

Pay It Forward, Globally

Corporate payment processes are transforming rapidly amid explosive technological and economic change. What must financial institutions do to deliver?

Recently, a client came to me with a request that speaks to the frustration building over the global payments system. This client, a major agricultural producer based in the U.S., had seen its business change dramatically in recent years. Where once it sourced the vast majority of its product from industrial-scale farming operations located within a thousand miles of its headquarters, it now found itself dealing with suppliers large and small in countries throughout the developed and emerging world—including small collectives of farmers in some of the remotest regions of East Africa.

This shift was a by-product of the same megatrends that have transformed many of our clients' businesses. Globalization has increasingly eliminated borders and brought people, ideas, cultures and commerce together in ways never seen before. At the same time, digitization has revolutionized how people consume products and services, the relationships companies have with their customers, and the composition of their supply chains by enabling ever smaller companies to participate in global markets. While these forces have disrupted business models, they have also created enormous opportunities to expand markets, increase efficiencies and speed up the pace of commerce. Except, unfortunately, when it comes to making and receiving payments.

Even deep in the Kenyan highlands, most people today have cell phones. That connectivity had helped our client solve many of the logistical challenges involved in sourcing, pricing and transporting the high-quality wheat grown in the region. When it came to actually paying the farmers for their product, though, the company was at a loss. It couldn't wire the farmers the money because the offices of the nearest wire services were hundreds of miles away. It couldn't write them a check because most didn't have bank accounts. The company finally resorted to physically shipping them cash, creating an enormous security risk for the company and its employees. Indeed, a violent raid on one of those cash shipments forced the company to double down on the heavily armed security details it hired to escort the payments to their destinations. In exasperation, the company came to our transaction services team and asked: "Can you help us get the guns out of payments?"

As it turns out, while we had not couched it in those terms before, we had been devoting considerable time and resources to answering a similar question. [Whether they are digital businesses born global or a generations-old agricultural conglomerate, companies throughout the world are seeing their supply](#)

Key takeaways

- Forces such as globalization and digitization have disrupted business models, creating new opportunities and efficiencies except when it comes to payments
- Companies are gravitating towards business models in which they become a switch — connecting with people across a network
- The new value in the bank value stack is using information we already have and organizing it to provide greater value

The impact of global megatrends

chains rapidly digitize and elongate to include vendors that heretofore either did not have access to global markets or were too small to be dealt with directly. On the distribution side, the same forces are causing global payment volumes to explode and notional values simultaneously to decrease. These changes are demanding an evolution in the financial supply chains. Yet, at best, the core correspondent banking infrastructure has failed to evolve as quickly and, at worst, has moved in the opposite direction, as governments and regulators focus on fiscal policies, regulation and infrastructure investments meant to improve their local economies and not necessarily to facilitate cross-border commerce.

Addressing these challenges requires an entirely new way of thinking about the treasury services value proposition and the role banks play in the global payments ecosystem. Companies are no longer looking to banks for traditional commoditized products. Rather, they are looking for broad commerce solutions that enable them to conduct business efficiently and safely globally yet in an increasingly localized and digitized world. Corporations need access to the best tool for the job, wherever the job may be, and the ability to access it seamlessly and digitally.

Banks' support of cross-border trade and commerce has a deep history dating back to the financing of trade by the Phoenicians in 1000 B.C.¹ In more modern times, banks' product capabilities were created and delivered on the back of their international branches and correspondent networks. In the simplest transactions, where both parties banked with the same institutions, banks owned both ends of the value chain. Even where the parties banked with different institutions, banks' value derived from navigating the complex regulatory and technical challenges inherent in moving money via correspondent partners across myriad local payments infrastructures, in addition to providing performance guarantees, credit in the form of trade finance and currency conversion services. At a certain level, most money still moves around the world in this way—with a bank in one of part of the world debiting the account of one of its clients, then debiting its own account with a correspondent in another part of the world so that correspondent can credit the account of its customer to complete the transaction.

