



## Disaggregating fintech:

Brighter shades  
of disruption

Deloitte Center  
*for* Financial Services



# Capitalizing on fintech innovations

Two of the most common questions we hear from our clients are: “How is fintech going to impact what we do?” and “What should we do to prepare for the disruption from fintech companies?” To these, we would add a third: “How will technology innovations developed by these new companies benefit my firm?”

In this report, we attempt to answer these questions by disaggregating the impact of fintech in six areas within financial services and across six business dimensions.

We wanted to understand this impact in a more substantive way to be able to offer some action steps for traditional financial services firms. Therefore, we purposely chose to use the incumbents’ lens. This focus was important because much of the attention to date has been on what fintechs are doing to disrupt financial services rather than the precise effects on incumbents.

Simply put, our message is this: fintech disruption doesn’t have to spell doom for traditional firms. Indeed, the influence of fintechs can be a net positive for the incumbents, particularly those who are able to make the right strategic choices with passion and urgency. Incumbents can indeed thrive in a disrupted world. They can learn from history and be proactive in managing the change instead of being passive participants. But first they need to understand how fintech effects them before taking advantage of all the potential benefits fintech offers.

In doing our analysis, we relied on the framework developed by the World Economic Forum, “Future of Financial Services: How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed.” We chose to leverage the rigorous research that was done for this report in disaggregating the impact along multiple dimensions.

## **Our analysis suggests the following five takeaways for financial services executives to consider:**

- 1.** A new level of personalization comes to retail financial services products, breaking the grip of stagnant, standardized products that have been the norm.
- 2.** Even as technology forces narrowing margins in many traditional businesses, new markets will open up, offering opportunities to develop new profit pools and forcing some incumbents to “move upstream” to serve more sophisticated and profitable cohorts.
- 3.** Incumbents will use online social norms and platforms to do to financial services what “Web 2.0” did to the internet: allow users to take control of aspects of the financial supply chain, from decision support to financial intermediation.
- 4.** The playing field will level as firms of all sizes take advantage of emerging networks and platform-based services to lower cost, improve compliance, and focus on markets where they have true competitive advantage.
- 5.** Although new sources of data will continue to emerge and analytic sophistication will likewise advance, the value of the unique capabilities of humans will not be lost, and firms will need to adjust their talent strategies as a result.

# How to use this document

In the remainder of this document, we will explore the impact that fintech companies will have on these financial services functions:

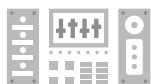
<b>Payments</b> .....	page 3	<b>Capital raising</b> .....	page 15
<b>Insurance</b> .....	page 7	<b>Investment management</b> .....	page 19
<b>Deposits and lending</b> .....	page 11	<b>Market provisioning</b> .....	page 23

Within each of these functions, we will present an analysis of both the magnitude and timing of potential impacts from fintechs across six dimensions:



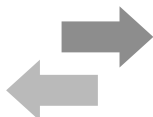
## Offerings

(products, services, and market segments)



## Operations

(middle- and back-office client support, product servicing, and risk management functions)



## Distribution

(online and physical channels, agents, financial advisers, and other third-parties)



## Customer experience

(the sum of all experiences with the service provider)



## Business economics

(revenue, costs, and margins)



## Industry dynamics

(competitive structure and ecosystem)

We hope you find this report valuable as your organization contemplates how best to respond to the growing potential of disruption from fintech companies.

# Payments

## Disruption impact scale

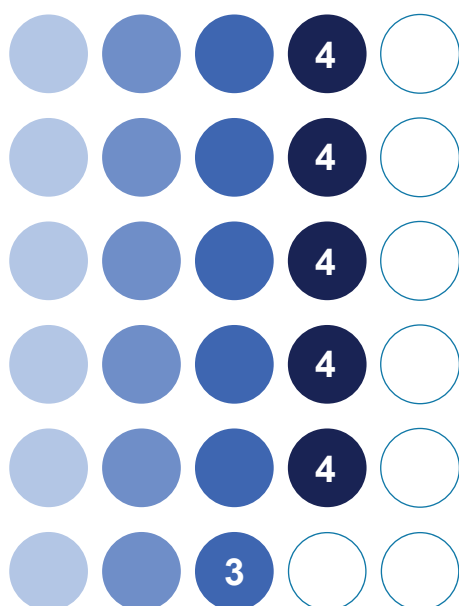
### Magnitude

1	No change
2	Incremental improvements
3	Some critical upgrades
4	Major structural advances
5	Radical reconfiguration

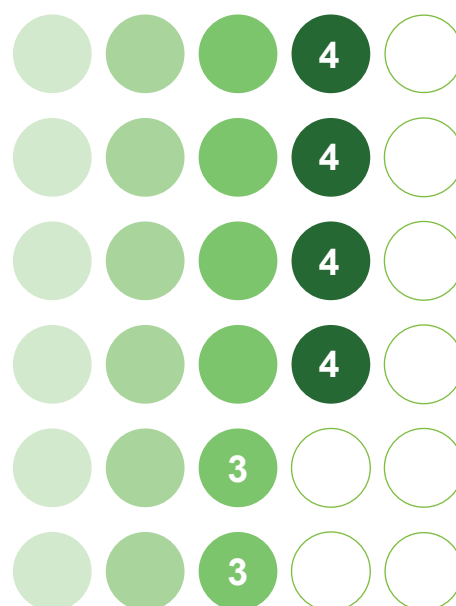


### Timing

1	Beyond 10 years
2	8-10 years
3	5-7 years
4	3-4 years
5	1-2 years



Industry dynamics
Offerings
Distribution
Customer experience
Operations
Business economics



## Payments: Key questions for consideration

- ? What is the best way to respond to payments disintermediation and retain a central role in payments?
- ? What strategies are needed to accelerate transformation to digital payments?
- ? What are the new pricing models in digital payments?
- ? How should incumbents respond to merchants' digital apps that control customers' payment experience and are able to harvest richer customer data?



# Payments

Upgrading operational infrastructure is an opportunity for reinvention and long-term growth

Although the threat of disintermediation is real, frictionless payments will allow incumbents to assert dominance.

## Industry dynamics

Incumbents are reinventing themselves to defend their status in the payment value chain.



Magnitude: 4

Timing: 4

The payments industry will become much more competitive and fragmented in the medium term, with nontraditional firms gaining a greater share.



Fintechs and nonfinancial players are challenging traditional payment firms' intermediary role by offering direct, faster, cheaper, and near real-time settlement capabilities.

Payment firms can counter fintechs' growing clout by exploiting the ecosystem while leveraging their brand, distribution, and data.

Legacy and disparate systems create the biggest roadblock in payment firms' efforts to provide innovative digital payment solutions.



Visa launched Visa Developer, an open payment platform, and unbundled its offerings to provide open access to software application developers, ensuring Visa remains central to their new, innovative designs.<sup>1</sup>

## Offerings

Integrated and value-added offerings will gain prominence over facilitating transactions.



Magnitude: 4

Timing: 4

Disintermediation could make some of the traditional payment offerings less relevant over the next few years.



Recent innovations in mobile wallets and crypto-currencies will eventually reduce the reliance on cards, but the transition to a fully digital world of payments will take time. Value-added services like real-time personalized offers and rewards will be key to differentiation.

To stay relevant, integrated and digital payment solutions that coexist with alternative solutions should become an immediate priority.

Blockchain also has the potential to offer frictionless payments at significantly lower transaction costs, so active exploration of this evolving technology is critical.



Stripe provides application performance interfaces (API) that enable businesses to build payment platforms for their customers.<sup>2</sup>

## Call to action

Acquire smaller fintechs that can help banks build a competitive edge and scale in niche product categories and market/customer segments.

Connect with other payment ecosystem players to increase overall efficiencies and broaden market reach.



## Call to action

Align with technology vendors that support open API development to quickly build digital/mobile offerings.

