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Financial Services in the Post-Post-Crisis Environment

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Financial Services in the Post-Post-Crisis Environment

By Brian T. Schreiber and Jason M. Thomas

Nowhere is the post-election shift in investor sentiment more obvious than in financial services. Analysts now anticipate financial services industry earnings will grow at a 12% annual rate over the next two years, up from a -0.2% contraction in 2016.[1] When coupled with an 18% increase in forward multiples since the election, financial services stocks have returned 21%, on average, relative to a 12% increase for the S&P 500.[2] While some portion of the gains may reflect undue optimism about the scale of the tax and regulatory policy changes likely to take effect, it is no exaggeration to suggest that the election effectively brought the industry's post-crisis era to a close.

We expect secular trends in demographics and technology to interact with cyclical economic phenomena to generate profound shifts in the industry and the regulations that govern it.

In the "post-post-crisis" period that follows, we expect secular trends in demographics and technology to interact with cyclical economic phenomena to generate profound shifts in the financial services industry and the regulations that govern it. In the pages that follow, we focus on one area of potential change: the adoption of new digital technologies that will allow financial services firms to leverage cloud computing, Big Data analytics, and mobility to meet customers' needs and improve the value proposition.

Technology has changed expectations for financial services among today's more sophisticated and global business customer base, as well as the more than 80 million Millennials who've come of age in the digital economy.[3] Survey data suggests that Millennials are much less wedded to existing financial services brands and are willing to switch to entirely new products that simplify their lives.[4] Some observers anticipate the change in technology and preferences will result in the "disintermediation" of existing market players, as new financial technology (FinTech) entrants introduce new digital products that quickly leave existing banks, brokers, and insurers devoid of customers and revenue.

We take a different view. Disintermediation looks much less likely than a "controlled disruption" that incents collaboration between financial services industry incumbents and technology providers. FinTech entrants will provide the technological expertise, while incumbent financial services firms will bring the data, customer base, and knowledge of products and markets. We anticipate that small-to-medium sized financial services firms, in particular, will be able to leverage digital technology to streamline operations and compete more aggressively in the market segments—and links in the value chain—they target.

What constitutes a "financial service" remains remarkably stable through time. The extension of credit, payment clearing, intermediation of savings, risk measurement and management are all functions that have existed for hundreds of years. While technology shapes the manner in which these services are delivered, technology has not and never will substitute for the core competencies required to build a profitable book of business in consumer credit, property and casualty insurance, or asset-based lending. A "peer-to-peer" online lender that underprices risk will not be in business long, no matter how elegant its digital architecture.

An honest assessment of the competitive landscape in advanced economies suggests that FinTech firms' best option will be to partner with existing banks, insurers, broker-dealers, and asset managers rather than try to supplant them. Indeed, FinTech entrants may succeed in China and other emerging market economies precisely because of the absence of an existing infrastructure. In Africa, for example, FinTech is not disrupting the financial services industry so much as building it.[5]

To scale their business, FinTech entrants often face exorbitant customer acquisition costs, which extend well beyond marketing to include data security, regulatory compliance, and (often) some degree of customization. Industry incumbents already have the customers, as well as the large volume of data they generate, which may ultimately prove to be more valuable than the underlying revenue. Incumbent firms also boast multi-billion dollar technology budgets and experience dealing with both regulators and the arcane processes that yield new regulations.

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As is clear from the "free economy" of internet content, software, and social media, new technology can simultaneously prove to be enormously useful and difficult to monetize. By placing more power in the hands of consumers, digital technologies can depress margins and drive the prices of some services, like peer-to-peer payments, to zero.[6] We expect that many of the most highly-valued FinTech

1 FactSet, Earnings Insight, March 17. 2017.
2 Weekly returns of SPX and IYG as measured relative to the close on Friday November 4, 2016.
3 "Millennials" refers to the generation of young adults centered on the peak birth year of 1990. There is no precise definition of the generation's boundaries, but the Pew Center defines a Millennial as born between 1981 and 1996.
4 Kassin, I. (2016), "How FinTech Companies Can Capture The Millennial Market," *Forbes* December 2016.
5 "Fintech isn't disrupting Africa's financial industry—it's building it," Quartz, August 3, 2016.
6 Catlin, T. et al. (2017), "Time for insurance companies to face digital reality," McKinsey & Co.

businesses that expect to disintermediate will instead fail or be forced to change strategy. In this environment, the best investment targets will be middle-market financial services companies with flexible operating models that can leverage new digital technology to profitably deliver a core financial service.

