

GLOBAL CAPITAL MARKETS 2018

# EMBRACING THE DIGITAL MIGRATION



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# EMBRACING THE DIGITAL MIGRATION

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# INTRODUCTION

**T**HE redistribution of value that began in the aftermath of the financial crisis has become a steady shift in the decade that has followed, driven by the migration to digital services, processes, and business models. Although the capital markets revenue pool grew 7% in aggregate from 2016 to 2017, investment banks, the highest-profile group of players in that pool, now capture only 33% of total revenue, down from 48% in 2006.<sup>1</sup> As technological advances and a more diverse array of industry participants challenge the historical dominance of investment banks, the digital migration represents a systemic disruption that, if anything, is likely to pick up pace in the years ahead.

For investment banks, 2017 marked the fifth consecutive year of declining revenues. Despite the recovery from the economic crisis over the past decade, top-line growth has been hindered by stringent restriction on capital and leverage and heightened regulatory scrutiny. Banks have responded by reemphasizing market share growth rather than just capital and liquidity optimization as well as by reducing costs and sharpening their focus to increase scale in specific asset classes. However, these efforts, while considerable, have not been enough. Data-enabled products, improved automation, strong value chain and ecosystem integration, and other benefits from digitization have raised the stakes while attracting new players to select niches. As a result, investment banks have seen their primacy in the capital markets arena tested by changing customer needs and preferences; by digitally advanced products, platforms, and services; by the entry of adjacent and nontraditional players into the market; and by the constraints imposed by regulators.

The reality is that many incumbents have yet to evolve their capital markets business models deeply or quickly enough. While most banks have experimented around the edges—partnering with fintechs or exploring some new revenue opportunities—the lion’s share of their efforts have focused on more traditional responses, such as rationalizing costs, taking market share from peers, and increasing scale. While important, those conventional responses ignore the ongoing erosion taking place in the core investment-banking business model.

The only way for banks to regain their footing and do materially better over the next decade than they did in the decade following the crisis is to address the root causes of the deterioration. To protect their long-term futures, we recommend that investment banks in particular focus on five areas:<sup>2</sup>

- **Be relentlessly client centric.** The digital migration has shifted the competitive battleground to the quality of the client experi-

ence. Banks whose business models remain mired in a product-first mindset instead of one focused on securing and enhancing the client relationship will find themselves sidelined. To thrive, banks must replace their traditional client service approach with new ways of protecting the client interface. Investment banks should adopt a bank-as-a-platform model in which they serve as a convenient one-stop shop for a variety of products and services, from both banks and their partners. Dominant platform providers will be in a much stronger position to own the client relationship and dictate commercial terms. In addition, banks need to change their servicing approach internally and establish a single point of client contact that is responsible for coordinating all services across the bank. Clients with similar capital markets needs and behaviors should be clustered into segments to ensure effective client service and efficient resourcing. For institutional clients, this likely means developing and expanding a multiasset execution platform; for corporate clients, it likely means further expanding integrated cash management, trading, and foreign exchange (FX) hedging platforms for corporate treasurers. Acting quickly on these measures could preempt other banks and providers that adopt the same strategy from getting too far ahead—a move that could relegate laggard banks to serving as product providers for other ecosystems.

- **Be information advantaged.** Banks should treat data-driven intellectual property and analytics as one of their most valuable assets. Investment banks sit on enormous troves of IP, but too few recognize, much less take meaningful advantage of, the value that IP can generate beyond their trading businesses. Insights mined from market, transactional, and other data can be packaged with appropriate protections to create new products and unlock important new revenue streams across the bank. Capital markets players can then look for appropriate channels to help monetize those insights, such as through partnerships and through the development of application-programming interfaces (APIs). IP can also be used to provide superior customer service while helping banks increase their share of wallet with clients. Just as Amazon provides customers with recommendations based on their purchasing histories, for instance, banks can use technology to better understand customer needs and propose more relevant solutions. As with any strategic asset, effective data and IP management requires C-suite-level leadership and a cohesive, firm-wide approach to managing and prioritizing IP initiatives.
- **Reimagine the technology architecture.** To accelerate their digital transformation, banks need to adopt a next-generation IT architecture. Built on the secure cloud, these architectures use flexible, container-based applications and APIs, giving banks access to a modern, flexible, lightweight IT backbone and letting them decouple data from legacy systems. That decoupling allows banks to access information resources more easily for internal use and make data available to external partners and developers. Basic backbone improvements can help banks streamline and standardize routine processes, allowing them to become faster and far more

cost efficient when approving client accounts, processing trades, and generating required regulatory and client reports. These are table stakes steps that banks *must* take to stay in the game. Beyond that, banks need to use their IT capabilities to enhance and expand their product portfolios, taking advantage of cloud-based solutions and APIs to identify trading ideas and opportunities based on proprietary research or IP. In addition to having strong embedded security protocols, the architecture should enable integration with external systems, devices, and service providers and have a data layer capable of sharing data clusters across the bank. Accelerating that type of infrastructure development can provide banks with the engine needed to unlock data-driven insights and improve client service.

- **Think like a digital leader when it comes to talent management.** Banks used to have their pick of top graduates from elite universities. But the rapid growth and prominence of digital leaders like Google and Amazon and the emergence of innovative fintechs and boutiques has changed that. Today's top talent—especially those with sought-after technology, engineering, data science, and mathematics skills—enjoy newer and often more attractive alternatives. With more institutions competing for the same high-caliber talent, banks must change how they recruit, develop, and retain the personnel needed. To create work environments and career opportunities that match or surpass those provided by other employers of choice, banks need to develop a strategic workforce plan; research best practices in hiring, development, and retention; and look at nontraditional ways to keep talent happy and motivated. That can include designing collaborative workspaces, sponsoring secondments in different departments or geographies or even with leading technology companies, and evaluating innovative employee perks.
- **Work in an agile environment.** To deliver on the new business paradigm, the industry must embrace agile practices more broadly. While agile techniques have their roots in software development, many companies have applied the approach across their enterprises to link the business and technology organizations, improve efficiency, and drive results that are more customer centric. This methodology can enable the rapid development and delivery of the platform model that banks and others in the industry will need. It relies on end-user feedback, data-driven decision making, iterative development, and cross-functional and empowered teams to deliver better, less expensive, and faster outcomes.

The takeaway is clear. To thrive in the digital migration, banks must embrace it. They must evolve their business models—and quickly. If the near-term macro environment continues to be unfavorable, performance pressure will escalate. Even a momentary easing or a favorable change in volatility should be seized with urgency. Banks need to use any such opportunity to hasten their business transformation. That is the only way they will continue to remain viable and profitable in this rapidly changing market.

#### NOTES

1. In this report, investment-banking revenues refer to the revenues generated by the investment-banking divisions (M&A and securities issuance) and the institutional-securities (sales and trading) divisions of banks.
2. Other players in the capital markets ecosystem, such as exchanges and proprietary trading firms, are thriving, and their strategies merit discussion. But while many of our recommendations in this report are applicable to these players, the primary focus of this report is the investment banks.



# THE END OF THE CRISIS DECADE

**F**OR the capital markets ecosystem as a whole, 2017 proved to be another year of strong performance. Total industry revenues rose to \$671 billion from \$628 billion in 2016, an increase of 7% driven primarily by strong market performance and fee capture by alternatives. Those results mask underlying difficulties for some participants, however—most notably the investment-banking sector. Global investment-banking revenues, which consist of equities; fixed income, currencies, and commodities (FICC); and primary markets, fell for the fifth consecutive year. Securities services, meanwhile, posted strong growth of 7%, and other ecosystem players also realized revenue gains. That mixed performance illustrates the continued value migration within the capital markets space. (See Exhibit 1.)

