

What Is Financial Technology?

TECHNOLOGY'S IMPACT ON FINANCIAL SERVICES

Tennis was invented a long time ago. How long ago? Well, it depends upon whom you ask. Similar to a number of other sports, the origins of tennis are unknown. The earliest records of the sport include paintings of European commoners and royals batting a ball around. However, the history of modern (lawn) tennis is clearly documented, as it was first publicly announced in March of 1874 by two British papers. The announcement included a patent for “A Portable Court of Playing Tennis,” which included a history of the sport, instructions for how to set up the court, and rules of the game.

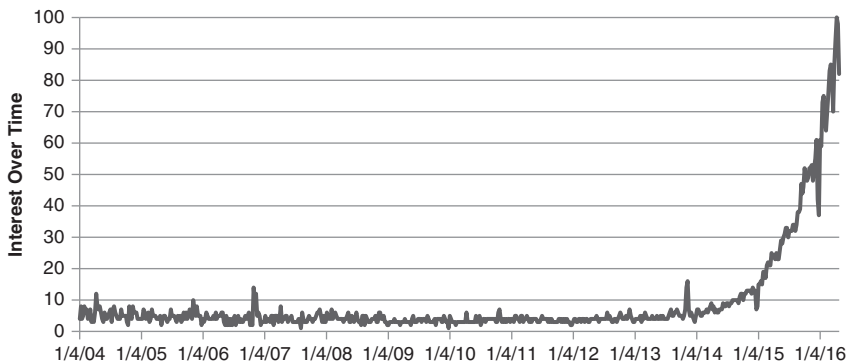
While basic tenets and elements of the game have remained similar over the years, tennis continues to evolve with changes to scoring, court surfaces, equipment, and playing styles. A key driver of these changes is the influence of technology. The development of stronger and lighter materials for a variety of industrial purposes would not at first glance be noted as a key driver of change in tennis, but these changes had a significant impact on the game. Graphite and other stronger, lighter synthetic frames are commonplace in the game today. The last wooden racket appeared in a major tournament in the 1980s. The confluence of technology and design affects balls, court surfaces, and even the pristine grass of Wimbledon. Many players now regularly use high-tech training tools to improve their fitness and stroke mechanics.

Despite these significant advances in the game over the years, tennis is not a sport that is linked with technology and a spectator at Wimbledon today would still recognize the sport if shown images from the tournament in the early 1900s. For these reasons, tennis is often referred to by pundits as being “steeped in tradition” and viewed by outsiders as a game that is slow to evolve. They can point to certain things like players still hitting the same basic strokes and the biggest tournaments still being held at some of the same venues (Wimbledon has had a tournament since 1877).

While we do not foresee those in financial institutions like banks, wealth managers, or insurance companies picking up tennis rackets anytime soon, there are a number of parallels between the evolution of tennis and the evolution of financial services. Like tennis, certain basic tenets and activities of financial services (such as depositing money, paying for goods/services, and borrowing/lending funds) have existed in some fashion for many centuries and are not expected to change in the future. However, a number of changes have occurred in the past and will continue to occur within financial services as technology increasingly intersects with financial services.

There is much excitement around technology and its potential applications within financial services as a number of pundits and analysts foresee a growing number of applications and improvements for the sector. Consumers are also increasingly asking for and adopting new technology applications. While the term *TenTech* (short for *tennis tech*) has yet to grace magazine covers and TV headlines, *FinTech* (or *financial technology*) has become commonplace in major magazines, newspapers, and TV stories within the financial services sector. The excitement around FinTech is difficult to gauge but the expansion in Google searches of the term *FinTech* and the global dispersion of those searches provide some benchmarks and evidence of the growing level of excitement. (See Figure 1.1 and Table 1.1.)

Given the growing interest in FinTech, let's address a few questions about FinTech: "What is financial technology and who are the players?," "Why is there so much excitement about FinTech?," and "Why is FinTech potentially so important for society?" By examining these key questions, we can gain a keen understanding of the topic.



Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. Likewise a score of 0 means the term was less than 1% as popular as the peak.

FIGURE 1.1 Google Search Trends for “FinTech”

TABLE 1.1 Top Search Trends for “FinTech” by Country

1	Singapore	10	Japan
2	Hong Kong	11	Australia
3	South Africa	12	Netherlands
4	South Korea	13	Canada
5	Taiwan	14	United States
6	Switzerland	15	Argentina
7	India	16	Spain
8	United Kingdom	17	France
9	Germany	18	Italy

Source: Google Trends

WHAT IS FINTECH AND WHO ARE THE PLAYERS?

