Hendricks Wealth & Estate Management

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Blockchain: The fastest financial technology

by Capital Group

Money should move at the speed of light. But it still doesn't – just ask anyone waiting days for a check to clear or stock trade to settle. But now, a new technology called blockchain aims to finally transform the financial services industry.

All sorts of transactions – from stock and bond trades to voting – can be sped up, made more secure, and executed at lower cost using blockchain, says Ninou Sarwono, the emerging technology lead at Capital Group. "It's not just disruptive. It's a foundational technology that could revolutionize industries and create new economies."

Most large financial institutions are experimenting with blockchain, if not already adopting it. The technology is being used in some secured loan markets. And now Capital Group is looking at how the technology could affect how it conducts trades.

What is blockchain?

It's easiest to understand what blockchain is by seeing what it is not. There's no such thing as "the" blockchain, which makes it different from the internet. Blockchain isn't bitcoin, either. Bitcoin is a digital currency that started to gain traction earlier this decade that's often confused with blockchain.

Think of bitcoin as the first application of blockchain, an underlying technology that powers digital ledgers that can be shared over public or private networks and used to track transactions. These ledgers are built out of transactions, approved by network participants, and recorded as blocks of information. As more blocks of transactions pile up, they are securely chained to older transactions. These chains of data can then be shared and added onto by trading partners.

Why blockchain is a game-changer for financials

Blockchain is alluring to financial firms because it gives parties a way to establish trust when dealing with each other directly, says Capital Group investment analyst James Bray. This is imperative with financial transactions. "There are many use cases for blockchain," Bray says.

There's no need to keep a large centralized database of transactions or rely "on a man in the middle or central authority" to reassure parties to a transaction that the process is legitimate, Sarwono adds. Members of the chain can confirm transactions and update their ledgers with each other in real time.

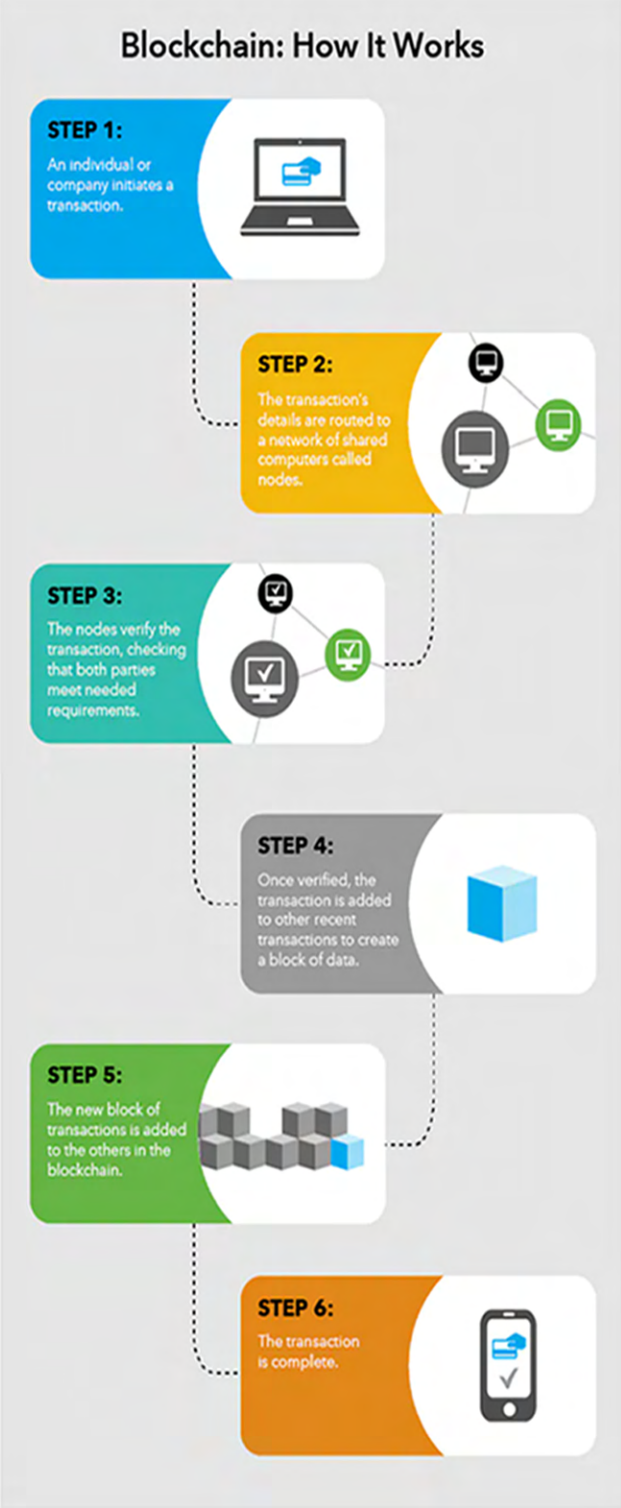
This is dramatically faster, more reliable and less costly than routing transactions to a centralized database that needs to be checked and processed, he says. Blockchain could reduce the cost of investment banking infrastructure for eight of the 10 largest global investment banks by 30% on average, according to a report co-authored by Accenture and Aon.

