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Top financial services issues of 2017

Thriving in uncertain times

December 2016
Financial Services Institute

Our annual discussion of the themes that will define the year ahead. What can you do now to prepare for success in 2017?

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Ackowledgements

Introduction

2017: The rules have changed

The competitors facing asset and wealth managers, banks, and insurance companies aren't who we thought they were.

Emerging technology presents incredible opportunities—for someone else. And change is fast. The customers seem to be changing their minds about what they value most.

Well, nobody ever said it would be easy. For some, this is a time of great opportunity. For others, it's the end of an era.

This report, our inaugural look at the top issues facing financial institutions in the coming year, is a chance to put it all in perspective. For each topic, we look at the current landscape, share our view on what will likely come next, and offer our thoughts on how you can turn the situation to your advantage.

Technology trends

It's no secret that financial services has become a digital business. But the speed and extent of the transition is downright jarring. **Artificial intelligence** now drives the way leading firms provide everything from customer service to investment advice. **Blockchain**, with its ability to store information on distributed ledgers without a central clearinghouse, could upend a variety of businesses. Digital labor, or **robotic process automation**, is helping firms automate things they couldn't do before, without having to hire an army of developers. And all of this depends on robust **cybersecurity**, to hold off threats that are coming from multiple directions.

The business environment

How business is conducted is shifting too. For decades, American firms have looked to the United Kingdom as the gateway to Europe, but **Brexit** could change this. Firms are focusing on jurisdictional analysis and what they'll need to expand in the UK or move directly to the EU. In the US, the **regulatory environment** will likely be affected by new appointments to the federal agencies and some targeted Dodd-Frank rollback by Congress. And as the industry grapples with **risk management culture, ethics, and trust**, it often finds itself playing defense.

Economic factors

The economic backdrop for these forces also keeps changing. Asset and wealth managers, banks, and insurance companies once primarily competed against their own kind. They still do—but now, they also face **competition from nontraditional market players** with skills, funding, and attitude. And in a prolonged low interest rate environment, many now look at **cost containment** as one of the keys to survival. Finally, we see firms in a scramble for top line growth, organically and through acquisition, in a **search for new revenue opportunities**. Staying the same means falling behind.

"As financial institutions look to 2017, we recommend that they start with a longer view.

In a decade, market leaders will still be helping to finance infrastructure, enable commerce, preserve and expand wealth, and help consumers live better lives.

The needs won't go away, even if the way we fulfill them changes."

A look back

Eight years after the financial crisis, one might think that things would be back to normal. But, while financial institutions have shored up their balance sheets, control environment, and compliance processes in each line of defense there are a whole new set of challenges to deal with:

- Low interest rates and changing regulations have meant that certain business lines no longer make economic sense for some firms
- Aging technology infrastructure at many firms simply can't cope with demands of a highly networked, mobile-first client base
- We're about to see an unprecedented transfer of wealth across generations, but millennials may have very different priorities and expectations for managing assets

This past November, the US experienced one of the more pivotal (and unexpected) election outcomes in modern times. And it's quite possible that we'll see similar results in other major economies in the year ahead. In the US, some potential outcomes in the year ahead include:

- Significant uncertainty around international affairs
- Tax changes, which could buoy financial institutions and create challenges for realization of deferred taxes
- Some targeted Dodd-Frank rollback by Congress
- Broad impact on financial regulation from new appointments to the federal agencies
- More infrastructure spending and private investment
- Rising interest rates and uncertainty around inflation

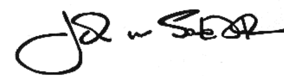
The road ahead

As financial institutions look to 2017, we recommend that they start with a longer view. In a decade, market leaders will still be helping to finance infrastructure, enable commerce, preserve and expand wealth, and help consumers live better lives. The needs won't go away, even if the way we fulfill them changes.

Leaders are making difficult choices, focusing on the capabilities that set them apart from their peers, and saying "no" to anything that isn't essential. They're investing in technology to serve current and future clients. They're partnering with innovators and experimenting with new business models.

It's an exciting time.

For more than a century, PwC has worked with clients around the world to build trust in society and solve important problems. We're pleased to share this outlook with you and would like to hear your thoughts. Please reach out to me or any of our PwC service team members.



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01

Artificial intelligence

Chatbots. Personal assistants. Robo-advisors. Machine learning. Cognitive computing. And so much more. While the term artificial intelligence (AI) has been around for 60 years, it has finally become part of our daily lives—and how we bank, invest, and get insured. Some financial institutions have been investing in AI for years. Other firms are now beginning to catch up thanks to advances in big data, open-source software, cloud computing, and faster processing speeds.

A look back

Is it AI or is it not? AI means different things to different people. Here, we focus on what some call "weak AI"—machines capable of performing specific tasks that normally require human intelligence such as visual perception, speech recognition, decision-making, and language translation.

Something ventured, something gained. AI startups have raised more than US$2 billion in venture capital funding this year.[1] This is clearly seen as one of the more promising technologies, with a bright future.

Not on the same page or algorithm. Each sector applies AI differently. For example, insurance leaders use AI in claims processing to streamline process flows and fight fraud. Banks use chatbots to improve customer experience. In asset and wealth management, AI adoption has been sporadic, but robo-advisors are rapidly changing that.

Going behind the scenes. Some firms use AI to model scenarios for capital planning, or use natural language processing and graph processing techniques to flag transactions for compliance reviews. These uses are lower profile, but they'll have a big impact as they move toward mainstream.

Why aren't more firms relying on machines? Two thirds of US financial services respondents said they're limited by operations, regulations, budgets, or resources, according to our 2016 Global Data and Analytics Survey: Big Decisions™.

The road ahead

The machines won't take over—yet. AI will gradually replace humans in some functions like personal assistants, digital labor, and machine learning. But challenges will persist because of bias, privacy, trust, lack of trained staff, and regulatory concerns. Augmented intelligence, in which machines assist humans, could be the near-term answer.

So much insight. With advances in big data, open-source software, cloud computing, and processing speeds, more firms will use cognitive computing and machine learning to perform advanced analysis of patterns or trends. For example, firms may use AI to help spot nonstandard behavior patterns when auditing financial transactions. Firms may also use AI to sift through and analyze thousands of pages of tax changes.

Make way for more robo-advisors. With the new DOL fiduciary rule, we could see an uptick in robo-advice due to pricing pressures on commissions. Robo-advice is also morphing to bionic advice by combining digital and human delivery of advice.

Cognification? Digital twins? What? We'll evolve more from digitization and automation to what many now call cognification. We expect to see firms use AI more often with processes that rely on machines to make very specific decisions. We'll also see companies modeling how customers might react to various scenarios, testing assumptions on users' digital twins.

What to consider

Where to start? We recommend that you pick two different types of problems as you explore AI technology solutions:

- Some should be *operational* so that you show productivity improvements. Review and select the various AI technologies that can solve these problems.
- Others should be more *exploratory* in nature. For example, if you're asking whether you can "get better customer satisfaction and retention by analyzing the audio data from call centers," you might not have a specific metric in mind. However, applying AI to this problem may yield insight that other techniques can't.