Historically, FinTech was limited to back-end software of financial institutions (banks, insurance companies, wealth managers, investment banks, etc.). More recently, the term has been expanded to include any technological innovation in finance. We define *FinTech* for purposes of this book as: *companies that primarily use technology to generate revenue through providing financial services to customers either directly or through partnerships with traditional financial institutions.*

With a working definition of FinTech, let’s examine the key players and recent trends in the sector. Keep in mind that categorizing a FinTech company can be difficult as it is much like trying to categorize an all-court tennis player as a baseline, serve-and-volley, or counterpunching player. The types of financial services provided by FinTech companies can vary—ranging from technology for traditional financial services such as wealth management, insurance, payments, and banking to newer, innovative areas such as peer-to-peer lending or blockchain technology. There are also a number of technology companies that offer some form of financial services and traditional financial institutions that leverage technology to offer financial services. For example, Apple developed ApplePay, which offers mobile payment services for Apple iPhone users and could on its own be considered a payments or FinTech company. Thus, ApplePay would clearly be classified as a FinTech offering but Apple would likely not be a FinTech company given the expanse of its other non-FinTech products and services with its FinTech offerings comprising only a small proportion of revenues.

Having historically invested heavily in technology, most (if not all) traditional financial institutions offer myriad technology applications. For example, Lloyd Blankfein, the CEO of Goldman Sachs, has referred to

Goldman Sachs as a technology company.¹ Many community banks located in rural markets are often some of the more technologically advanced companies in their community. However, these traditional financial institutions would not be included within our definition of FinTech companies because traditional banking services, rather than technology, serve as the primary revenue driver.

These examples illustrate the difficulty in distinguishing between FinTech and traditional financial services—a trend likely to increase as FinTech companies become more like traditional financial institutions and traditional financial institutions become more like FinTech companies. For example, a few publicly traded banks rely more heavily on technology and less on a traditional physical branch footprint. One such example is Live Oak Bancshares (LOB) or First Internet Bancorp (IBNK). In the online brokerage space, Schwab and E*Trade can be classified as FinTech companies although they have acquired and operate bank subsidiaries offering traditional banking services such as deposit accounts and loans.

While reports vary on exactly how many FinTech companies there are, McKinsey noted that there were approximately 12,000 FinTech companies worldwide.² What reports agree on is the number of FinTech companies is growing daily as funding and interest in the sector increases. The universe of publicly traded FinTech companies is a smaller subset, but as seasoned, mature companies, they represent a notable group of FinTech companies. Their public disclosures also provide benchmarking financial information useful in tracking sector trends.

Public FinTech Companies by Niche

On that note, let's take a closer look at the publicly traded FinTech niches. Publicly traded FinTech companies can be broken into three primary niches—Payments, Solutions, and Bank Technology.

- The *Payments* niche includes companies that facilitate and/or support the transfer of money, particularly non-cash transactions. Key sub-niches include *processors* that provide solutions related to the transfer and processing of money and *software/hardware companies* that provide software/hardware that primarily supports the transfer and processing of money. At June 30, 2016, there were 32 publicly traded U.S. FinTech companies in the Payments niche and the total market cap of these companies was \$458 billion (with a median market capitalization of \$2.8 billion). The top three largest public U.S. FinTech Payments companies include Visa Inc. (\$176.9 billion market capitalization at June 30, 2016), MasterCard Inc. (\$96.8 billion), and Automatic Data Processing Inc. (\$41.9 billion).

- The *Solutions* niche includes companies that provide technology solutions to assist businesses and financial institutions with financial services. Key sub-niches include *outsourced* companies that are third-party providers of FinTech solutions, *payroll/administrative* companies that improve the human resources function through technology, and *content* companies that provide content/research that supports financial services and decision making. At June 30, 2016, there were 33 publicly traded U.S. FinTech companies within the Solutions niche and the total market cap of these companies was \$197.7 billion (with a median market capitalization of \$3.4 billion). The top three largest U.S. FinTech Solutions companies included IMS Health Holdings Inc. (\$12.5 billion market capitalization at June 30, 2016), MSCI Inc. (\$7.4 billion), and Jack Henry & Associates (\$6.9 billion).
- The *Technology* niche includes companies that provide software and services to one of three different financial services subsections, including Banking, Investments, and Healthcare/Insurance. At June 30, 2016, there were 22 publicly traded U.S. FinTech companies within the Technology niche and the total market cap of these companies was \$55 billion (with a median market capitalization of \$1.6 billion). The top three largest U.S. FinTech Technology companies included Intuit Inc. (market capitalization of \$28.6 billion at June 30, 2016), Fiserv Inc. (\$24.2 billion), and Fidelity National Information Services Inc. (\$24.1 billion).

