



Research

# FinTech: A Primer

MEGHAN MILLOY | FEBRUARY 22, 2017

## Overview

- Financial technology (FinTech) generally can be broken out into four main categories: 1) online or marketplace lenders, 2) crowdfunding – whether that’s funding in exchange for an equity stake or not, 3) blockchain technology and cryptocurrencies, and 4) mobile payments and wealth management.
- In 2015, funding of new FinTech companies more than doubled to \$12.2 billion from \$5.6 billion in 2014. PwC estimates that up to 28 percent of traditional banking and payments services and up to 22 percent of insurance, asset management, and wealth management business is at risk of being taken over by FinTech companies by 2020.
- Who will regulate FinTech companies and how they will be regulated is probably the biggest uncertainty facing FinTech today. As it stands now there is no one-size-fits-all approach to FinTech regulation. Depending on what services a company may offer, it can be regulated by the states in which it operates, by federal banking regulators, or indirectly through a charter of a depository institution with which it is partnered.

## Introduction

FinTech has been getting a lot of attention lately. Whether it was the Super Bowl ad promoting [mortgage approvals via iPhone app](#) or the more familiar emergence of mobile payments via Apple Pay and the like, consumers of all ages and walks of life are being exposed to new technologies that (ideally) are making their financial transacting a little bit easier.

Recently, a prominent member of the House Committee on Financial Services [argued that FinTech](#), not burdensome regulations like Dodd-Frank, is the biggest threat to community and regional banks. Statements like this back up the concerns of many in the FinTech world – that, instead of opening the doors for FinTech to continue to evolve and develop further consumer-facing technologies, Washington will try to level the playing field by levying heavy-handed regulations on FinTech companies.

This paper seeks to explain the types of FinTech that exist, the benefits they convey to their users, the threats or perceived threats they present to traditional financial services, the regulatory environment facing FinTech, and how these companies can converge, instead of collide, with traditional banks and their regulators.

## What’s out there?

FinTech generally can be broken out into four main categories: 1) online or marketplace lenders, 2) crowdfunding – whether that’s funding in exchange for an equity stake or not, 3) blockchain technology and cryptocurrencies, and 4) mobile payments and wealth management.

## Online Marketplace Lenders

Also known as “peer-to-peer” or “platform” lending, online marketplace lenders are online platforms that connect consumers or businesses seeking to borrow money with investors willing to lend to the borrowers or invest in a company. Originally, online marketplace lending emerged as a “peer to peer” marketplace—individual investors providing financing directly to specific borrowers. Over time, these companies’ investor bases evolved from solely individual investors to institutional investors, hedge funds, and financial institutions.

Two types of business models have developed in the online marketplace lending industry: (1) direct lenders; and (2) platform lenders. Direct lenders, also called balance sheet lenders, originate loans that they keep in their own portfolios. On the other hand, platform lenders partner with a depository institution to originate the loan. After the loan is originated, platform lenders buy the loan from their partner depository institution to sell to investors either as whole loans or by issuing securities backed by the loans. To combat varying economic environments, some companies like OnDeck have developed a hybrid model, selling some of the loans they originate and retaining some for their own portfolio.

Despite different business models and funding sources, online marketplace lenders share several characteristics: fast access to credit; the ability to offer smaller loans with shorter maturities; simple, online applications; no physical branches; reliance on a variety of funding sources; and electronic data sources and technology used to enable underwriting. The platforms generate revenue from origination fees, servicing fees from a portion of the interest generated, and late fees. Investors receive the remaining portion of the interest and borrowers benefit from a streamlined process, quick funding decisions, greater funding and credit availability. In 2014, \$5.5 billion in loans were issued through online marketplaces. [PwC estimates that the market could grow](#) to greater than \$150 billion by 2025 based on its average growth of 84% per quarter since 2007.

## Crowdfunding

Crowdfunding is an alternative source of financing in which a project or venture is funded by raising contributions from several people. Crowdfunding requires three main actors: the project initiator who has proposed the project, individuals or groups who support the idea, and a platform (Kickstarter, Indiegogo, etc.) that brings the two together. There are three main types of crowdfunding: (1) donation or rewards-based crowdfunding, (2) equity crowdfunding, and (3) peer-to-peer lending, or debt crowdfunding.

Rewards-based crowdfunding is what most people think of when they hear “crowdfunding.” Donors (or investors) give money to projects in return for some type of reward (usually early access, a discount, or recognition for donating). These are generally designed to raise a few thousand dollars and come in two forms: (1) “all-or-nothing” where the entrepreneur sets a goal and only keeps the money if the fundraising goal is achieved and (2) “keep-it-all” where the entrepreneur sets a fundraising goal and keeps all of the funds, regardless of whether or not the goal is achieved. In both types, the entrepreneur does not sacrifice any equity in the company.

Equity crowdfunding involves companies selling off actual stakes in the company to interested investors. It is typically for companies looking to raise larger amounts of money from more serious investors, although some sites like [Seedrs](#) are beginning to open up equity crowdfunding of startup companies to amateur investors through a platform similar to many online marketplace lenders. Equity crowdfunding comes in two forms: open and closed. Open allows any company to raise money from any investor, and closed screen the companies

before launching them on the platform.