Make AI an extension of your data analytics team. Mature organizations might choose to set up a new chief AI officer role. But if your firm is in the early stages of adoption, view AI as an extension of current analytics capabilities instead.

Find the right balance between human and machine. There's a balance between servicing costs and the need for good customer service. You should design off-ramps, swapping customers over to live support if an AI customer interaction or other transaction should falter.

Learn more

Top Insurance Industry Issues in 2016: Artificial Intelligence

Sink or Swim: Why wealth management can't afford to miss the digital wave

Next in technology: Artificial intelligence blogs

DOL's fiduciary duty rule

PwC's Global Data and Analytics Survey 2016: Big Decisions™

Financial services technology 2020 and beyond: Embracing disruption

Tech breakthroughs megatrend: How to prepare for its impact

Tax function of the future: Unlocking the power of data and analytics

"Artificial intelligence can help people make faster, better, and cheaper decisions. But you have to be willing to collaborate with the machine, and not just treat it as either a servant or an overlord."

– Anand Rao
US Analytics Group Innovation Leader

Figure 1: Insurers are more comfortable making big decisions using machine algorithms than others in the industry.

02

Blockchain

Blockchain is one of the more exciting—and more misunderstood—emerging technologies. It essentially offers a decentralized ledger of all transactions across a network: When a transaction occurs, everyone on the network knows about it. It's tamper-proof and virtually instantaneous. This has real disruptive implications for the financial industry, which today uses other processes to keep records for asset transfers and more.

A look back

Beyond bitcoin. In 2015, if we asked people about blockchain, most would answer, "Isn't that related to bitcoin?" Blockchain *is* the technology behind bitcoin, but it can do so much more, and this is now becoming clear.

Meanwhile, in the lab… In 2016, nearly every major financial institution was experimenting with blockchain. Many firms have started by working with in-house innovation groups to develop proof-of-concept (PoC) projects. They've been doing this by themselves and in partnership with others. One consortium claims more than 70 financial institutions.

It's not just financial institutions. Governments and other central authorities are getting involved. In 2016, for example, we helped one central bank develop a PoC using distributed ledger technology to settle payments. Major stock exchanges have launched initiatives to test the technology with nontraditional asset trading. Clearing houses have their own projects, too.

Betting on blockchain. We follow 158 blockchain-specific companies in 24 industry subsectors on our DeNovo strategy platform. This shows the wide-ranging and flexible nature of the technology.

The road ahead

Real-world applications. There are lots of promising blockchain applications across financial services. For example, we've estimated that blockchain could create the opportunity to save between US$5 billion and $10 billion in reinsurance. This is possible because of improvements to placement, claims settlement, and compliance checks. We're also seeing interesting activity in areas like clearing and settlement, trade finance, and mortgages. In the coming year, many firms hope to move from PoC to production to demonstrate immediate value. But to do this, they'll have to move beyond seemingly endless debates about how to untangle complex, legacy infrastructure.

Now, the hard part. After making some fairly big bets on the technology, firms should think more broadly about how to put it to work. Behind the scenes, there are technical issues being addressed: resolving communications and programming issues, data privacy and security concerns, regulatory concerns, standardizing the communications protocol, and so on. But for financial institutions, many of the most challenging issues aren't technical at all. Rather, they'll struggle to address items such as governance, standards, and "off-ramps" to other systems.

What to consider

Get going. There are many factors that ultimately drive whether or not a technology is widely adopted. Having a better tool doesn't always drive the decision, as we've seen again and again. And time can be a limiting factor. Once skepticism takes hold, it can be hard to overcome. To succeed, you should quickly decide which PoCs should be promoted to production. Again, this depends on more than just the technology itself. You should address the nontechnical components of a blockchain solution such as designing the future state operating model (including organizational design), business process management, and governance.

Think out of the box. Literally. One sign that a technology has matured is the emergence of vendors offering packaged solutions. It's increasingly possible for you to jumpstart deployment by using "Blockchain-as-a-Service" offerings. These are hosted services that include all aspects of the distributed ledger technology in a third party cloud environment.

Learn more

Q&A: What is blockchain?

Q&A: What might blockchain mean for the mortgage industry?

A strategist's guide to blockchain

Blockchain: The $5 billion opportunity for reinsurers

Technology forecast: Blockchain and smart contract automation

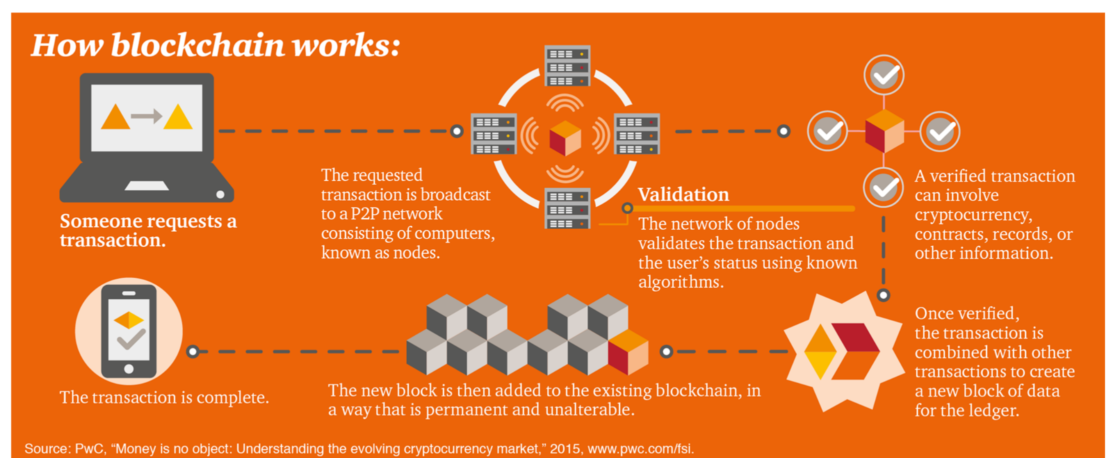
Strategy&: DeNovo Q2 2016: FinTech ReCap and Funding Review

PwC press room: Bank of England partners with PwC on distributed ledger PoC

"Even firms working independently are building capabilities that they'll use to improve interactions with others. We see a lot of nontraditional collaboration happening, too. With blockchain, it all comes down to better communication among institutions."

– Grainne McNamara
Principal, Financial Services

Figure 2: Blockchain offers an easy way to confirm that a transaction is valid.



03

Brexit

In June 2016, UK citizens voted to leave the European Union. Article 50 of the Lisbon Treaty, the clause that sets out how a member may withdraw from the EU, allows up to two years of negotiations once a departing state officially notifies the European Council of its intentions. At this time, the UK hasn't officially invoked the article, though the prime minister has indicated an early 2017 time frame. What should US financial institutions do now to prepare for various possible exit scenarios?

A look back

It's all about the timing. Since June's referendum, the situation in the UK has remained fluid, with new developments being reported almost daily. On October 1, Prime Minister Theresa May announced that the UK would trigger Article 50 no later than the end of March 2017. Almost exactly a month later, on November 3, the UK High Court ruled that the government needs a parliamentary vote for that to happen.[2] The government has appealed the ruling to the UK Supreme Court, and we expect a decision in early 2017.