In addition to the FinTech niches noted above, there are other publicly traded companies in the United States that have significant FinTech offerings and would also meet our definition of FinTech companies such as *online brokers* and *alternative online lenders*. At June 30, 2016, four U.S. FinTech companies within the Online Broker niche were publicly traded (The Charles Schwab Corporation [SCHW], TD Ameritrade [AMTD], E*Trade [ETFC], and Interactive Brokers Group [IBKR]) and the total market cap of these companies was \$57.3 billion with a median market capitalization of \$10.8 billion. At June 30, 2016, two U.S. FinTech companies (OnDeck Capital [ONDK] and Lending Club Corporation [LC]) within the Alternative Online Lender niche were publicly traded and had market capitalizations of \$364 million and \$1.6 billion, respectively.

As you can see, the scope of the FinTech industry is vast with a number of publicly traded FinTech companies to analyze in order to track developments and investor sentiment. For bankers, managers, and investors in traditional financial services companies, this rise of FinTech and its vast scope of company type (for both public and private FinTech companies) is a challenging strategic threat to assess. Many FinTech companies are essentially unbundling the bank's core services and leveraging technology to provide

a unique solution only to one particular service (such as payments, lending, billing, underwriting, investing, or compliance). While the majority of FinTech companies do not offer all of the services that even a small community bank does, collectively they are a formidable competitor. This presents a difficult problem for banks and other traditional incumbents to combat since competition is coming from a variety of areas and addresses a number of core services.

FinTech and U.S. Financial Institutions

While there are a number of potential applications for technology in other industries, there are a few basic elements of the financial services industry that make it particularly attractive for technology. For example, the business models of traditional financial institutions like banks, insurance companies, and wealth managers are unique from one another but share common characteristics. Because this book is focused on financial institutions specifically, let's explore the common characteristics of financial institutions and the role that FinTech can play.

Profitability The first common characteristic is profitability. Financial institutions have historically been profitable and collectively are in a highly profitable segment. Savvy technology entrepreneurs and venture capitalists are recognizing that these market conditions in other industries have historically enabled technology companies to develop and prosper.

To gain some perspective on the size and profitability of financial services, consider that the financial services industry adds the largest proportion of value to U.S. GDP (Table 1.2).

With the exception of tobacco, banks were the most profitable (as measured by net income as a percentage of revenue) of any industry. Other related financial services industries, like asset managers and non-bank financial services and insurance companies, were also highly profitable and in the 96th and 93rd percentile respectively (Table 1.3).

Basic Necessity Another common characteristic of financial institutions is that the financial services they offer are a basic necessity. While one can imagine a world where the delivery vehicle for companies that provide basic financial services is different and largely digital, it is hard to imagine a world without financial services for payments, deposits, lending, borrowing, and investing.

Regulation Regulation is yet another common characteristic of financial institutions and that regulatory burden has increased over time, particularly

TABLE 1.2 Value Added to U.S. GDP by Industry (billions of dollars)

	2015	% of Total
Gross domestic product	17,947	
Private industries	15,623	
Agriculture, forestry, fishing, and hunting	196	1%
Mining	305	2%
Utilities	288	2%
Construction	717	4%
Manufacturing	2,168	12%
Wholesale trade	1,080	6%
Retail trade	1,050	6%
Transportation and warehousing	528	3%
Information	868	5%
Finance, insurance, real estate, rental, and leasing	3,636	20%
Professional and business services	2,192	12%
Educational services, health care, and social assistance	1,492	8%
Arts, entertainment, recreation, accommodation, and food services	704	4%
Other services, except government	400	2%
Government	2,324	13%

Source: Bureau of Economic Analysis Release Date: April 21, 2016

TABLE 1.3 Net Income as Percentage of Revenue of Financial Institutions

Industry Name	Net Income–Based Net Margin	Rank (1–95)	Percentile
Bank (Money Center)	24.48%	2	99th
Banks (Regional)	24.33%	3	98th
Financial Svcs. (Non-bank & Insurance)	14.82%	5	96th
Insurance (General)	10.49%	49	49th
Insurance (Life)	7.13%	36	63rd
Insurance (Prop./Cas.)	9.82%	29	71st
Investments & Asset Management	3.69%	8	93rd

Source: Aswath Damodaran, http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html

since the Great Recession. This offers opportunities for technology solutions that can alleviate regulatory/compliance issues. Heightened regulation also tends to limit a traditional financial institution's ability to innovate, which increases its need and desire for FinTech partners and solutions.

Legacy Systems with Hope of Innovation Another challenge to innovation is the fact that financial services is such a mature industry and companies rely on a number of legacy technology systems. Legacy technology systems are, in many cases, not enough in today's environment. This has created an opening for new technology companies and applications within the sector to develop. Technology entrepreneurs often look for problems to solve. There are a number of problems related to modernizing the legacy systems of traditional financial institutions and reducing friction for services and applications that customers are increasingly demanding.

