearing and settlement of trades.

Blockchain applications for Financial Markets

- Ownership records.
- Instructions to execute an orders when certain conditions are met.
- This is smart contracts or distributed autonomous organizations (ethereum.org).
- Requirements for an fin institutions will change dramatically.
- Mitigation of problems arising when loans are bundled

Financial Market regulator's approach

- Actually no central authority is needed to supervise any particular blockchain as it is “supervised by consensus among participants”.
- Greg Medcraft, chairman of the IOSCO: “Financial groups betting on the promise of blockchain technology should consider covering the cost of fraudulent transactions, much as banks already do for credit cards”.
- Iosco plans to meet next month to discuss its next steps on blockchain: "from thinking about setting up working groups to possibly setting global standards”.

References:

(Thanks goes to our SMSG member Ms. Lindsey Rogerson!)

“Blockchain” on google.com generates 5,72 mln. links, “Blockchain technology”–1,350 mln., “Blockchain technology for securities” – 166000. On FT.com one could find 158 articles as from June 2013. On www.amazon.com 38 kindle books could be ordered and youtube.com generates 56400 entries. To prepare the presentations I have used:

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7. Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World”, May, 2016. by D. and A. Tapscotts.
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