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Remarks before the

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Executive Roundtable: "The Future of Crypto-Assets and Regulation"

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Thank you for inviting me to speak today at the Transatlantic Finance Forum's Executive Roundtable discussion on crypto-assets and regulation. It is an honor and a pleasure to speak to this esteemed group on this important and timely topic.

Crypto has rapidly gone mainstream. Five years ago, the total market capitalization of all cryptocurrencies was around $100 billion. Today it is over $2 trillion. Anyone with an internet connection can invest in over 12,000 different cryptocurrencies, purchase digital art and collectibles through non-fungible tokens (NFTs), and buy "property" in the metaverse. Hundreds of organizations have emerged to provide wallet and custody services, to create new tokens, and to facilitate crypto trading. Credit and debit card issuers are offering Bitcoin rewards programs and facilitating crypto payments.[1] Large corporations, like Tesla, PayPal, and Starbucks, are starting to accept cryptocurrency payments.[2] Several publicly traded companies now hold Bitcoin in their investment portfolios.[3]

Crypto has also gone mainstream with consumers. Sixteen percent of U.S. adults say that they have owned, traded, or used some form of cryptocurrency.[4] Notably, the underbanked and minorities have been especially interested in crypto. One survey found that 37 percent of the

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[1] See Upgrade's Bitcoin Rewards Program; PYMTS, "Mastercard, Voyager Team to Make USDC Stablecoin Spendable and Mainstream"; NerdWallet, "7 Credit Cards With Crypto Rewards."
[2] See Reuters, "Tesla Will 'Most Likely' Restart Accepting Bitcoin as Payments, Says Musk"; "7 Companies Where You Can Pay With Crypto (fool.com); "10 Major Companies That Accept Bitcoin" (yahoo.com).
[3] See beINcrypto,com, "Top 11 Public Companies Investing in Cryptocurrency."
[4] See Pew Research Center, "16% of Americans Say They Have Ever Invested In, Traded or Used Cryptocurrency."

underbanked indicated that they own cryptocurrency, compared to 10 percent of the fully banked.[5] A Harris poll reported that 18 percent of Blacks and 20 percent of Hispanics reportedly own crypto.[6]

This mainstreaming of crypto has occurred despite regulatory and legal uncertainty,[7] and a series of scams, hacks, and other disruptive events.[8]

For financial regulators like me, this presents a host of questions. Where should regulatory attention be focused? What should be done? By whom? And why?

Stabilizing Stablecoins

Within crypto, stablecoins have received the most attention from regulators worldwide.[9] This is for good reason. Stablecoins bridge the fiat and crypto worlds and serve as the blockchain-native medium of exchange on crypto trading platforms. They play a critical role in supporting and facilitating rapid growth in decentralized finance (DeFi). Stablecoins are the oxygen of the crypto ecosystem and serve as a key link to the fiat currency world.

Stablecoins also present unique risks. Currently, crypto users trust that the largest stablecoins are stable and equivalent to fiat: that is, the holders of USD-backed stablecoins believe they can redeem their stablecoins for US dollars on demand, at par, with no questions asked.[10] This trust is similar to the trust that depositors have in their ability to withdraw their money from their bank on demand, at par, with no questions asked. Because there is trust, there

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[5] See Morning Consult, "Banking the Unbanked Requires Raising Trust and Awareness. For the Underbanked, Better Service Means Payments Innovation."
[6] See The Harris Poll, "Speculative Investing," March 2021.
[7] See New York Times, "Cryptocurrency Regulators Rush To Create First Major Rules."
[8] See Yahoo Finance, "Data: Crypto Scams, Hacks Cost Investors $14 Billion in 2021."
[9] See Basel Committee on Banking Supervision June 2021 Consultative Document; President's Working Group on Financial Markets, Report on Stablecoins (PWG Stablecoin Report); Financial Stability Board (FSB), "Regulation, Supervision and Oversight of 'Global Stablecoin' Arrangements"; European Central Bank speech by Fabio Panetta,, "The two sides of the (stable)coin."
[10] See Gary Gorton and Jeffery Zhang, "Taming Wildcat Stablecoins."

is no need for stablecoin holders to actually redeem their stablecoins for fiat. They can focus on other things – which is the point.

What if, however, that trust were to waver or be lost? Stablecoin holders, knowing that the first to redeem would have the highest chance of getting their money back, would rationally redeem immediately. *It would not matter if the stablecoin issuer's reserve could actually cover the redemptions or not* – the attention of stablecoin holders would shift from the issuer to the behavior of other holders and a run would ensue. This dynamic played out in the 2008 financial crisis across banks, securities firms, structured finance vehicles, and money market funds. I saw this directly from my positions at the SEC and Treasury Department at the time. I heard bankers, treasurers, and risk managers bemoan the "unfairness" and "irrationality" of runs – "*We're money good*," they would say repeatedly. That statement misunderstands what a run is about. It isn't just about the assets or the numbers. It is as much about how others act when there is uncertainty and the fear of being the sucker.[11]

The vulnerabilities that lead to a run generally do not appear suddenly out of nowhere. They build up over time and are largely ignored, until a small group of participants sense the tail risk, get nervous, and quietly begin to edge away. In the months leading up to Bear Stearns' demise in early 2008, this "smart money" – at the time, certain large hedge funds – tried to quietly edge away from Bear by novating their trades to stronger banks. They didn't want to spark a run, but they did want to cut their exposures before everyone else pulled away. Those moves, of course, raised flags for the market and by mid-March Bear was enduring a full blown run.