Financial institutions are attempting to foster innovation either internally, through partnerships with startups, by sponsoring corporate accelerators/incubators, or by strategic investments/acquisitions. While these traditional financial services companies are increasingly looking to innovate, they are also considering how to innovate responsibly by managing potential risks and selectively determining how to incorporate FinTech into their strategic plan.

Current Environment For many financial institutions, the prolonged period of lower interest rates is crimping profits and increasing interest in technology that can serve to provide financial services and products more efficiently and at lower costs.

WHY THE HYPE FOR FINTECH?

As technology improves and becomes ubiquitous in our everyday lives, consumers expect better technology offerings of financial services. Regulated and often complex, the nature of financial services presents unique challenges to innovation and society, but particularly the Millennials. Millennials are becoming more comfortable using digital (online and mobile) services in other areas of their lives and are increasingly looking for similar services for their financial lives.

FinTech and financial institutions that effectively utilize FinTech applications will have tailwinds for growth in the coming years, as the trend toward digital continues and Millennials acquire more financial assets. For example, Ernst & Young's "EY FinTech Adoption Index" noted only 15.5 percent of digitally active consumers had used at least two FinTech products in the last six months.³ This implies a large potential for sector growth for companies that can adapt and adopt technology.

Ease of use (“easy to set up an account”) was the top reason cited for the consumer adoption of FinTech per the EY Index. Other reasons for using FinTech were that it offered better user experience and functionality as well as better quality of services. Interestingly, the Index noted that FinTech appealed to wealthier clientele with over 50 percent adoption by those under age 54 and whose earnings were greater than \$150,000. The FinTech Adoption Index also noted that the most frequent users tended to be those in urban areas. According to the Index, “Early FinTech adopters tend to be younger, higher-income customers, with adoption concentrated in high-development urban areas such as New York, Hong Kong, and London. These users are some of banking and insurance’s most valuable customers and traditional providers must reconsider the way they meet these users’ needs if they want to stem the flight to FinTech.”

In addition to meeting customer demands, other reasons why FinTech is becoming increasingly important include:

- In order for financial institutions (banks, insurance, asset managers, alternative lenders) to survive and thrive in the future, different parties (investors, traditional incumbents, and entrepreneurs) must work together to modernize the traditional legacy technology infrastructure.
- A significant proportion of the global population is unbanked or underbanked and applying technology to the financial services industry is viewed as one way to both expand and improve services to this significant but underserved proportion of the population. Additionally, financial health and literacy are global issues and a number of FinTech innovations offer opportunities to improve financial health and literacy around the world.
- Millennials are driving change in finance and other industries. Those financial institutions that are well positioned for Millennials will likely outperform those that are not. Millennials tend to be more comfortable using digital channels for financial services. As they acquire more financial assets, financial institutions that can leverage FinTech to meet Millennials’ preferences will garner a tailwind for forward growth.
- Recent technology developments have allowed financial technology to rise. For example, the development of the computer chip, personal computer, laptop, and cell phone have all helped lay the foundation for the environment that we see today on which a number of FinTech companies can build. As consumer preferences have shifted toward using technology as a first means of interacting with other vendors, financial services has followed suit.

In summary, the hype surrounding FinTech is largely premised on the financial services industry being both large and profitable and having many

potential applications for technology. This combination of large entrenched incumbents with historically profitable business models where customers are increasingly demanding more digital services provides an attractive market for FinTech companies to develop. While it is hard to know what percentage of the global financial services market is available for disruption, the size of the potential market and the possible applications for technology, as well as consumers' desire to use it, are massive.

WHY IS FINTECH POTENTIALLY SO IMPORTANT TO SOCIETY?

As previously noted, FinTech offers the opportunity to expand financial services offerings to un- and underbanked portions of society, and many emerging markets are especially ripe. These ripe conditions include large populations of un- and underbanked people and high concentrations of mobile phone subscribers. FinTech offers those countries the opportunity for greater financial inclusion by providing financial services like banking, insurance, and wealth management at lower costs through mobile channels. This can have a profound impact in people's lives and create profitable business models for innovative entrepreneurs.

One area where FinTech has already started to show its potential to impact society in emerging markets is sub-Saharan Africa. Sub-Saharan Africa itself has a high percentage of mobile bank account users compared to other regions (excluding high-income OECDs) as noted in Figure 1.2. More specifically, mobile bank account users in Kenya and Zimbabwe far outweigh those in comparable countries. In Kenya, 74.7 percent of the adult population has a bank account—a very high number for the region—and the vast majority of those with bank accounts have a mobile bank account (58.4% of the population). In Zimbabwe, 32.4 percent of the adult population has a bank account. The vast majority of those with a bank account have a mobile bank account (21.6% of the adult population).

