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Cryptocurrency and Central Bank E-Money

The Atlanta Fed recently hosted a workshop, "[Financial Stability Implications of New Technology](#)," which was cosponsored by the [Center for the Economic Analysis of Risk](#) at Georgia State University. This *macroblog* post discusses the workshop's panel on cryptocurrency and central bank e-money. A [companion Notes from the Vault post](#) provides some highlights from the rest of the workshop.

The panel began with Douglas Elliot, a partner at Oliver Wyman, discussing some of the public policy issues associated with cryptoassets. Drawing on a recent [paper](#) he cowrote, Elliot observed that there are "at least four substantial market segments" that provide long-term support for cryptoassets:

- libertarians and techno-anarchists who, for ideological reasons, want a currency without a government;
- people who deeply distrust their government's economic management;
- seekers of anonymity, who don't want their names associated with transactions and investments; and
- technical users who find cryptoassets useful for some blockchain applications.

Besides these groups are the speculators and investors who hope to benefit from price appreciation of these assets.

Given the strong interest of these four groups, Elliot argues that cryptoassets are here to stay, but he also asserts that these assets raise public policy issues that regulation should address. Some issues, such as anti-money laundering, are being addressed, but all would benefit from a coordinated global approach. However, he observes that of the four long-term support groups, only the technical users are likely to favor such regulations.

Another [paper](#), by University of Chicago professor Gina C. Pieters, analyzed the extent to which the cryptocurrency market is global using purchases of cryptocurrency by state-issued currencies. She finds that more than 90 percent of all cryptocurrency transactions occur using one of three currencies: the U.S. dollar, the South Korean won, and the Japanese yen. She further finds that the dominance of these three currencies cannot be explained by economic size, financial openness, or internet access. Pieters also observed that transactions involving bitcoin, the largest cryptocurrency by market value, do not necessarily represent a country's cryptomarket share.

Warren Weber, former Minneapolis Fed economist and a visiting scholar at the Atlanta Fed, discussed so-called "stable coins," one type of cryptocurrency. The value of many cryptocurrencies has fluctuated widely in recent years, with the price of one bitcoin soaring from under \$6,000 to more than \$19,000 and then plunging to just over \$6,000—all within the period from October 2017 to October 2018. This extreme price volatility creates a significant impediment to Elliot's technical users who would like some method of buying blockchain services with a currency controlled by a blockchain. In an attempt to meet this demand, a number of "stable coins" have been issued or are under development.

Drawing on a preliminary [paper](#), Weber discussed three types of stable coins. One type backs all of the currency it issues with holdings of a state-issued currency, such as the U.S. dollar. A potential weakness of these coins is that they incur operational costs that require payment. Weber observed that interest earnings might cover part of these expenses if the stable coin issuer holds the dollars in an interest-bearing asset. Additionally, charging redemption fees might offset some or all of the expense.

The other two alternatives involve the creation of cryptofinancial entities or crypto "central banks." Both of these approaches seek to adjust the quantity of the

cryptocurrency outstanding to stabilize its price in another currency. However, Weber observed that both of these approaches are subject to the problem that the cryptocurrency could take on many values depending upon people's expectations. If people come to expect that a coin will lose its value, neither of these approaches can prevent the coin from becoming worthless.

The question of whether existing central banks should issue e-money was the topic of a presentation by Francisco Rivadeneyra of the Bank of Canada. Summarizing the results of his [paper](#), Rivadeneyra observed that central banks could provide e-money that looks like a token or a more traditional account. The potential for central banks to offer widely available account-based services has long existed. However, after considering the tradeoffs, central banks have elected not to provide these accounts, and recent technological developments have not changed this calculus. However, new technologies may have changed the tradeoff for token-based systems. Many issues will need to be addressed first, though.



Larry D. Wall, director of the Atlanta Fed's [Center for Financial Innovation and Stability](#)

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