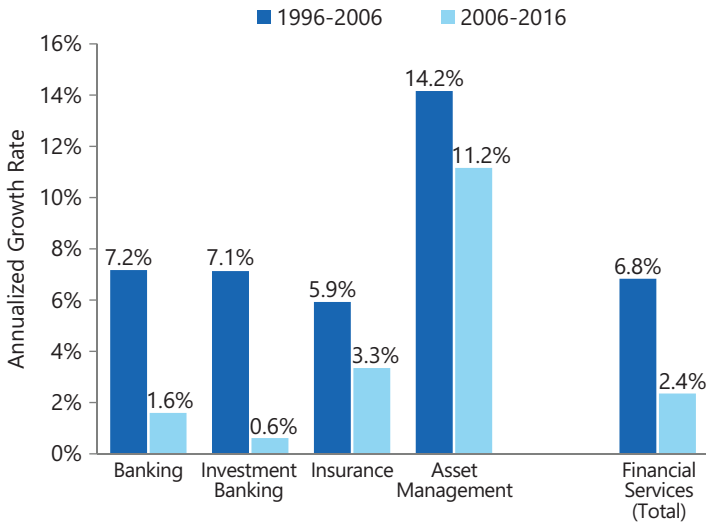
The Origin of the Industry's Post-Crisis Malaise

Over the past decade, the net revenues of the U.S. financial services industry grew at 2.4% annual rate, barely one-third as fast as the 6.8% growth recorded in the prior ten-year period (Figure 1). When excluding asset management, whose revenues have continued to grow at double-digit rates thanks to secular trends, the picture looks much worse. Revenues associated with the core financial services of banking, securities underwriting, and market-making have slowed from an annualized growth rate of more than 7% prior to the crisis to just 1.2%, with investment banks' average return on equity falling by two-thirds relative to its pre-crisis average (Figure 2).

The sharp deceleration in growth can be attributed to both cyclical and structural factors. Slow real GDP growth, low inflation, and increased risk aversion on the part of corporate managers tempered credit demand, depressed nominal interest rates, and narrowed net interest margins. Passage of Dodd-Frank and associated legal and regulatory entanglements depressed earnings and diverted CEOs' attention from core business issues. Between 2009 and 2015 banks paid more than $150 billion in fines to supervisory authorities, equal to twice the average annual net income earned by the entire commercial banking sector between 2003 and 2009.[7] Over the same period, implementation of Dodd-Frank added more than 5,000 new restrictions on the sector, which increased the industry's effective regulatory burden by one-third.[8]

FIGURE 1

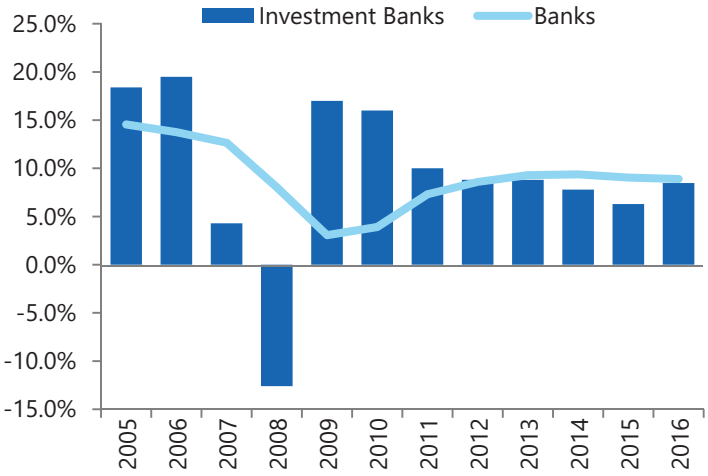
Annualized Net Revenue Growth, Pre-and-Post Crisis