Dreaming of a soft Brexit. A September 2016 PwC/CBI (Confederation of British Industry) survey found that only 15% of UK financial institutions were optimistic about post-Brexit business conditions in the UK.[3] The financial industry has been vocal in its desire to maintain passporting agreements that allow UK firms to sell their services across the EU and vice versa. They are looking to make sure they maintain their established business relationships in the EU.[4]

Turmoil, and then a pause. In the immediate aftermath of the vote, markets reacted harshly to the uncertainty. The value of the British pound plummeted, commercial real estate prices fell, and economic growth slowed. Still, there have been signs of resilience, and the initial volatility seems to have stabilized.

The road ahead

Waiting for Brexit. If Parliament must be allowed to weigh in, timing around issuance of Article 50 will become less clear. However, given the political climate in the UK, we still expect that the official notice will be given during 2017. Meanwhile, the UK is beginning to prepare for the lengthy trade negotiations ahead.

UK recession unlikely in 2017. We expect UK GDP growth to slow to 1.2% in 2017 from approximately 2% right now. This is mainly due to the drag on investment from increased political and economic uncertainty. We also expect the Bank of England to keep monetary policy unchanged, at least over the short term.

More UK trade with the US? Post-Brexit UK trade prospects depend on several key factors: securing the best possible access to the Single Market, a program of trade promotion in non-EU markets like the US, supply-side reform, and active engagement with other major international institutions such as the World Trade Organization (WTO). US financial institutions are also awaiting details of President-elect Trump's trade policies.

What to consider

Plan and plan again. Refine your contingency planning and risk assessments given possible exit scenarios. As part of this process, you should consider the customer impact of proposed operational changes. To maintain business continuity for clients, we recommend that you look for cost-effective moves that can be made now to protect your customer interests regardless of how the larger variables play out. Update your plans as new details arise.

Consider Brexit risk exposures. Financial effects are a concern for US companies that sell to, buy from, or operate in the UK or EU, or are engaged in their financial markets. You should review contractual agreements quickly to understand Brexit exposures. You should also focus on reporting triggered by currency volatility, changes to hedging strategies, collectability of receivables, potential asset impairments, and intercompany activity.

Don't lose key talent. As you plan, think about which employees could be affected. Communicate clearly with them and address their concerns.

Consider long-term tax strategies. Brexit will affect how individuals and businesses are taxed. You should plan for changes to VAT, corporate taxes, customs duties, and more.

Learn more

Not just across the pond: How US financial institutions prepare for Brexit

Changing coverage? Brexit's effect on US insurers and reinsurers

Making a withdrawal? Brexit's effect on US banks and capital markets firms

Trading insecurities: How US asset management firms prepare for Brexit

US Business: Where to look for your Brexit exposure

Brexit: Further implications for US sponsors of UK pension plans

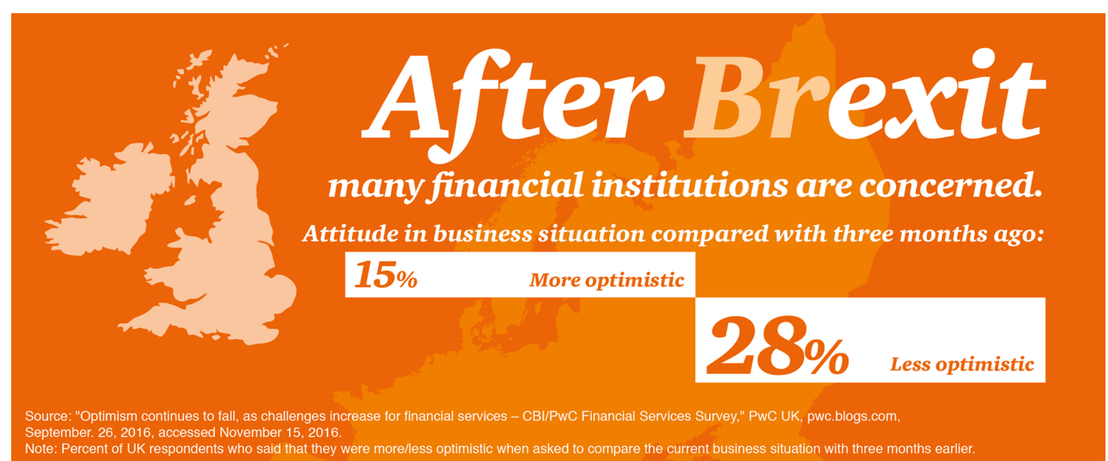
What does Brexit mean for US boards of directors?

Economic prospects after Brexit: UK Economic Outlook November 2016

"Successful financial institutions will think carefully about the messages they give their customers and employees. These stakeholders are talking about Brexit already, so it makes sense to offer reassurances. Don't make them guess what you mean."

– Bill Lewis
Global Financial Services Risk & Regulation Leader

Figure 3: Optimism falls after Brexit referendum vote.



Source: "Optimism continues to fall, as challenges increase for financial services – CBI/PwC Financial Services Survey," PwC UK, pwc.blogs.com, September. 26, 2016, accessed November 15, 2016.
Note: Percent of UK respondents who said that they were more/less optimistic when asked to compare the current business situation with three months earlier.

04

Competition from nontraditional market players

The rise of financial technology—FinTech or InsurTech, for short—is changing the way people and companies save, pay, borrow, and invest. The environment includes tech companies, infrastructure players, and startups, along with incumbents. The FinTech formula for success is simple: use technology and mobile platforms to slash costs and bypass intermediaries. New competitors often offer low-cost solutions that are simple to access and easy to use. In the process, they're upending the status quo.

A look back

Incumbents take notice. Some incumbents view startups as threats, and for good reason. In our 2016 Global FinTech Survey, respondents told us that they think more than 20% of financial institutions' business could be at risk to FinTech. But many established firms are also starting to view FinTech as an opportunity. After all, better, faster, cheaper innovation could benefit them as well as their customers.

A year of experimentation. In 2016, incumbents moved away from acquisitions and started to look instead at partnerships with startups. We've also seen firms creating proof of concepts and/or working with consortia to enhance operations and improve efficiency.

Regulators trying to strike the right balance. As FinTech and InsurTech gain footholds, regulators and government officials, often led by Asia and Europe, have tried to find ways to encourage innovation in the financial services industry. At the same time, they want to protect consumers and keep risks in check. In the US, the Office of the Comptroller of the Currency (OCC) has proposed a framework for a special purpose national charter for FinTech companies. Regulators at the Consumer Financial Protection Bureau (CFPB), meanwhile, have declared that banks don't have the right to deny third parties access to customer data if customers want to share it.

The road ahead

The next wave of innovation. In 2017, we expect the footprint of FinTech and InsurTech to continue to expand in many areas including asset and wealth management, capital markets, digital cash, treasury functions, and insurance. We also expect to see growth in digital identity and regulatory technology (RegTech). RegTech typically describes the use of emerging technologies by regulators to help them manage systemic and other risks.