Debt crowdfunding is a form of peer to peer online marketplace lending discussed above wherein a borrower submits an application and investors then are able to directly or indirectly lend money to the borrower. [Lending Club](#) is probably the best example: using an automated system, the borrowers' credit risk and interest rates are determined, and investors then have the ability to buy securities in a fund that makes the loan, paying them back with the interest earned.

### Blockchain and Cryptocurrencies

The most familiar cryptocurrency is BitCoin, and blockchain is the technology that drives it. Even BitCoin skeptics admit that blockchain technology has the potential to revolutionize financial transactions. Blockchain is exactly that, a "chain" of "blocks," each block containing a public ledger of the time, date, participants, and amount of all transactions of that particular currency. As each new block, or link, of the chain is added it includes the complete ledgers of all the links before it, creating a system in which all information on the network is recorded and presumably cannot be the creation of a fraudulent link on the chain.

Traditional banks currently use a system called SWIFT (the Society for Worldwide Interbank Financial Telecommunication), which was created in the 1970s as the way to securely send electronic transfers. Since SWIFT is funded by banks themselves, an overwhelming majority of banks use SWIFT, and they use it a lot. On June 30 of last year, [30,392,943 messages were sent](#) over SWIFT in just a 24-hour period. Even so, some have suggested that blockchain technology [could eventually replace SWIFT](#), if the fifty year old system doesn't incorporate blockchain and other emerging technologies first.

### Mobile Payments and Wealth Management

These are probably the most well-known variety of FinTech. Mobile payments and wealth management are exactly that: payments and wealth management that users can make and manage right from their mobile device. Whether that's making deposits through a traditional bank's mobile banking app, transferring funds to family through apps like Venmo or PayPal, managing one's investment portfolio through a variety of apps, or paying at the grocery store with Apple Pay, most people with a mobile phone participate in mobile payments and wealth management on a daily basis.

### **What good are they doing?**

Perhaps the Comptroller of the Currency said it best, when, in his Office's recently-released paper entitled [Exploring Special Purpose National Bank Charters for Fintech Companies](#), he said, "...we have a diversified and evolving financial services industry. New technology makes financial products and services more accessible, easier to use, and much more tailored to individual consumer needs. At the same time, consumer preferences and demands are evolving, driven by important demographic changes: for example, the entry of 85 million millennials into the financial market place in the United States. Responding to this market forces are thousands of technology-driven nonbank companies offering a new approach to products and services. Five years ago, these services either were available only from traditional banks or not available at all. Initially, many of these nonbank providers of financial services viewed themselves as competitors of banks. Now, some financial technology – or FinTech – companies are considering whether to become banks."

Like any good technology, FinTech is improving convenience and advancing productivity. It's taking the

financial sector to new places and engaging users that wouldn't have engaged before. And, for many, by foregoing big brick and mortar branches with all the staff that entails, FinTech companies are better able to cut costs, operate more efficiently, and invest more revenue back into research and development. For some FinTech companies, their flexibility allows them to bridge credit gaps, which ends up aiding the underbanked and the credit invisible consumers that need these services the most.

### **What threat do they present to traditional banks?**

Just like any other new, disruptive technology, FinTech companies' existence and ever-increasing market share threaten the very existence of traditional banks. The more that consumers are able to interact with FinTech companies that accomplish similar banking services as their traditional banks but with either lower fees or easier access, those consumers will start to drift away from their traditional banks and those accounts there.

In 2015, [funding of new FinTech companies more than doubled](#) to \$12.2 billion from \$5.6 billion in 2014. PwC estimates that up to [28 percent of traditional banking](#) and payments services and up to 22 percent of insurance, asset management, and wealth management business is at risk from FinTech companies by 2020. Globally [over 63 percent of consumers](#) use products or services offered by FinTech companies with consumers in Latin America leading the way at 77.4 percent usage (compared to North America at 59.1 percent). When asked what are the threats from the rise of FinTech within the financial services industry, [traditional banking executives surveyed](#) said that pressure on their margins was the biggest threat followed by loss of market share, information security, and an increasing customer churn.

On the other hand, traditional banking executives said that they perceived their biggest strength versus FinTech companies to be the trust of their customers. In fact, when the customers were surveyed, [67.4 percent of consumers in North America](#) said that they have complete trust and confidence in their bank, whereas only 35 percent said the same about a FinTech company they used.

### **What sort of regulatory environment are they in?**

Who will regulate FinTech companies and how they will be regulated is probably the biggest uncertainty facing FinTech today. As it stands now there is no one-size-fits-all approach to FinTech regulation. Depending on what services a company may offer, it can be regulated by the states in which it operates, by federal banking regulators, or indirectly through a charter of a depository institution with which it is partnered.

For example, direct lenders and peer to peer lenders must obtain a license from the department of financial services in each state where they operate. On the other hand, platform lenders rely on their partner banks' charters to make loans nationally without the need to obtain their own individual state licenses. Depending on the specifics of the business model, some online marketplace lenders may meet the statutory definition of a bank service company or as a third party service provider which subjects them to regulations and examinations by federal banking regulators under the Bank Service Company Act.