Leverage customer and fraud analytics solutions to differentiate from startups, which may not have these tools in their portfolio.



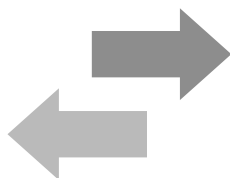
# Payments

## Upgrading operational infrastructure is an opportunity for reinvention and long-term growth

Although the threat of disintermediation is real, frictionless payments will allow incumbents to assert dominance.

### Distribution

Smartphones will enable mobile payments to dominate, but the proliferation of products and channels will be a challenge.



Magnitude: 4

Timing: 4

Digital- and mobile-based payments are likely to overtake traditional card-based payments in the next several years, particularly in-app and micro payments.

The shift in customers' interaction preferences from physical to digital and the popularity of digital wallets are likely to make some of the traditional channels (ATMs) and point of sale (POS) terminals redundant.

linked2pay's Bank Centric Payments™ helps banks provide their merchants with various digital payment options including online, mobile, and email.<sup>3</sup>

Social media-based platforms are gaining prominence, especially among Millennials.

PayKey provides a secure environment for banks' customers to make payments within any social network.<sup>4</sup>

### Customer experience

As mobile payments experience becomes the norm, incumbents will lose control of the relationship.



Magnitude: 4

Timing: 4

The ability to influence customer behavior will decline meaningfully.

As with an increasing number of mobile apps, payment transactions will become invisible to the customer and recede into the background.<sup>5</sup>



Incumbents have the advantage of providing access to transaction data—so consumers gain insight for budgeting purposes and merchants reap opportunities for targeting and promotions.

Increased visibility into customer data is likely to help incumbents customize offerings.

U.S. Bank's mobile app Deal Local (pilot) lets local merchants load deals on the app, which are presented at the POS based on customer data.<sup>6</sup>

### Call to action

Connect with both technology vendors and merchants to quickly integrate payment solutions on various digital platforms to expand reach and drive usage.



Create a firm-specific ecosystem that allows both traditional and alternate payment solutions to coexist.

### Call to action

Integrating data from consumers and merchants will enable better control over the customer experience.

Creating value-based segmentation will go a long way in delivering an appropriate level of customization and service.



# Payments

**Upgrading operational infrastructure is an opportunity for reinvention and long-term growth**

Although the threat of disintermediation is real, frictionless payments will allow incumbents to assert dominance.

## Operations

**By connecting consumers and merchants, incumbents differentiate themselves by making payments seamless and frictionless.**



Magnitude: 4

Timing: 3

**Agility would be key to payment firms' transformation efforts.**

Flexible, hybrid, and open platforms that can quickly integrate emerging technologies, endpoints, channels, and alternate currencies will be important. For instance, one provider's white-label open payment platform connects with 300+ alternative payment methods and card acquirers in 160+ countries.



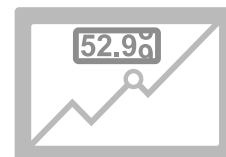
**Interplay with the mushrooming alternate providers is likely to test incumbents' ability to secure data.**

In 2019, nearly 90 million consumers are expected to use mobile wallets in the US. But, with 112,000 wallets hacked in 2015, banks face considerable reputational risk.<sup>7</sup>

Tokenization and biometrics could be the weapon of choice for incumbents in their quest for security.

## Business economics

**New value-added and cost reduction strategies are needed to combat eroding transaction margins.**



Magnitude: 3

Timing: 3

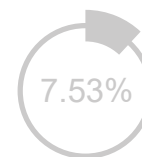
**With alternate players disintermediating the value chain, payment firms are slowly losing their pricing power.**

Once mobile commerce and digital wallets become mainstream, brand equity and differentiation are likely to erode.

Instead, value-added offerings to merchants, such as reporting and analytics, are likely to drive long-term returns. However, in the interim, investments in these capabilities might hurt margins.

**Blockchain-driven payments infrastructure—as well as digital payments more broadly—will reduce processing costs.**

Globally, remittances cost consumers an average of 7.53 percent of the transaction amount, and even a 5 percent reduction in this cost could save \$16 billion annually.<sup>8</sup>



**5% reduction could save \$16 billion annually**

### Call to action

*Consider joining with technology vendors offering open platforms and plug and play technologies to springboard digital transformation.*

*Create secure platforms and have strong third-party/vendor agreements to control potential breach issues.*



### Call to action

*Acquire fintech players that offer low-cost alternate payment solutions.*

*Create customized and tiered pricing models to remain competitive and maximize profitability.*



## Disruption impact scale

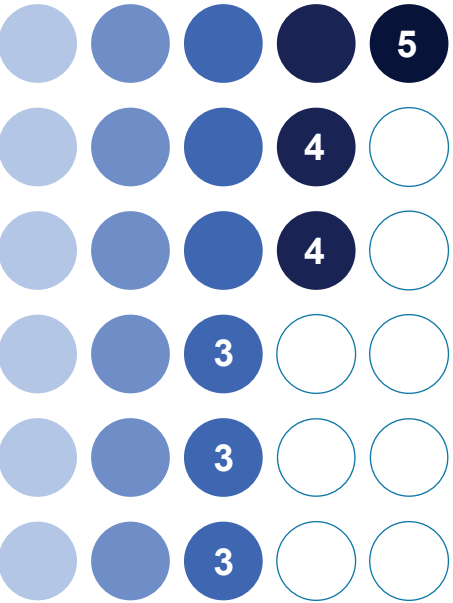
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### Timing

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◀ Industry dynamics ▶

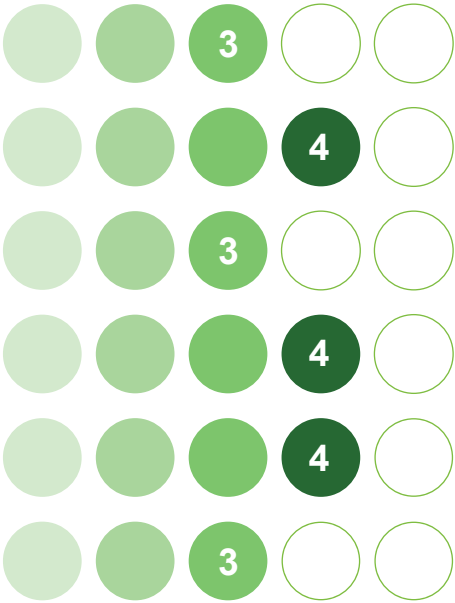
◀ Distribution ▶

◀ Business economics ▶


◀ Customer experience ▶


◀ Offerings ▶


◀ Operations ▶




## Insurers: Key questions for consideration

- 

How will insurers create customer loyalty and stickiness going forward as insurance products become increasingly commoditized and new, digital entrants disaggregate customer relationships?
- 

How can insurers convince customers to opt-in for behavior and physical asset monitoring, particularly if offering lower rates is not a viable strategy?
- 

Will insurance distribution modernization and artificial intelligence (AI) make agents and brokers obsolete?
- 

What challenges will arise related to the aggregation and ownership of new behavioral data from sensors?

# Insurance

## Fintech energizes overdue modernization

While revolutionary connectivity generates seismic shifts, technology will remain relevant to customers so insurers must respond to changing expectations.

### Industry dynamics

Increasing connectivity will lower entry barriers.



Magnitude: 5

Timing: 3

Entry of nontraditional competition could challenge incumbents.

Advances in technology are allowing nontraditional players to enter the industry.

ZhongAn, China's first online-only general insurer, was launched by Alibaba (the largest online retailer in China) and Tencent (a provider of value-added internet and online gaming services in China).<sup>9</sup>



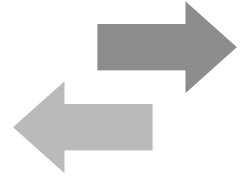
Internet of Things (IoT)-based data flows are already leveling the playing field.