The role of emerging technologies. Blockchain, robotic process automation (RPA), and artificial intelligence (AI)—three of our other Top 10 issues—will also gain ground in 2017. And they are moving so fast it's hard to keep up. In fact, some companies are hiring people to focus full time on understanding emerging technologies.

Open access. New technology offerings are becoming more integrated into the operating models of many financial institutions. This is being driven by a growing emphasis on application programming interfaces (APIs). More firms are using APIs to let third parties develop apps and tools that can offer customers entirely new services. Of course, cybersecurity will be a concern, too.

Shakeout ahead? A downturn could be the ultimate test for FinTech and InsurTech startups too young to have lived through a full economic cycle. How will they respond if the economy stalls and investments dry up?

What to consider

Embrace digital infrastructure. You will need a digital core supporting an open-API model to integrate FinTech into your operating model. These days, you should link to mobile and desktop users, third parties, back-office systems, and more—securely and seamlessly. Cloud-based infrastructure can help you do this faster.

Open business models require a new way of thinking and working. You should become more agile, planning and delivering more quickly, and partnering with disruptors. But this isn't just a technology change. You should expect to bring together different skills, talents, and personalities.

Innovation doesn't just happen. If you want to succeed, you should create a kind of digital "sandbox" to experiment with new ideas and to test out partnerships with other organizations. You'll need to be willing to fail fast, bring on new partners to work with your platform and data, and learn from your mistakes. And when you decide you're onto something good, work quickly to bring the idea back to the broader organization.

Learn more

Q&A: What is FinTech?

Blurred lines: How FinTech is shaping financial services

FinTech: Headwinds or Windfall for Incumbents?

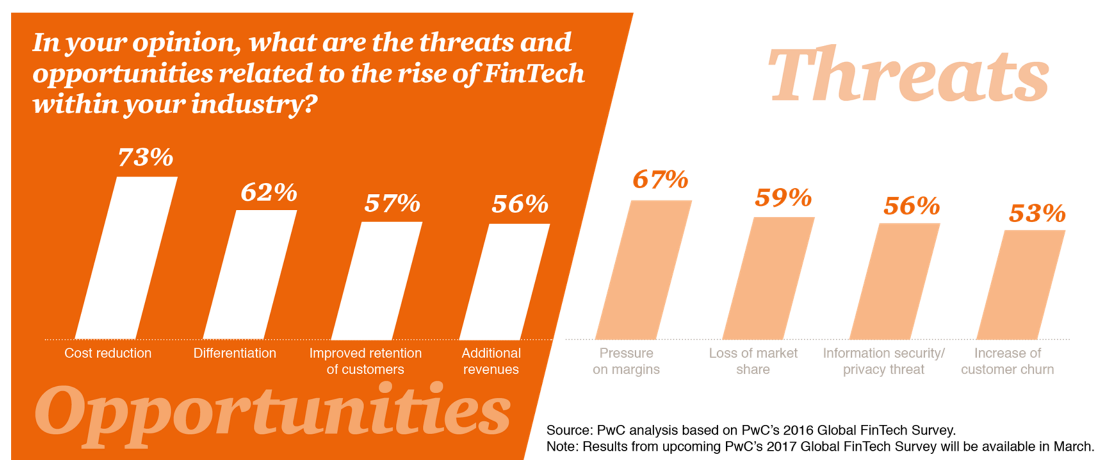
Financial services technology 2020 and beyond: Embracing disruption

DeNovo: A platform to understand how disruption impacts business strategy

"In this industry, it can be hard to stay ahead of all the exciting developments. There is a lot going on, and you should be able to quickly decide which technologies and business models really matter. To succeed, you should scan the landscape continuously, filter out what doesn't affect you, and act quickly when you decide that something is worth exploring."

– Manoj Kashyap
Global FinTech Leader

Figure 4: Financial institutions see both threats and opportunities from new market entrants.



Source: PwC analysis based on PwC's 2016 Global FinTech Survey.
Note: Results from upcoming PwC's 2017 Global FinTech Survey will be available in March.

05

Cost containment

Almost a decade after the global financial crisis, financial institutions still face a low-growth, low-margin, highly-regulated environment. To stay afloat in these difficult times, reducing costs remains a top priority. But few firms have a handle on costs across the enterprise, where cost problems exist, and how to manage them. They also struggle to make room in shrinking budgets for strategic investments.

A look back

What is driving cost pressure? These key factors are driving the industry to concentrate on cost containment.

- With interest rates at historic lows, firms are focusing more on noninterest income.
- Customers are putting pressure on financial institutions to innovate. New market entrants are providing a better user experience, often at a lower cost because they aren't saddled with an expensive legacy infrastructure. Existing firms feel the pressure to meet these customer demands while simultaneously modernizing their environment.
- Regulations have been a significant cost burden across the industry.

But where to cut? In recent years, financial institutions have taken advantage of shared services, process optimization, outsourcing, and offshoring to keep costs in check. Even with these changes, margins are still tight. Few firms have a good handle on costs across the enterprise, where cost problems exist, and how to manage them. As a result, firms are looking for fresh ideas, and the conversation has turned to a few key areas of investment, including technology, preparing employees for change, and finding ways to get change to stick.

The road ahead

What else are you willing to let someone do for you? In the coming year, financial institutions will be taking a harder look at what they really want to be good at so they can focus on their core mission and eliminate, reduce, partner for, or outsource almost everything else.

Digital tools. We'll see leading firms continuing their move toward using digital technology to cut costs, both in the short- and long-term. They'll look to tactical tools such as robotic process automation (RPA), document processing, as well as more innovative technology like blockchain and machine learning.

Deploy. Learn. Repeat. We expect financial institutions to move their new initiatives beyond the proof-of-concept stage. It's important for firms to create minimally viable products to understand and address customer feedback. Once they've found an offering that demonstrates value, they can build on their initial success.

What to consider

Think differently. You should question every expenditure to be sure it supports your overall business strategy. You should focus on functions you can excel at and find alternatives for everything else. You'll also want to restructure your organization to align with new operating models.

Don't be penny wise and pound foolish. When cutting costs, it's tempting to reduce all department budgets by the same percent. We think this is one of the bigger mistakes a firm can make. To get things right, start by drilling into your end-to-end cost structures. Trim expenses that don't differentiate the business and invest in capabilities that do.

You may need to invest to save. Cuts in vital areas might reduce costs now, but they may also undermine the future of the business. To support growth, you should invest strategically. For example, investing in emerging technologies around data and advanced analytics can lead to enhanced offerings and growth as well as streamlined operations and reduced costs.

Focus on talent. As you redesign your organization, you'll want to think through implications for your team. For example, what are your organization's critical roles? To support the differentiating capabilities that you want, what skills will you need?

Learn more

PwC's 19th Annual Global CEO Survey

Is your bank ready for growth? A more strategic approach to costs can help you prepare

More for less: Five steps to strategic cost reduction

Fit for Growth: A Guide to Strategic Cost Cutting, Restructuring, and Renewal

Is Your Company Fit for Growth?

