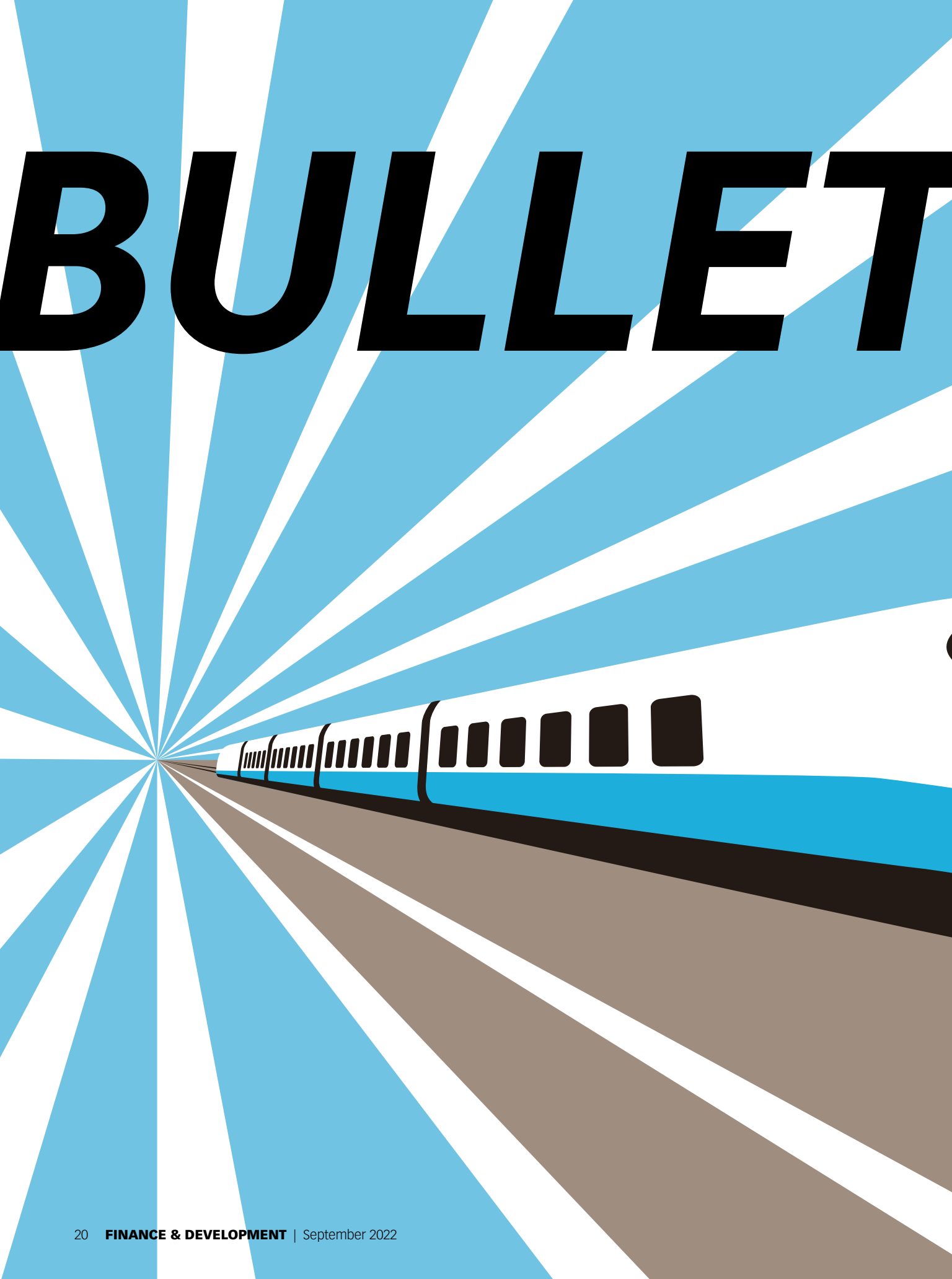
BULLET



TRAIN

New tokens and platforms may transform cross-border payments—and potentially much more

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We have all felt the frustration of sending money abroad. It takes time. It's expensive. It's cumbersome. And to some of us, it's embarrassing—because our friends who know we're economists always ask us what is going on behind the scenes, and the truth is we don't really know. It's messy.

But we redeem ourselves by talking about what the future may hold. That, people always find interesting, especially if the future promises to offer cheaper and more immediate and convenient ways to pay. Here is what we envisage: platforms offering a marketplace where digital money can be exchanged and sent internationally.

As with all good stories, it helps to start at the beginning. Once upon a time, there was money. What is money? It's essentially an IOU—a promise to pay—made by one party, like a bank, to another, like the holder of a savings or checking account. We lend funds to our bank, which in return offers us a means to buy goods and services. Modern money is credit.

As money is credit, its value lies in trust. We trust our bank to hold good-quality assets, and our bank trusts us not to engage in money laundering and terrorism financing. Trust is a two-way street. Without trust, money is no longer a good store of value or a means of payment. In exchange for a good that we sell, we accept only the money we trust. That is, money circulates only within an established network of trust.

Enter central banks

So if Joe and Sally are customers of the same bank, Joe should readily accept Sally's money—both trust the same issuer and are trusted by it. But what if they bank with different institutions, albeit in the same country? Joe (or his bank) does not necessarily know or trust Sally's bank. And yet transactions from one bank to the other are common. We take these for granted, but in fact the invisible mechanisms that make them possible were developed and refined over centuries.