Of course, these networks and the communication systems that eventually grew up to support them—the Society for Worldwide Interbank Financial Telecommunication (SWIFT) is an example—have evolved considerably over years. Central clearing systems, such as the Automated Clearing House (ACH) in the U.S. and BACS (formerly Bankers' Automated Clearing Services) in Britain, emerged to net out settlements between payment institutions daily instead of for every transaction. Even faster and more efficient payment systems arose to

handle low-value transactions and more easily support the settlement methods provided by electronic wallets, such as PayPal. However, at the same time many of these changes were occurring, a major paradigm shift, largely at odds with the very structure of the global payments system, was taking place in the global economy. Just how significant is this shift? Consider a few facts about some of the trends that are transforming the world into a digital on-demand society.

Companies are adapting rapidly to the new ecosystem. In less than a decade, some of the largest enterprise software companies went from an in-country CD distributor-based business model to a global cloud-based delivery model. Yet the system these companies rely on to pay developers and collect payments is still fundamentally a regional closed-loop system requiring a time-consuming, opaque and expensive process for payments to move from one currency and jurisdiction to another. It is the equivalent of mailing a letter and having it translated and retranscribed on the other end versus sending an instant message. What's more, to extend the coverage of its payment system, the same multinational company might work with five different banks, each using a slightly different version of the standard protocol for financial messages. Interoperability—the need to get these different protocols to talk to one another—further adds to the time delays, costs and reconciliation challenges, not to mention the risk that important information will get lost in translation.

44mn

• Number of people who work online across borders.²

12mn
freelancers
180
countries

• On the Upwork network alone, 12 mn freelancers from 180 countries connect with clients for web, mobile and software development, graphic design, marketing and other projects, each one of whom needs to be paid.³

12%

• E-commerce's portion of the global goods trade.⁴

3.6%

• Cross-border data flows—a measure of how much of the value chain for all goods and services has moved online—contributed 3.6%, or \$2.8 tn, to global GDP in 2014.⁵

41
mn

• Nearly 15% of internet users, or 40.7 mn individuals, will use only a mobile device to go online in 2017, an increase of 11.2%, and the number of mobile-only internet users will continue to rise as more people abandon internet usage via desktop/laptop.⁶

2.5bn

• By the end of 2015, more than 2.5 bn people, a third of the global population, owned smartphones.⁷

33%
CAGR

• Global shopping platforms are challenging traditional country-based retail models. As of mid-2016, the value of goods traded through the two largest online retailers had grown to \$700 bn, a compound annual growth rate of 33% since 2012.⁸

The newly nimble competitive environment

Compounding the challenge for banks is the fact that it's not as if there aren't credible alternatives emerging. As companies demand faster, cheaper and more efficient solutions, fintech disrupters are moving in. Investment in fintech companies increased from \$1.8 billion in 2010 to \$19 billion in 2015.⁹ These firms are nimbler than banks, able to develop solutions from a digitally clean slate less hindered by the regulatory constraints that place such large demands on banks' technology investments. As a result, even the most technologically advanced banks struggle to out-innovate the fintechs.

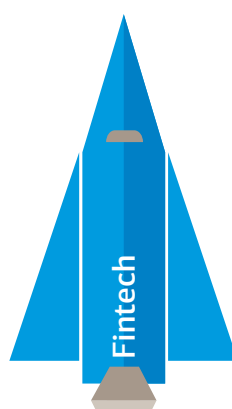
However, banks have their own advantages. Fintechs will likely never approach the scale, breadth and depth of relationships that banks have with their customers. By partnering with a

bank, a fintech can remove some of the risk from the equation for the shared client, and potentially provide a key new capability within the appropriate regulatory framework at greater scale and even more quickly and efficiently than it can on its own.