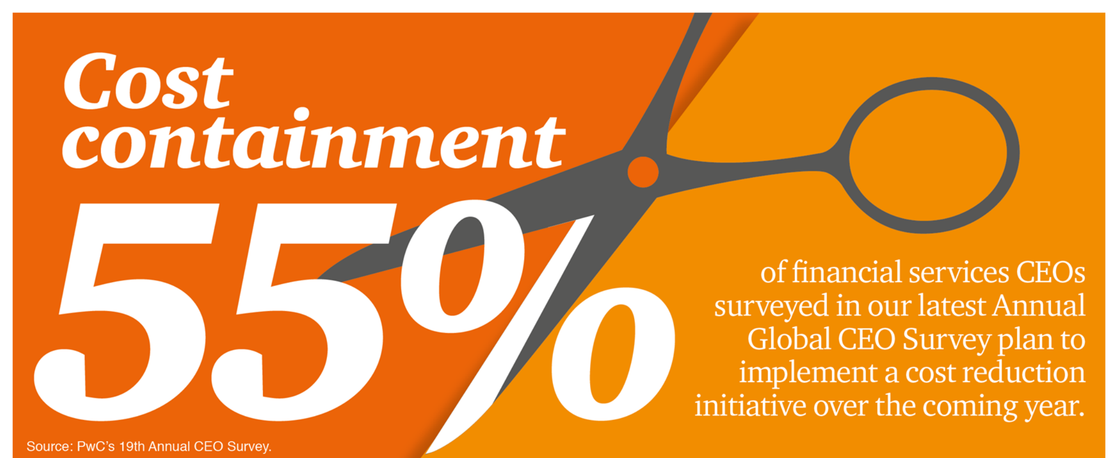
Lean-led business transformation: A real change agenda for financial services

Insurance top issues: Are you fit for growth?

"Many traditional cost-cutting techniques—centralizing, offshoring, outsourcing—are largely done. Now, we're seeing tactical uses of technology, like automation, to drive cost savings."

– Kelley Mavros
Partner, Strategy&
Financial Services Advisory

Figure 5: Most financial services CEOs planned to implement cost containment projects over the coming year.



06

Cybersecurity

Phishing. Ransomware. DDoS attacks. These are terms financial services security professionals have come to know intimately—and despise. Amid threats from individual actors and organized attackers, security teams have had to step up. As attacks have become more sophisticated, regulators are raising their level of scrutiny, and global cybersecurity and privacy legislation is changing. It's a big challenge for firms that have come to rely so heavily on digital technology.

A look back

Threat actors keep finding weaknesses to exploit. According to PwC's most recent Global State of Information Security® (GSIS) Survey, the most common type of cyberattack in 2016 was phishing. Firms also faced growing risks due to business email compromise, ransomware, and distributed denial of service (DDoS) attacks. And criminals and other threat actors aren't giving up, as shown by the SWIFT incident and rising concerns over payment systems.

Raising the bar. It's been a busy year for financial institutions as they've tried to keep up with additional cyber standards from the NAIC, the CFTC, and the NYDFS. In October, the Fed, OCC, and FDIC jointly issued an advance notice of proposed rulemaking on cyber risk management standards. While all of these standards are important, many firms struggle to reconcile the sometimes conflicting guidance.

Cyber risk and cybersecurity programs mature. As more sensitive data moves to the cloud, many financial institutions are upping their game. This year, 51% of US financial services respondents in the GSIS survey reported that they use managed security services for solutions like authentication and real-time monitoring and analytics.

The road ahead

Regulatory focus on cyber isn't going away. Cybersecurity isn't a partisan issue. Financial institutions will be pushed to collaborate more with regulatory bodies to collectively share information. They'll have better visibility into emerging threats—and a greater responsibility to prepare for them.

More collaboration. Most firms have realized the benefits of working together and with governmental bodies to prevent cyberattacks. The coming year will be no different. Industry collaboration will grow through venues such as Financial Services Information Sharing and Analysis Center (FS-ISAC) and new initiatives such as the Financial Systemic Analysis & Resilience Center (FSARC) and Sheltered Harbor.

Looking after consumer data. Firms must already comply with industry, state, federal, and international privacy regulations. The CFPB recently announced consumers can give permission for third parties to access their information.[5] Firms will likely share blame for mishandled data.

New technology, new challenges. Combining cloud services with tools like artificial intelligence and blockchain will introduce new risks—and require new approaches to combating those risks.

As business goes digital, cyber spend increases. In fact, 54% of US financial services respondents to our GSIS survey plan to spend more on beefing up security in the mobile channel.

What to consider

Integrate cybersecurity, anti-fraud, and anti-money laundering efforts. You'll improve your ability to ward off threats by combining analytics from pooled data, strengthening your risk management environment, and implementing controls more effectively.

Find the regulatory balance in the guidance. Focus first on building a robust risk-based cybersecurity program. This can help you achieve your broad strategic objectives while also complying with regulatory requirements.

Establish an independent, second line of defense. Keep your security governance and oversight capabilities separate from cybersecurity design, implementation, and operations. Also, your second line of defense should engage the board and its risk committee on cyber topics.

Anticipate risks from third parties. Recognize the potential for increased risks when outsourcing. Collaborate with third party vendors to make sure they take the right measures to protect your data.

Speed innovation by focusing on cybersecurity up front. When designing and developing new digital products and services, you should integrate cybersecurity and privacy in the beginning stages.

Learn more

Top Cyber Trends to Watch

2017 Global State of Information Security® Survey: Financial Services

Cyber: Global data transfer still in disarray

SWIFT action: Preventing the next $100 million bank robbery

Cyber: New York regulator moves the goalposts

Cyber: Regulators putting market infrastructure to the test

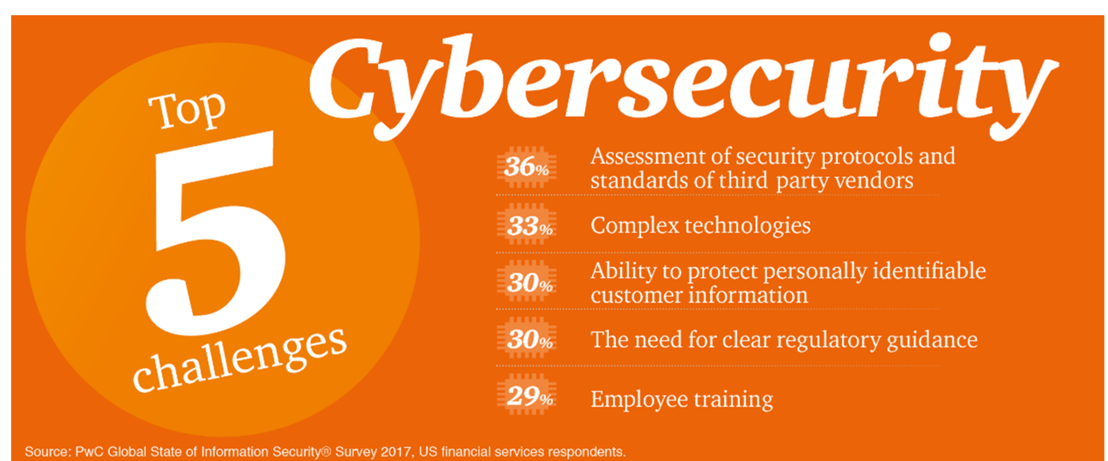
Cyber: Banking regulators weigh in

Top Insurance Industry Issues in 2016: The promise and pitfalls of cyber insurance

"Cyber expectations are growing. Firms need to balance rapid innovation with the need to provide both seamless customer service and privacy protection."