Many sensing capabilities do not require large data sets to participate, enabling small, mid-sized players, or even new entrants to seize business from large players.

Smaller players could pool telematics data to compete with larger national carriers.<sup>10</sup>

### Distribution

Technology-enhanced interfaces will compel insurance distribution modernization.



Magnitude: 4

Timing: 4

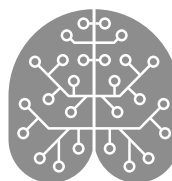
Web-based aggregators and social brokers are set to challenge the dominance of agency distribution, but the timing of this trend will likely vary among geographies.

French company Fluo assesses various policies from different providers to help consumers make better decisions.<sup>11</sup>

Peer-to-peer insurance platforms will reinvent insurance.

Lemonade aims to pool like-minded insurance clients together through their social networks.<sup>12</sup>

AI-driven automated agents generate potential for "higher efficiency" interaction. As the technology advances, use will become more prevalent.



Insurify, an MIT-backed startup, launched Evia (Expert Virtual Insurance Agent), which uses AI to find better car insurance, minimizing agent intervention.<sup>13</sup>

### Call to action

Identify potential emergence of technology platforms that lower transaction costs and align with fintechs to get ahead of new competitive threats.

Join fintechs that provide telematics and sensor data via a shared platform to improve risk selection without committing to large investments in proprietary technology infrastructure.

### Call to action

Assess the impact of aggregators/P2P platforms on products and business margins and implement strategies to differentiate and compete transparently and aggressively.

Enhance the quality of customer interactions through the use of AI technologies, which take into account consumer preferences and emotions to personalize communication, in sales and support.

# Insurance

## Fintech energizes overdue modernization

While revolutionary connectivity generates seismic shifts, technology will remain relevant to customers so insurers must respond to changing expectations.

### Business economics

Traditional revenue sources will shrink due to changing demand patterns, but new markets may emerge over time.



Magnitude: 4

Timing: 3

Shrinking risk pools in traditional business lines could diminish revenue in the short-to-medium term.

The sharing economy, with fewer cars and less demand for homes and office spaces, could reduce demand for insurers' largest business lines—personal auto and property and liability coverage—and may also force pricing down, thereby cutting premium volume.<sup>14</sup>



Early hazard detection sensors for personal and commercial use may also decrease loss costs and lead to price reduction.

Long-term opportunities for new business and lower expenses abound.

Greater connectivity promotes a boost to business lines like cyber insurance and product liability coverage.

Technology decreases human intervention, promoting greater efficiency and lower costs.

### Customer experience

Ubiquitous sensors will improve customer experience through more continuous engagement.



Magnitude: 3

Timing: 4

IoT technology, increasingly becoming a part of daily life, may improve customer relationships through ongoing interaction and positive reinforcement.

Pervasive sensor technology personalizes the insurance lifecycle—from real-time, location-based purchases all the way through mobile claims processing. These capabilities can promote insurer value and improve retention.<sup>15</sup>



Sensors detect risk prior to large losses (cracking infrastructure, leaks, employee movement in high-risk areas), mutually benefiting both insurers and consumers.

Some insurers have partnered with Nest to offer smoke and carbon monoxide alarms that alert homeowners to potential dangers via phone/text alerts.

Individuals tend to improve behavior when monitored through sensors (e.g., driving, exercising), minimizing loss costs for insurers and lowering premiums for buyers.

#### Call to action

Create a sensing team charged with continuously scanning technology disruptions, simulating their impact on the business, and providing intelligence for strategic decision making.

Enter alliances with fintech partners that have the expertise and the operational infrastructure to exploit new markets or develop new coverage lines.

#### Call to action

Consider alliances with IoT vendors that provide actionable information from wearables and smart sensors (e.g., real-time customer notification of reduced premium based on favorable behavior). Insurers must act quickly, as the number of relevant potential partners is limited.

Create an "Analytics of Things" capability, leveraging real-time sensor data for actionable insights.

# Insurance

## Fintech energizes overdue modernization

While revolutionary connectivity generates seismic shifts, technology will remain relevant to customers so insurers must respond to changing expectations.

### Offerings

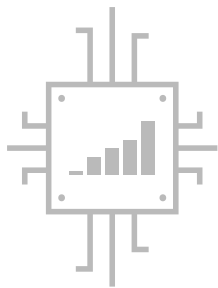
Product innovation will accelerate in an increasingly connected/digitized economy.



Magnitude: 3

Timing: 4

Already in play, IoT will progressively spur real-time products and micro-segmentation.



Telematics-enabled personalized and location-based products and services are increasing the number of insurer/client touch points with a positive spin.

Slice Labs Inc. is launching platforms for on-demand products that provide pay-per-use insurance policies for drivers providing car-sharing services.<sup>16</sup>

Connectivity promotes opportunities for new products, but may shift viability of lines of business over the next several years.

Books of business will shift from personal to product liability, as claims evolve from human error to product failure (e.g. driverless cars, smart home sensors).

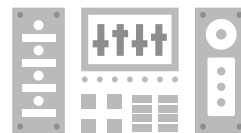


### Call to action

Create in-house labs to help build next-gen product development technology platforms. Focus on “smarter products” that leverage technology such as sensors and blockchain to deliver services faster at lower costs. Incumbents should also shift gears to provide coverage for “digital lives” such as hacking incidents, identity theft, cyber attacks, etc.

### Operations

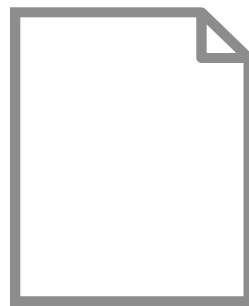
Speed and precise risk-selection are the new normal.



Magnitude: 3

Timing: 3

Policy servicing and claims processing become real-time.



Claim Di is a mobile app launched in Thailand used to facilitate faster claims-communication between drivers and their insurers and shift the burden of the claims process from customers to insurers.<sup>17</sup>

Big data-driven analytics will make risk selection and loss control more effective as insurers' data management capabilities accelerate.



A variety of data gathered through connected devices and social media platforms is making risk selection more granular, helping insurers manage overall risk with more precision and personalization.

### Call to action

Ally with fintechs to focus on high-growth solutions such as digital IDs and smart contracts to improve speed and ease client burden on insurance transactions.

Create technology infrastructure for seamless data collection, monitoring, streaming, and analytics across functions using cloud-based shared platforms.

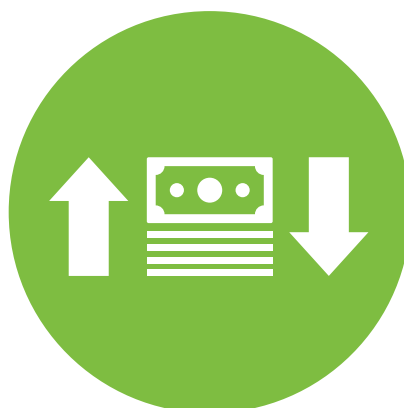


# Deposits and lending

## Disruption impact scale

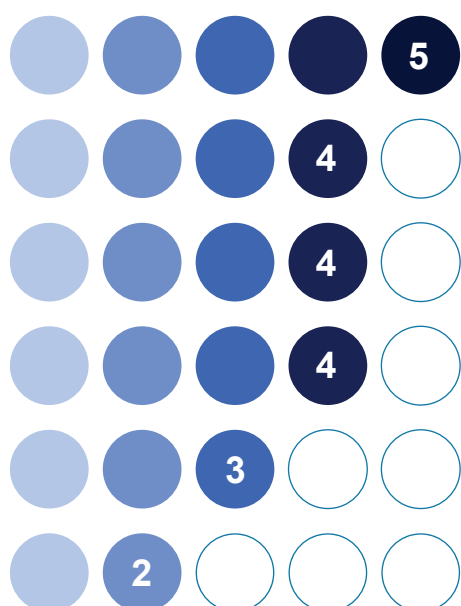
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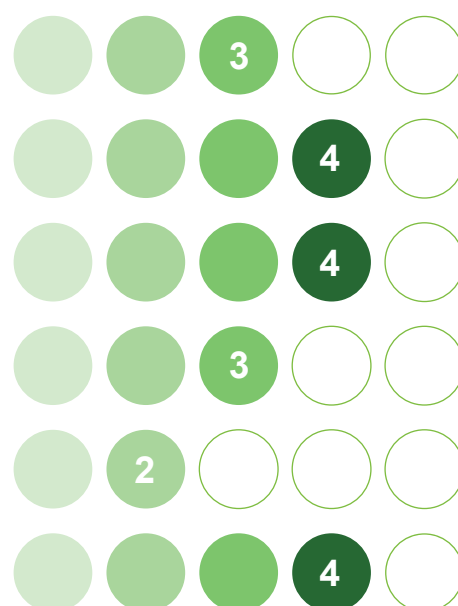