## Value Migration Persisted

The share of total industry revenues earned by banks now stands at approximately 33%, a sharp decline from the 48% share held a decade ago and a further downtick from 36% last year. Global investment bank revenues declined by 3% in 2017, compared with a 1% decline in 2016. (See Exhibit 2.) This dip was primarily the result of significant weakness in FICC, driven by both low volatility and stunted client activity across nearly all products. It was also a result of moderate weakness in equities, stemming from lower client activity and commissions amid a year-on-year (YOY) de-

cline in market volumes. The decline was partially offset by a strong year for primary market fees. Consistent with longer-term trends in the industry, US banks gained share from their European counterparts, and larger banks took share from midsize and regional competitors. Despite the beneficial effects of equity volatility on volumes and revenues in the first quarter of 2018, we continue to expect long-term pressure on these businesses.

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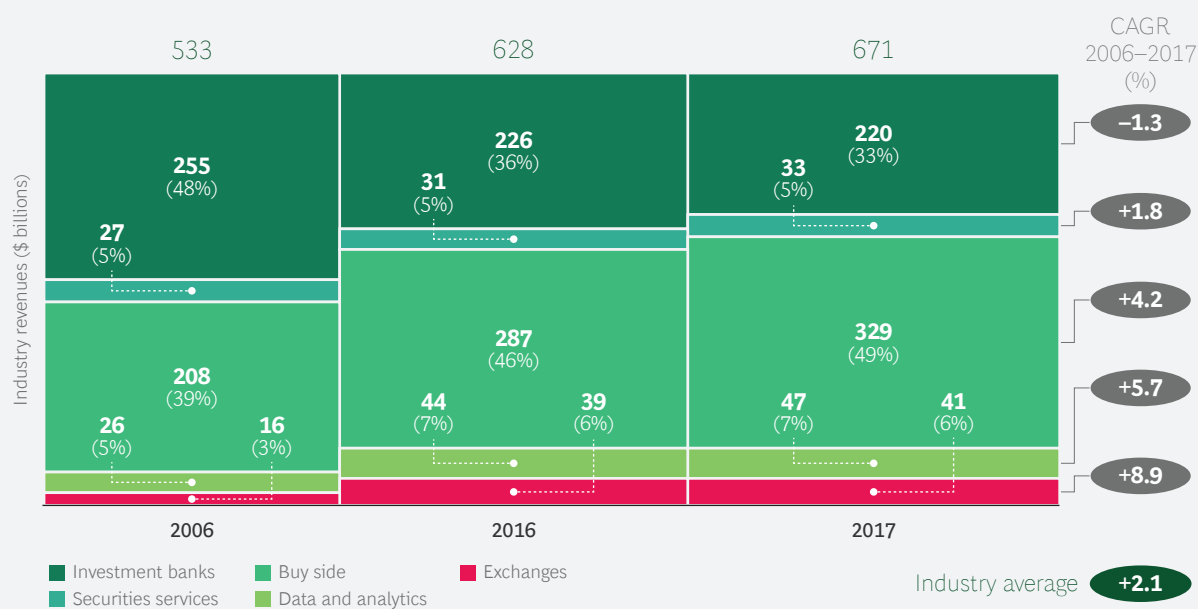
Global investment bank revenues declined by 3% in 2017.

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Brexit negotiations continue to offer banks no meaningful clarity. Many banks have been consumed with preparing for the expected operational changes arising from Britain's planned departure from the EU, and this has kept them from focusing on their core European strategies. Continental European banks need to take advantage of their competitors' momentary distraction to protect market share in their home markets, with the recognition that once the US banks meaningfully increase their local presence, competition is likely to get fiercer.

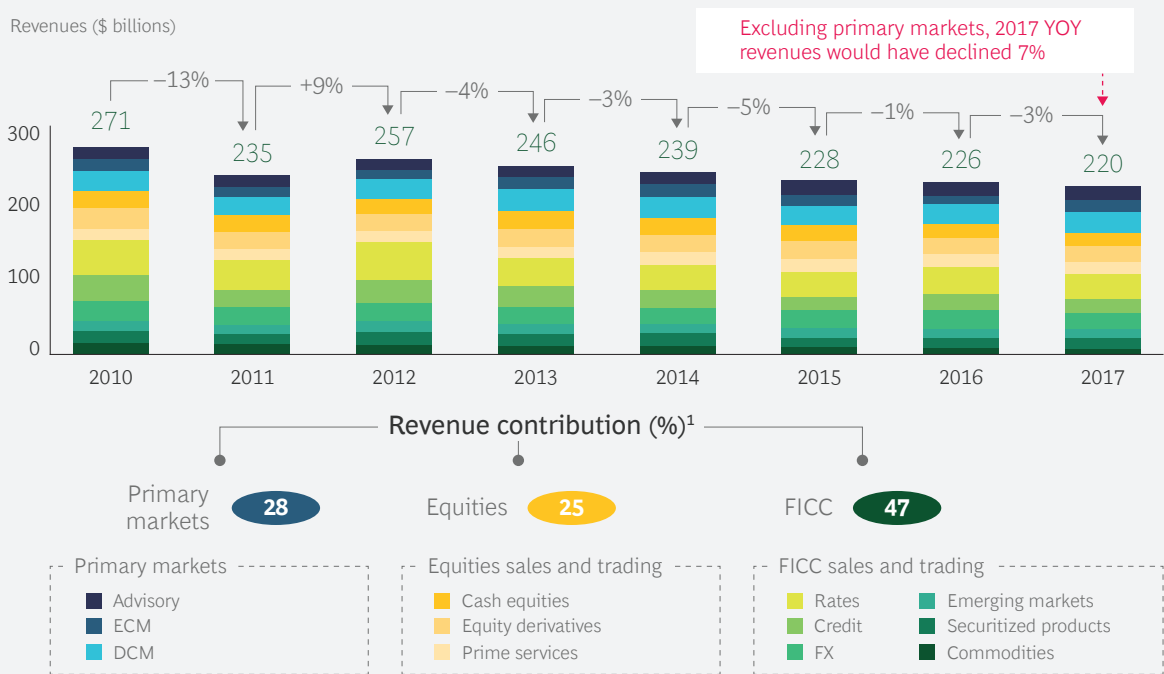
The effects of the Markets in Financial Instruments Directive II (MiFID II) will continue to

EXHIBIT 1 | Value Migration Continues



**Sources:** Company financial statements; Expand Research; Capital IQ; BCG analysis.  
**Note:** Activity-level view of the ecosystem. The investment bank category includes investment banks and investment-banking units of wholesale banks. The securities services category includes the ten largest custodians and securities services segments only. The buy-side category includes traditional asset managers, hedge funds, and private equity firms. The data and analytics category includes revenues from desktops, data and feeds, indices and benchmarks, ratings, and software and analytics. The exchanges category includes revenues from listings, exchange and venue execution, market data, clearing, and posttrade services. Numbers reflect rounding.

EXHIBIT 2 | Investment Bank Revenues Continue to Decline



**Sources:** Company financial statements; Expand Research; BCG analysis.  
**Note:** Based on a sample of 35 banks. ECM = equity capital markets; DCM = debt capital markets, FICC = fixed income, currencies, and commodities. Numbers reflect rounding.  
<sup>1</sup>In full-year 2017.

affect capital markets in several ways. The required unbundling of research and trading commissions is hurting the research organizations of banks participating in the EU markets. The rules are increasing competition with the result that traditional sell-side research operations are likely to shrink considerably. In addition, the “best execution provision,” which requires banks to take all meaningful steps to get the best result for clients, means that trading volumes are increasingly shifting from dark pools to lit venues, such as exchanges. That is hurting banks while benefiting exchanges and proprietary trading firms (PTFs). Further, transparency requirements mean that banks will no longer be able to offer preferential access to new issues or research insights.