There are many reasons for this rise in mobile money usage in sub-Saharan Africa, but a desire for financial inclusion, a need to lower transaction costs, and mistrust of financial institutions all serve as key drivers of this rapid growth of mobile money. Africa has a massive unbanked majority, creating a great want of financial inclusion in much of its population. Mobile money makes participation in financial markets accessible to everyone who carries even the most rudimentary type of cell phone with text messaging capabilities.

A need to lower transaction costs also aided the rise of mobile money, as much of the continent still functions as a barter economy. It is also

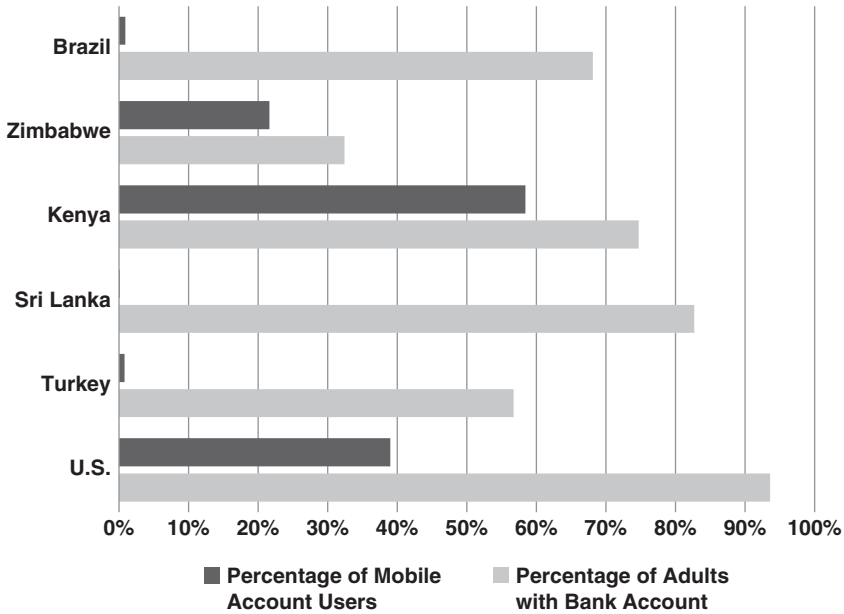


FIGURE 1.2 Disparity in Mobile Banking Account Usage between Sub-Saharan African Countries and Upper-Middle-Income Countries
Source: Global Financial Inclusion Database of the World Bank Group’s “The Little Data Book on Financial Inclusion,” 2015

impractical for small farmers and merchants to hold their earnings in African banks, as high fees can dissipate their entire income in a year in some cases. Mobile money can significantly reduce these fees for the customer and reduce the servicing expenses of the bank account for the provider. This allows low-income earners the ability to build up larger balances than they would otherwise be able to by holding their money in a traditional bank. The fees charged by African banks, as well as other questionable practices, have created an air of mistrust in many countries, pushing consumer preference toward mobile money.

This rich environment for the growth of mobile money in sub-Saharan Africa has also led to innovations within the continent in efforts to facilitate this growth and create more avenues for the use of mobile money. Perhaps the most useful of these innovations has been the creation of ATMs by mobile service providers that allow customers to withdraw cash by using a onetime PIN sent directly to the customer’s phone by text message. Startups that convert bitcoins from foreign currency to Kenyan shillings have also begun to emerge, shielding consumers against exchange rate risk by sending the

converted currency straight to the user's mobile wallet. Other FinTech startups are also beginning to create systems that can facilitate and accept small payments to merchants through new business operating systems and software.

The rise of mobile money and e-commerce in sub-Saharan Africa has also been aided by adverse living conditions and disastrous events in the countries that are most receptive to the rise of mobile money. In 2008, post-election violence in Kenya pushed many people toward the use of M-PESA, a FinTech payments company that is the country's largest mobile money system, to transfer money into and out of the violent slums of Nairobi. In Nigeria, fear of the Ebola virus and terrorist groups forced people to stay at home and rely on mobile money systems and the Internet to acquire goods and services. Zimbabwe has also experienced multiple cash shortages in the past several years, encouraging the widespread use of mobile money.

Consistent with the factors driving the successful development of FinTech in sub-Saharan Africa, tremendous opportunities exist for FinTech growth in other emerging and developing regions. Those areas with a high percentage of mobile subscriptions and a low percentage of bank account holders are particularly ripe for FinTech growth. These conditions can be found in Africa and India. In Africa, only 34 percent of the adult population has a traditional bank account while 83 percent has a subscription to a mobile account.⁴ Likewise, in India, 53 percent of the adult population has a bank account while 79 percent has a mobile account.⁵ The disparity in these two essential tools creates an environment conducive to the future growth of FinTech, as FinTech innovations can be used to close the margin between the two figures. (See Figure 1.3.)