– Joseph Nocera
Financial Services Cybersecurity Leader

Figure 6: Many financial institutions have improved their cybersecurity programs, but challenges still remain.



07

Regulatory environment

Compared to the rest of the world, the global competitiveness of the US financial services sector has never been stronger. Despite (or because of) the pains of Dodd-Frank and its related rules, the industry has made substantial improvements. Most US financial institutions have transformed their balance sheets, structure, and business models to compete in the post-crisis regulatory world. With a new administration ahead, financial institutions are now thinking strategically about what's next.

A look back

New rules, new standards. Regulations continue to be a top priority for financial institutions. In the past year, there has been a particular focus on:

- **Comprehensive Capital Analysis and Review and Dodd-Frank Act Stress Test.** While post-stress test results for this year were better than last year's, the Fed noted that complex firms continue to lag in several areas—specifically, risk identification, self-assessment of weaknesses (a governance issue), and internal controls.
- **Resolution planning.** In April 2016, the Fed and the FDIC deemed five of the eight largest US banks' 2015 resolution plans not credible. Smaller banks were off the hook this year with a one year delay on their next resolution plan filing.
- **The DOL fiduciary duty rule.** On April 6, the DOL released the long-awaited fiduciary regulatory package which sets a new standard for advice given to retirement investors. Under this final package, financial advisors who provide investment advice will face limits on receiving commission-based compensation. With up to 50% of US retail financial assets in retirement accounts, the impact of the rule will be widespread across asset managers, broker dealers, and insurance companies. The industry has already made significant progress toward compliance with the rule.

The road ahead

Many questions, few answers, and a lot of uncertainty. In our paper Donald Trump's victory: Ten key points, we offer the following predictions about financial regulations under the new administration:

1. Dodd-Frank will not be repealed.
2. However, some targeted Dodd-Frank rollback by Congress will occur.
3. President-elect Trump's broadest impact on financial regulation will come from his appointments to the federal agencies.
4. Stress testing and resolution expectations will continue easing for smaller banks and stop rising for the largest ones.
5. Priority Fed rulemakings will proceed, but other rulemakings are far less likely.
6. The SEC will likely complete its derivatives rules this year.
7. Asset management rules will be hard for the SEC to complete.
8. The DOL's fiduciary duty rule will remain intact, but compliance deadlines face delay.
9. The FSOC will likely shift its mission toward identifying opportunities for deregulation.
10. AML and sanctions regulation will stay on course.

What to consider

The regulatory environment will continue to evolve in 2017 and beyond. To thrive in the middle of complexity, you'll have to be ready to adapt.

Prepare for the DOL fiduciary duty rule. While the April 10, 2017 compliance deadline may change under the new administration, you should continue your work to meet the rule's requirements and consider the DOL's recently released FAQs for further guidance.

Continue stress testing and resolution planning. Both Republicans and Democrats have pressured the Fed and FDIC for years to address possible big bank failures. We predict that expectations for the larger banks will stop rising. But large firms still have to address the deficiencies and shortcomings in both capital stress testing and resolution planning that the agencies have recently identified. Meanwhile, regional banks shouldn't take the one year delay on their 2016 resolution plan filing as an opportunity to put pencils down. The December 2017 deadline will be here soon enough.

"With the new administration, we think small institutions can expect supervisory requirements to ease up. The largest banks are likely to see fewer enforcement actions too, but the changes may not come as quickly."

– Bill Lewis
Global Financial Services
Risk and Regulation Leader

Learn more

Donald Trump's victory: Ten key points

DOL fiduciary rule: Election impact and FAQs

A Practitioner's Guide to Banking Regulation: Mastering the New Regulatory Landscape

Governor Tarullo's speech on stress testing and the Fed's NPR

Fed's 2016 DFAST

2016 CCAR results

Ten key points from Agencies' resolution plan feedback

Discussion and analysis on other current regulatory issues

"The DOL fiduciary duty rule is about customer protection, transparency, and eliminating conflicts of interest. While the timing of complying with the rule might change under the new administration, as of now we expect the core framework to remain intact."

– Adam Gilbert
US Financial Services
Risk and Regulatory Co-Leader

08

Risk management culture, ethics, and trust

Among the many risks that financial institutions face, one is often overlooked: the risk related to organizational culture. As high-profile incidents of unethical behavior rattle the financial services industry, risk management culture, ethics, and trust are in the limelight. In 2017, financial institutions will be asking: Can we build a strong risk culture that drives consistency across geographies and lines of business? Can we rebuild trust in the industry?

A look back

Culture, ethics, and trust in the headlines. Unlike recent years, when stories about collusion in high-stakes trading businesses dominated the discussion, we've now seen bad behavior in consumer-facing areas like call centers and branches focused on deposits and lending.

Industry making strides. Despite recent events, the industry as a whole has progressed. We see substantial progress since we published our 2014 Global Banking Risk Culture survey. We see more enterprise risk culture programs, more focus on the best interests of customers, more boards holding management accountable for changes in employee behavior, and new technology to track and measure progress.

Still room for improvement. While firms are doing better overall, they still struggle to drive consistency across geographies and lines of business. Many institutions haven't yet managed to get the tone in the middle to align with the tone at the top.

It's bigger than banking. Regulators are focused on prevention and punishment across financial services. The Department of Labor's new fiduciary rule, for example, is designed to encourage ethical behavior by requiring asset managers and insurers to act in the best interest of each client.

The road ahead

No tolerance for unethical behavior across the industry. The change in the geopolitical landscape in 2017 won't likely abate regulators' and legislators' concerns around risk culture. Customers and shareholders want to interact with institutions they trust, and reputational damage over the long term can be far more costly than punitive fines.

More emphasis from directors on fixing the problem. Where harmful unethical behavior is blatant, we're likely to see high-profile management changes to signal that the board takes ethics seriously.

Stakes higher in a world with artificial intelligence. As the industry adopts artificial intelligence, programmers will need to code both prescriptive rules and principles-based algorithms. The financial institution will be on the hook if the automated advice doesn't uphold a fiduciary duty.

"Financial institutions need to be on their best behavior. Regulators are visiting. Congress is watching, and so are customers. It's no easy task."

– Mike Alix
Financial Services Advisory Risk Leader

What to consider

Build the right culture. Your firm's culture should promote behavior that emphasizes following both the rules and their underlying principles. This should occur even at the expense of short-term revenue generation.

Not just management's role. Your audit and risk committees should assess your organization's culture. The tone at the top shapes an organization and drives behaviors.