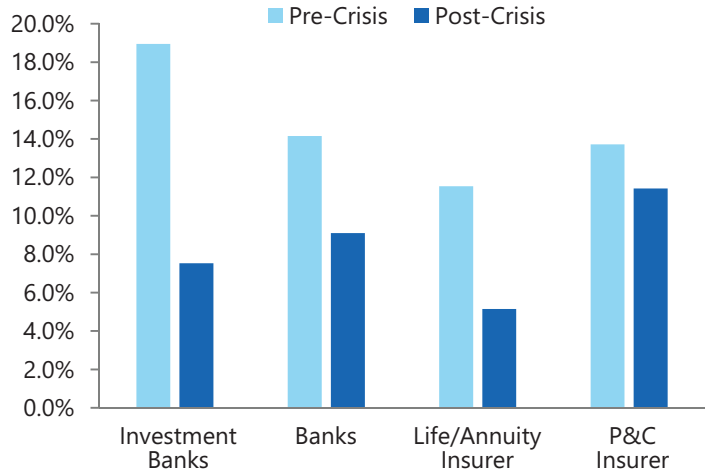


Demographic shifts have also contributed to the industry malaise. The products and services the industry offers, and the manner in which they're delivered, are very much designed to meet the needs and expectations of the Baby Boom generation. The large physical infrastructure of bank branch networks, face-to-face retirement planners, and insurance agents all exist to serve a customer base that's retiring at the rate of 10,000 people each day.[10] Not surprisingly, the old model is in retreat, with the number of U.S. bank branches[11] and local insurance agencies[12] expected to decline by 20% over the next several years as more business moves online.

FIGURE 2

Average Return on Equity, 2005 - 2016[9]





7 "Capital Markets: Innovation and the FinTech Landscape," E&Y, 2016.
8 McLaughin, P. and Greene, R, (2014), "Dodd-Frank's Regulatory Surge: Quantifying Its Regulatory Restrictions and Improving Its Economic Analyses," Mercatus Center.
9 "Capital Markets: Innovation and the FinTech Landscape," E&Y, 2016.
10 "Do 10,000 baby boomers retire every day?," Washington Post, July 24, 2014.
11 Stylianides, G. "Underinvestment in IT comes home to roost," PwC, June 2015.
12 McKinsey & Co., "Agents of the Future: The Evolution of Property and Casualty Insurance Distribution."

The Election as Inflection Point

Prior to the U.S. Presidential election, investors expected the next several years to look much like the last ten; growth forecasts were subdued and financial services industry stock multiples remained near their 5-and-10 year moving averages. While the election did little to address the industry's structural challenges, it triggered a profound shift in investor sentiment. Instead of expecting more of the same, investors suddenly came to expect financial services firms to hit ambitious growth targets amid faster GDP growth and higher inflation.[13]

An improving economy should provide some support through higher yields and firmer demand for credit and other services. And while we remain skeptical that large-scale deregulation will materialize, the regulatory pendulum does seem to have swung in the direction of more flexible enforcement. Yet, even with these tailwinds, many financial services firms may find it difficult to meet investors' heightened expectations. The squeeze in operating cash flow over the past several years constrained many firms' technology and infrastructure investment in ways that make it difficult to "flip the switch" on faster growth today.[14]

Over the past two years, many firms have recognized the scale of the "technology debt" incurred in the years since the crisis and boosted spending to confront it. This year, banks' combined IT budgets are expected to reach $250 billion globally.[15] These investments will not only streamline regulatory compliance and bolster risk management, but also lay the foundation for their medium-term growth strategy. If incumbent financial services providers are ever to return to the growth rates of the past, they will need to recast themselves as "applied technology" companies,[16] capable of competing in a new era of digital technology.

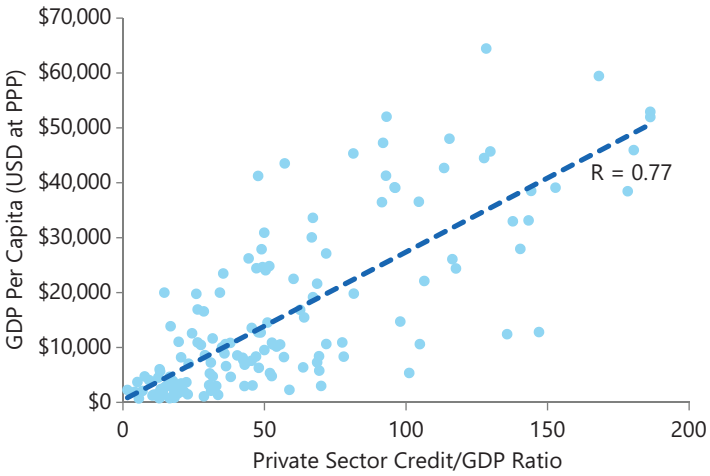
Next Stage in the Financial Services Industry's Natural Evolution