Beyond just emerging and developing markets, though, developed markets like the United States are also ripe for FinTech to help address un- and underbanked populations. The FDIC noted opportunities for FinTech through mobile pay. A survey by the FDIC in 2013 noted that approximately 28 percent of U.S. households were unbanked or underbanked.⁶ Despite that, in the United States, the majority of adults have a bank account while a smaller proportion utilize a mobile bank account, which implies the potential exists for mobile account usage to continue to grow among both the banked and underbanked population.

RECENT TRENDS AND MARKET CONDITIONS FOR THE FINTECH INDUSTRY

Realizing the potential for FinTech to grow in both emerging and developed markets, venture capital interest in FinTech has been growing and continues to grow both in North America and globally, as noted in Figure 1.4.

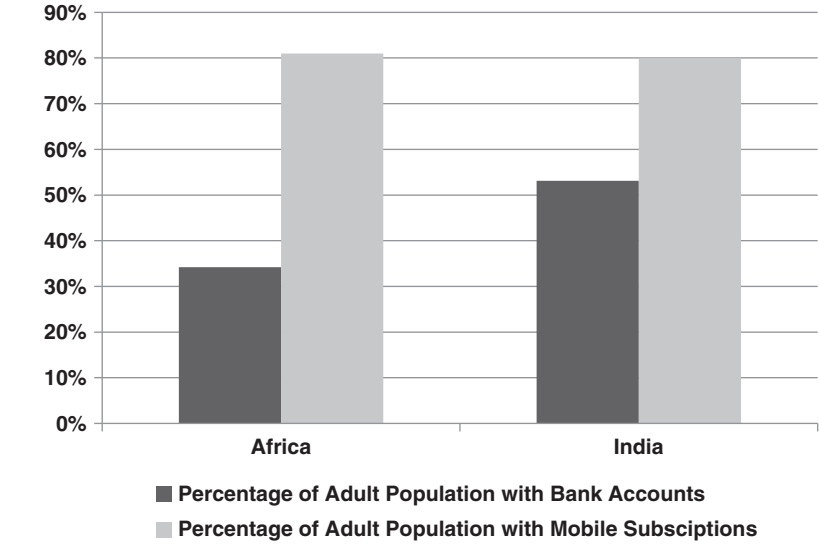


FIGURE 1.3 Percent of Adult Population with Bank Accounts and Mobile Subscription Comparison between Africa and India
Source: Global Financial Inclusion Database of the World Bank Group’s “The Little Data Book on Financial Inclusion,” 2015

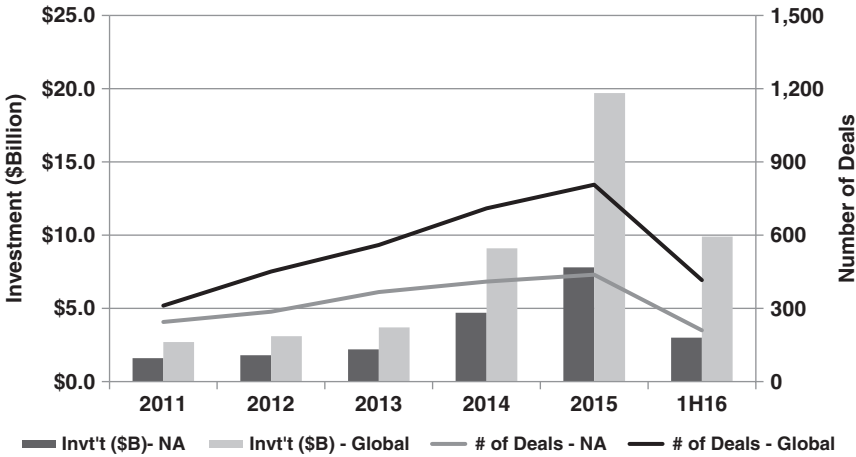


FIGURE 1.4 FinTech Funding Trends (2011– First Half of 2016)
Source: The Pulse of FinTech Report 2Q16, KPMG, and CB Insights, 8/17/2016