Earthport, for example, has a growing network of 60+ countries where they deliver payments through local clearing systems. They work with bank partners, regulators and central banks to ensure the service is compliant and on pace with local developments. Bank of America Merrill Lynch has a strategic arrangement with Earthport that allows us to extend our global reach of payment services while maintaining a smaller international branch footprint.

Rise in fintech investment⁹

\$19 bn
in 2015



\$1.8 bn
in 2010

The importance of the switch

The same forces transforming their clients' businesses are transforming banks' own business. Each year, core offerings from loans to investment management are being "vaporized," with physical processes and records being replaced with invisible software that can be downloaded instantly anywhere at any time from any mobile device.¹⁰

In other industries, companies are gravitating toward a business model in which they become a switch—connecting and communicating with two sets of people across a network. In the early days of telecommunications, switchboard operators served as connectors and traffic routers.

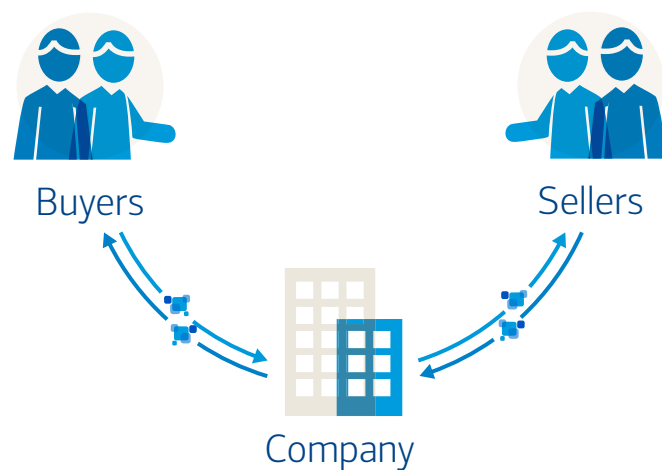
Today, the vaporized economy makes owning the switchboard potentially more valuable than owning any of the physical assets it connects.

Industries from retail to lodging to transportation have shown the way that vaporization can transform business. Some of the world's current fastest-growing companies all act as switchboards, connecting buyers and sellers, rather than doing the buying and selling themselves.

To transform their businesses to compete in an age of vaporization requires that banks explore how to leverage their physical assets and correspondent relationships with digital assets they don't own and will never own. The core of the strategy is predicated on vaporizing as much of their physical infrastructure as possible to gain efficiency, scalability and flexibility, while becoming the switch enabling efficient cross-border commerce using all relevant payment rails and mechanisms. In the new banking model, the endpoint of the banking relationship is as likely to be a digital wallet like PayPal or the mobile-phone-based M-PESA, a credit card network or an electronic purchase order as it is to be another bank. And transaction messages are as likely to spend as much time traveling along new, digital rails as they are over SWIFT, ACH or a bank's own systems.

The new digital switch

Digital flows are now facilitating physical flows



As the media has widely reported, blockchain could very well be a key component of this new model. The technology has the potential to help eliminate most of the inefficiency plaguing cross-border payments. As important, in delivering all the pertinent data about a transaction within the payment itself, it can also reduce paper processes and friction. It becomes, in the words of *The Economist*, a “trust machine,”¹¹ a cryptographically pure mechanism to transfer transaction information, store it, verify it and establish ownership.¹²

However, blockchain is hardly the only technology advance that is furthering digitization across the transaction services business. Existing technologies used in new combinations may prove to be just as important, particularly for handling low-value high-volume transfers. All these technologies are about taking manual or semi-manual processes and making them simpler, faster, more self-contained and, ultimately, more intelligent and self-actualizing. In many ways, this is the ultimate “new bank value” in the bank value stack: the ability to utilize the information we already derive every day and organize it to provide greater insight and value for clients.