In the context of our existing industry schema it may seem curious to think of banks, insurers, broker-dealers, and asset managers as "applied technology" companies, but the role these institutions play in the broader economy has always been technological in nature. Financial services are rarely an end in themselves, but more often a means to enhance the efficiency and growth of the real economy by facilitating transactions, settling payments, extending credit, aggregating savings, and measuring and managing risks. For this reason, economic and financial development have been closely intertwined processes.[17] The more advanced an economy—the higher its living standards and level of productivity—the larger its financial sector tends to be (Figure 3).

Profits in the financial services industry generally stem from specialized knowledge of markets, market participants (buyers and sellers), and risks. As the economy expands, new technology emerges that allows such knowledge to be diffused more broadly, which depresses margins. More data on corporate and individual credit histories and repayment capacity allows non-bank lenders to become the dominant providers of credit to households and businesses. Electronic trading platforms allow buyers and sellers to find each other in ways that reduce bid-ask spreads and dealer commissions. More data on the incidence and severity of natural disasters has spurred the development of an insurance-linked securities market that has introduced lower cost sources of capital to the reinsurance market.

FIGURE 3

Financial Services and Living Standards[18]



While we expect the same evolutionary process to continue in the post-post-crisis period, two forces may radically accelerate the pace of change: the emergence of a new class of technology-enabled financial services firms that bring cost and price transparency to each link on the industry value chain; and the coming of age of the "digital natives" who comprise the Millennial generation.

The Dawn of the Post-Post-Crisis Era: The Changing Face of Technology and Consumers

The rise of digital technology, mobile communications, and social media platforms has reduced the value of large physical footprints. Markets can now be contested through mobile phone apps instead of retail locations. Instead of an advantage, large physical branch networks may leave incumbent banks and insurers overextended, with an infrastructure that is expensive to maintain and generates little incremental business. The disruptive entry of Airbnb, Booking.com, and Uber in the lodging and transportation space provides a template that many FinTech companies are eager to follow in portions of the financial services value chain.[19] These entrants also highlight issues of regulatory arbitrage and regulatory capture also likely to be at work in financial services.

13 FactSet, *Earnings Insight*, March 9. 2017.
14 Accelerating the Technological Transformation of Banking, Bank Governance Leadership Network, E&Y, June 2016.
15 Celent, *Global Tech Spending Forecast: Banking Edition*, 2016. September 7, 2016.
16 Oscar Williams-Grut, "Deutsche Bank CEO: 'Every discussion we now have is about technology'," Business Insider, June 7, 2016.
17 Kiyotaki, N. and Moore, J. (2005), "Financial Deepening," *Journal of the European Economic Association.*
18 Carlyle; World Bank, World Development Indicators Database, January 2017.
19 Deitz, M. et al. (2016), "Cutting through the Noise around Financial Technology," McKinsey & Co.

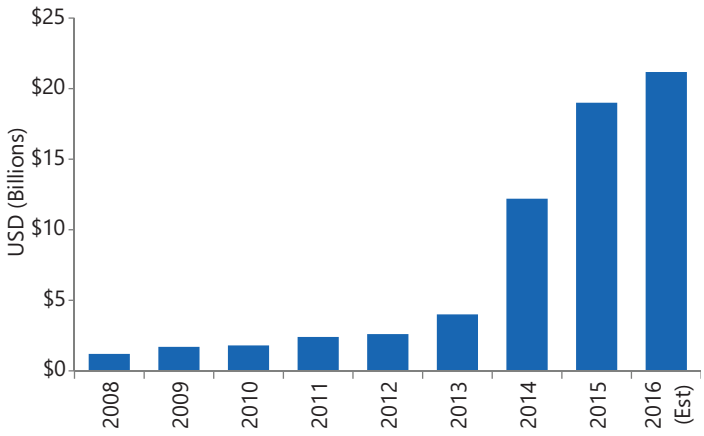
The rise of the Millennials, who have surpassed Baby Boomers as the nation's largest living generation, provides these entrants with hope that innovative new technologies can quickly gain market share. The ubiquity of mobile shopping, travel booking, and communication creates expectations for loan applications and auto and homeowners' insurance that financial services firms have been slow to meet. Millennials are more than twice as likely as all other generations to purchase insurance policies online,[20] prefer to bank via mobile apps rather than branch locations,[21] and are inclined to identify with brands like Google, Amazon, and Netflix with whom they've never had any physical interaction.

