

The FinTech Universe Series:

“What is FinTech and How Did We Get Here?”



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This article will focus on the function of FinTech what their roles are in local economies and why they are so critical to our global economy and our financial well-being.

The essence of what banking is hasn't changed since 800 B.C. when the Babylonians first conceived banking. If I were to describe banking in a single sentence, it would be it's a medium for financial exchange. So what does this mean? At the core of every bank, regardless of its size, is a business model that focuses on receiving deposits and using those deposits to make loans.

Where the complexity comes into banking is with the variety of products that make up deposits and loans and the transactions associated with these products . This means that banks work as intermediaries between two sets of parties, those that want to deposit funds and in return receive interest in the form of monetary compensation. And then there are those who want to borrow funds and in return pay interest in the form of monetary compensation.

The interest that a bank receives from lending is then paid to depositors less, a margin that the bank takes for providing the service. And the final part of this is liquidity. For example, when I deposit my money with a bank, I'm in effect lending my money to a bank on the promise that the bank will return this to me if and when I ask for this back. This is where liquidity comes into play. Banks need to be able to respond to depositors demands quickly. Banks are required to retain a certain amount of deposits in liquid assets to meet the day-to-day demands of depositors.

Given that banks are in the business of lending, recalling loans and asking for borrowers to return funds, for example, by selling their homes to make depositors demands is impractical. The business model of banks is wide, so it includes retail banks, so banks which target people like you and me for our everyday banking needs. Then there are commercial banks. These banks typically focus on business banking from small businesses right through to larger, sometimes even global enterprises. This includes familiar names like BNP Paribas and ICICI in India. They provide similar products and services as retail banks, as well as in deposits and lending.

But the design and focus of the products and services is tailored to the unique needs of business clients. Then there are well known investment banks like Barclays, Goldman Sachs, Deutsche and Morgan Stanley. They're world famous and there's a reason why these guys operate in the big league. Investment banks tend to focus on capital financing and wholesale banking for enterprises and governments, using a variety of methods, including equity, debt, IPO's bonds, mergers and acquisitions, portfolio management, etc.

They are big revenue and profit generators. In 2019 Goldman Sachs reported net revenues of thirty six point five five billion dollars, which is the GDP of Bolivia. Now, whilst a split these business models out, it's not uncommon for a bank to operate across all three models.

So the question is, what is the next technological step in banking? In a word FinTech.

To its advocates, the FinTech wave of innovation promises of FinTech revolution that will democratize financial services. In this process, consumers will get more choice, better targeted services and keener pricing. Small and medium sized businesses will get access to new credit. Banks will become more productive with lower transaction costs, greater capital efficiency and stronger operational resilience. The financial system itself will become more resilient with greater diversity, redundancy and depth, and most fundamentally, financial services will be more inclusive, with people better connected, more informed and increasingly empowered.

With hundreds of millions now entering the digital financial system every year, could higher economic growth and a quantum leap in social equality beyond the horizon? Or will the range of new financial technologies primarily make existing institutions and markets more efficient and effective?

First, let's look at the financial services value chain. Technological innovation has long been paired with finance, today's system is the product of past advances, beginning in a the simpler age in the 15th century. Building on this foundation, a range of innovations from the telegraph of the 1960s to the digitization of the ledger a century later have created what they call the plumbing of modern pavements clearing and settlement infrastructures necessary for global financial institutions and for cross-border wholesale markets.

More recently, customer access has been opened up with the introduction of the first automated telling machines in the 1960s, the arrival of online banking and brokerage in the 1980s, and the rapid rise of mobile banking since the millennium.

The Financial Stability Board (FSB) defines FinTech as a technologically enabled financial innovation that will result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services.



Just a note about the FSB, the Financial Stability Board, which is an international body that monitors and makes recommendations about the global financial system, was established after the 2009 G20 London summit held in April of that year and was a successor to the previous organization, which was called the Financial Stability Forum.

Innovation can be defined simply as a new idea, device or method. In other words, it is doing something in a new way. Disruptive innovation is a term in the field of business administration, which refers to an innovation that creates a new market and value network and eventually disrupts and existing markets and value network. That's the important part. And when it does this, it displaces established market leading firms products and alliances. So the financial services value chain, traditional universal banks combine the customer relationship, retail and commercial deposits and lending, and a wide range of activities in wholesale money and capital markets.

FinTech companies are providing domestic and cross-border payment services on a significant scale through products like digital wallets or prefunded any money, technology firms take a slice of payment revenues and in many cases, all of customer transaction data. Once the data is processed, they are systemically or systematically capturing the type of knowledge a teller once used to gain from his or her daily interactions with customers in the bank branch. Some providers are leveraging this data to sell the customer's nonbank products and services. Thus, the desire to avoid regulation reduces their incentive to integrate upstream to conventional banking. Traditional universal banking begins with the customer relationship or put it another way, the interface that the teller once provided, The teller, once the historic preserve of the established financial institution, is now being eliminated.