[11] See Douglas W. Diamond and Philip H. Dybvig, "Bank Runs, Deposit Insurance, and Liquidity," Journal of Political Economy, University of Chicago Press, vol. 91(3), pages 401-419, June 1983.

Stablecoins today are at risk of being subject to such dynamics, especially stablecoins with questionable or opaque reserve management practices. As long as there are inflows into crypto, nothing is likely to happen. At some point, however, those flows will slow and then reverse. As Warren Buffet famously quipped, "It is only when the tide goes out do you discover who's been swimming naked."

Runs are like hurricanes or tornadoes. They are indiscriminate in their destruction. They do not distinguish between those who deserve to bear losses and those who are innocent. The 2008 financial crisis showed this to be true for both traditional banks and especially for shadow banks.[12] The growth and mainstreaming of crypto means that a stablecoin run would not just impact those directly invested in it. There would be collateral damage. And the potential scope of that damage will continue to grow as long as crypto expands.

Fortunately, we have an effective tool to mitigate run risk: bank regulation.[13] Stablecoin issuers subject to bank regulation would give holders of those stablecoins confidence that those coins were as reliable and "money good" as bank deposits. Even if the tide were to go out, the reserves would be there, overseen and examined by bank supervisors, and potentially even backstopped by access to a central bank's discount window to meet short term liquidity needs if warranted.[14] There would be no need for any holders to redeem or even to worry about

[12] See FDIC, *Crisis and Response: An FDIC History, 2008–2013.*
[13] See PWG Stablecoin Report.
[14] After Lehman Brothers Holdings Inc. filed for Chapter 11 bankruptcy protection (Sept. 15, 2008), securities firms Goldman Sachs and Morgan Stanley became bank holding companies (Sept. 21, 2008). "Becoming bank holding companies meant Goldman Sachs and Morgan Stanley would subject themselves to Federal Reserve regulation, but it also assured the market that they could borrow directly from the Fed at a time when access to funding was a top concern for broker/dealers." (S&P Global Market Intelligence, "Crisis Put Goldman, Morgan Stanley on Journey Into Bankland.) Money market funds, which are regulated by the SEC but are not subject to bank-like liquidity standards and do not have discount window access, have been bailed out several times, including in March 2021 during the pandemic. (Wall Street Journal, "Why the Fed Had to Backstop Money-Market Funds, Again.")

redeeming a bank-regulated stablecoin. Bank regulation would give credibility to the "stable" part of stablecoins.

Regulating stablecoin issuers as banks could also enable *more* innovation in crypto and make those innovations more durable. While innovation thrives in uncertain environments, solid foundations can help, especially when it comes to money and trust. Before the Civil War, the U.S. money system relied on a plethora of differently colored and sized pieces of paper, issued by different banks at different times, all purporting to represent the same U.S. dollar. Those notes had value because they could be redeemed for gold or silver at the issuing bank. Of course, not all banks were able to meet those redemptions equally, so different notes traded at different discounts to par. This created opportunities for scams – stories of wildcat banks and unscrupulous bank note dealers are well chronicled in Joshua Greenberg's book *Bank Notes and Shinplasters.*[15] More importantly, the system was inherently inefficient and unstable. Merchants and citizens had to spend inordinate amounts of time tracking the discount rates of different bank notes just to transact and to know the value of their dollar holdings. Bank runs and failures were frequent. In 1861 and 1862, Congress authorized the issuance of Demand Notes and United States Notes, commonly referred to as greenbacks.[16] The following year, Congress passed the National Currency Act which established the Office of the Comptroller of the Currency to oversee national banks' issuance of greenbacks and to ensure their safety and soundness.[17]

[15] Joshua R. Greenberg, *Bank Notes and Shinplasters*: *The Rage for Paper Money in the Early Republic*, University of Pennsylvania Press, 2020.
[16] See, e.g., Act of July 17, 1861; the Legal Tender Act of 1862; Bureau of Engraving and Printing, "U.S. Paper Currency – An Overview."
[17] The National Currency Act established the Office of the Comptroller of the Currency (OCC), with responsibility for organizing and administering a system of nationally chartered banks and a uniform national currency. In June 1864, the legislation underwent substantial amendment and became known as the National Bank Act. See OCC, "Founding of the OCC & the National Banking System."

In crypto-speak, one might say that these actions by Congress in the early 1860s helped solidify "layer 1" of the U.S. economy by making a dollar that was fully interoperable and reliable. While it limited room for creativity with regard to bank notes, it allowed innovators to shift their focus elsewhere, to the real economy – "layer 2." I don't want to overstate the parallels between stablecoins and pre-Civil War bank notes. But the broad lesson seems applicable: strong, targeted federal regulation of money and banking can help establish a solid foundation for the economy enabling healthy innovation and growth.