Given these issues and the ongoing digital migration, banks will be forced to lean harder on client service, execution excellence, and platform quality for differentiation and growth.

Global highlights for different asset classes were as follows.

**FICC experienced considerable weakness in 2017, declining by more than 9% to \$105 billion.** Nearly all products experienced significant declines, particularly in macro-driven product areas, such as FX and rates, where low volatility and limited client flows globally caused the shortfall. The commodities sector also had its worst performance in recent history. This category reached record lows, and the few players that still have exposure to the energy markets experienced significant trading deterioration. Securitized products were the lone exception, delivering 18% YOY revenue growth owing in part to increased loan issuance. The bigger banks were particularly hard hit because of their greater exposure to FICC.

**Equities trading saw moderate declines, with revenues dropping 3% to \$54 billion, driven by lower market volumes and volatility.** Global revenues from cash equities and equity derivatives trading fell by 2% and 5%, respectively, primarily because of YOY declines in US and European volumes. Prime services fell a modest 1% as some banks

experienced declines in derivatives and lower margin fees. The larger banks had relatively flat to slightly down equities revenues and generally increased their market share at the expense of smaller players.

**Primary market revenues delivered significant growth, posting a 12% increase to \$61 billion.** After two years of declines, primary markets revenues turned around in 2017, returning to levels not seen since 2014. Virtually all major banks showed growth in equity capital markets (ECM) revenues because of a rebound from the IPO slump of 2016 coupled with strong growth in follow-on mandates, resulting in 25% ECM revenue growth. M&A revenues grew by 4% overall, a result of an increase in deal activity. Large banks experienced the largest revenue gains and appear to have won back some M&A business from the boutique advisory shops in 2017. Those boutiques saw M&A revenue growth fall by more than 10% in 2017, the first decline after three years of steady growth, including a double-digit climb to new highs in 2016.

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Virtually all major banks showed growth in equity capital markets revenues.

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Debt capital markets (DCM) also turned in a robust performance, nearing highs not seen since 2013. Revenues grew by 11%, driven by increased issuance volumes across all major products, including high-yield bonds, investment-grade bonds, and leveraged and syndicated loans.

Regionally, North America and EMEA (Europe, the Middle East, and Africa) both had strong fee growth in 2017, while Asia-Pacific was relatively flat owing to subdued origination and M&A activity in China. The fee performance in Asia-Pacific was only partially offset by a major growth spurt in Japanese equity issuance.

On the cost side, core bank operating expenses declined a further 2% in 2017, the

seventh consecutive year that banks lowered their cost base, albeit at a slower rate than in 2015 and 2016. (See Exhibit 3.) Significant further cost reduction would be necessary to boost return on equity (ROE) to levels acceptable to investors. Unfortunately, the savings generated from restructurings and business simplification programs are being tempered by cyclical headwinds and secular constraints. These issues make it difficult for banks to achieve the profitability and ROE gains they might otherwise expect. (See Exhibits 4 and 5.)

Operating expense reductions in 2017 were driven primarily by cuts in front-office costs, in line with long-term reductions in head count, particularly in FICC. While overall front-office IT spending hasn't declined, some players are investing more heavily in development and change-the-bank initiatives than others. Absent transformative cost reductions, such as a significant move toward automation in the front office or a complete technology infrastructure rebuild, real performance gains are likely to remain elusive.

## Other Ecosystem Players Continued to Gain Revenue Share

Unlike banks, other ecosystem players have benefited from the digital migration. Many realized strong revenue gains in 2017, with the largest increases going to asset managers as a result of their ongoing consolidation, successful IP licensing in ETFs, and strong market performance overall. Data and analytics providers and exchanges also fared well.

### Exchanges, Venues, and Clearing-Houses.

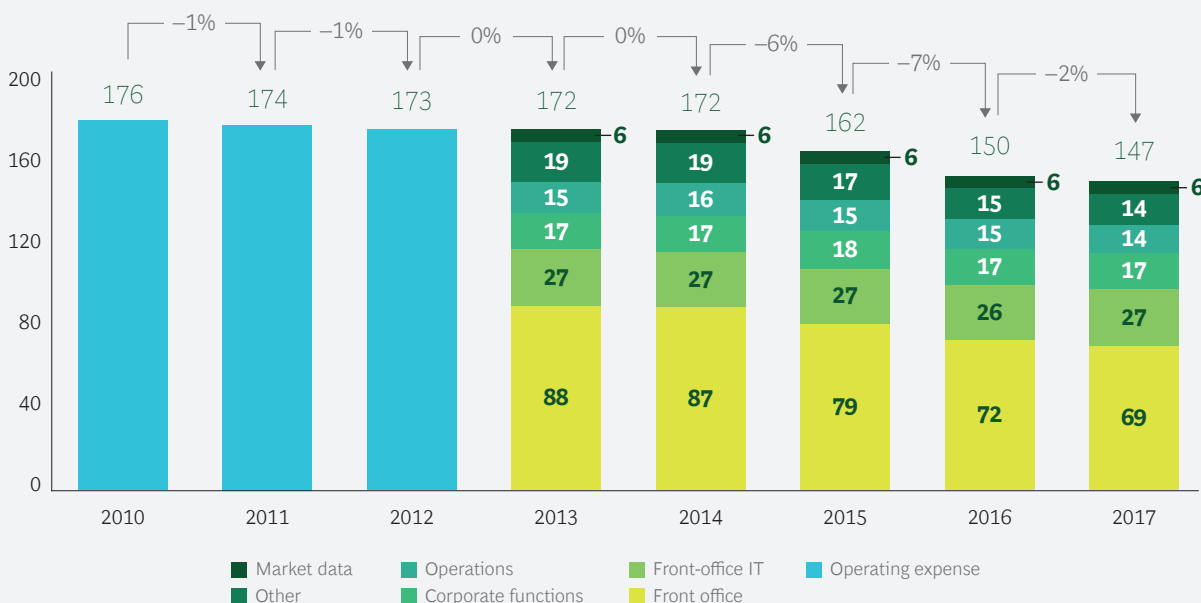
Boosted by strong stock market performance and regulatory advantages (such as cleared swap mandates), players in this segment generated 5% YOY growth in 2017. (See Exhibit 6.)

Revenues from listed trade execution and clearing activities rose by 1% in 2017 while over-the-counter execution and clearing rose by 6%. Posttrade services delivered 8% revenue gains.

In the primary market, exchanges posted 7% listings growth in 2017, as an increase in IPO

