

Money Creation in Decentralized Finance:
A Dynamic Model of Stablecoin and Crypto Shadow Banking

Ye Li Simon Mayer

Discussant: Yubo Chen (Tsinghua University)

Brief Summary

- An excellent theoretical modeling framework and great insights on stablecoins: instability traps
- A comprehensive analysis on stablecoins regulation
- A nice analysis on stablecoins and digital platforms

Regulation on Digital Platforms

- Digital Platforms entering financial markets
 - Alibaba/Ants Financial Service, Facebook's Libra (Diem)
- Should digital platforms be treated as Tech company or traditional financial service players?
- Should a digital platform be allowed to issue stablecoins? How to regulate?

Stablecoins, Digital Platforms, and Data Privacy

- Role of network effects:
 - Stablecoins with stronger network effects should be more heavily regulated in terms of capital requirements.
- Role of data
 - Data acquisition incentives makes the digital platform more aggressive in subsidizing users, which increases the volatility of the stablecoins.
 - =>Data privacy regulation helps to stabilize the stablecoins.

Facebook's crypto project Diem sold after pushback



01 Feb 2022 08:56AM

(Updated: 01 Feb 2022 08:56AM)



The Facebook-backed digital currency project Diem announced on Jan 31, 2022, the winding down and US\$182 million sale of its technology, capping a years-long initiative that drew significant concern from regulators (File photo: AFP/Chris Delmas)

Report on STABLECOINS

Risks of Scale: Systemic Risk and Concentration of Economic Power

While small in comparison to traditional forms of private and public money, stablecoins have grown rapidly in the last year and may continue to grow rapidly at both an individual and aggregate level. For individual stablecoins, the potential for rapid growth may reflect economies of scale and scope; network effects that cause demand for a specific stablecoin to increase as more firms and consumers use the stablecoin; and first-mover advantages. In some cases, rapid scaling may be supported by access to existing customer bases and further enabled by access to end users' data.

The potential for an individual stablecoin to scale rapidly raises three sets of policy concerns. First, a stablecoin issuer or a key participant in a stablecoin arrangement (e.g., a custodial wallet provider) could pose systemic risk – meaning that the failure or distress of that entity could adversely affect financial stability and the real economy.²⁶ Second, the combination of a stablecoin issuer or wallet provider and a commercial firm could lead to an excessive concentration of economic power. These policy concerns are analogous to those traditionally associated with the mixing of banking and commerce, such as advantages in accessing credit or using data to market or restrict access to products. This combination could have detrimental effects on competition and lead to market concentration in sectors of the real economy. Third, a stablecoin that becomes widely adopted as a means of payment could present concerns about anti-competitive effects, for example, if users of that stablecoin face undue frictions or costs in the event they choose to switch to other payment products or services. Concerns about anti-competitive effects are thus likely to be greater absent interoperability standards for stablecoins and stablecoin arrangements.

In addition to the potential for individual stablecoins to scale rapidly, the aggregate growth of stablecoins could also have important implications for the financial system and the macroeconomy. If insured depository institutions lose retail deposits to stablecoins, and the reserve assets that back stablecoins do not support credit creation, the aggregate growth of stablecoins could increase borrowing costs and impair credit availability in the real economy. The perception of the safety of insured depository institutions relative to stablecoins could also shift during times of stress, with large and sudden inflows or outflows of deposits possible.

Regulatory Gaps

Today, stablecoin arrangements are not subject to a consistent set of prudential regulatory standards that address the risks discussed above. Moreover, the number of different key parties that may be involved in an arrangement, and the operational complexity of these arrangements, pose challenges for supervisory oversight. For example, even if a given issuer of stablecoin is a bank, insight into the activities of key entities in the arrangement depends on the structure of the relationship and

²⁶ These risks may be exacerbated by a lack of adequate recovery and resolution planning. While the recovery and resolution implications for stablecoin arrangements may vary based on their structures, many would likely be subject to the provisions of Chapter 7 and/or 11 of the Bankruptcy Code. Several other resolution schemes could also be involved, and non-US and cross-border issues could also arise.

Risks of Scale: Systemic Risk and Concentration of Economic Power

While small in comparison to traditional forms of private and public money, stablecoins have grown rapidly in the last year and may continue to grow rapidly at both an individual and aggregate level. For individual stablecoins, the potential for rapid growth may reflect economies of scale and scope; network effects that cause demand for a specific stablecoin to increase as more firms and consumers use the stablecoin; and first-mover advantages. In some cases, rapid scaling may be supported by access to existing customer bases and further enabled by access to end users' data.

The potential for an individual stablecoin to scale rapidly raises three sets of policy concerns. First, a stablecoin issuer or a key participant in a stablecoin arrangement (e.g., a custodial wallet provider) could pose systemic risk – meaning that the failure or distress of that entity could adversely affect financial stability and the real economy.²⁶ Second, the combination of a stablecoin issuer or wallet provider and a commercial firm could lead to an excessive concentration of economic power.

These policy concerns are analogous to those traditionally associated with the mixing of banking and commerce, such as advantages in accessing credit or using data to market or restrict access to products. This combination could have detrimental effects on competition and lead to market concentration in sectors of the real economy. Third, a stablecoin that becomes widely adopted as a means of payment could present concerns about anti-competitive effects, for example, if users of that stablecoin face undue frictions or costs in the event they choose to switch to other payment products or services. Concerns about anti-competitive effects are thus likely to be greater absent interoperability standards for stablecoins and stablecoin arrangements.

Digital Economy and Regulation

- The markets where the digital platforms are
 - Financial Market
 - Commercial (Product) Market
 - Production Factor Market
- Digital economy regulation policies
 - Financial Regulation Policy
 - Competition Policy
 - Consumer Protection and Data Privacy
 - Industrial Policy

Digital Economy and Regulation: The Role of Data

- The data acquisition incentive of the platforms in *production factor market* drives and distorts their behaviors in *product market* competition and *financial markets*.
- The network effects and increasing return of scale in the data market tends to bring the platforms an excessive market power, which might lead to anti-competitive effects and increase systemic financial risk.
- Coordination of Different Regulatory Policies
 - Financial Regulation Policy
 - Competition Policy
 - Consumer Protection and Data Privacy
 - Industrial Policy
 - **Data regulation is the key**