### Timing






1	Beyond 10 years
2	8-10 years
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◀	Operations	▶
◀	Distribution	▶
◀	Industry dynamics	▶
◀	Customer experience	▶
◀	Business economics	▶
◀	Offerings	▶



## Deposits and lending: Key questions for consideration

-  How will the emergence of competitive unbundled products and resulting limits on cross-subsidization impact the overall structure and business model of retail banks?
-  How best can the customer experience offered by marketplace lenders (MPLs) be replicated?
-  What are the best ways to maintain deposit stickiness when digital experiences are increasingly homogenized?
-  How can nontraditional data best be integrated into existing underwriting methodologies?
-  Where are partnerships most valuable across the lending lifecycle?



# Deposits and lending

## From slow-burn to breakneck transformation

As several disruptive trends take root across the banking spectrum, incumbents will reconfigure their operations and distribution to adapt and thrive.

### Operations

Banks will turn data management and advanced underwriting into strategic levers.



Magnitude: 5

Timing: 3

The ability to quickly collect, access, and process information from customers and ecosystem partners will become a key differentiator in the next two years.



New online mortgage offerings integrate basic customer information with credit reports, income, and financial data to offer conditional loan approval within minutes.<sup>18</sup>

Automated, rules-based underwriting will converge with greater use of digital and nontraditional metrics in the medium term.



New data sets can help banks serve inefficient segments of the lending market even as traditional underwriting metrics (such as credit histories and debt-to-income ratios) remain core inputs.



Upstart uses job history, education, and field of study in addition to traditional metrics to estimate future repayment ability and underwrite loans.<sup>19</sup>

#### Call to action

*Upgrade operational infrastructure with a secondary intent to eliminate data silos.*

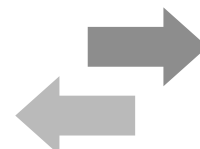
*Benchmark operating speed and efficiency against leading marketplace lenders.*

*Explore layering in nontraditional data into underwriting (but within regulatory bounds).*



### Distribution

Distribution of traditional bank offerings will be significantly transformed as mobile banking ramps up and an increased use of cognitive technologies emerges.



Magnitude: 4

Timing: 4

As mobile banking becomes the dominant mode of interaction with customers, integration with wearables and IoT sensors will become the key differentiator in distribution.



In 2015, the number of weekly mobile-banking customers eclipsed the number of weekly branch-banking customers for the first time.<sup>20</sup>

Cognitive technologies will expand the range of interaction possibilities sooner than expected.

“Luvo,” an AI-driven virtual assistant, mimics human empathy to help RBS staff quickly address small business customer queries.<sup>21</sup>

Atom Bank is already integrating off-the-shelf machine learning technology in its banking apps to help customers access support.<sup>22</sup>

#### Call to action

*Partner with other ecosystem participants or use off-the-shelf technology to develop best-in-class mobile and online distribution.*

*Be prepared to discard legacy infrastructure if necessary.*

*Use machine learning and natural language processing applications to better segment customers and raise service quality.*

# Deposits and lending

## From slow-burn to breakneck transformation

As several disruptive trends take root across the banking spectrum, incumbents will reconfigure their operations and distribution to adapt and thrive.

### Industry dynamics

Banks will remain dominant, but partnering with the extended ecosystem will become a key source of competitive advantage.



Magnitude: 4

Timing: 4

**Distinct marketplace lending-driven business models will emerge:<sup>23</sup>**

1. Standalone MPLs with scaled or niche-segment models
2. MPL divisions within traditional banks
3. MPLs as white-label "Lending as a Service" providers

**Cloud-based plug n' play technology and third-party development via open API will boost agility, but increased interdependency will raise difficult questions for incumbents.**

The Open Bank Project helps banks offer an ecosystem of tested third-party apps and services to their customers without incurring the capital investment necessary to build proprietary solutions.



Banks that lose control of their core business risk reduced bargaining power and diluted value proposition.

### Customer experience

Empowering customers will be central to strengthening brands and owning relationships.



Magnitude: 4

Timing: 3

**Customers will continue to gain unprecedented control over transaction experiences.**

End-to-end digital engagement, from origination to servicing, will become the norm.<sup>24</sup>



Seamless transitions between products and channels (digital and human) will enable customers to self-customize their banking experience.

**Going forward, brand equity will be the critical intangible in retaining ownership of the customer relationship.**

In a disaggregated and more specialized ecosystem, banks can act as stewards of financial identity only if they rebuild customer trust.

Homogenized offerings in a world of greater customer control threaten to cause a fragmented brand experience.<sup>25</sup>



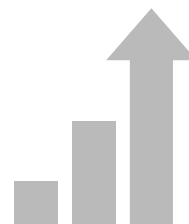
### Call to action

*Acquire MPLs with unique technology assets, diverse funding sources, and strong differentiation. But be wary of diluting competitive differentiation via overuse of white-label offerings and plug n' play technology.*

### Call to action

*Ensure clear product and service differentiation in the digital experience by reinforcing the bank's identity and core value proposition.*

*Think of the ideal banking experience model for "Generation Z," who are just entering the workforce.*



# Deposits and lending

## From slow-burn to breakneck transformation

As several disruptive trends take root across the banking spectrum, incumbents will reconfigure their operations and distribution to adapt and thrive.

### Business economics

Efficiency gains may be offset by costlier funding in the medium term.



Magnitude: 3

Timing: 2

Banks can raise efficiency and boost returns through digital distribution and back-office automation in the next five years.



Nordic banks have halved branches from 2008-09 peaks and now operate at a cost-to-income ratio of 45 percent compared to about 60 percent for US banks.<sup>26</sup>

Almost 2 million process-focused banking jobs may be lost in the next 10 years.<sup>27</sup>



Deposits may get more expensive and flee at a rapid pace during periods of stress.

Commoditized digital bank offerings could lead to reduced loyalty and deposit stickiness.

Deposit costs for banks will escalate further if MPLs are able to offer higher relative returns through the rate cycle.

#### Call to action

*Consider alliances with fintechs or other incumbents to set up mini-utilities that automate low-value back-office tasks that aren't sources of differentiation and unlock savings across the system.*

*Challenge existing assumptions around deposit stickiness and balance sheet liquidity, understanding that the past may not be a good guide for the future.*

### Offerings

Banking markets will expand swiftly even as the core product feature set remains unchanged.



Magnitude: 2

Timing: 4

Automated underwriting, digital distribution, and servicing enable penetration of segments that until now were uneconomical.



JPMorgan Chase aims to expand small-dollar business lending through a partnership with On Deck with a focus on faster approvals and lower processing costs.<sup>28</sup>

Customers are now able to create their "ideal" product bundles, giving them more control over their own experiences.

Personal finance aggregators and comparison services are significantly raising price transparency.