To cut the story short, the trick boils down to banks trusting not each other, but the central bank. Joe's bank does not receive or hold money from Sally's bank. It receives perfectly safe—and trusted—special central bank money called "reserves" from Sally's bank. Those reserves—accounts that banks hold at the central bank—and the network over which they are traded are two essential public goods provided by central banks behind the scenes. Central banks serve as the bridges between trust networks. And these bridges allow money that Joe trusts on the one hand, and that Sally trusts on the other, to be exchanged.

Across borders, bridges between trust networks are much harder to establish. There is no commonly trusted asset or network to settle transactions. To make things worse, information is scarcer across borders and legal recourse more difficult. So the costs of establishing trust are higher.

And yet cross-border transactions do happen, albeit with the drawbacks we routinely face. Again, there's a trick, courtesy of specialized commercial banks called correspondent banks.

Imagine Sally and Joe live in different countries, and Sally wants to send money to Joe. Sally's bank contacts Joe's bank through a messaging network and asks it to credit Joe's account. Joe's bank initially protests, as it doesn't receive any funds in return. But Sally's bank offers an IOU, suggesting that next time Joe's bank needs to send a payment abroad, Sally's bank will reciprocate. It's give and take. So Joe's bank agrees to extend credit to Sally's bank (accept the IOU) and in turn to credit Joe's account. It's this handshake between banks that know each other well—that trust each other—that stands behind today's cross-border transactions.

But banks are not willing to shake many hands. Establishing and monitoring trust is costly, as is dealing with the risks inherent in extending bilateral credit to another bank. Few banks can cover these costs and still generate profits. So only a handful of very large institutions with strong bilateral relationships control the correspondent banking market. It's no surprise our payments are costly, slow, and opaque.

A radical transformation

Things could change as money becomes tokenized; that is, accessible to anyone with the right private key and transferable to anyone with access to the same network. Examples of tokenized money include so-called stablecoins, such as USD Coin, and central bank digital currency (CBDC), which some countries, such as The Bahamas and Nigeria, have already launched and an increasing number are actively evaluating.

Tokenized money introduces a radical transformation that breaks down the need for two-way trusted relationships. Anyone can hold a token, even without having a direct relationship with the issuer. Joe can send Sally tokens he holds in his wallet, as long as Sally's wallet is compatible. The

issuer of Joe's tokens may not know anything about Sally—though her wallet will.

This transformation greatly enhances the efficiency of correspondent banking. How? First, risks are lower. Joe's bank does not have to extend unsecured credit—which isn't backed by any asset—to Sally's bank to process a payment. It will receive a tokenized deposit in Sally's bank—a concrete form of money—that can be sold onward or potentially even redeemed for hard assets such as government bonds. The need for trust dissipates.

Second, Joe's bank will hold a liquid asset that it can sell, trade, or hedge more easily than an unsecured IOU. And third, correspondent banking can be made more competitive, which should improve the quality of service—including speed—and reduce fees. Sally's bank does not have to deal exclusively with the correspondents it happens to trust. Any bank or financial institution with a compatible wallet can receive Sally's payment and issue a payment to Joe's bank. Handshakes are no longer limited to close friends.

A digital platform

But handshakes do need to be coordinated. And that's where the platform comes in. The platform will broadcast Sally's payment order, collect participants' bids for correspondent banking services, and ensure payments are made in a timely fashion.

A key question is, Which assets will be traded on the platform? Tokenized bank deposits, as in the previous example, are one option. Another is CBDC. In that case, Sally's bank would first exchange its reserves for CBDC, then transfer it to a willing correspondent through the platform. The advantage is that more correspondents may be willing to engage, because holding CBDC is less risky, in most cases, than holding the liability of a foreign private company. And from a social perspective, settlement in a safe and liquid asset such as CBDC is preferable because it will give rise to fewer disputes down the line. But other digital assets, such as well-regulated stablecoins, could also be exchanged on the platform. The real requirement is that a wide body of counterparties trust the asset—not necessarily each other—to be stable.

The platform idea goes further. Instead of merely orchestrating payments (offering clearing services, in the jargon), the platform could provide settlement services—the handshakes that move money from one owner to another. In the earlier example, the handshake was between two correspondent banks. But there is an alternative: the platform could take in money such as CBDC from Sally's bank, hold it in an escrow account, and issue a token against it for settlement on the platform to Joe's bank. In essence, the platform would bring each participating institution's money onto a single ledger. Think of that as taking in different monies, putting them in a basket everyone recognizes, and seamlessly exchanging those baskets between participants and across borders.

Doing so could be extremely powerful. The platform's ledger could be leveraged to write so-called smart contracts, which are essentially programmable transactions. For instance, a payment could be made only when another is received. Or firms could automatically hedge foreign exchange risks of transactions or pledge a future incoming payment in a financial contract. More is also possible. Auctions could be designed to encourage the exchange of currencies that typically are shunned, thus expensive, in cross-border payments.

The possibilities are infinite. And that is precisely the point—the private sector would be able to extend the uses of the platform by writing smart contracts. It would do so by leveraging two key public goods: a common settlement platform and a common programming language to write smart contracts that are compatible with one another. So the platform would emerge as a tight public-private partnership. The challenge will be to find the right governance arrangements and to mobilize a sufficient number of central banks to pull this off. The IMF, with its near universal membership, is a good place to start exploring these prospects.

We will soon publish two papers on these topics with coauthors Dong He and Federico Grinberg of the IMF; Rod Garratt of the University of California, Santa Barbara; and Robert Townsend and Nicolas Xuan-Yi Zhang of the Massachusetts Institute of Technology. The papers will lay out an initial blueprint for such platforms in the hope of stimulating further discussion on these important topics, which are likely to shape the future of cross-border payments. Much remains to be explored, debated, and eventually done. The effort is certainly worth it, if anything to avoid embarrassing questions about what happens today behind the cloak of bilateral handshakes. FD

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