Consider the many forms of payment data that banks collect today, including payment instructions, remittance information, timing, frequency, client type and location. One can easily imagine scenarios in which banks use the new data-rich pipes to extract a deeper level of analysis that can help a client develop more effective cash-flow forecasts, manage its liquidity or improve its spending patterns compared with competitors.¹³ Similar services could be used to partner with fintechs to identify other sorts of patterns among clients and industries to predict the likelihood of fraud. The new global currency isn’t necessarily bitcoin, per se. It’s data, and it appreciates in value by the type of actionable insights it provides to clients. Banks, given the existing depth of their relationships with their clients, are well positioned to leverage their new role as switchboard to become top providers.

Going the distance

These new technologies present tremendous opportunities for a global switchboard of payments, in which banks move from the periphery of the transaction services value chain into the middle.

At Bank of America Merrill Lynch, we are working toward a vision where we are a digital switch through which our clients and their trading partners and customers can conduct cross-border commerce in a safe, regulatory-compliant, fast, seamless and data-rich way. This new financial supply chain will not simply move money. Rather, it will enable participants to extract value in the form of data insights, financing, liquidity and risk mitigation.

Moreover, the capabilities provided will not be solely those of our bank but will harness the best of breed capabilities of fintech companies as well as traditional local banks. To use an analogy, smartphone adoption has not taken off just because of the capabilities of the device. It has exploded because of the partnerships with the carriers and the ecosystem of application developers, banks and myriad other innovators. We aim to bring digitization to cross-border commerce much like smartphones have brought it to our everyday lives. In the not-too-distant future, as we continue to patch disparate payment systems into our switchboard, we expect payments to be able to move seamlessly and digitally from the bank accounts of a Fortune 500 agricultural conglomerate based in the U.S. into the M-PESA accounts of farmers in the Kenyan highlands. So, can we help our client get the guns out of payments? Absolutely.

SOURCES: 1. *International Economics, Finance and Trade: International Economics*, Vol.1, Edited by Pasquale M. Sgro (2009); 2. Digital Globalization: The New Era of Global Flows, McKinsey Global Institute (2016); 3. Upwork user data as of 3/29/2017; 4. Digital Globalization: The New Era of Global Flows, McKinsey Global Institute (2016); 5. Digital Globalization: The New Era of Global Flows, McKinsey Global Institute (2016); 6. US Digital Users: The eMarketer Forecast for 2017, *eMarketer Report* (Feb. 2017); 7. 2016 Internet Trends, KPCB (June 2016); 8. BCG Perspectives: What You Need to Know about Globalization’s Radical New Phase (July 20, 2016); 9. Digital Disruption: How Fin Tech is Forcing Banking to a Tipping Point, Citi (2016); 10. Tercek, Robert. Vaporized: Solid Strategies for Success in a Dematerialized World, LifeTree Media, Ltd. (2015); 11. “The promise of the blockchain: The trust machine,” *The Economist*, (Oct. 29, 2015); 12. “The promise of the blockchain: The trust machine,” *The Economist*, (Oct. 29, 2015); 13. Payment Analytics—Gaining Insights and Creating Competitive Advantages, Aite (Sept. 23, 2015).

“Bank of America Merrill Lynch” is the marketing name for the global banking and global markets businesses of Bank of America Corporation. Lending, derivatives, and other commercial banking activities are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., Member FDIC. Securities, strategic advisory, and other investment banking activities are performed globally by investment banking affiliates of Bank of America Corporation (“Investment Banking Affiliates”), including, in the United States, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Merrill Lynch Professional Clearing Corp., both of which are registered broker-dealers and Members of SIPC, and, in other jurisdictions, by locally registered entities. Merrill Lynch, Pierce, Fenner & Smith Incorporated and Merrill Lynch Professional Clearing Corp. are registered as futures commission merchants with the CFTC and are members of the NFA. Investment products offered by Investment Banking Affiliates: Are Not FDIC Insured • May Lose Value • Are Not Bank Guaranteed. ©2018 Bank of America Corporation. ARD6QVKH 03-18-0530