

Book Review

Eswar Prasad. *The Future of Money: How the Digital Revolution is Transforming Currencies and Finance.* Cambridge, MA: Harvard University Press, 2021. 496pp. ISBN: 978-0674258440. \$35.00 hardcover.

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Eric Adams, New York City's new mayor, has asked to be paid in Bitcoin, following in the steps of El Salvador! What exactly is he doing and does it make any sense?

Bitcoin is a privately created currency and it is delivered (paid) with a new digital technology ("blockchain" – a permissionless form of Distributed Ledger Technology, or DLT). This is but one of the exciting technical developments impacting money and financial systems more broadly. Will emerging financial technologies ("FinTech") transform them or "merely" improve them? And what new risks might accompany them?

Eswar Prasad, the Tolani Senior Professor of Trade Policy at Cornell University, has produced a textbook – or more accurately an encyclopedia – on how emerging financial technologies do, and might continue to, contribute to more inclusive and more efficient financial services. His survey is about all aspects of finance, not just money. His earlier senior management positions at the International Monetary Fund serve him well as he digs deeper into every aspect of the plumbing of finance. His exploration is packed with interesting data and stories helping him deliver a fascinating and readable survey.

In analyzing the changes that might be spawned by the "digital revolution" Prasad moves from a high-level, superficial review of the financial sector landscape to an increasingly detailed description of what is involved. In addition to retail, wholesale, and cross border payments, savings are intermediated to borrowers via commercial banks, equity and bond markets, investment banks, shadow finance firms, and venture capitalists. Chapter 3 begins his discussion of the inefficiencies of the existing systems that FinTech might improve upon or even replace. In virtually all economies prices are stated in official government money. Domestic payments in this money are already enjoying significant FinTech-inspired improvements (faster and cheaper). In addition, FinTech promises significant improvements in cross border payments, which tend to be slower and more costly. The distinction between money and the means for paying it is important as FinTech only applies to the latter.

Prasad introduces the development of private currencies (cryptocurrencies) via a very readable explanation of Bitcoin (Chapter 4) as well as the block chain technology that stores and delivers it. Like the US dollar and most other government currencies, Bitcoin is not redeemable for anything. Its value ultimately (leaving aside the speculative motive that dominates its erratic value today) depends on the demand for it as a means of payment relative to its supply. Its supply is predetermined by an unchangeable formula and will reach a maximum of 21 million around 2040. The supply of the dollar, and many other central bank currencies, is determined by what the central bank judges is needed, given its demand, to preserve its value (or to keep the decrease in its value – i.e., its inflation rate – at a target of 2%). In short, central banks attempt to adjust the supplies of their currencies to the fluctuations in its demand, while Bitcoin, adhering to a version of Milton Friedman’s money growth rule, is supplied at a predetermined rate despite fluctuations in demand. This results in fluctuations in its value.

The story of Bitcoin’s delivery technology is complicated. Prasad explains how Bitcoin’s digital payment system – block chain – works. “It must provide a way of identifying and connecting the parties to a transaction; facilitating and validating the actual transaction; making sure the transaction is easily verifiable and also immutable (cannot be undone or changed later); and precluding double-spending of the same unit of money.” His explanation is detailed but very readable for even the nontechnical layperson. He presents a balanced assessment of Bitcoin’s virtues and vices (which are many), and discusses how and by whom cryptocurrencies should be regulated.

Chapter 5 surveys the long list of digital currencies (coins and tokens) and payment technologies that seek to overcome Bitcoin’s weaknesses. Unlike Bitcoin, Ethereum facilitates smart contracts (automatic execution of payments when stipulated conditions are met), and Tether and Libra/Diem represent a class of stable coins (coins whose value is fixed to the value of something else). The historically well-known gold standard replaced a Friedman-like rule for regulating the supply of a currency with market determination of its supply as the result of fixing its price to gold – or, in their case to the US dollar or another major currency.

If the public could buy the currency at its fixed price to gold and/or redeem it at essentially the same price, the price of gold in this currency in the market would never differ much from the central bank’s official price. As market demand for this currency varied for seasonal and other reasons, its supply would adjust to preserve the fixed price of gold. These so-called currency board rules require that the currency be fully back by sufficient gold to always be able to honor the redemption pledge. A stable coin adhering to such currency board rules would not interfere with the monetary policy of the anchor currency because it would

simply replace one form of that currency with an equivalent amount of its digital version. Tether (with questionable backing) and most other “stable coins” fix their value to the US dollar.

Following the same format, Prasad explores the pros and cons of various versions of Central Bank Digital Currency (CBDC) in Chapters 6. He summarizes the experiences of various central banks to date (through May 2021) in Chapter 7. A CBDC would provide a parallel/backup means of payment in the event of problems with existing systems. It would offer money with a full government guarantee and could promote broader inclusion of the non-banked in the financial system. The system now being tested in China, like most prospective CBDCs, is a two-tier system in which the retail interface with the public is via banks.

Cross border payments (Chapters 8 and 9) are more complicated. They are slow and costly as more players (correspondent bank nodes) and currencies are involved. The Society for Worldwide Interbank Financial Telecommunication (SWIFT) was established in 1973 to link the banks and accounts required for a payment between countries and currencies with a common format messaging system. Its technical backwardness and American domination (including the vehicle currency dominance of the US dollar) as well as the US government’s political abuse of its dominance have created strong incentives for other countries to find alternatives. FinTech is chipping away at the door.

Along with increasing the ease, speed, and (lowering the) cost of cross border payments, Prasad explores the potential of FinTech to facilitate the freer flow of capital globally. He concludes that the dollar’s dominance as a vehicle currency for cross border payments is not likely to be challenged by FinTech, which can improve the efficiency of the use of dollars as well as other currencies. While China is ahead of the U.S. in developing domestic digital payments, Prasad does not expect China’s CBDC – the e-CNY – to make a serious dent in the dollar’s reserve currency status, which rests on a foundation of deep and liquid dollar financial markets and a trusted rule of law. “A digital renminbi will help the currency gain traction as a payment currency, but the digitization of the currency by itself will do little to boost its status as a reserve currency.”

The replacement of national currencies with a common currency among most countries (as has occurred in Europe with the Euro and more broadly under the gold standard era) would greatly simplify cross border payments. But it would impose a monetary discipline on such countries that not all of them would want. An internationally issued reserve currency as a competitor to the dollar already exists. But the IMF’s Special Drawing Right (SDR) lacks the private market foundation enjoyed by the dollar and suffers from other governance and use challenges. It would need to be reformed.

Prasad reviews the potentials and the pros and cons of the deployment of FinTech to expand access and the efficiency of finance and payments. Prasad knows his subject matter well. He provides tons of interesting data and illustrates complicated issues with very readable stories such as payment for driver's licenses in India to the battle for and against cash in Sweden between two Björns. It is hard to think of what else you would need to know about this subject or how it could be made more interesting.