A Protocol for Issuance of Central Bank Digital Currency:

Introduction:

A US dollar bill, a Euro note or an Indian 100 Rupee note are all physical forms of so called fiat money and constitutes only a small fraction of what we presently know as broad money. Today, the bulk of money used in exchange of goods and assets, settling of debts and paying of taxes exists in the form of digital money . The money held in a bank account is nothing but a digital record in electronic database. Electronic transfer of money is nothing but an exchange of information between two computers without any manual intervention. A credit card or any other electronic payment instrument also deals with digital form of money only. Despite losing its pre-eminence in the payment system, cash, however, continues to be issued by the central banks of all countries despite the fact that the cost of managing the infrastructure and operation of cash system is substantial for every economy. The reason for continued prevalence of cash in its physical form in every economy is not difficult to understand. No payment of fee is involved in any use of cash in a buy-sell exchange of goods or settling of small inter-personal debts. The people at the bottom of social pyramid will continue to need cash to survive unless the issuer of cash can introduce digital cash that shares all the features of physical cash.

With the advent of cryptocurrency like Bitcoin, the technological possibility of issuing digital cash by a central bank has been attracting attention of policy makers as well technologists. Although Bitcoin was introduced by Satoshi Nakatomo as a “per-to-peer version of electronic cash”, a cryptocurrency cannot be called fiat money or cash by any stretch of imagination. This becomes evident when the key features of a central bank’s paper currency are understood.

Key features of a central bank’s paper currency:

Annexure

BIS Data

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| --- | --- | --- | --- | --- |
| Country wise data for 2018 | Total value of Bank Notes and Coins in circulation | Value per inhabitant | Value as a percentage of GDP | Value as a percentage of narrow money |
|  | (USD bn) | (USD) | (%) | (%) |
| Argentina | 23 | 513 | 5.1 | 56.7 |
| Australia | 60 | 2403 | 4.5 | 9.7 |
| Brazil | 68 | 327 | 3.9 | 64.6 |
| Canada | 71 | 1924 | 4.3 | 9.4 |
| China | 1151 | 825 | 8.9 | 14.3 |
| Hong Kong SAR | 63 | 8471 | 17.5 | 31.9 |
| India | 307 | 230 | 11.2 | 65.2 |
| Indonesia | 52 | 196 | 5 | 51.4 |
| Japan | 1048 | 8290 | 21.1 | 14.6 |
| Korea | 103 | 2003 | 6.1 | 13.3 |
| Mexico | 85 | 680 | 6.9 | nav |
| Russia | 148 | 1009 | 9.9 | 47.7 |
| Saudi Arabia | 56 | 1683 | 7.1 | 17.3 |
| Singapore | 36 | 6378 | 10 | 26.5 |
| South Africa | 12 | 205 | 3.4 | 9.4 |
| Sweden | 7 | 682 | 1.3 | 2.1 |
| Switzerland | 87 | 10194 | 12.4 | 12.7 |
| Turkey | 26 | 311 | 3.6 | 26.5 |
| United Kingdom | 94 | 1417 | 3.4 | 4.2 |
| United States | 1719 | 5248 | 8.2 | 45.3 |
| Memo: Euro area | 1446 | 4230 | 10.9 | 15.2 |

Source: CPMI comparable data tables type 1 (CPMI\_CT1)

<http://stats.bis.org:8089/statx/srs/table/CT2?c=&p=2018&f=xlsx>