Mint.com provides customers tailored recommendations from thousands of product offers based on a consolidated view of their financial situation and preferences.<sup>29</sup>

#### Call to action

*Create portfolios of highly competitive, modular, unbundled offerings, which can be combined based on individual customer preferences.*

*Invest in smart algorithms that use analytics to create product bundles around customer goals.*

*Join with MPLs with complementary product sets.*

*Target customer segments where savings from digital engagement can offset slightly higher credit costs to meet return goals.*

# Capital raising

## Disruption impact scale

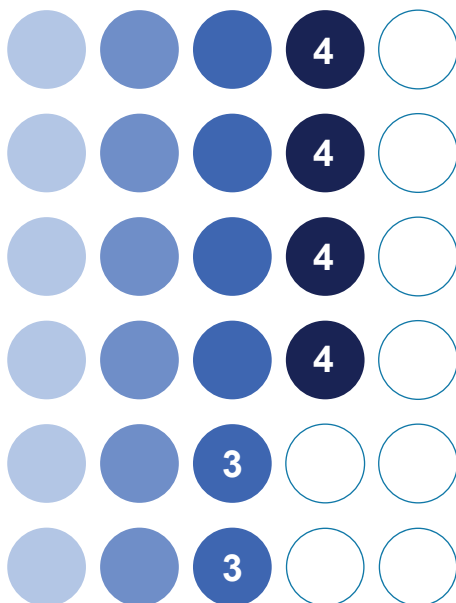
### Magnitude

1	No change
2	Incremental improvements
3	Some critical upgrades
4	Major structural advances
5	Radical reconfiguration

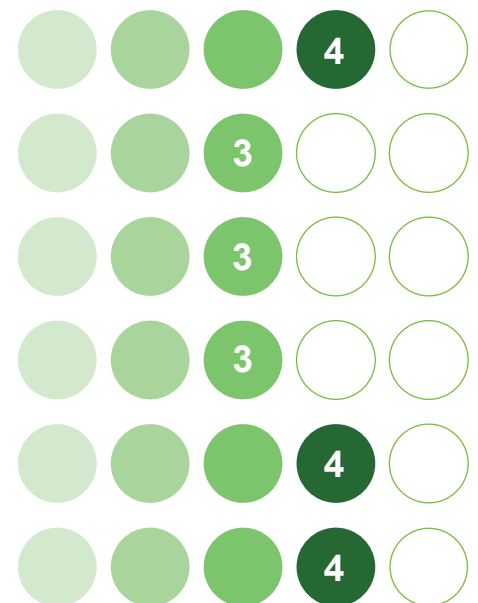


### Timing





1	Beyond 10 years
2	8-10 years
3	5-7 years
4	3-4 years
5	1-2 years



Customer experience
Industry dynamics
Business economics
Operations
Distribution
Offerings



## Capital raising: Key questions for consideration

- 
 How can dominance in the capital raising lifecycle be maintained through ongoing innovation and specialized expertise?
- 
 How can online capital raising capabilities be quickly ramped up?
- 
 What are the most efficient ways of using data and analytics to streamline and shorten the capital raising process?
- 
 How can crowdsourcing platforms be effectively used as a feeder for existing pipelines?

# Capital raising

New and diverse sources of funding handled by online platforms become the norm

As alternate funding platforms dominate in early-stage investing, incumbents will move upstream.

## Customer experience

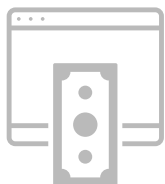
Choice and customization that benefit issuers and investors will demand seamless processes.



Magnitude: 4

Timing: 4

Online platforms are already enabling issuers to source capital in a seamless and efficient manner.



Investment banks, venture capitalists (VCs), and angel investors will be compelled to provide quicker access to their specialized advice in a cost-efficient manner.

With a new segment of investors and startups entering the market, it would behoove incumbents to make digital platforms user-friendly, with simple and easy-to-follow features.

Features that help to instill investment discipline could be the much needed pull factor. For example, algorithms could be set to create risk thresholds and warn customers based on each customer's investment/funding profile.

IoT-generated data will enable the selection of investment opportunities that match investors' personal preferences and behaviors.

### Call to action

Create user-friendly dashboards that will help investors and issuers to have better transparency and control over their activities. But also join with crowdfunding platforms that emphasize superior customer experience to learn and benefit from alternate platforms.



## Industry dynamics

Burgeoning alternate platforms to shake up industry dynamics, especially at the lower end of the spectrum.



Magnitude: 4

Timing: 3

Competition is likely to heat up in the traditional investment bank-dominated funding market over the long term.

### Supply

On the supply side, online platforms are luring investors with access to information on investment opportunities.

### Demand

On the demand side, quicker access to funding sources are driving startups to alternate platforms—away from the investment banks, which prefer larger deals.

As crowdfunding becomes more established, traditional funding sources, such as VCs and angel investors, are beginning to feel the competitive pressure.

VC funding is expected to lag crowdfunding.<sup>30</sup> Crowdfunding could potentially reach

**\$90-96 billion**

by 2025.<sup>31</sup>



### Call to action

Investment banks and VCs can consider an alliance with crowdfunding platforms to serve untapped markets, either via direct funding or referrals. These relationships could prove to be an efficient way to build future investment pipelines as successful startups feel the need for additional funding.



# Capital raising

New and diverse sources of funding handled by online platforms become the norm

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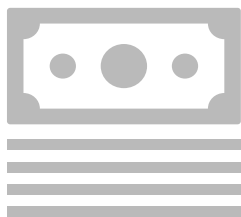
## Business economics

A widening investor base is lowering the cost of funds but may threaten incumbents' exclusivity and margins.



Magnitude: 4

Timing: 3



The ease of doing business and increased digitization will lure startups and investors to the market, creating a rich new pipeline of investments, potentially lowering client acquisition/funding costs over the medium term.

Competition for investment opportunities could intensify in the future and prompt incumbents to take on more risk and/or lower fees, possibly hurting margins.

**Alternate platforms will challenge incumbents' market clout and control over information and exclusivity.**

Online platforms like CircleUp provide investors and issuers access to information on available investments and funding sources, undermining investment banks' and VCs' exclusivity over information and pricing power.<sup>32</sup>

However, despite losing exclusive access to information, incumbents are likely to continue to command a premium due to their specialized skills and experience.

### Call to action

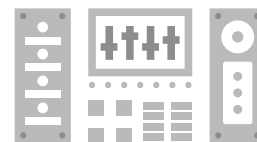
*Acquire a stake in crowdfunding platforms and co-create systems and platforms to identify attractive investment opportunities and funding sources.*

*Create differential pricing structures to match various customized funding and investment options.*



## Operations

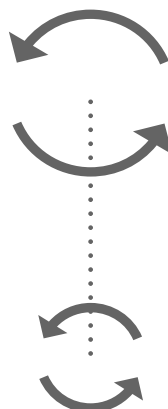
Building scale requires accelerating technology, efficiency, and refining investment targets.



Magnitude: 4

Timing: 3

**Shortening capital raising cycles to become critical to stay competitive.**



Incumbents are likely to ramp up efforts in building analytics capabilities and decision support systems to streamline and automate the capital raising process.

Vendors like Swisscom offer a crowdfunding platform as a service, enabling banks to create their own crowdfunding marketplace and vastly reduce the resources and time needed to create such platforms on their own.<sup>33</sup>

**Building capabilities to improve accuracy of investment selection processes will be essential.**

Generally, incumbents rely on business acumen and experience rather than automated/rule-based decision processes to identify investment candidates. But they can leverage alternate platforms directly or adopt some of their selection processes to conduct first-level due diligence.

### Call to action

*Ally with crowdfunding platforms for information sharing on deal flows to improve target selection accuracy.*

*Understand that ensuring security and scalability of digital platforms will be equally important.*



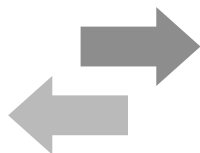
# Capital raising

New and diverse sources of funding handled by online platforms become the norm

As alternate funding platforms dominate in early-stage investing, incumbents will move upstream.