More importantly, Millennials have different needs than prior generations due to higher average debt loads and lower savings rates. Debt payments consume nearly half of Millennials' average paychecks,[22] which partly explains the sharp decline in savings rates among Americans under the age of 35 to (negative) -2% from 5.2% in the years prior to the financial crisis.[23] Existing products do little to meet Millennials' unique needs or simplify their lives.

Millennials also have different preferences with respect to work and life. Millennials are less interested in working for large corporations, instead preferring smaller, more personalized experiences.[24] Small-to-medium sized financial services firms appear to be more attractive employers to the typical college graduate than a large, established bank or insurer. The rise of the "gig" economy, as typified by Uber and Taskrabbit, has also altered the types of financial services workers demand and the manner in which firms can access potential clients, as evidenced by the recent partnership between Uber and "robo-advisor" Betterment.[25]

FIGURE 4

Private Investment in FinTech Companies[26]



The promise of new entrants has not gone unnoticed by investors. Private investment in FinTech businesses has grown exponentially since the global financial crisis, reaching an annual rate of more than $20 billion in 2016 (Figure 4). There are now more than 2,000 FinTech companies operating globally—up from just 800 two years ago—focused on areas such as digital and mobile payments, peer-to-peer (P2P) lending platforms and online-only banks, regulation and compliance technology ("RegTech"), advanced data analytics, and robotic process automation (RPA).[27]

Nearly three-quarters of this investment has gone to businesses whose technology targets the personal and small business segments, whether for consumer payments, loans, investment advisory services, or insurance.[28] Much of this investment anticipates that the smart phone will continue to grow in importance and eventually emerge as the primary, or even sole medium for payments and interactions with intermediaries like banks, financial advisors, and insurers.[29] Many FinTech entrepreneurs exude a limitless ambition and a steadfast belief that their products and services will dominate discrete financial services markets in the same way that Google dominates internet search.

In Financial Services, Technology is Not an End in Itself

While such optimism is understandable given trends in consumer expectations and demographics, it is important to remember that technology is a tool to reduce costs and improve customer experiences, not an end in itself. "Tech" firms will discover there's more to financial services than the speed at which transactions settle or the volume of data that can be stored and analyzed.

As in the time of Cosimo de' Medici, the profitable provision of financial services depends on superior information, including specialized knowledge of markets and the needs of market participants; a nuanced understanding of risks and the appropriate price of risk; and appreciation for complex dependence structures so as to construct portfolios where risk exposures effectively offset rather than augment one another. The strength of financial services firms' competitive position across each of these dimensions should not be underestimated, nor should the size of their war chest. As a result, we expect the most likely path forward will involve a high degree of cooperation via partnerships, licensing agreements, and (in some cases) acquisitions.

Collaboration in RegTech

RegTech is not simply about reducing compliance costs through automation; advances in data science and analytics allow risk exposures to be recalculated and depicted graphically the instant new data arrive.[30] Unfortunately, regulators have not shared in these IT-enabled advances.[31] The next stage in RegTech's development is likely to involve efforts to upgrade regulators' supervisory capacity through full

20 Gallup, "Insurance Companies Have a Big Problem With Millennials," March 5, 2015.
21 Salesforce, "Millennials and Banking: What the Data Reveals about Delivering a Great Customer Experience," August 26, 2016.
22 Wells Fargo survey of more than 1,600 millennials between 22 and 33 years old, June 2014.
23 Moody's Analytics, cited in Younger Generation Faces a Savings Deficit, Wall Street Journal, November 9, 2014.
24 Accenture Strategy, 2016 U.S. College Graduate Employment Study.
25 "Uber x Betterment: Flexible Options to Save for the Future," August 24, 2016.
26 Carlyle Analysis; data from CB Insights, E&Y.
27 Deitz et al.
28 "Digital Disruption: How FinTech is Forcing Banking to a Tipping Point," Citi GPS, March 2016.
29 Retail Banking 2020: Evolution of Revolution, Pwc, 2016.
30 Sidhwani, S. (2016), "Seeing the Forest for the Trees – the Taming of Big Data," *JFT*, Vol. 44.
31 Arner, W., Barberis, and Buckey, (2016), "The Emergence of Regtech 2.0: From Know Your Customer to Know Your Data," *JFT*, Vol. 44.