The financial industry could use an upgrade. It still takes three or more business days before buyers and sellers of many financial instruments, including commercial paper, can settle those transactions. Blockchain could eliminate this delay, allowing securities and funds to trade hands immediately by instantly confirming that the seller has the security and the buyer has the funds.

There's a convenience to this, but financial gains are possible, too, says Bray. Banks must hold cash reserves until many financial transactions are settled. Since transactions are settled instantly with blockchain, these reserves could be freed up, with the funds put to more profitable use.

Blockchain isn't just faster, it's cheaper. Consumers often pay a roughly 4% fee to send money to individuals in some other countries, Sarwono says. A startup called Abra has an app that allows two people to exchange money, using blockchain and no middleman, for a fraction of the cost.

Regulators are mostly onboard, too, since the technology could give them transparency and traceability, which was lacking during the financial crisis that began in 2008.



Barriers to blockchain persist

There are still barriers, but they're more about business than technology. Many of the companies that act as intermediaries in a variety of transactions will determine how fast blockchain is adopted.

Current financial intermediaries do more than just clear transactions. They usually also provide a guarantee to trading partners that they have recourse if something goes wrong. Visa, for instance, not only clears purchase transactions, but also gives consumers peace of mind that they don't have to pay for a product if it is defective. This "governance layer" of transactions is as critical as the actual transaction processing, Bray says.

The race – and pressure – is on to figure out how to add this governance layer into blockchain technology. Financial firms that stand to move the fastest fall into three groups, Bray says, including those that are:

Vertically integrated. Firms that control most aspects of their production could be early adopters of blockchain. The Australian Securities Exchange, for example, has prototyped a blockchain-based system to clear and settle trades, and will decide later this year whether or not to replace their legacy system with this new approach. It can do this because the exchange itself performs the clearing and settlement processes.

The financial system in the U.S. uses a variety of companies in different parts of the stock settlement and voting process, so blockchain faces more delays here – but the financial ecosystem in the U.S. could benefit from lower costs if the technology is adopted, Bray says.

Stewards of trust standards already. Companies that have a strong system built to protect buyers and sellers are in a position to adopt blockchain, too. These companies could replace their older ways of conducting transactions with the newer technology and keep their stewardship functions in place. An example is New York-based Depository Trust & Clearing Corporation, the firm that clears and settles a majority of financial stock transactions.

Looking for a technology upgrade. Some members of the financial transaction industry are still bogged down with old technology. Maintaining these systems requires finding programmers with difficult-to-locate skills. These firms might upgrade to blockchain as a way to broaden the pool of people they can hire with more current skills, Bray says.

Dozens of small financial firms with venture capital backing are on the vanguard of the technology. Capital Group has formed a research team to examine how it's being used in several industries on several continents. Depository Trust & Clearing Corporation is building a blockchain to clear $11 trillion worth of derivative transactions. And Visa is working with enterprise blockchain provider Chain to build a fast and secure business-to-business payment system using blockchain.

Three out of four capital market players surveyed last year by Deutsche Bank said they think "distributed technologies," or blockchain-type technology, would be widely used in six years. "We can see this is getting real," Sarwono says.

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