## EXHIBIT 3 | Cost Reductions Are Keeping Pace with Revenue Declines but Can't Boost ROEs and Fund Investments

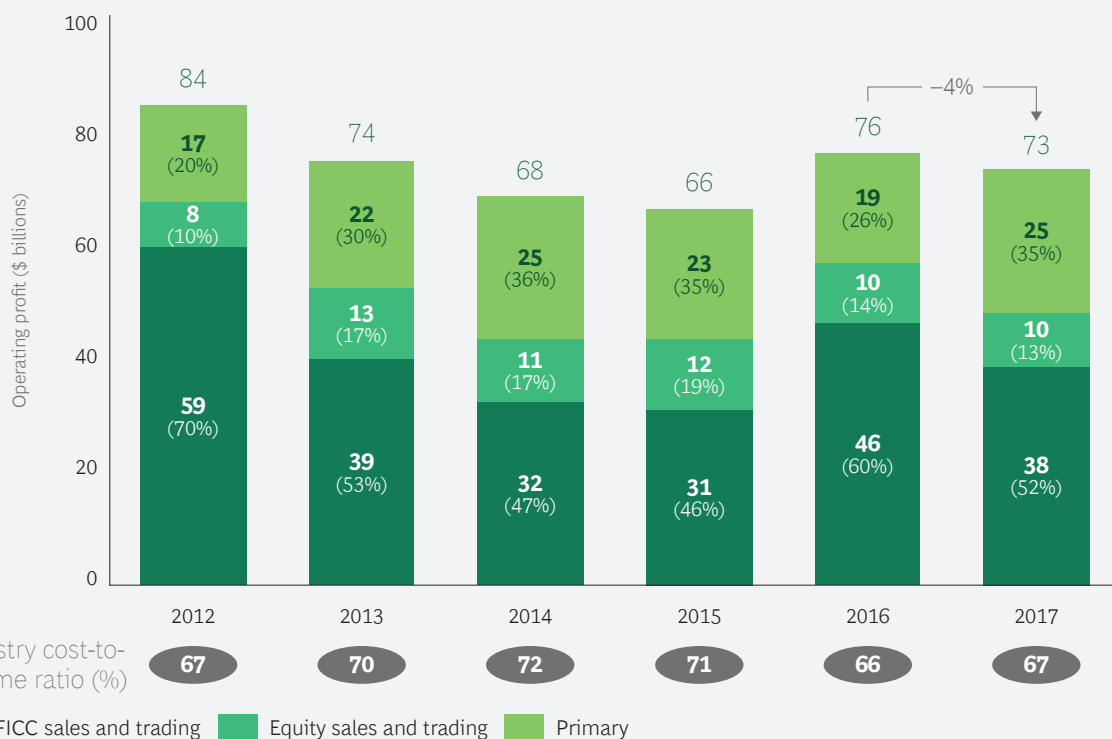
Operating expenses (\$ billions)



Sources: Expand Research; BCG analysis.

Note: The "other" category includes costs allocated to management, HR, communications and marketing, and corporate real estate. The front-office category includes brokerage commissions and exchanges. Figures for 2015 were restated to remove goodwill impairments. Numbers reflect rounding. ROE = return on equity.

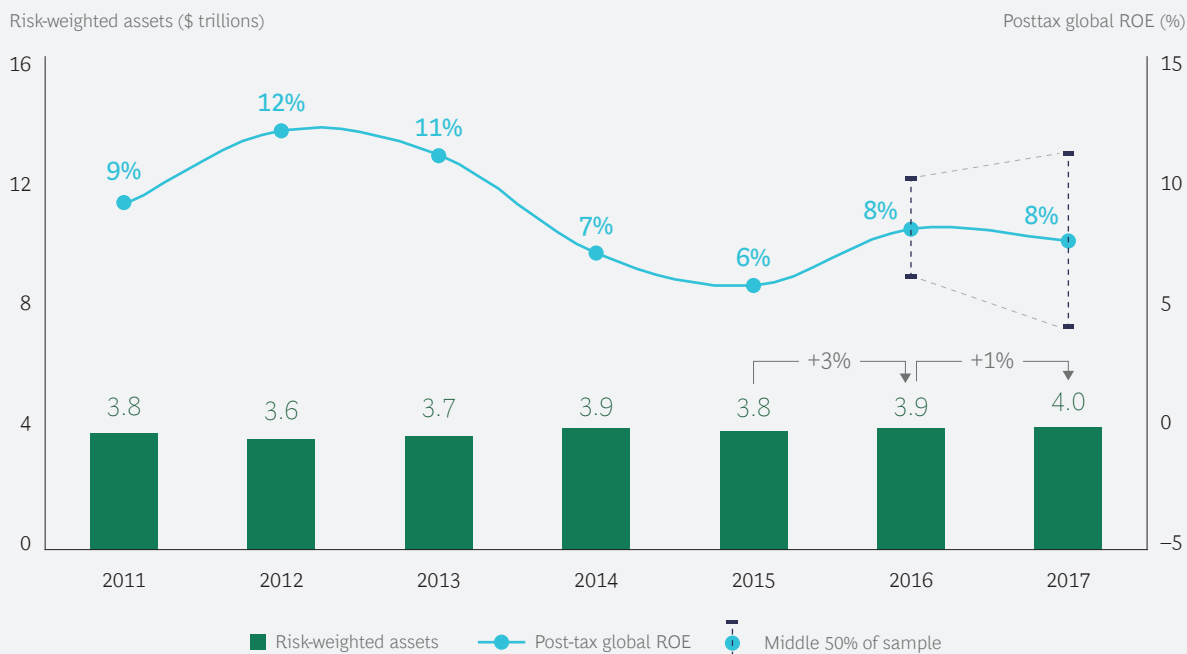
#### EXHIBIT 4 | Investment Banks' Profits Declined in 2017 as FICC Profit Pools Contracted



Sources: Company financial statements; Expand Research; BCG analysis.

Note: Based on a sample of 35 banks. Numbers reflect rounding.

#### EXHIBIT 5 | Average Investment Bank ROE Remains at a Low Level

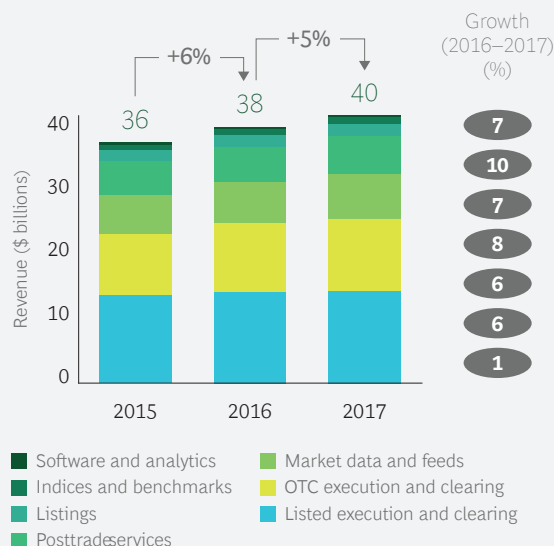


Sources: Company financial statements, BCG analysis.

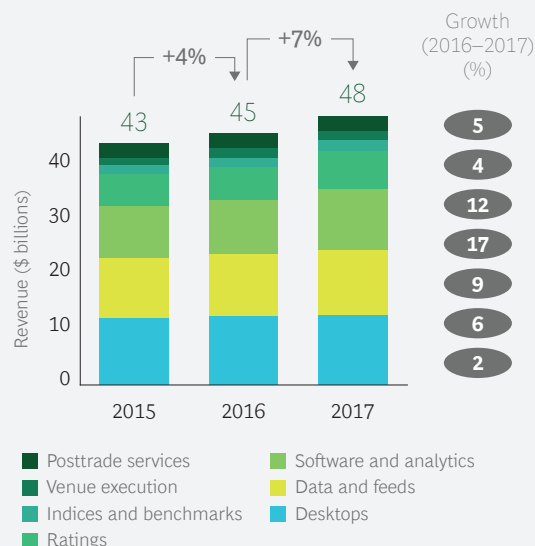
Note: Based on a sample of 15 banks; ROE range based on the middle two quartiles of the sample. Numbers reflect rounding. ROE = return on equity.

## EXHIBIT 6 | Exchanges and Data and Analytics Providers Continue to See Healthy Growth

### Exchanges, venues, and clearing-houses



### Data and analytics providers



Sources: Company financial statements; BCG analysis.

**Note:** Organic growth rates shown. The listed securities execution and clearing category includes transaction and clearing revenues for listed trades (cash equities and exchange-traded derivatives). The OTC execution and clearing category includes OTC trading and clearing fees for instruments traded on exchange-owned or independent electronic venues. The posttrade category includes all other posttrade fees (for example, settlement) excluding clearing, across all products. Numbers reflect rounding.

activity boosted listings and issuer services. That is significantly higher than the 1% YOY growth achieved in 2016.

