

# A Draconian Perspective Of Central Bank Digital Currencies (CBDC)

This article is authored by an Executive Advisor of Alberta Advisory and is sponsored by Madfoatcom.

#### The Global Thrust

Imagine a world where your income, savings and wealth can no longer be withdrawn, touched and safe kept in a vault. Rather, your cash assets are held as encrypted digital records in a database held by the central bank of your country. The central bank will no longer print money perse. A central bank will type in what money to issue in a system; press <Enter> and magically increase the money supply of the country in no time.

Why doing so? Well, the national interests vary widely. Ponder innocent interests such as- (i) eleminating the cost of money printing, shipment and inventory management, (ii) expediting money transfers, (iii) combating tax evasion and (iv) fighting money laundry and fraud. The less innocent interests include- evading wild international sanctions and covertly funding budget deficits.

At present, 25% of the world's 195 recognized countries have either launched their CDBCs or commenced their CBDC pilots. A precursory look at the Atlantic Council CBDC Outlook, IMF Virtual Book and OECD news reveals that 11 countries fall into the former category, while 36 countries fall in the latter.

CBDC is no longer a "Fame Stunt", but a "Global Thrust".



Despite our staunch belief in the creativity and utility of crypto assets and technologies, we chose – in this article - to throw the wet blanket and expose the risks involved in this serious move.

We warn beforehand that our views are draconian, though realistic from historical and political perspectives.

#### **Public Debt Evasion**

It's too obvious that the Sovereign Debt Bubble is expanding rapidly with no end in sight. The figures are jaw-dropping. USA, EU and Japan have mounted USD 39 Trillion, USD 16 Trillion and USD 9 Trillion in national debts. Both USA and Japan tip the scale of the Debt-To-GDP Ratios of 119% and 235% respectively.

Troubled economies will likely swap to new currencies to escape hyper-inflation and heaping debt. Imagine if money markets start valuing Digital-Dollar, more than your Regular-Dollar due to government restrictions on Regular-Dollar. Post devaluation, it will be easier for your government to pay back its devalued national debt which originated as Regular-Dollar!

History is rife with various nations doing just that without the speed and efficiency of digital currencies. Examples include- Russia (Old – New Rubble In 1998), Germany (Papiermark – Rentenmark in 1923), France (Old – New Franc, 1960) and Brazil (Cruzeiro Real – Real In 1993).

Even when the old-new currency swap ratio was 1:1, governments often deployed restrictions on older currencies such as- circulation deadlines, deposits freeze, redomination, etc.

While this move is not CBDC-specific, there is no doubt that CBDC makes the process quicker, cheaper and publicly more delectable under the pretext of digital economy.



# "Big Brother" Intrusion

The state's infringement on personal liberties and freedoms has been intensifying over the past 2 decades. With CDBC, the "Big Brother" has now the Excalibur added to its arsenal. Many CBDCs are based on blockchain technologies where transactions cannot be executed unless validated beforehand (through a consensus mechanism) and eventually stored in a public database (i.e. blocks chained by hash algorithms and encryption keys).

Technically, governments can grant themselves exceptional powers in terms of transaction validation and historical records access. Simply put, all your physical cash transactions will be recorded and inspected as no physical cash will be in circulation.

For example, if you decided to lend your friend some material cash to weather off his/her life storm then, you cannot do that without Government knowing about it and potentially blocking it for justification. With heightened intrusion, privacy dwindles.

#### Banking Fee Income Erosion

Cash management services will become less relevant, and hence, clients will be reluctant to pay for it. This includes- drop boxes, cash transport and replenishment, check clearing, payroll disbursement, local transfers, direct debit / direct credit mandates, minimum balance account fees and bulk payments.

This holds true in case of CBDC Programs that- (i) promise each citizen a government issued digital wallet – implicitly as a birth right - and (ii) avail Peer-To-Peer (P2P) transfer capabilities, whether instant, scheduled or conditional. Such CBDC Programs adopt an "Open Banking" philosophy where all features are available as APIs that can be directly called from corporate ERP systems, Personal Finance Apps or capital markets.

For example, Jamaica's and Nigeria's CBDC programs accelerate financial inclusion by offering Government Digital Wallets to any citizen who undergoes basic identification by a mobile number and/or a national card.



In contrary, the EU opted for the European Central Bank (ECB) to be an infrastructure provider, while banks offer and manage digital wallets.

# Cybersecurity Risks

The quintessence of CBDC is a robust (e.g. NIST- or FIPS 140-2 compliant) encryption system using a myriad of algorithms such as- SHA-256, ECC, RSA and Triple DES. Unfortunately, these algorithms are based on a simple underlying assumption that fraudsters cannot hold enough processing power or insider information to crack the encryption keys within a feasible time and/or cost.

This assumption is yet to defy the test of time in the age of- Quantum Computing, Foreign Government-sponsored Hacking, "Big Brother" Back doors, Vendors' lapses and Supply Chain / Source Code attacks.

For the skeptics, read more about NSA's Bullrun Program and China's crack of Apple's AirDrop service during Hong Kong's protests.

#### Quicker Boom-Doom Economic Cycles

While pundits advocate that CBDC are not vehicles to issue and conceal excessive money supply and will be subject to the same checks and balances as fiat currencies, it's evident that CBDCs expedite and economise (e.g. reduce the issuance cost) the money supply process. This will likely tempt incompetent or fraudulent governments to roll the dice more often and more boldly.



## Liquidity Shortage Exacerbation

In times of crisis, foreign capital outflows intensify from high-risk or publicly slurred countries. Again, CBDCs speed and efficiency tempt investors to withdraw their funds quickly and more aggressively. Hence, exacerbating the liquidity shortages.

This holds true in case the CBDC country- (i) linked its CBDC system to international capital markets, (ii) holds a USD-peg and (iii) suffers weak economic fundamentals. The country becomes a textbook victim of George Soros-like multi-prong attacks.

# Wealth Entrapment

Central Banks will place a strangle hold on all local and foreign owners of their respective CBDCs. This is because in the absence of physical cash, any currency transaction cannot be executed in any part of the world, unless technically validated by the central bank of that currency.

A Chinese merchant cannot simply hold USD 200 K in cash in its safe as an FX reserve for future trades. In the absence of cash, the funds must be held in a digital account under the direct supervision of the USA Federal Reserves. Any transaction conducted by the Chinese merchant will be screened, validated and potentially blocked by the US Federal Reserves.

Another form of wealth entrapment arises when the USA President Roosvelt in 1933 banned the personal ownership of gold, forcing citizens to sell their gold to the government at \$20.67 per ounce, then shortly after revaluing the gold at \$32 per ounce. Gold-back crypto assets, coupled with, CBDC render wealth entrapment to be seductive and within reach.

Thanks!



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