## Distribution

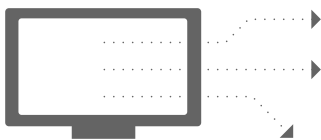
Adapting to the new ecosystem with online funding models at the core is vital.



Magnitude: 3

Timing: 4

Online distribution models will slowly disintermediate traditional capital raising entities, especially at the lower end of the spectrum.



By creating or leveraging alternate digital channels of distribution for the capital raising process, incumbents can vastly expand their potential market.

investUP, a crowd-funding supermarket, gives banks access to their investor network for a fee, providing an easier route to enter the online platform.<sup>34</sup>

As the “crowd” becomes more influential in funding decisions, reputation and performance will become even more important, especially for repeat issuers.



Cinch helps small and medium businesses to raise funds from their repeat customer base, who are in turn provided discounts on goods and services as an incentive.<sup>35</sup>

## Offerings

Shifting to mid- and large-sized deals is likely as alternative players facilitate seed-stage capital.



Magnitude: 3

Timing: 4

Core offerings are unlikely to undergo major changes in the near term.



Issuers and investors will continue to need the traditional players' transactional infrastructure, investor network, technical expertise, and advice for more complex and later-stage financing.

Specialized advice is quickly becoming a key driver of customer acquisition and loyalty.

Crowdfunding platforms like C2FO provide issuers with easy access to customizable funding options, which historically were available only to privileged clients of traditional funding firms.<sup>36</sup>

Similarly, incumbents can extend their influence over customers by leveraging their preexisting knowledge to tailor the experience with customized advice on funding.

### Call to action

Acquire or create new digital offerings that go beyond the loan itself to include specialized advice, benchmarks, and reporting tools.

Leverage social media platforms to attract new issuers and investors.



### Call to action

Create new investors by customizing premium access to specialized networks.

Enter alliances with tech vendors/crowd-funding firms to serve niche customer segments (e.g., international trade finance) and emerging investment classes.





# Investment management

## Disruption impact scale

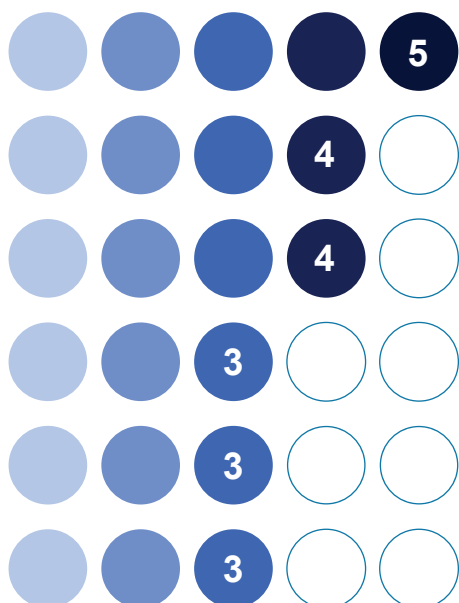
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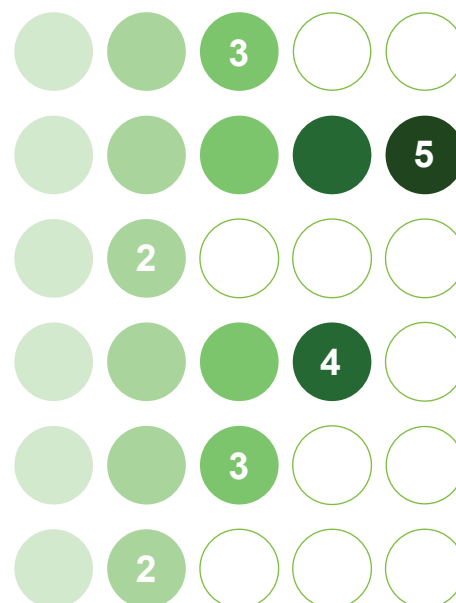


### Timing

1	Beyond 10 years
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< Industry dynamics >  
 .....  
 < Distribution >  
 .....  
 < Offerings >  
 .....  
 < Customer experience >  
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 < Business economics >  
 .....  
 < Operations >



## Investment management: Key questions for consideration

- ? Is a new segment of investors emerging as technology advances, and if so, how do I target them?
- ? Will index investing change so significantly (such as micro-indices or crowdsourced indices) that it intersects with some active investing?
- ? How can cognitive computing be used to help manage enterprise risk?
- ? What parts of the investment management value chain will use blockchain first? Core trading or customer records management?
- ? How can human capital be redeployed in the new automated environment?



# Investment management

## Leveling the playing field

Fintech offerings will provide investors and smaller firms greater customization and sophistication in their investments, thus driving market expansion.

### Industry dynamics

**Fintechs specializing in investment operations will level the playing field.**



Magnitude: 5

Timing: 3

**Competitive balance will shift over time as technology enables small to midsize firms to gain market share.**

This will alter competitive dynamics away from process execution to favor more human factors (synthesis and decision making) and encourages greater differentiation among firms.



Advisor Software is a cloud-based offering that provides independent advisers with analytical and relationship management tools formerly available only through the largest wealth management firms.

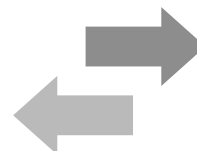
**Technology-enabled investment operations outsourcing will help reduce compliance costs.**

As incumbents utilize third parties to improve operations, extended enterprise risk gets more difficult to manage.

Qumram tracks digital interaction between financial services institutions and their clients to ensure compliance with client communications regulations.

### Distribution

**Increased sophistication of robo-advisers will alter distribution models, forcing fewer traditional advisers to move upmarket.**



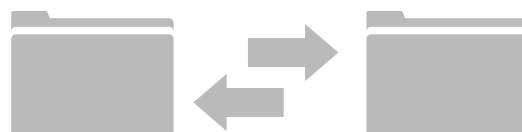
Magnitude: 4

Timing: 5

**Robos use cognitive technologies to drive automation of higher-value service, helping them evolve beyond “online brokerage-plus” status.**

Regulations (e.g., the Department of Labor’s Fiduciary Rule) will spur growth in robo-advisory offerings as product is decoupled from advice.

Through fintechs like Wealthfront, Motif, and Polly Portfolio, more analytically driven capabilities like bespoke portfolio construction, tax-loss harvesting, and portfolio rebalancing become more broadly available.

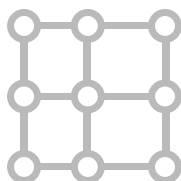


**Incumbents buy or develop robo-advisers to expand credibility among client segments that prefer this emerging service model.**

After only one year in operation, robo offerings from Vanguard and Charles Schwab are now the two largest based on assets under management.<sup>37</sup>

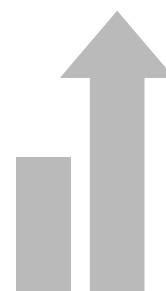
### Call to action

*Team with data collection and analytics providers to improve investment decisioning as new products, client segments, and regulatory changes emerge. Private equity firms and hedge funds will especially benefit from RegTech development as regulators increase scrutiny.*



### Call to action

*Given that many robo-advisers have found customer acquisition to be challenging and expensive, accelerate efforts to acquire or create automated advice capabilities to keep up with regulatory initiatives and to remain competitive in both existing and emerging retail client segments.*



# Investment management

## Leveling the playing field

Fintech offerings will provide investors and smaller firms greater customization and sophistication in their investments, thus driving market expansion.

### Offerings

Cognitive technologies and automated advice will enable the targeting of new customer segments through lower costs and increased customization.



Magnitude: 4

Timing: 2

Market potential will increase as robo platforms enable more sophisticated wealth management services to reach targeted or downmarket segments.



