

CBDC Part 7: Retail Payments and DLT

WEEKLY RECAP

- Total market cap. reached \$130bn (a 1.6% increase), and 7 day trading volume decreased 14.4% for top 100 crypto

THOUGHTS OF THE WEEK

Central Bank Digital Currency (CBDC) driven Retail Payment Systems (RPS) have been proposed as solutions to a number of problems. Some of these problems are related to the costs of using cash, and some are related to a lack of cash. Note that CBDC RPS can be designed without DLT, and DLT is just one possible underlying database infrastructure for such systems.

In scenario A, some countries have considered CBDC RPS as a way to reduce the usage of cash. The goal being to reduce the financial and environmental costs associated with handling cash, as well as the black economies which are facilitated by cash. In scenario B, countries such as Sweden have in recent years seen drastic reductions in cash usage. Cash currently constitutes just over 1% of GDP in Sweden, compared to the European average of 10% of GDP. Central banks fear that such reductions in cash usage and cash supply can lead to difficulties for the public to gain access to central bank risk-free money and increased consolidation in the financial infrastructure among private digital retail payment systems. This in turn could lead to a more inefficient and vulnerable payment market.

A "digital dollar" platform could allow the public to hold digital dollars issued and guaranteed by the central bank (see chart 1). The costs associated with such digital dollars would likely be small in comparison to the handling costs of physical dollars, and digital dollars could provide central banks with the traceability to limit black markets. Digital dollars would also provide the public with a guaranteed RPS that (unlike most existing RPS) is not run by private actors.

There are two primary approaches towards designing a CBDC RPS. It may be account-based (held in an account with the central bank) or value-based (stored in an app or on a card). Both require an underlying register that keeps track of transactions and ownership, meaning that usage is traceable. DLT has been considered as a possible choice, but "from a purely technical point of view, [the Swedish Central Bank] can see nothing at this point in time that would prevent an e-krona solution built around a central register."

There are still important decisions to make in the design of an RPS: Should the digital dollar carry interest? Should it be account- or value-based? A digital dollar could make bank runs easier. Is such ease desirable or not? Strong demand for digital dollars (especially interest-bearing dollars) could also drain commercial banks, leading to a reduced ability to issue credit. These decisions would result in a new set of potential risks to the financial system that have to be carefully evaluated. For now, a value-based non-interest bearing dollar seems to be the most likely proof-of-concept candidate.

TOP CRYPTO PERFORMANCE SUMMARY

Name	Price	7D%	Vol.	7D%	Mkt Cap.	% Total Mkt
BTC	\$3,847	0.34%	\$47.24bn	-10.27%	\$67.59bn	52.14%
ETH	\$132	-5.44%	\$23.30bn	-14.58%	\$13.90bn	10.72%
XRP	\$0	2.89%	\$3.98bn	-17.21%	\$12.95bn	9.99%
EOS	\$4	-2.34%	\$7.63bn	-26.14%	\$3.22bn	2.48%
LTC	\$48	7.23%	\$6.74bn	-17.93%	\$2.94bn	2.27%
BCH	\$132	-0.88%	\$1.55bn	-38.85%	\$2.32bn	1.79%
USDT	\$1	-0.04%	\$42.26bn	-14.61%	\$2.04bn	1.58%
XLM	\$0	2.42%	\$0.70bn	-17.58%	\$1.68bn	1.29%
BNB	\$12	13.58%	\$0.61bn	0.62%	\$1.63bn	1.26%
TRX	\$0	-5.74%	\$0.93bn	-13.44%	\$1.52bn	1.17%

NETWORK FUNDAMENTALS

	BTC	ETH
Hashrate	43,660,441 TH/s (-0.4%)	151,984 GH/s (+1.4%)
# Wallet Users	33,720,973 (+0.8%)	57,663,926 (+0.7%)
Top 3 Miners	BTC.com (18%) AntPool (13%) F2Pool (12%)	Ethermine (28%) SparkPool (21%) NanoPool (13%)