And how is this happening?

We've got aggregators making use of banks, application program interfaces or APIs. These are providing customers with easy access to price comparisons and switching services. Competitive policies are reinforcing this competition as an example, the European Union's second payment services directive, better known as PSD2, will allow conditional FCA authorization and customer authority and nonbanks to access customer bank account data in the United Kingdom.

The Competition and Markets Authority has required that the UK's nine largest banks adopt an open banking standard for APIs. Meanwhile, robo advisers are deploying algorithms to deliver affordable automated investment advice to retail customers.

As customers become more willing to delegate decision making to machines, their funds and their loans are being better matched with the best rates from around the system. These flows could become seamless if public policy initiatives and new technologies combine to create digital credentials that are universal, durable and, of course, reliable. In other FinTech players, there's increasing competition in the retail and commercial banking field by providing lending and borrowing platforms for retail corporate customers.

In a number of the G20 countries, new business models draw on big data and advanced analytics to tailor products and services to customers and disciplined credit underwriting. For example, peer to peer or P2P lending has grown rapidly in recent years from a very small base.

P2P lending now represents about 14 percent of the new lending to small and medium enterprises, also abbreviated as assignees. Estimates suggest that more than half of these credits were unlikely to have been provided by the existing banking system.

Other platforms are allowing firms to borrow against invoice receivables, drawing on data gathered directly from software that customers use to manage their accounts payable. Some of the more radical innovations underway are in emerging economies. E-commerce platforms in China, for example, are using algorithms to analyze transactions and search data to improve credit scoring. The result has been a significant expansion of credit availability with low default rates, albeit ones not yet tested by any economic downturn. In the wholesale banking market, the direction of development over the past few years has been from an intermediated trading, and this involves banks or dealers either via voice or electronically to non intermediated, more fully electronic. In other words, automated audit driven trading systems.

Securities such as equities and futures are traded electronically, including through exchanges, algorithmic trading has grown rapidly. Technological improvements and the growth of multilateral trading venues led to the emergence of something called high frequency trading firms from a small base in the early 2000s. Estimates now suggest that they and that's the high frequency traders account for up to three quarters of equity trading volumes around and around 40 percent of foreign exchange trades.

The Technology Play

FinTech as to begin with a customer relationship and extend to retail and commercial banking and onto a wholesale banking and markets. Finally, technology promises change to the wholesale payment, clearing and settlement infrastructure, emerging technologies such as the distributed ledger or more popularly known the block chain could in future offer significant gains in the accuracy, efficiency and security of processes across payments, clearing and settlement, as well as better regulatory compliance. In the process, tens of billions of dollars of capital may be saved and resilience could be significantly improved.

Security settlement in particular, seems ripe for innovation. A typical settlement chain can involve many intermediaries making security settlements comparatively slow with a high level of operational risk as well as high costs. Yet despite all these advances, finance continues to be arranged around a series of hubs like brokers, clearinghouses and exchanges.



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Whereas in other areas, people are increasingly forming connections directly, instantaneously and openly revolutionizing the way we communicate and live. The extent to which finance could be redrawn depends on superficially mysterious but fundamentally vital enabling technologies.

The emergence of mobile telephony, the universal availability of the Internet, availability of high speed computing, advances in cryptography and innovations in machine learning could all combine to enable rapid change in finance, just as they are in other areas of the economy. So what does FinTech promise to bring to the party? The technology promise comes from its potential to unbundle banking to its core functions. What are these core functions? Settling payments, performing maturity, transformation, sharing risk and allocating capital. This possibility is being driven by new entrants like payment service providers, aggregators and robo advisors, peer to peer lenders and innovative trading platforms, and it is being influenced by incumbents who are adopting new techniques in an effort to reinforce the economies of scale and scope of the business model.

In this process, new systemic risks will involve changes to customer loyalties, could influence the stability of bank funding, new underwriting models could impact credit quality and even macroeconomic dynamics. New investing and risk management paradigms could affect market functioning. A host of applications and new infrastructures could reduce costs, probably improve capital efficiency, and possibly create new critical economic functions.

The challenge for policymakers is going to be to ensure that FinTech develops in a way that maximizes opportunities and minimizes the risks for society as a whole. After all, the history of financial innovation is littered with examples that lead to early booms, growing unintended consequences and eventual busts.

Either way, FinTech is here to stay. The question is how will public policies and regulatory boards govern the space and more importantly, how will FinTech impact our global economy? The next article in this FinTech Universe Series will unpack what the future holds.

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