integration with the "data feeds" of the banks and securities dealers they regulate. Instead of relying on periodic reports that take time to collect and compile, regulators can analyze nearly infinite amounts of real-time data for interconnections and systemic implications. The resulting "heat maps" of the financial system would provide a far more comprehensive look at systemic risks at much lower social cost.

Transforming Customers' Experience

Banks appear eager to expand the suite of complementary products available to their customers without incurring the associated development costs. The recent data sharing agreement between J.P. Morgan Chase and Intuit could be a template for future cooperation.[32] Instead of manually entering data into accounting applications like Turbo Tax, QuickBooks, and Mint, customers can now opt to have Chase provide bank account and transaction data directly. Such agreements simplify life for consumers and allow banks to cross-market complementary services.

In the future, banks may automate these types of partnerships to expand the range of third-party services available to consumers through application programming interface (API) technology.[33] APIs allow businesses to create new products by "digitally bolting" applications from other API-enabled services. Uber, for example, uses APIs to integrate a third-party mapping (Google Maps) and billing engine (Braintree) to its own platform. Banks could use APIs in conjunction with customer data to provide a tailored experience based on their customers' tastes, needs, and behavior. Instead of simply making a loan for a car, house, or boat, for example, a bank could use APIs to provide an end-to-end consumer experience where a bank app on a mobile phone becomes a full-service platform for car, house, or boat purchases.

Where is the Money in Payments?

Banks may exploit their scale and efficiency to ensure that mobile and electronic payments sit on top of a bank-centric infrastructure.[34] Nineteen of the largest U.S. banks have teamed up with FinTech Early Warning Services to start Zelle, a free peer-to-peer payment system that syncs bank accounts with payment processors and debit card networks.[35] Banks were also quick to embrace "Blockchain," or distributed ledger technology (DLT), through industry alliances, consortia, and joint ventures.[36] Such partnerships achieve the scale necessary to spread the cost of onboarding, fraud protection and credit risk, and offer superior execution relative to standalone alternatives.[37]

Free payments platforms are obviously not designed to generate profits, but rather to dissuade investment in alternative networks. We expect that FinTech businesses may find it more difficult to attract funding as incumbent banks and insurers' strategies become more apparent. Some industry observers have drawn the analogy to the relationship between telecom operators and Netflix: like Verizon and AT&T, large banks will control the infrastructure innovative new firms must use to access consumers.[38]

Margin Compression in Trading and Portfolio Construction

FinTech has already revolutionized financial markets through the explosive growth of algorithmic investing in high-frequency trading, next-generation exchange traded funds, and artificial intelligence-powered hedge funds.[39] In each case, collaboration with industry incumbents accelerated the adoption of the new technology. The same will likely prove true in the future, as quantum computing and machine learning fundamentally change portfolio construction and risk measurement for institutional investors, asset managers, and, eventually, the broader public through retail robo-advisors.[40] Traditional asset managers and wealth management franchises will slowly switch towards automation. Clients' allocations across asset classes and geographies will adjust endogenously in response to investor age, risk-tolerance, and savings objective. Technology should also improve portfolio construction in insurance markets. Analytics could help to determine if corporate policyholders are over-or-under insured based on their business and risk exposure, which should optimize coverage levels and improve risk selection and pricing.

Technology is also likely to reduce margins in brokerage services and securities dealing, but simultaneously boost transaction volumes. These intermediaries exist to match buyers with sellers. The more opaque the market, the higher their margins. Web-based computing platforms threaten this model by allowing buyers and sellers to find each other directly.[41] But the decline in search and transaction costs depends on the size of the trading network. The technology is not decisive in-and-of-itself, as execution on a small peer-to-peer network is likely to be inferior to that of a large, dealer-intermediated market. As a result, the most likely result is integration of web-based intermediation technology with existing dealer networks.

