“Digital Currency Economics and Policy”– Conclusion

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- A big thank-you to the presenters, commentators, and all the participants
- A big thank-you to MAS for jointly supporting and organizing the workshop.
- We have had an intellectual feast
  - Covered more grounds than expected
  - Heard first principle based analytics and insights.

- Admit that we were motivated by the proliferation of digital currencies
  - Possibly a desire in some to have some freedom in carrying out transactions beyond using fiat money, beyond the reach of governments and dominant financial institutions
  - Technological progress just came conveniently

Two types of technological progress

- E-payment arrangements reduce transaction costs and facilitate more thorough record keeping than before
  - Recently widely adopted in countries like China
    - Use less cash
- The block-chain type → bitcoin, cryptocurrencies
  - Many related applications, beyond bitcoin
    - Supply chain management, medical, …
    - Decentralized, scalable, and resilient

Block chain – Cryptocurrencies, a trustless decentralized system

- Facilitate out of the system transactions,
  - can be anonymous and may be “illegal”
  - may weaken capital flow management & monetary policy effectiveness
  - limit seigniorage
    - magnitude may be marginal
- Consume high energy costs, transaction speed is slow, and expect forking.
- Traded, volatile price.
  - do not pass the test for being money – a unit of account, medium of exchange and storage of value.
  - cannot serve up the role of trusted lender of last resort
  - or the decentralized system can make intelligent discretionary decisions to stabilize our economy.
- But, it is an alternative some like, seen as their economic freedom.

Immediate investment regulatory concerns

- Proliferation of private cryptocurrencies
- Many enthusiastic souls see jackpots, e.g., buy cryptocurrency and invest in ICO
  - ICO – Money for tokens, the money invested in finishing a platform, tokens used in the platform or traded on cryptocurrency exchanges
- The irony: the technology promises reliable “trustless-ness” but generates traditional governance and investor protection concerns
  - Some lead to jackpot returns, many fail
  - Market solution may not be there yet – too few experts
- Regulations
  - Ban, Warn, Sandbox, Classify (e.g., duck test) and apply the relevant regulation
- Government challenges
  - Too much protection stifles innovation and risk taking
  - Not having enough talent in the intersection of law, finance, and technology, ..
  - Not knowing what we do not know!

Government will act

- To limit illegal activities, e.g., tax evasion, “black” activities, by-pass capital flow management.
- To protect seigniorage income and monetary policy effectiveness.
- Crypto-algorithm notwithstanding, we cannot let something we do not know well with no one accountable take too much space and responsibilities
  - Anyway, people use less cash. E-arrangements for efficiency gains?
- Choices:
  - Regulate
  - Embrace technology: simply going to all e-transactions to offering digital fiat currency
    - limited access vs full fledge cashless digital arrangement, e.g., a debt-card for all.
- The choice ought to be grounded on the fundamental role of government - nurture the development of a stable and value enhancing system and a smooth transition path

Positive considerations for offering a digital fiat money

- Raise efficiency, reduce transaction cost, especially in international payment.
- Constrain illegal transactions,
  - Note, however, we can do these without digitalization of the fiat currency
- Digitalization relaxes the constraints of monetary policy at the zero lower bound, e.g., using negative interest rate
- Critically, the government, through digitization, will acquire a lot more information than before.
  - stronger surveillance of transaction activities
    - More policy angles and freedom, e.g.,
      - Better constrain illegal activities, better tax collections, etc.
      - More focused and effective policy, e.g., drone dropping of money (Rogoff's book), engineering stability, ..

Negative considerations for offering a digital fiat money

- CBDC impacts on the private sector's financial institutions, affects economic behavior
  - With a full fledge debit card type of CBDC, private sector financial institutions may have to focus purely on term structure and credit transformation.
  - The risk of fast run on banks
    - People can run to CBDC for safety by just pushing a button.
    - Thus, private sector financial system's stability is a concern

Really lots of unknowns, disruptions

- What is the implication on the cost of capital from investors' perspective in a full reserve system?
- What will the world be like if traditional financial institutions lose their transaction banking business and not rewarded for leveraging?
- Would CB have to hold more reserves if their liabilities include all current bank deposits?
- If non-residents have access to CBDC, what is the cross border ramification and externalities?
- Then, the cybercrime issues?
- Generically, how will our economy/financial sector function then?

What is the fundamental issue?

- Technological progress allows government or the private sector to have more records, thus, possibly more information.
  - Expands everyone's feasibility set
- A system design problem: cash vs CBDC vs bitcoin is a centralized vs a decentralized system in generating (or not generating) the data and in allowing access of the data.
  - Should the government have all the transaction records
    - Is this too big a temptation in developing an overbearing government?
  - Generically
    - How and what data should be generated and collated by whom?
    - Who should have access to the data?
    - Data are not information. Who should generate the information? With the right incentives?
    - Who should have what market power? Regulatory power? Political power?
      - Power corrupt people? Power breeds angels?

- We hope to nurture the development of research on digit currency economics.
  - ABFER will organize a special session and a master class on digital currency economics in our May 2019 workshop
  - The 2019 AMPF will feature “digital currency” in its Policy Notes session.
  - Cooperating with CEBRA and CEPR and many central banks to have a research conference on digital currency economics on 18-20 July 2019 in NYC.

- **Let me again thank you all for being here. Special thanks to the presenters and commentators.**
  - **Your write-ups and comments by 2019 Autumn, which we shall put onto our web pages.**
- **Thanks to Agustín Carstens,** General Manager, BIS**, Cecilia Skingsley,** Deputy Governor, Sveriges Riksbank**, and Ravi Menon**, MD, MAS **for a great panel**
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