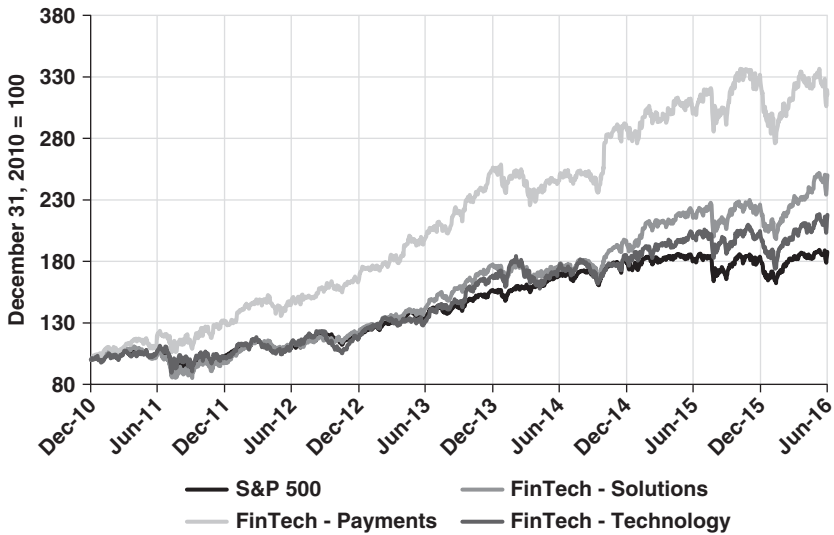


FIGURE 1.5 Public Returns: FinTech Indices vs. S&P 500

Source: S&P Global Market Intelligence and Mercer Capital

FinTech's Rising Valuations and Strong Returns

Additionally, publicly traded FinTech companies have also benefited from the excitement around FinTech, outperforming the broader markets and enjoying rising valuations in recent periods, as shown in Figure 1.5. However, the market has been relatively volatile as investors weigh the prospects for heightened competition from new entrants, ranging from other technology companies to traditional financial institutions, continued evolution of consumer preferences and technology, and emerging risks such as regulatory and business model risks.

Consistent with recent historical growth patterns and near-term outlook and excitement for FinTech, publicly traded FinTech companies remain priced at a premium to the broader markets with the S&P 500 priced at 16.6× estimated forward earnings in mid-2016 (per FactSet). Additionally, valuation multiples have been expanding despite flat-to-declining margins for the FinTech sector (Figures 1.6 and 1.7).

Within the private company realm, FinTech valuations appear to be rising as well with FinTech “unicorns” (i.e., those private companies with an estimated market value of greater than \$1 billion) growing and continuing to garner significant investor and media interest.

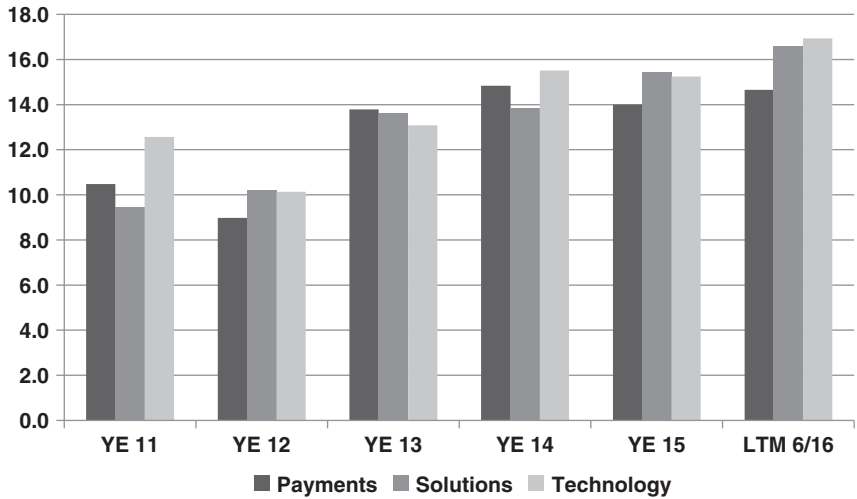


FIGURE 1.6 FinTech Public Company Pricing Multiples: Median Enterprise Value/EBITDA Multiples
Source: Capital IQ, Mercer Capital Research

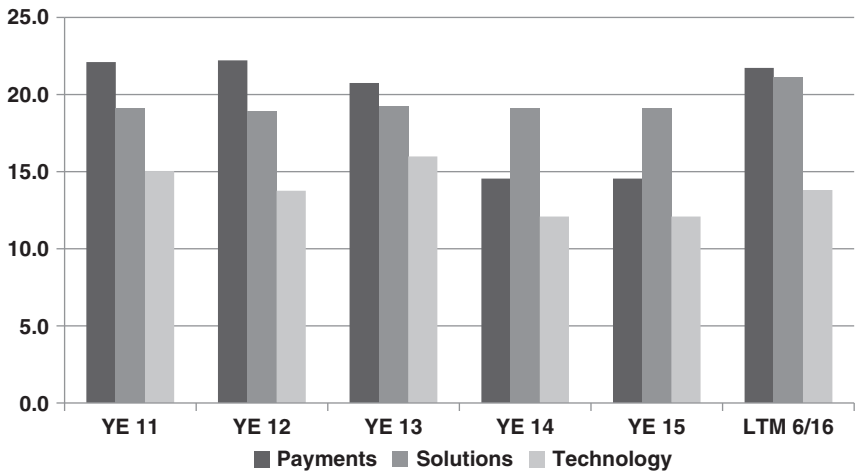


FIGURE 1.7 FinTech Public Multiples: Median EBITDA Margins (%)
Source: Capital IQ, Mercer Capital Research