Don't forget about the tone in the middle. Many firms focus too much on the tone at the top and not enough on the tone in the middle. Real issues arise when managers don't embed the firm's culture in their daily activities. Your firm's values and ethics need to be modeled in *all* interactions.

Examine risk culture throughout the talent lifecycle. The risk culture should be embedded from onboarding to promotion decisions to employees leaving the firm. As regulators continue to examine sales practices, for example, you should examine the potential unintended consequences of existing compensation and incentive plans.

What gets measured gets done. You should use risk culture surveys to measure changes in employee behavior. Using these tools across the firm allows leaders to measure, analyze, and adapt.

Learn more

Sales practices: OCC exams and beyond

DOL fiduciary rule: Election impact and FAQs

State of Compliance Study 2016

Forging a winning culture

Risk turns corporate culture into a hard trait

Culture: Linking Strategy and People

Cure for the common culture: How to build a healthy risk culture

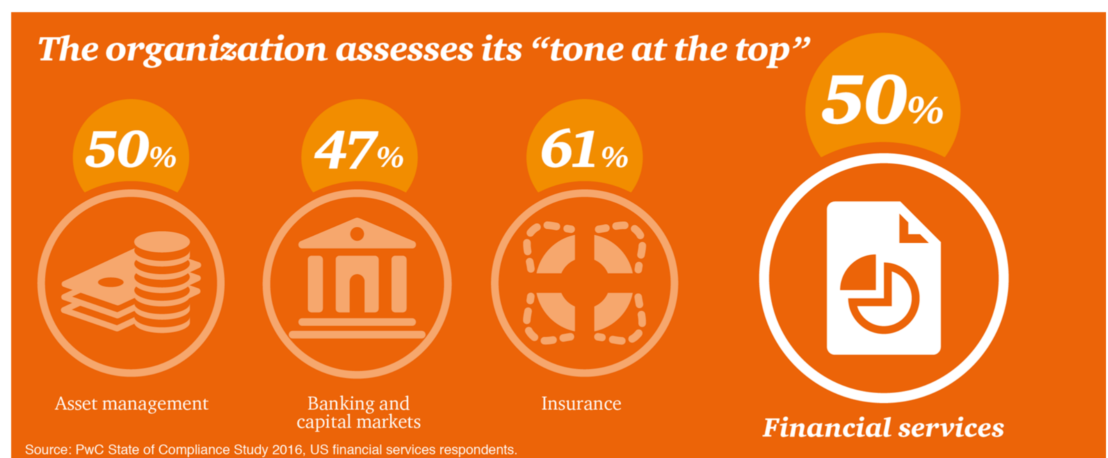
Bank culture: It's about more than bad apples

Here today, gone tomorrow: Contingent workers in financial services

"Firms need to embed risk culture into every part of the talent lifecycle. Are we hiring the right people? How effective are background checks? How are target behaviors embedded through performance goals and rewards? How does increased employee engagement influence an effective risk culture?"

– Bhushan Sethi
Financial Services People & Organization Practice Leader

Figure 7: Many financial firms are not doing enough to assess tone at the top.



Source: PwC State of Compliance Study 2016, US financial services respondents.

09

Robotic process automation

Automation has grown up. In recent years, a new class of software known as "digital labor" or robotic process automation (RPA) has emerged. The terms describe logic-driven robots that execute pre-programmed rules on mostly structured, and some unstructured, data. Financial institutions are looking to these tools to automate a wide range of activity without the need for complex programming. We think 2017 could be a breakout year for the technology.

A look back

Testing: one, two. In 2016, many financial institutions began to consider how to incorporate digital labor into their labor force strategies. But there's a large gap between the leaders and everyone else. While most firms have started to experiment with RPA, they approach it as a technology solution rather than a staffing initiative.

What's the use case? Most RPA projects in financial services have started by automating existing work, typically connecting legacy systems that don't "talk" to each other. We've seen it used for reporting, reconciliation, data remediation, and other repetitive work.

Not scaling up yet. For most, these are early days for RPA. Across the sectors, we've seen a lot of proof-of-concept activity, but deployment at scale has been limited. As a result, many firms have yet to see a financial upside from their investments.

Who does the work? In a 2016 survey of RPA use in the financial services industry, PwC found that companies vary in their implementation of digital labor. Two thirds of the respondents are implementing RPA internally, either alone or with support from systems integrators, consultants, or software vendors. Others have turned to outsourcing vendors, typically as an extension of existing offshore projects.

The road ahead

What else can it do? Because software rules can be programmed by division analysts rather than IT developers, we expect that use cases will proliferate rapidly. These will expand from core operations into administrative functions such as human resources (recordkeeping) and finance (reporting).

The search for ROI. RPA deployment will hit a wall if firms don't show adequate progress given their investment. Leaders can succeed by using RPA to enable better work, not just faster work.

Governance matters. Leading firms—and there aren't many—are taking an enterprise-wide approach to digital labor. They're establishing centers of excellence to coordinate vendor contracts, creating policies and procedures to address security issues, and more. We also expect to see a greater emphasis on control functions for RPA activities that address operational risks.

Robots that learn. RPA is seen by some as a basic application of artificial intelligence. Vendors are introducing a new generation of tools known as intelligent process automation (IPA). These applications allow the "bots" to learn and get better at what they do. These advances will make governance even more important.

What to consider

Plan, then automate. Make sure you look at the data and process flows that lie beneath the problems you're trying to fix. If you automate a bad process, you waste the benefit of RPA. We find that even a light process redesign can make a big difference. Then, look closely at using digital labor for the manual work that remains.

Organize for success. While you don't want to stifle innovation, you can benefit from taking a centralized approach. This will help you drive consistency in sharing best practices, negotiating with vendors, setting standards, developing training, and securing funding. A center of excellence can also help you manage risk and regulatory concerns. But guide rather than control. You'll need to strike the right balance.

Understand the trade-offs. Just because you have RPA doesn't mean you should stop your broader technology transformation efforts. As powerful as the technology is, it shouldn't replace your IT agenda.

Understand the risks. Just like other end-user computing programs, you should hold digital labor applications up to risk policy standards. This means documenting how they work, having effective plans in case humans need to step in to take over the work, and so on.

Learn more

Q&A: How can RPA and other digital labor help financial services institutions?