With the competition for trading revenues intensifying, firms are diversifying their revenue base and embracing data, technology, and other nontrading revenue streams. Revenue growth from indices and benchmarks stood at 10%, while market data and feeds increased by 6% in 2017, driven by strong investor demand. The strong performance of equity markets and bullish investor sentiment has been good for ETFs; ETFs' good fortune, in turn, has been good for indices, benchmarks, and data players.

**Data and Analytics.** Data and analytics providers posted strong performance, with revenues growing 7% from 2016 to 2017. Indices and benchmarks, ratings, and software and analytics performed especially well, delivering 12% higher growth over 2016. Revenue from the data and feeds subsegment is now nearly the same size as the desktop segment, which grew at a sluggish 2%; data and feeds will likely eclipse desktop revenues altogether within the next two to three years.

We also expect continued strong growth in software and analytics.

The shift toward passive assets under management (AuM) has benefited the indices and benchmarks subsegment, which saw 12% YOY growth. A healthy debt issuance market means that ratings revenues are likely to remain strong in the near term. That could change, however, if, as expected, central bank interest rates increase in time, a move that could decrease debt issuance and, with it, ratings revenues. In addition, the continued consolidation and accumulation of AuM at the largest asset managers may increase their negotiating power and result in price pressure on the data and analytics providers.

**Buy-Side Institutions.** Traditional buy-side asset managers delivered revenue growth of more than 3%, resulting in \$6 billion YOY gains. Within the alternative investment arena, private equity and hedge fund revenues turned in growth of nearly 30%, driven primarily by the strong, largely market-led, rebound in hedge fund fee capture over the prior year. Across the buy side, firms face continued pressure from investors on fees.

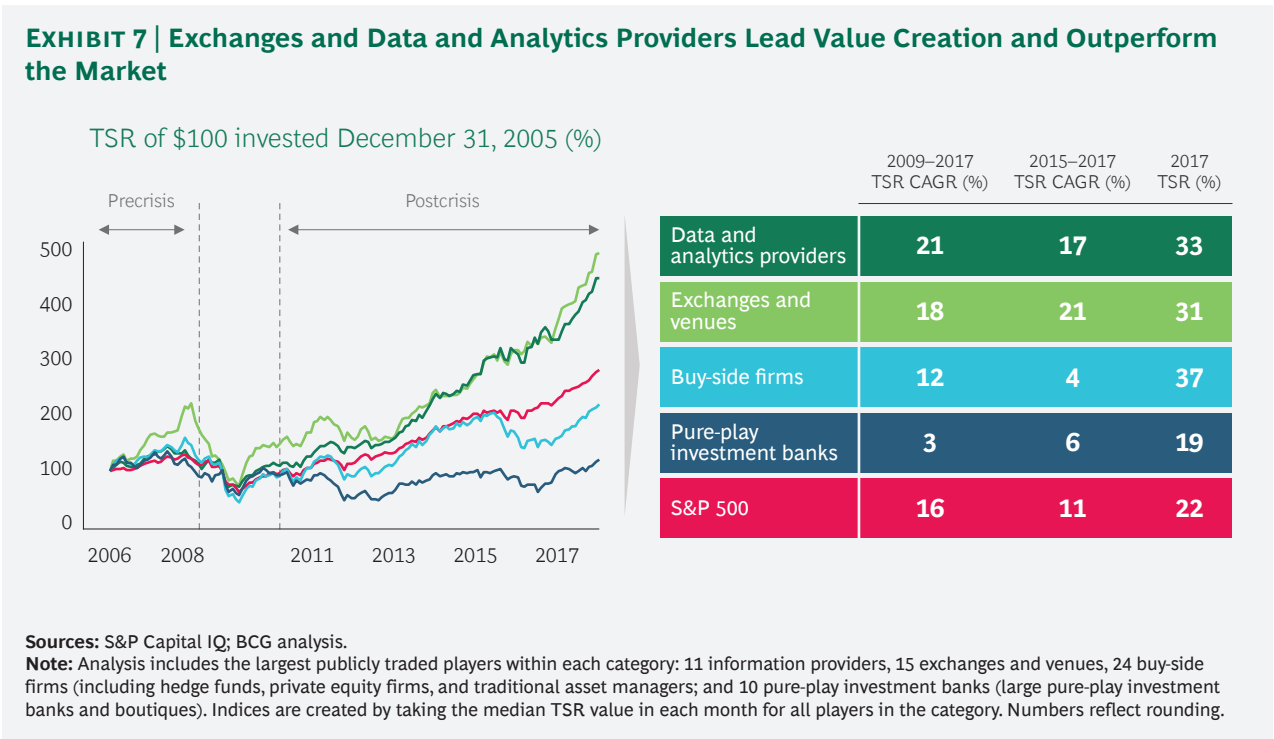
The continued consolidation of AuM among the largest asset managers and the steady growth of passive investments at the expense of active, bank, or broker-traded investments all point to the ongoing value migration in the asset management segment.

### Total Shareholder Return Varied Significantly

Our examination of total shareholder return (TSR) looks at four categories of capital markets participants: pure-play investment banks, buy-side firms, exchanges and venues, and data and analytics providers. (See Exhibit 7.) Since 2006, each of these categories has continued to generate positive and increasing shareholder returns. In 2017, buy-side firms delivered the largest gains, followed closely by exchanges and venues and data and analytics providers. Looking at the one-year TSR from 2017 to 2018, pure-play investment banks benefited nearly as much as others from the increased activity in primary mar-

kets and the market’s bullish expectations regarding the evolving US regulatory landscape and future market activity. Buy-side firms saw significant TSR improvement in the past year, mainly as a result of the recovery in the markets. Exchanges and venues, which trailed data and analytics providers in the years after the financial crisis, have become the top-performing segment in terms of TSR. They benefited from common growth drivers in data and technology and from rising demand for infrastructure services such as clearing and posttrade processing.

Despite fluctuations across player groups in our 2018 TSR analysis, we maintain the same critical point laid out in 2017: value in the capital markets ecosystem continues to be tightly linked with data and technology. The digital migration is real and gaining traction, and firms that embrace this trend are likely to realize greater relative value in the long term.





# OUT WITH THE OLD, IN WITH THE NEW

IT'S now nearly a decade after the financial crisis and the subsequent industry restructuring. Unlike their performance in the aftermath of the downturns in the mid-1990s and the early 2000s, however, investment banks have not bounced back. Instead, banks face a fundamental erosion in their core value propositions, an erosion that precedes the 2008 financial crisis and has been steadily eating away at banks' returns in the decade following. The revenue base is smaller than ever, with external factors responsible for most of the growth, and the industry remains plagued by overcapacity. Likewise, while banks have cut operating costs, higher legal and regulatory compliance demands have held back gains, keeping ROE firmly situated in the mid-to-high single digits for most.

Though many banks are aware of the opportunities available to them, they feel hindered by regulatory challenges. That's true even among market leaders, the banks that turned in the strongest financial performance. While some have expanded into nontraditional areas such as consumer lending or have begun partnering with fintechs, many continue to rely on conventional strategies, such as taking market share from peers, streamlining operating models, and simplifying business portfolios in order to increase volume, improve productivity, and lower costs. Some have leaned harder on existing strengths, using their balance sheets to enhance their share in

investment banking, for instance, and doubling down on specific product and sector expertise. Still, while tactically important, these traditional approaches have not been enough to reverse the declining fortunes of key players within the capital markets space.

That deterioration points to a deeper malaise, one that won't easily be offset by periods of favorable market volatility or an easing of regulatory pressures. Continuing to react to these conditions with the same "tried and true" approaches is a losing proposition. The only way for banks to regain their footing and secure their long-term future is to identify the root causes of the deterioration and make the changes necessary to address them.

## Traditional Value Drivers Have Eroded

Banks have long relied on their product and market expertise, balance sheet strength, talent, and superior technology to raise capital, manage risk, and advise their corporate and investor clients. These attributes have, in turn, created "sticky" client relationships and superior business economics. As the market has evolved, though, each of these traditional sources of value is being challenged.