CHART OF THE WEEK

Chart 1) Example Overview of a CBDC RPS Platform

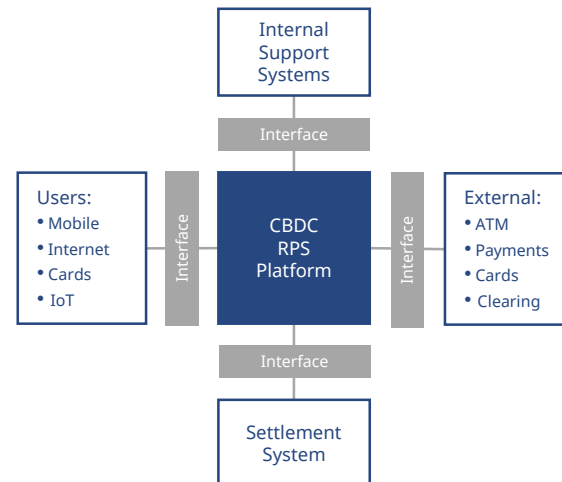


Chart 2) Comparison of Value- and Account-based Swedish CBDC RPS

Possible Properties	Value-based	Account-based
Instant payments	Yes	Yes
Underlying register	Yes	Yes
Legal form	E-money (prepaid value)	Deposit (account balance)
Interest	No, not as a rule	Yes
Anonymous payments	Yes (below EUR 250)	No
Traceability	Yes (but not if, for instance, a prepaid card changes owner person-to-person)	Yes
Offline Payments	Yes	Yes

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WEEKLY SUMMARY | 25 FEBRUARY – 3 MARCH

DISCLAIMER

Abbreviations: ADA: Cardano; BCH: Bitcoin ABC; BSV: Bitcoin Satoshi Vision; bn: billion; BTC: Bitcoin; Central Bank Digital Currency: CBDC; crypto: cryptocurrencies; ETH: Ethereum; ICO: Initial Coin Offerings; Market Cap: Market Capitalization; mn: million; RPS: Retail Payment System; Trading Vol.: Trading Volume; tx: transaction(s); US\$: United States Dollars; USDT: USD Tether; XLM: Stellar Lumens; XMR: Monero; XRP: Ripple

Chart of The Week: Sources: The Riksbank's E-Krona Project Report 2, Project Ubin Phase 2 whitepaper, Standard Kepler Research

Market Cap & Trading Vol.: Sources: Coinmarketcap, Standard Kepler Research
The horizontal axis represents the week number in 2018. For instance, W41 indicates the forty first week in 2018. W1 indicates the first week in 2019. The primary vertical axis represents total market capitalization; and the secondary vertical axis represents total trading volume.

Network Fundamentals: Sources: Blockchain.com, Blocktrail, Etherchain.org, Etherscan.io, Standard Kepler Research

Thought of The Week: Sources: The Riksbank's E-Krona Project Report 2, Quorum whitepaper, Project Jasper 1 whitepaper, Project Jasper 2 whitepaper, Project Jasper 3 whitepaper, Project Ubin 1 whitepaper, Project Ubin 2 whitepaper, Stella 1 whitepaper, Stella 2 whitepaper, Project Khokha whitepaper, Standard Kepler Research

Top Crypto News At a Glance: Sources:

Top Crypto Performance Summary: Sources: Coinmarketcap, Standard Kepler Research

Week Ahead: Sources: Cryptocalendar.pro, Standard Kepler Research

Weekly Recap: Sources: Coinmarketcap, Standard Kepler Research

Past performance does not guarantee future results.

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The price of Bitcoin and other cryptocurrencies are highly volatile in nature. It is suggested that clients should perform their own due diligence and consult a fully qualified independent professional financial adviser before making any investments in cryptocurrencies.

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Unless otherwise stated, all data is as of March 3, 2019 or as of most recently available.

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