Reliance on defined contribution accounts as a feeder system for many asset managers will decrease as robos drive new segments, such as High Earner Not Rich Yet (HENRYs).

Two new automated advice services targeting women investors—WealthFM and Ellevest—to launch in 2016.<sup>38</sup>

Retail algorithmic trading, social investing, and IoT will drive customized offerings and new asset classes.



Wikifolio allows traders to convert their bespoke trading strategies into financial products that can be made available to individual investors.<sup>39</sup>

### Customer experience

Investors are taking control of their online/mobile experience with a wider array of professional-grade tools.



Magnitude: 3

Timing: 4

Investors will increasingly gravitate to firms that provide a more customized, social, and empathetic experience.



Rizm provides sophisticated algorithmic trading capabilities to individual investors, attracting active traders who represent a large share of the online brokerage market.<sup>40</sup>



Incumbents will see increased expense to match the trading and investing tools offered by fintechs.

Incumbents could lose the advice edge to crowd-sourced expert opinion, which will gain quick credibility among certain client segments.

But investors may be overwhelmed by the increased level of advice along with increased churn of entries and exits by individual “experts,” adversely impacting experience.

### Call to action

Create the ability to optimize offerings that align with cohort wants and needs as a more customized and personalized product landscape emerges.



Monitor technological developments in IoT to understand how to develop new markets based on new sources of data.

### Call to action

Assess and experiment with the active trader community to see how technologies impact investor experience to prototype future services. Expense could be a barrier—and rapid cycling may catch some off guard—as customer experience should move faster than distribution changes.



# Investment management

## Leveling the playing field

Fintech offerings will provide investors and smaller firms greater customization and sophistication in their investments, thus driving market expansion.

### Business economics

Incumbents' scale and process advantages are diminished over time as smaller competitors access highly efficient third parties.



Magnitude: 3

Timing: 3

Commoditization of formerly high-value advisory services, along with increased outsourcing of process-centric talent, reduces incumbents' margins and cost advantages.

The blurred line between "active" and "passive" puts additional pressure on traditional active fee levels.

Costs of compliance will likely be reduced after an initial period of investment.



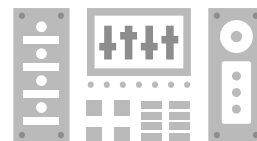
Algo and social technologies appeal to the active trader segment, adversely impacting revenue of online brokerage.

Retail algo will force incumbents to invest in a stronger backbone to compete.

Clients will not see a cost reduction until process execution technologies mature further, as these services will provide competitive differentiation initially.

### Operations

Investment managers are increasing the pace of middle- and back-office outsourcing to offload cost/time-intensive processes.



Magnitude: 3

Timing: 2

Greater agility and more instantaneous analysis leads to improved operating and compliance performance.



Boat Services is partnering with the London Stock Exchange to build a multi-asset class trade reporting platform to comply with MiFID-II requirements.<sup>41</sup>

Blockchain technology will gradually be adopted for reconciliation, clearing, and settlement, decreasing cost and improving accuracy and speed.

Back-office functions like clearing and settlement will accelerate to match speed of trading.

Five major UK asset management firms are partnering to explore potential uses of blockchain technology to reduce trading costs, with savings estimates possibly running into the billions of pounds.<sup>42</sup>

### Call to action

Shift focus to more specialized and customized strategies and products and remember to acquire new talent in the front office that can profitably support higher-value service delivery.



### Call to action

Participate in blockchain-based utility platforms to initiate technology improvements that capitalize on more secure and straight-through processing.

Create the ability to manage extended enterprise risk as vertically integrated middle- and back-office infrastructures begin to fragment.



# Market provisioning

## Disruption impact scale

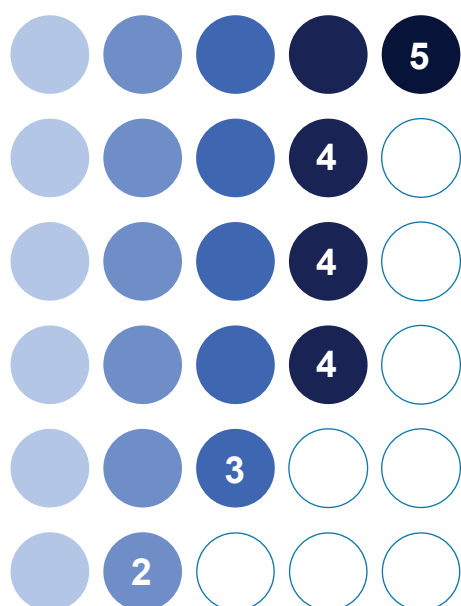
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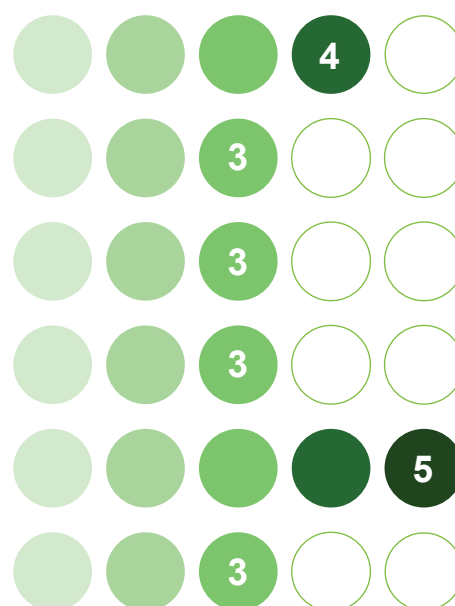


### Timing

1	Beyond 10 years
2	8-10 years
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Offerings
Operations
Business economics
Industry dynamics
Customer experience
Distribution



## Market provisioning: Key questions for consideration

- ? How should sell-side firms work with their large buy-side clients who are now disintermediating through direct or alternate access to liquidity pools?
- ? How can algorithmic traders sustainably capture profits in the long run as data exclusivity is diluted?
- ? How should firms think about exploiting blockchain innovations both internally and externally?
- ? What talent strategies should broker-dealers adopt as human advice becomes a strong differentiator?

# Market provisioning

## The disaggregation of advice from execution leads to industry transparency

Significant changes in offering structures and operating models will upend traditional business economics.

### Offerings

The core market-making value proposition will shift to advice: algorithmic trading will expand to include “real-world” data.



Magnitude: 5

Timing: 4

The quality of human advice will become critical in the near term as emerging information platforms facilitate price discovery and central counterparties reduce risk.

Algomi's bond information network maximizes connections between market participants to increase trading opportunities and velocity in large, illiquid voice trades.<sup>43</sup>



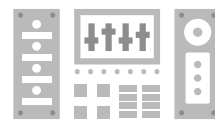
Incumbents will refocus on research and advisory services as their traditional edge from network size and balance sheet strength is diluted.

New data from the IoT will mesh with advances in cognitive technologies to fundamentally reshape algorithmic trading in the medium term.

A broader range of specialized algorithmic strategies will emerge that use data from various sensors.<sup>44</sup> These strategies will exploit market imperfections using big data analytics.

### Operations

Blockchain will drive speed and efficiencies across the trading lifecycle; differentiation in front-office capabilities will emerge from unique data and analytics.



Magnitude: 4

Timing: 3

Distributed ledgers will revolutionize securities clearing, settlement, and reconciliation in the next five years.



The Australian Securities Exchange has partnered with Digital Asset Holdings to develop a blockchain-based system for clearing and settling trades in Australian equities.<sup>45</sup>

Faster event detection and lower decision latency will become the key focus areas for specialized traders.

Priority access to new data sets will come at a steep premium. Investment in sophisticated analytical engines that make sense out of seemingly disparate sets of information will continue.

**SNTMNT**, a Dutch startup, specializes in social sentiment analysis in the financial markets.<sup>46</sup>

### Call to action

Work with emerging platforms quickly to gain access to new liquidity pools and networks and proactively redefine the value proposition for buy-side clients. Invest in deep-learning cognitive technologies that can replicate and improve human decision making.