Banks need to address three strategic questions: How have client needs and preferences changed over time? Can banks address these



changing client needs with traditional value propositions? Are clients willing to pay a premium for these services?

As Exhibit 1 in the previous chapter illustrates, institutional investor revenues continue to outpace those of investment banks. Large institutional investor clients are now not only using futures in place of cash securities where they can but also aggressively negotiating the fees for these securities. In addition, they are sourcing liquidity for transactions from platform traded funds and alternative providers. Industry overcapacity means that capital markets clients can be more selective when choosing an investment bank and in negotiating the cost of capital-raising transactions. They also have greater access to multidealer platforms (MDPs) for secondary market transactions, such as hedging FX risk, which loosens the hold that investment banks traditionally had in these areas.

Market structures are also changing. Bilateral, bank-intermediated trading continues to move to multilateral, all-to-all trading paradigms, a change that affects not only liquid assets like equities, FX, and on-the-run government securities but also historically less-liquid assets like corporate debt, swaps, and off-the-run government securities. Other once reliably attractive areas, such as acting as a primary dealer in government debt or market making in major currency pairs by midsize and smaller dealers, are also experiencing declines.

Likewise, while balance sheet strength does matter, even this advantage has been weakened by regulatory constraints on leverage and capital. It's hard for banks to keep deploying balance sheet capital in a business that continues to yield low ROE. Other regulatory constraints, such as price transparency conditions, pose additional challenges.

Finally, although banks are investing in trading and analytics, many have been unable to maximize the value of these investments because of limited change-the-bank budgets, fragmented internal technology architectures, and outmoded, nonagile working practices. Banks (especially larger players) have unique insights into macroeconomic activity, market

signals, and company and industry dynamics, all of which carry enormous client value. But unlike data and analytics providers, investment banks often lack the ability to monetize those insights. That's a missed opportunity given that data and analytics providers are seeing revenues increase at a rate of 7% while investment banks' revenues continue to shrink.

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## Banks have uniquely deep expertise in complex capital markets transactions.

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Yet, investment banks retain a number of core strengths. Their balance sheets remain a unique asset upon which companies (and sometimes even competing providers) depend for capital raising, block transactions, and liquidity. Banks also have uniquely deep expertise in structuring and executing complex capital markets transactions. And their prime brokerage offerings are an essential element of the hedge fund business model. In addition, even as some banking-client services become unbundled, strong links remain in lending and transaction banking, especially in DCM and in secondary market activity by corporate treasury departments. Banks need to build on these strengths with new competencies, embrace different ways of working and experiment with different avenues of growth.

Absent a serious effort to amplify their strengths and address their weaknesses, it's hard to imagine how investment banks will be able to sustain growth in an oversupplied, rapidly commoditizing, and increasingly disintermediated industry.

## Digital Disruption Is Already Underway

In any industry, the prospect of a large potential revenue pool combined with business model stagnation heightens the likelihood of disruption—inviting new players with new technologies to enter and reshape the market. Within capital markets, however, compe-

tition from nonbank financial players such as PTFs, financial data and analytics providers, and even exchanges has mostly occurred around the edges. While PTFs offer superior analytics, faster trading speeds, and significantly lower costs, their growth has been hindered by three factors: their desire to avoid intense regulatory scrutiny as they expand their scale and scope, the specialized nature of many capital markets services, and the long-standing and sticky nature of investment-banking client relationships. That said, banks should not be lulled into complacency. The story of similarly regulated, oligopolistic sectors (such as audio, video, SMS, and television) suggests that many of these barriers can and likely will be overcome by determined and innovative competitors. (See Exhibit 8.)

We believe providers in capital markets are moving away from facilitating transactions to becoming platform businesses in which the platform serves as a one-stop shop, integrating IP and analytics with the ability to transact and communicate. Their clients will use these networks to efficiently derive insights from proprietary information that was previously expensive to access and open-source information that was overwhelming to analyze.

They will seamlessly source liquidity across asset classes and participate in auditable bilateral and multilateral discussions with their own clients and broader communities that share common interests. Crucially, these platforms will adapt fluidly to each client’s internal workflow and be embedded within it to create highly personalized user experiences. Finally, these platforms will accommodate qualified apps from the bank itself, from the bank’s clients, and from third parties. The focus will be on providing the most intuitive, comprehensive, and value-creating experience for clients.

This conception of the bank as a platform is inspired by similar trends playing out across industries. Platform ecosystems are allowing businesses to extend, over time, the nature and reach of services. The most obvious example is Apple. Apple itself sells its products (most commonly the iPhone) directly to its customers. The customers can then visit the App Store to access Apple’s own apps as well as third-party apps developed for the iOS ecosystem. Any provider can develop and make its app available to customers on the App Store, but it is subject to Apple’s approval and terms. Another example, Airbnb,

EXHIBIT 8 | Shifting from a Product Business to a Platform Business

A platform integrates data, transactions, and software

Business Model Evolution

Being product centric

Being insightful and IP centric

Balance sheet strength

Superior technology

Principal

Agent

Transaction pricing

Platform pricing

Proprietary

Partnerships

Finance talent

Technology talent

Scale

Speed

Examples

**Salesforce:** Analyzes data to provide deep insights for improved sales productivity

**Spotify:** Relies on AI to personalize playlists, delivered over the internet

**Uber:** Offers a network that matches customers to available drivers

**Netflix:** Charges clients by subscription rather than per transaction or use

**Amazon:** Significant percentage of revenues made from distributing third-party products

**Google:** Empowers talent to make valuable contributions

**Virtu Financial:** Able to transact and develop capabilities faster rather than focusing on product market share

Source: BCG analysis.

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which started as a home-sharing platform, has grown to offer tourist experiences and restaurant reservations as well as other travel-related services—an evolution that helps the company broaden its customer base and add new sources of revenue. Examples such as these can help banks map out a thoughtful platform strategy. That strategy should be backed up with a careful assessment of what products and services generate the largest pool of revenues; that will help banks identify and prioritize their platform build-outs.

As we have seen in other businesses, a first-mover advantage is crucial because technology and information markets tend to be

highly concentrated. (Most people can easily name five investment banks, but can anyone name five music-streaming services?) Given the need for speed, banks that employ agile development techniques will have an advantage. Similar to the dynamics in the Apple/iOS app ecosystem, we expect other players to continue to participate as providers of apps offering specific functionality, but as with Apple, they will be subject to the approval or curation and terms of the successful platforms. We expect this to be a very competitive marketplace, requiring significant investment in innovation, an emphasis on the speed of delivery, and ongoing updates.

# MOVING FROM STAGNATION TO A NEW BUSINESS PARADIGM

**I**N RECOGNITION OF THE ongoing digital migration, capital markets players need to make several changes to ensure their long-term growth. Of these, investments in client relationships, data and analytics, technology, and talent are most crucial—each is indelibly linked to emerging sources of value. By looking to the example of digital leaders and best-in-class practitioners across industries—not just within financial services—banks can augment their capabilities and evolve their business models in step with the ongoing migration within the market.

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Capital markets players need to make several changes to ensure their long-term growth.

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Here are the actions that we believe banks should take to successfully address the root causes of their value migration.

## Be Relentlessly Client Centric

Given the ongoing commoditization in the product landscape, it's time for banks to disrupt their traditional operating models and shift from a product-centric to a client-centric approach. Adopting this bank-wide, client-centric service model; establishing a single

point of contact; and creating a robust “bank as a platform” to meet a variety of client needs can help banks protect the client interface and strengthen the client relationship. Doing so, in our view, will be essential for bank growth and profitability.