From theory to practice: Onboarding digital labor in financial services

Payback time: Improving ROI from digital labor in financial services

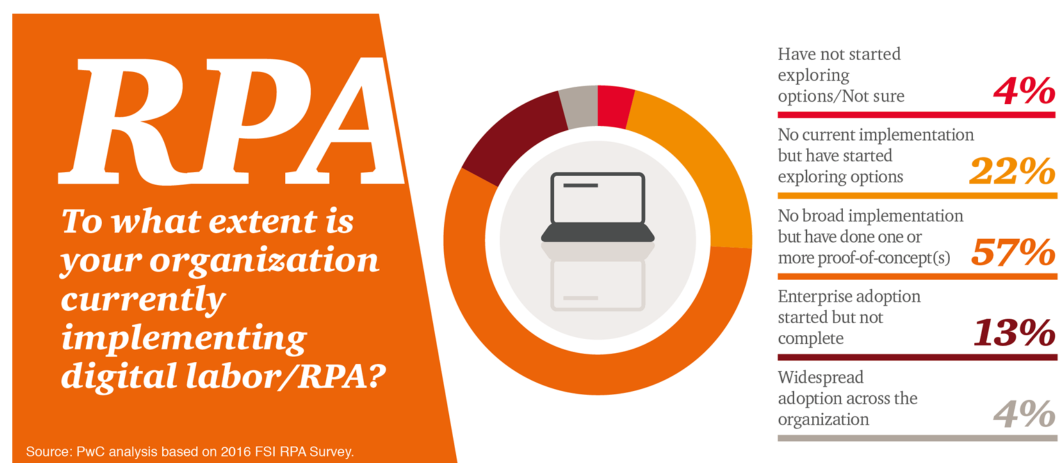
Organize your future with robotic process automation

Financial services technology 2020 and beyond: Embracing disruption

"Digital labor is giving financial institutions a once-in-a-generation opportunity to push a next generation discipline around business process efficiency."

— Kevin Kroen
Principle, Financial Services Advisory Practice

Figure 8: Firms are starting to explore RPA, but few have adopted it widely.



10

Search for new revenue opportunities

US financial institutions are finding it harder to secure new sources of revenue. Growing the top line is challenging as consumers grow accustomed to paying little or nothing for products and services. Banks, asset and wealth managers, and insurers are scrambling to find new ways to grow: organically, by introducing new services, through acquisitions, or by developing strategic partnerships.

A look back

I'd love that. Is it free? Customers are only willing to pay for services that truly create value for them. Inspired by their experience with other, advertising supported businesses, they've come to expect most services for free. They also want interactions to be effortless, personal, and fast.

Plugging into FinTech and InsurTech. FinTech startups really "get" their customers, often spotting needs and wants that previously went unrecognized. And they often reach those customers in fundamentally different ways. They have created new product categories, thanks to a growth in enabling technologies like mobile, cloud, and inexpensive storage. For legacy firms, this represents competition—but it also offers opportunity for new revenue streams resulting from increased innovation, partnerships, and acquisitions.

Drowning in data. The financial services industry collects more data on its customers than pretty much any other industry. But, so far, firms have struggled to extract the full value from that data.

Let's make a deal. From banking to insurance to asset and wealth management, 2016 had a somewhat lower M&A profile than the previous year. But some financial institutions still made strategic acquisitions to consolidate and to acquire technology.

The road ahead

All eyes on the Fed. Competition from startups and other technology players will continue to restrict margins. Even if interest rates rise, margins may not increase very much if customers look elsewhere for higher returns.

Have you truly gone digital? Based on experiences in other industries, consumers of all ages demand a more seamless, personalized experience from their financial institutions. Digital isn't just a delivery channel issue. Leading financial institutions will use digital tools to discover unmet needs. To do this, they will commit to strategic investments that let them understand how to meet those needs.

Taking advantage of data. We'll see leading firms analyzing structured *and* unstructured data to anticipate what will happen next rather than reacting to what already happened. This changes everything—from fighting fraud to preventing insurance losses to spotting new sources of revenue.

Working, together. The underlying conditions for M&A activity will remain in place in 2017, but we also expect firms to invest in developing alliances, partnerships, and joint ventures. These other business relationships can make it easier for them to address client needs more quickly. Some insurers may look to divest to escape a SIFI designation, and we expect an active private equity environment.

What to consider

Go where the customers are. Financial institutions should become part of the daily lives of their users. If you're targeting customers who want to achieve financial fitness, for example, you should provide products that bundle advice with reviews and service. You should also make interactions fun and rewarding.

Learn from the disruptors. FinTech and InsurTech companies succeed because they solve problems at the heart of the customer's needs. Once they do, they pivot to offer adjacent services. For example, many payments companies have expanded to lending. It's a natural extension: they already have the data they need to make smart lending decisions. You should observe how disruptors innovate, and then let it shape your own thinking.

Embrace imperfection. In this market, slow and steady loses the race. Learn to tinker and prototype more effectively, and then find ways to share your experiences broadly throughout your organization. To do this well, you should rethink how you approach business models.

Don't go it alone. You should stay open to new business models and nontraditional relationships. We expect to see a much greater emphasis on new ways to access and share data, as with open banking and application program interfaces (APIs).

Learn more

Q&A: What is FinTech?

Innovating to grow: a new world of opportunity for insurers

Asset and wealth management Q3 deals insights

Banking and capital markets Q3 deals insights

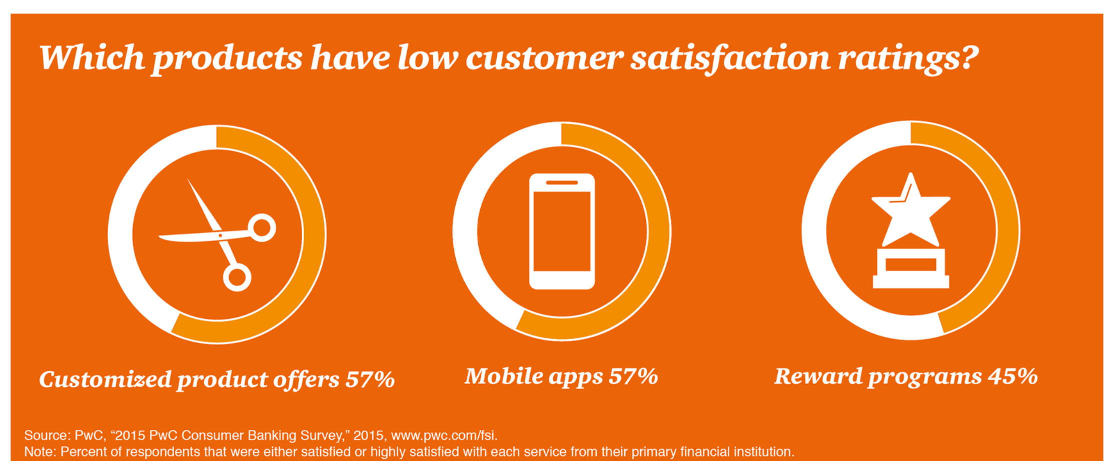
US insurance deals insights

Strategy& Wealth Management Trends

"No one knows what the perfect new business models are because they haven't been fully articulated or proven. To find sustainable revenue, firms should learn fast, fail fast, and partner as needed."

– Marie Carr
Global Growth Strategy in Insurance & Financial Services

Figure 9: Financial institutions often don't satisfy their customers' needs.



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Acknowledgments

About the PwC network

At PwC US, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with more than 223,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

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PwC's Financial Services Institute (FSI) collaborates with our network of industry professionals in banking and capital markets, insurance, and asset management. We provide insights on topics like Brexit, artificial intelligence (AI), FinTech, robotic process automation (RPA), blockchain, risk and regulation, competition, and more.

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Competition from nontraditional market players

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"Top financial services issues of 2017: Thriving in uncertain times," PwC, December 2016, www.pwc.com/fsi.

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