In December 2016, the Office of the Comptroller of the Currency (OCC) released a white paper entitled ["Exploring Special Purpose National Bank Charter for Fintech Companies."](#) In it the OCC lays the groundwork for what could be an upcoming application process for FinTech companies to obtain national charters allowing them to operate freely in multiple states without having to register in each jurisdiction. Predictably, state regulators were opposed to the proposition arguing that ["a federal on-size-fits-all framework for FinTech is neither possible nor appropriate."](#) On the other hand, FinTech companies and their advocates see the possibility

of national FinTech charters as a good thing. Not only will it streamline some of the regulatory hurdles they face, but the OCC's proposal's [call for "responsible innovation"](#) has FinTech companies and traditional banks looking to branch out into FinTech feeling optimistic about their future regulatory landscape. The comment period for the OCC's proposal ended on January 15, 2017, so, barring any interruptions with a new administration taking over, there should be some more definitive progress on these national charters in the near term.

Another moving piece to the FinTech regulatory puzzle is the [Jumpstart Our Business Startups \(JOBS\) Act of 2012](#). Titles II and III allow for private companies to raise capital through online intermediaries from accredited and retail investors. In October 2015, [the SEC voted to adopt](#) the crowdfunding rules from the JOBS Act, opening the door for FinTech companies to jump in take advantage of the spike in demand for crowdfunding intermediaries, but subject themselves to additional oversight by the SEC.

### **How can banks, FinTech, and regulators converge instead of collide?**

[Seventy-eight percent of bank CEOs](#) say they support the integration of FinTech, and 32 percent already engage in joint partnerships with FinTech companies. Earlier this year, the White House published its ["Framework for FinTech"](#) which begins by saying that FinTech has "the potential to fundamentally change the financial services industry and the wider economy. While still early in its evolution, FinTech can, for example, promote financial inclusion, expand access to capital for individuals and small businesses, and more broadly reshape how society interacts with financial services." As the FinTech world continues to evolve, and as traditional banks and regulators play catch up, it's becoming clear that it's in everyone's best interest to work together instead of colliding into one another.

Last year the [World Economic Forum published a paper](#) by bank executives, FinTech companies, and regulators advocating for a regulatory response to the emergence of FinTech that focuses on financial stability, ethical use of consumer data, and suitability of existing regulations while creating a framework that would allow continued growth and innovation from FinTech firms. It closed with four recommendations that still hold true today and should play a role in any conversation regarding FinTech, banks, regulations, and their convergence:

1) Debate on ethical use of data. The authors of the paper urge the government and any other financial supervisors to "facilitate a public debate involving customers and practitioners to clarify the boundaries for which actors in the financial system can use consumer data for business purposes." They argue that current standards for use of consumer data did not and could not anticipate the level of analytics captured today and that guidelines for such should be just as modern as the technologies they are overseeing. This is no different for FinTech than it is for other technological advancements being made in near every other industry, but it is important to consider increased use of data, and the safety thereof, when discussing FinTech advancements in a financial services world.

2) Public-private dialogue on transformation. The paper suggests establishing a global forum for public-private sector dialogue to discuss "technology-enabled transformation in financial services, particularly to identify areas where supervisor support is needed to develop technology for enhancing stability." Back to the theme of collaboration, it's important to note that public-private partnerships will be useful here not just for conversation but for regulatory implementation. As noted before, public-private partnerships can also help fill gaps where pure policy cannot – for example, FinTech closing in lending gaps or making credit available to unscorable or credit invisible consumers.

3) Approach standards for monitoring and understanding technology-enabled innovation. The paper thoughtfully points out that “[s]ince the crisis, there has been an increased focus on regulation and design of prudential standards aimed at strengthening the financial system as a whole.” It goes on to say that “[a]s these standards are implemented and supervisory capacity becomes available in the near term, there will be opportunities for regulators to shift focus to better understanding transformation attributable to technology.” It’s important for regulators to balance the costs and the benefits of levying hampering regulations on up and coming FinTech companies. Some risk is good, and some leeway for beneficial technology helps consumers. As a new administration comes in and as the country moves further away from the financial crisis, emphasis should be put on making regulations that work for the entities being regulated instead of arbitrarily setting unworkable standards that end up costing companies billions.

4) Proactive standard setting. The authors recommend the use of a private sector industry standard setting body or bodies that “redefine and enforce standards of good conduct in light of new technology-enabled innovations.” Not unlike entities such as FINRA or the Appraisal Standards Board, the FinTech industry could have a sort of public-private partnership for regulation, instead of relying solely on government oversight to ensure everyone is in compliance with prescribed standards of conduct.

## **Conclusion**

FinTech is an inevitable new fold in the world of financial services. At the rate it is already taking over market share from traditional financial service providers, average consumers will likely become ever more accustomed to FinTech products. Regulators and banks must take note and adjust accordingly, but it is in everyone’s best interest to work together, instead of competing to hinder one another, in order to achieve an efficient, effective, and innovative environment going forward.