Data Makes Collaboration Nearly Inevitable

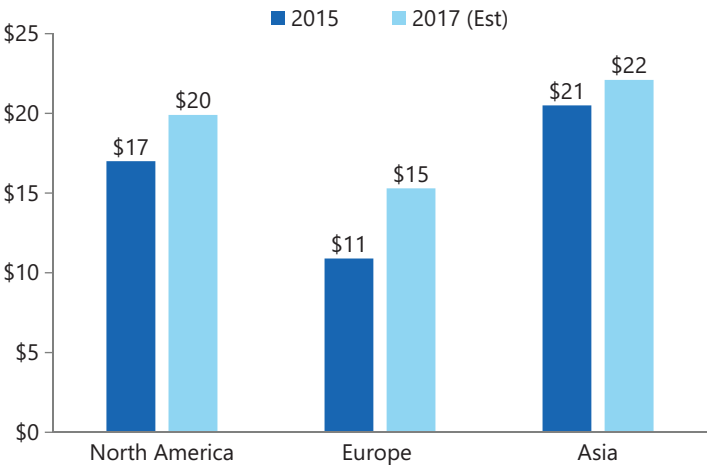
The value of many types of financial technology implicitly depends on the existence of large volumes of data that can be used to monitor risks, develop new products, customize the end-user experience, match buyers and sellers, or provide more tailored services.[42] Financial services is an information-based business. As a consequence, data is the key resource, like oil, while financial technology looks more like oil field services machinery. As long as industry incumbents possess the data, collaboration becomes the only realistic course for FinTech businesses to pursue.

32 The FinTech Ecosystem Report: Measuring the effects of technology on the entire financial services industry, BusinessInsider, February 2017.
33 Jessel, B. (2016), "The Rise of the Interconnected Digital Bank," Journal of Financial Transformation, Vol. 44.
34 Citi GPS, March 2016.
35 Big Banks Declare War on Venmo," Bloomberg, February 22, 2017.
36 Feenan, S. and Rayna (2016), "Blockchain in a Digital World," JFT, Vol. 44.
37 PWC, Retail Banking 2020.
38 Stylianides, G.
39 Goldman Sachs' lessons from the 'quant quake' Financial Times, March 8, 2017.
40 Putnam, B., McDannel, and Shah (2016), "Digital Finance: At the Cusp of Revolutionizing Portfolio Optimization and Risk Assessment Systems," CME Group.
41 Lenz, R. (2016), "Banking 2025: The Bank of the Future," JFT.
42 Big Data: The Next Leading Edge in the Financial Industry, AT Kearney, September 2014.

Financial markets are slowly coming to anticipate such convergence. Last year, investment into FinTechs with a goal of collaborating with the financial services industry increased by 138% and accounted for nearly half of all committed capital, up from 29% in 2014.[43] As banks become more open to cooperative arrangements—either by choice or belated acceptance of new competitive realities—the share of capital secured by collaborators should increase even more. In 2015, only about 10% of banks' $48 billion in new technology spending was devoted to FinTech deals. As banks' FinTech budgets increase (Figure 5), a growing share of the total will likely be devoted to acquisitions and alliances with FinTech companies rather than internal development programs. Such collaboration has already been observed in RegTech, data security, client servicing, research, technical support, trading support and operational resilience.[44]

FIGURE 5

Bank Spending on Financial Technology[45]



Conclusion

After several years of sluggish growth, the financial services industry has reached an inflection point. Instead of "more of the same," investors now expect financial services firms to deliver growth amid a more favorable economic backdrop. Digitalization of products and services will likely represent a key element of the industry's growth strategy in both the business and consumer segments. While the situation seems ripe for "disruption," there is much more to financial services than data storage capacity and processing speeds. We believe full disintermediation is much less likely than collaboration.

Business models and customer experiences will change, but industry incumbents will have no choice but to embrace new technology. In this environment, we believe the best investment targets will be middle-market companies that may benefit most from the "controlled disruption" by leveraging new digital technology to compete more effectively in the markets they target.

43 FinTech and the Evolving Landscape, Accenture, 2016.
44 Capital Markets: innovation and the FinTech landscape, E&Y, 2016.
45 Carlyle Analysis; Accenture, CB Insights data, 2016.

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