### Call to action

View blockchain as both a strategic threat and opportunity.

Acquire in-house expertise on the technology through new talent or through inorganic expansion. Algo traders should attempt to carve out exclusivity in data access with a focus on analytical differentiation.

# Market provisioning

## The disaggregation of advice from execution leads to industry transparency

Significant changes in offering structures and operating models will upend traditional business economics.

### Business economics

New information networks to squeeze market making revenues, but profits will rebound for algorithmic traders.



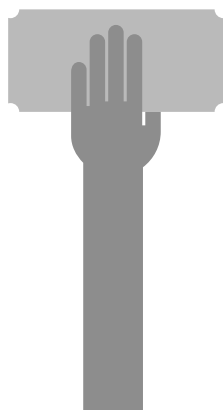
Magnitude: 4

Timing: 3

Leaner operating models await in response to spread compression and lower commissions in the medium term.

Savings from blockchain adoption may be huge—Autonomous Research estimates that clearing and settling trades using blockchain technology could lead to cost savings of \$16 billion within five years.<sup>47</sup>

Expertise-driven algorithmic traders could see sharp increases in profits in the next five years, but will have a tough time keeping them there.



Real-world data-driven strategies will capture trading profit pools, but declining exclusivity of data access and increasing ubiquity of analytics will threaten the sustainability of these earnings.

### Industry dynamics

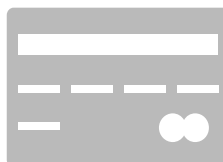
Increasing automation, along with blockchain innovations, will radically restructure the competitive landscape. While transparency may rise, there will be new concerns over asymmetric information and systemic risk.



Magnitude: 4

Timing: 3

Immutable transaction records on distributed ledgers and machine supervision will bring regulators and market participants closer.



Market monitors will be able to attain an organized, systemic view of asset ownership and trading activity, equipping them to diagnose problems and recommend remedial measures much faster.

Questions of fairness will arise from asymmetries in information access and computing ability between algorithmic traders and other participants.



Public concerns over specialized traders' access to exclusive out-of-market data and advanced cognitive computing could invite future regulatory scrutiny.

### Call to action

Monitor the change in revenue structure due to reduced market frictions and craft operational playbooks to respond to these shifts in competitiveness. Algorithmic traders should invest in developing strategies that are more likely to sustainably capture profit pools.



### Call to action

Collaborate with other incumbents and regulators to devise systems that achieve economic and compliance goals.

Use machine intelligence to monitor internal risk-taking behavior to manage conduct risk. Algorithmic traders should invest in strong compliance programs that oversee whether strategies pass both a legal and ethical test.

# Market provisioning

## The disaggregation of advice from execution leads to industry transparency

Significant changes in offering structures and operating models will upend traditional business economics.

### Customer experience

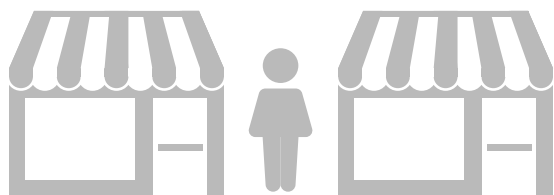
Investors will get unprecedented access to traditionally opaque markets, while leading intermediaries will seek to enhance value.



Magnitude: 3

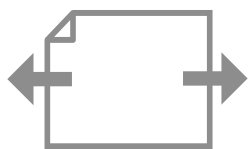
Timing: 5

Greater direct participation in markets is imminent.



Inter-dealer broker ICAP's Sponsored Access Matching solution enables buy-side firms to directly access liquidity pools in fixed-income markets by leveraging partnerships with broker dealers.<sup>48</sup>

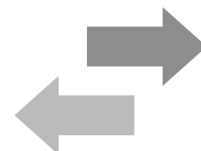
Broker-dealers will expand value-added services to attack client pain points.



By providing access to cutting-edge risk management suites and advice on upgrading compliance capabilities, large established broker-dealers will seek to exploit their scale advantages.

### Distribution

Broker-dealers will reinvent the way they distribute research and algorithmic traders will attempt to target mainstream customers.



Magnitude: 2

Timing: 3



In the next three to four years, research will go “live”—becoming almost real-time and dynamic.

Palantir's Capital Markets solution allows users to change assumptions and re-run complex analyses in real-time and present “living reports,” allowing clients to drill down into entities and engage with underlying data.<sup>49</sup>

Over time, algorithmic trading firms with specialized strategies will likely attract more traditional investors.

Complex strategies based on real-world data will attract a greater share of committed assets from pension funds and ultra-high net worth investors. Investment firms leveraging these specialized strategies will establish themselves as a separate asset class in the alternative universe.

### Call to action

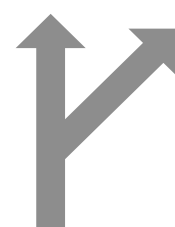
Create clear plans to give clients direct access to the marketplace; prioritize the long-term relationship and take them there.

Target maximizing share-of-wallet by investing in value-added services that appeal to critical clients.



### Call to action

Create capabilities to give greater control to research consumers, with analytical input used to leverage dynamic data. Real-world data-focused algo traders should differentiate themselves from traditional high-frequency traders as a separate investment class.





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# Contacts

## Industry leadership

### **Robert A. Contri**

Global Financial Services Industry Leader  
Deloitte Touche Tohmatsu Ltd.  
+1 212 436 2043  
bcontri@deloitte.com

### **Kenny M. Smith**

Vice Chairman  
US Financial Services Industry Leader  
Deloitte LLP  
+1 415 783 6148  
kesmith@deloitte.com

## Contacts

### **Rob Galaski**

Financial Services Industry Leader  
Deloitte Canada  
+1 416 601 4594  
rgalaski@deloitte.ca

### **Thomas Jankovich**

Financial Services Consulting Innovation Leader  
Deloitte Consulting LLP  
+1 203 708 4428  
tjankovich@deloitte.com

### **Michael Tang**

Consulting Partner  
Deloitte Canada  
+1 416 874 4356  
mtang@deloitte.ca

## Deloitte Center for Financial Services

### **Jim Eckenrode**

Executive Director  
Deloitte Center for Financial Services  
Deloitte Services LP  
+1 617 585 4877  
jeckenrode@deloitte.com

### **Adam Schneider**

Chief Advisor  
Deloitte Center for Financial Services  
Principal  
Deloitte Consulting LLP  
+1 212 436 4600  
aschneider@deloitte.com

### **Val Srinivas, Ph.D.**

Research Leader, Banking & Securities  
Deloitte Center for Financial Services  
Deloitte Services LP  
+1 212 436 3384  
vsrinivas@deloitte.com

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*Michelle Canaan, Manager, Deloitte Center for Financial Services, Deloitte Services LP*  
*Michelle Chodosh, Marketing Manager, Deloitte Center for Financial Services, Deloitte Services LP*  
*Patricia Danielecki, Senior Manager, Chief of Staff, Deloitte Center for Financial Services, Deloitte Services LP*  
*Lisa DeGreif Lauterbach, Financial Services Industry Marketing Leader, Deloitte Services LP*  
*Nikhil Gokhale, Manager, Deloitte Services India Pvt. Ltd.*  
*Urval Goradia, Senior Market Insights Analyst, Deloitte Center for Financial Services, Deloitte Services LP*  
*Abhishek Gupta, Analyst, Deloitte Center for Financial Services, Deloitte Services India Pvt. Ltd.*  
*Jaykumar Shah, Assistant Manager, Deloitte Services India Pvt. Ltd.*  
*Lincy Therattil, Manager, Deloitte Center for Financial Services, Deloitte Services India Pvt. Ltd.*  
*Lauren Wallace, Lead Marketing Specialist, Deloitte Center for Financial Services, Deloitte Services LP*

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