To deliver a superior customer experience and better match the service delivered by digital leaders, the industry needs to develop personalized, client-friendly solutions based on a detailed understanding of client needs, purchasing habits, and share of wallet. Customer experience has typically been a focus in retail banking, but it is clear that ease of use is critical to institutional clients as well, bridging needs and access for both the banks' and their clients' front and bank offices. Banks need to harness their considerable data assets and analytics capabilities and offer tailored ideas, such as hedging suggestions based on prior trades or the existing portfolio and trading proposals customized to investors' strategies. Banks also need to establish appropriate client segments that are based not on size but on client behavior and specific needs and to pair those segments with effective client coverage. Banks should also look for opportunities to build relationships with their clients across businesses, offering, for example, not only trading solutions but also corporate banking services, investment-banking advice, and pension liability management.

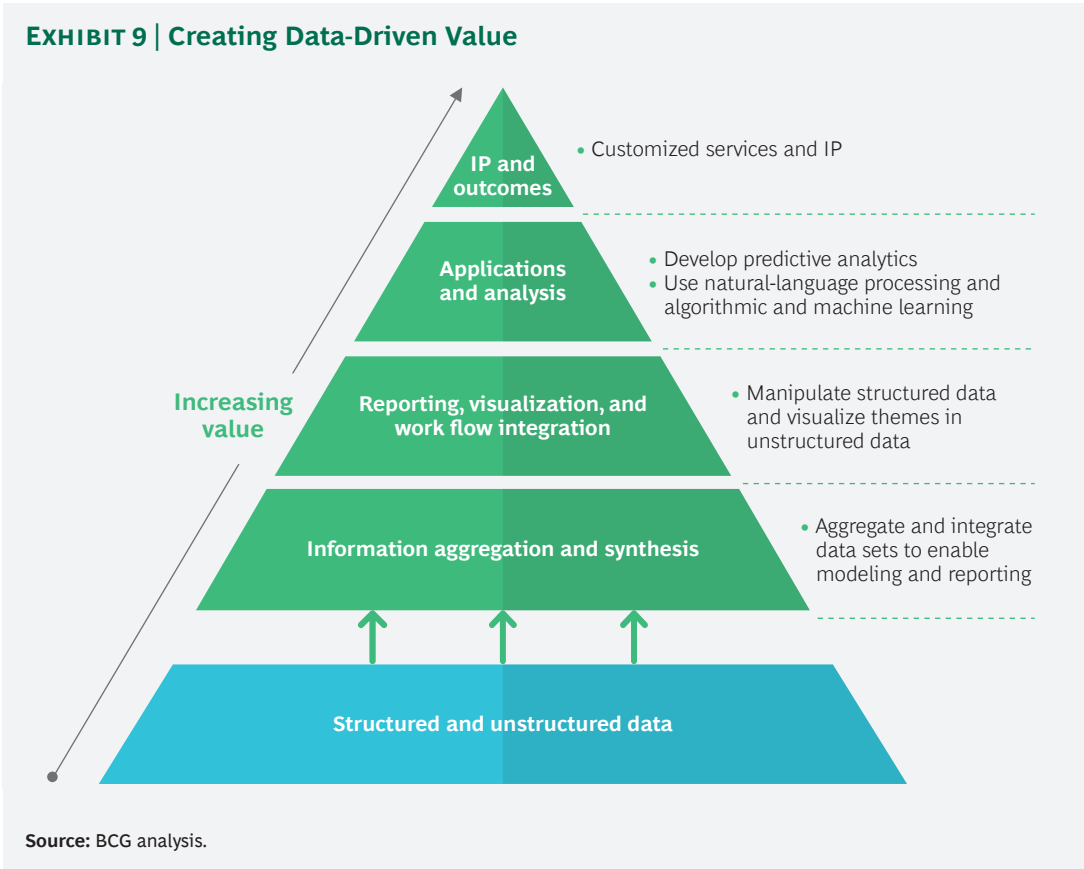
Another crucial way to enhance and retain existing client relationships is for an institution to become a leading bank as a platform and provide clients with one-stop access to a variety of products and services, both those offered directly by the bank and those developed by others (banks, fintechs, and so on). Creating such a platform can allow banks to remain a primary point of contact with clients. The platform model would also provide banks with critical behavioral data, giving them continually updated insights into client needs and purchasing habits, which banks could then feed into their own analytical engines.

The capital markets players that own the client relationship will be the ones in position to dictate commercial terms to others. Acting on this quickly could also preempt other banks and providers that adopt the same strategy from getting too far ahead—a move that could relegate laggard banks to serving as a product provider for other ecosystems. Success requires bold ambition. In our view, banks need to aspire to be the Apple or Amazon of financial services and not limit their focus to ad hoc digital offerings.

## Retain the Information Advantage with IP and Analytics

The capital markets are an information-rich industry. However, data science skills have not generally been applied beyond traditional trading and risk management.

That’s a missed opportunity. Better bank-wide IP management can unlock significant value. Instead of siloed efforts, the most successful IP management programs are centralized and backed by strong C-suite leadership. A centralized, structured model can help banks to understand where the data is and who owns it and to manage collection and usage. That visibility can help banks make better use of machine learning and predictive analytics, derive valuable insights, and create new products and services. (See Exhibit 9.) It can also help banks manage regulatory and data protection requirements—a concern that has grown more acute in light of several highly publicized breaches. (New regulations, such as the European Union’s General Data Protection Regulation, which takes effect in May 2018, also impose strict requirements for the use and management of data.)



Working within those regulatory parameters, however, still leaves banks and others with considerable room to employ their IP assets strategically so as to increase revenue and client satisfaction. Under a centralized model, capital markets players should identify distinctive sources of information that can provide value-added customer insights, then look for appropriate channels to help monetize those insights, such as through partnerships and the development of APIs. Examples include specialized indices and benchmarks, alternative data, social media with inputs structured to predict performance, risk monitoring, and compliance. Banks can potentially apply machine learning to their aggregated IP to predict liquidity or volatility events or to make other recommendations to individual clients. All of these IP and analytics capabilities should be delivered to clients as solutions by the bank as a platform.

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Banks and others still have considerable room to deploy their IP assets strategically.

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By parsing text on social media and examining social sentiment, for instance, banks can become more predictive in gauging market trends—information they can then bring to their investment modeling and client recommendations. Likewise, tracking customer reviews online can provide banks with another lens to assess customer creditworthiness (stronger reviews, better sales, or a healthier business model, for instance). Linking existing data sets and analytics to external data can also help banks improve risk monitoring, enable the advanced detection of M&A opportunities for clients, and improve the corporate credit approval process, the scope of which has generally been limited to historical financials.

Data-enabled products, features, and service enhancements that provide innovative solutions to nagging client pain points can help banks differentiate their offering and compete more effectively. Just as Amazon provides customers with recommendations

based on their purchasing histories, for instance, banks can parse past trading activity to help relationship managers propose relevant solutions. In these ways, more sophisticated IP management can help banks provide superior customer service and increase their share of wallet with clients.

## Reimagine Your Technology Architecture

To support their broader digital journeys, unlock the value of their data assets, and, most importantly, deliver client solutions via their bank as a platform, banks need to establish a superior technology backbone. Next-generation architectures, built on the cloud using flexible, container-based applications, can help banks accelerate automation, reduce IT expenditures, and speed time to market. These architectures are open and are based on APIs that leverage internal and external services. They allow for data to be decoupled from legacy systems for easier access across channels and journeys. This data-driven and API-enabled approach helps banks to access information resources easily and in real time, both for internal use and for the use of external partners and developers.