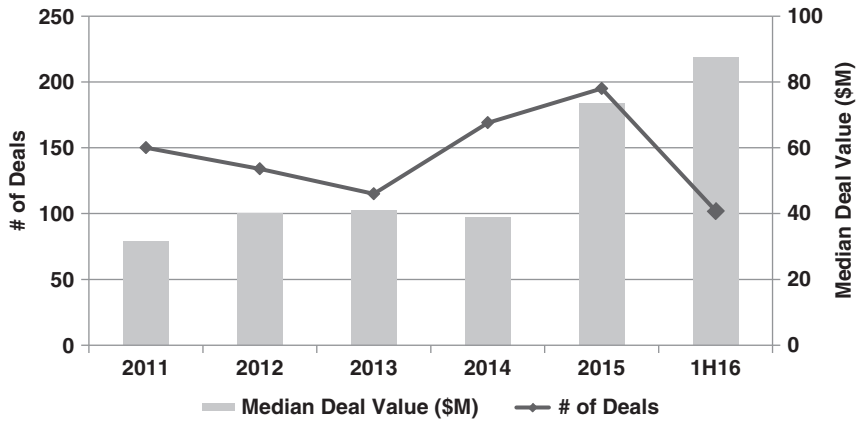


FIGURE 1.8 FinTech M&A Overview (2011– First Half of 2016)

Source: S&P Global Market Intelligence

FinTech's Upward-Trending Exits

The level of interest in FinTech is also paralleling the rising level of exit activity in both mergers and acquisitions as well as IPOs. For perspective, note the number of deals and median deal value increases in recent periods, as shown in Figure 1.8. Pricing details are often not reported for the majority of FinTech transactions, which limits the amount of reliable pricing metrics, but the data indicates a clear, upward pricing trend in recent periods.

IPO activity slowed in late 2015 and 2016. There were eight FinTech IPOs in 2015 and 16 in 2014. Significant FinTech IPOs in 2014 and 2015 included: First Data (\$2.3 billion in proceeds); Square (\$279 million in gross proceeds); and Lending Club (\$1 billion in gross proceeds).

CONCLUSION

Growth and excitement encompasses the FinTech industry with its potential to impact the financial services industry and enhance the lives of people around the world. However, there is evidence that expectations and predictions of FinTech disruption and displacement of traditional incumbents should be tempered by the resiliency of banks. In the mid-1990s, Bill Gates famously called banks “dinosaurs” and noted that banking services were a necessity but banks were not.⁷ From that point, Microsoft attempted to access banking but failed to make significant inroads into financial services. These failures by Microsoft and others to attack traditional banks demonstrate the resiliency of traditional banks (at least for the time being).

Many bankers also view the giant technology companies of today such as Amazon, Google, Facebook, and Apple with a wary eye and wonder what their role may ultimately be in the financial services industry. These giants could disrupt not only the traditional banks but many FinTech company business models as well. We have seen recent FinTech-related efforts from these companies such as ApplePay and Google Wallet. However, it will be interesting to watch whether they are content to stay in the background as customers continue to look to traditional financial institutions for financial services or whether will they develop their own unique financial services offerings.

Additionally, FinTech companies and other technology companies face significant regulatory and compliance challenges as they grow their financial services offerings. Regulated industries often create an environment where a few companies with significant scale emerge because those companies can operate profitably, overcoming compliance costs. Consequently, FinTech companies face significant obstacles entering a regulated industry. Regulations can complicate their business plans and stifle innovation. However, regulation can also be a competitive advantage for FinTech companies able to comply because regulations can create significant barriers to entry for those unable or unwilling to comply.

While banks have historically proven to be resistant to the threat from traditional technology companies and FinTech companies thus far, only time will tell whether this resiliency is a temporary blip in the first set of a much longer match with their FinTech competitors or whether the resistance will persist and they will ultimately win the match. As Bill Gates said, “We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don’t let yourself be lulled into inaction.”⁸ Perhaps this statement is more apt for financial services given its complex and regulated nature. It will take longer to evolve, but over time the disruption and full implementation of FinTech will likely impact the industry significantly.

FinTech presents exciting opportunities for traditional banks, particularly community banks, and this book will delve into the details of both the community bank and FinTech sectors seeking to maximize returns to create strategic value for proactive banks and seeking to capitalize on FinTech opportunities.

NOTES

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2. Miklos Dietz, Somesh Khanna, Tunde Olanrewaju, and Kausik Rajgopal, "Cutting Through the Noise Around Financial Technology," *McKinsey & Company*, February 2016, <http://www.mckinsey.com/industries/financial-services/our-insights/cutting-through-the-noise-around-financial-technology>.
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