The Need for a Coordinated and Collaborative Regulatory Approach

Looking at crypto more broadly, the nature of crypto-assets and the chimeric attributes of crypto use cases present a host of challenges from a policy and regulatory perspective. Scams are abundant and consumer complaints are rising.[18] Crypto has been used by money launderers and organized crime.[19] Risks abound in the DeFi space.[20] Extreme leverage, volatility, and opacity about risks and returns are the norm.[21] To date, the policy and regulatory responses have largely been focused on the most egregious cases and pressing issues (like stablecoins).[22]

As the crypto industry expands and linkages with the real economy and financial system grow, the consequences of a loss of trust in crypto – especially for consumers, traditional financial intermediaries, and the broader economy – are of increasing concern to those of us with responsibilities for ensuring a safe, sound, and fair financial system. Collaboration and coordination among regulators are necessary to keep up and respond effectively. Some action has

[18] See American Banker, "Complaints About Crypto Are Soaring. Is a CFPB Crackdown Imminent?"
[19] According to Internal Revenue Service Publication 3583 (Rev. 11-2021), 93 percent of IRS criminal investigation funds seized in 2021 were $3.5 billion in cryptocurrencies.
[20] See Wall Street Journal, "DeFI is Crypto's Wall Street, Without a Safety Net."
[21] See Written Testimony of Alexis Goldstein, Director of Financial Policy, Open Markets Institute U.S. House of Representatives Committee on Financial Services, Subcommittee on Oversight and Investigations, "America on 'FIRE': Will the Crypto Frenzy Lead to Financial Independence and Early Retirement or Financial Ruin?," June 30, 2021.
[22] See SEC Cyber Enforcement Actions web page.

already been taken. For example, both the OCC and the UK's Financial Conduct Authority (FCA) have taken steps to better understand cryptocurrencies and consider how to regulate crypto firms under their remit. The OCC actively engages with the FCA and the Prudential Regulatory Authority (PRA) on these and other issues related to fintechs and digitalization. We have also been involved in crypto-focused projects with multilateral bodies, such as the Financial Action Task Force, the Basel Committee on Banking Supervision, and the Financial Stability Board.

Domestically, the OCC teamed up with the Federal Reserve and FDIC last year on a bank-focused crypto-asset policy sprint. The interagency team developed a common vocabulary, identified key risks related to crypto activity engagement by banks, and laid out a roadmap for areas and activities where supervisory clarity is most warranted.[23] At the top of the list is crypto custody, which (like stablecoins) is foundational to crypto operating at scale safely. While banks and trust companies have a long and successful history of custodying and safeguarding assets, the technology underlying crypto and the associated governance with certain tokens present a host of novel issues warranting careful analysis and consideration.[24]

The need for collaboration and coordination is particularly important with regards to large crypto intermediaries, which are increasingly operating globally and across a wide range of activities. The largest crypto firms and platform operators today have tens of millions of users and handle hundreds of billions of dollars of transactions every month.[25] Yet none is subject to

[23] OCC News Release 2021-120, "Agencies Issue Joint Statement on Crypto-Asset Policy Initiative and Next Steps."
[24] See New York Times, "Lost Passwords Lock Millionaires Out of Their Bitcoin Fortunes"; Vanity Fair, "The Secret Life and Strange Death of Quadriga Founder Gerald Cotton"; The Algemeiner, "Israeli Cryptocurrency Security Company Fireblocks Sued for Losing $75 Million Worth of Ethereum."
[25] For example, see Key Business Metrics, page 48, Coinbase Global, Inc. Form 10-Q for the quarterly period ended September 30, 2021 (Coinbase - Financials - SEC Filings).

comprehensive consolidated supervision where a single authority has a line of sight into the entirety of an intermediary's activities. Large crypto intermediaries today may have multiple subsidiaries subject to different regulators, but no one regulator is able to understand how the firm as a whole operates, how much risk it is taking, and whether it is operating in a safe, sound, and fair manner. As large crypto intermediaries expand, engage in a wider range of activities and risk-taking, and deepen their interconnectedness with the traditional financial system, the risks from this lack of comprehensive consolidated supervision will increase, as will the need for interagency collaboration and coordination.

Conclusion

While the pace of innovation in crypto is exciting and the growth of the industry presents a host of opportunities for banks, the risks, the pace of change, and the lack of standards and controls in the crypto space suggest that a cautious and careful approach is warranted. The OCC, for instance, recently released an Interpretive Letter reminding banks that the permissibility of engaging in crypto activities is conditional on them demonstrating that they can do it safely and soundly.[26]

I am sure the panel will discuss not only these issues, but a wide variety of challenges and opportunities related to crypto-assets and the US/UK financial services sector. I look forward to participating on the panel and engaging further with all of you on these important topics. Thank you.

[26] OCC Interpretive Letter #1779, "OCC Clarifies Bank Authority to Engage in Certain Cryptocurrency Activities and Authority of OCC to Charter National Trust Banks."