These modular and flexible open architectures provide banks with a golden data layer and the advanced analytics capabilities needed to process structured and unstructured data—giving institutions the ability to create a digital ecosystem of data-enabled products and services. Data integration hubs can help banks circumvent legacy processes and automate (and redesign) new ones. That can significantly improve processes such as know your customer (KYC) and onboarding, and it can help digitalize other customer journeys. A superior technology stack and architecture can lead to better lead management, pricing, and client satisfaction. By embracing the modular plug-and-play capabilities that a next-generation architecture affords, banks can increase the interoperability between architecture layers, giving IT and developer teams the ability to experiment with emerging technologies.

Next-generation architecture should be designed on the basis of four key principles:



- First, it must be multiproduct, meaning that functionality should work across all products and be integrated across all distribution channels. Security protocols and controls should be embedded into this core architecture to protect the bank from cybersecurity threats.
- Second, the architecture must enable integration with client systems, external devices, and software solutions and applications.
- Third, the architecture must be modular to facilitate rapid changes and updates and to free banks from the long lead times and rebuild efforts that more rigid legacy IT architectures require.
- Fourth, the next-generation IT model must have a big data layer capable of sharing data clusters across the bank, supporting machine learning and advanced analytics, and digesting both structured and unstructured data. This type of infrastructure can provide banks with the engine needed to unlock data-driven insights and improve client service.

To get the most out of their improved IT capabilities, banks need to significantly simplify their application environment. Most banks still have thousands of individual applications, many of which are redundant or outdated. Prioritizing software and systems that can be scaled bank-wide can lower costs, speed required upgrades, give banks much-needed flexibility, and help them provide business processes as a service in the true sense. This is a multiyear effort, and while some have already begun the journey, most have not.

## Attract Top-Shelf Digital Talent

Banks used to be the ultimate destination for the crème de la crème of elite universities and business schools who saw investment banks as a favored route to challenging, high-status, and rewarding careers. Not anymore. Today's top talent has new alternatives. Leading players within the high-technology sector are luring high-caliber recruits with their innovative cultures, breakthrough busi-

ness models, and fail-fast, win-big mindsets. At the same time, the type of talent that banks need has changed. To deliver on the necessary technology overhauls and develop new data-driven products that will take them into the future, banks increasingly need new types of talent: software development, data science, engineering, and other skill sets. This new demand means that banks now vie for talent with technology firms that have more experience and deeper networks in recruiting those same profiles. To source and retain the talent they need, banks must act like digital leaders and become more thoughtful, resourceful, and innovative.

## Banks need to understand best practices in hiring, development, and retention.

That starts with developing a strategic workforce plan to identify the skill sets that will be needed over the next three to five years. This type of plan systematically translates an organization's business strategy into a concrete talent needs assessment that can inform all phases of talent management. Using scenario models that examine the impact of different market and employment factors, the planning exercise identifies expected surpluses and gaps across the business. By anticipating current and future staffing needs, banks can be more proactive and targeted in determining how to meet those needs. The process also establishes an ongoing feedback loop between the business and the talent organization, improving overall visibility and alignment.

To create work environments and career opportunities that match or surpass those provided by other employers of choice, banks need to understand best practices in hiring, development, and retention. They must then pinpoint critical gaps between those best practices and their existing policies and procedures. Given the high demand for many digital skill sets, capital markets players need to look beyond a handful of top-tier schools for talent and consider nontraditional disciplines such as engineering programs where

recruiters in the sector have historically not been as active. Using digital tools to improve screening and “gamify” elements of the process, through interactive online quizzes, tutorials, and other programs, can help test applicants’ aptitude for the job and create a more engaging recruiting experience. Tailored algorithms, for instance, can aggregate and present relevant student profiles to speed selection and improve the quality of the target pool. In addition, video interviews in which candidates respond to the same set of prerecorded questions can help reduce unintentional bias.

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## Agile is a vital enabler in helping banks develop the bank as a platform.

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Banks must also look at nontraditional ways to keep talent happy and motivated, such as designing collaborative workspaces, sponsoring secondments in different departments and geographies, and evaluating innovative employee perks. Many younger employees, for instance, value informal workspaces and a relaxed dress code instead of more formal banking settings and attire. On the individual level, banks should look for opportunities to provide rising talent with stretch roles and intellectually challenging projects that allow employees to grow in meaningful ways. Banks may choose to follow the example of some digital leaders and allow employees to dedicate as much as 20% of their time to experimental projects or outside volunteer efforts. Rotations in different business units and mobility opportunities across geographies are other ways for banks to provide rich learning and help employees broaden their experience. Establishing open working environments and empowering teams to take ownership of their projects and products can boost morale and foster an innovation-driven culture.

Ensuring that employees have a sense of purpose is also key. Providing meaningful opportunities for employees to contribute their time and skills to help others in their business community as well as the community at

large can contribute to professional satisfaction and long-term retention. Steps like these can help banks rebrand themselves as innovative, agile, and community-minded players.

## Work in an Agile Environment

Although the word *agile* may conjure up the image of teams of engineers developing software, it has evolved to become much more than scrums and sprints.

Increasingly, BCG speaks of agile at scale, which is fundamentally about redefining the way in which the front-office, technology, risk and compliance, and other functions collaborate to realize large-scale change. We see agile as a vital enabler in helping banks develop the bank as a platform and related capabilities described in this chapter—and one that delivers results faster than typical waterfall methodologies.

Applying agile to the talent management process, for instance, can help banks quickly identify emerging organizational needs, facilitate more successful hiring, and achieve better retention and employee engagement. Applying agile to data will result in faster identification, experimentation, iteration, and delivery of data products, both to internal users and to external customers. Likewise, by using cross-functional agile teams, organizations can identify ways to deploy capital more efficiently. And so on.

Several elements make agile effective. The first is that agile development is designed as an iterative process that relies on continuous feedback from end users, be they employees or customers. The second is that agile is never final. Instead, the emphasis on continuous planning, testing, and integration ensures that a product or service remains relevant and performing well. Third, agile forces teams and development to be adaptive, which conditions the organization to respond quickly to needs and opportunities as they arise. Finally, agile empowers individuals and teams to make decisions and take accountability for the results, which can speed execution and improve workplace culture and morale. Organizations that embrace agile practices generally see better products and features, faster



time to market, increased efficiency and productivity, higher digitization, and greater employee engagement.

Rolling out agile across an organization may seem daunting. However, the business can start with a group of projects, then expand across business lines until agile eventually becomes the organization's de facto way of working. The most successful capital markets players will use agile techniques to spur business model innovation, making small investments in ideas, testing and iterating on those, and refining and building what works. Continual development and innovation in this way can help banks drive sustainable business growth.

**I**NVESTMENT banks have reached a crucial inflection point. They must embrace the digital migration head-on or be swept up in its wake. Banks have an opportunity to lean

on their underlying strengths—including their considerable balance sheet and data assets, their long-standing customer relationships, and their institutional knowledge—to differentiate their business models. Competing against other, more digitally mature capital markets players will require banks to overhaul their approach to talent management, make more strategic use of data, upgrade their IT capabilities, and become more client centric. Banks that move quickly and concertedly to digitalize their business model and operations in these ways will be in the strongest position to secure their long-term growth.

# FOR FURTHER READING

The Boston Consulting Group has published other reports and articles that may be of interest to senior financial executives. Recent examples include those listed here.

**Global Capital Markets 2017: Mastering the Value Migration**

A report by The Boston Consulting Group, May 2017

**Global Corporate Banking 2018: Unlocking Success Through Digital**

A report by The Boston Consulting Group, March 2018

**Global Risk 2018: Future-Proofing the Bank Risk Agenda**

A report by The Boston Consulting Group, February 2018

**How Pricing Can Solve European Banking's Earnings Crisis**

An article by The Boston Consulting Group, January 2018

**How Banks Can Thrive as Digital Payments Grow**

An article by The Boston Consulting Group, December 2017

**The Power of Digital in Commercial Banking**

An article by The Boston Consulting Group, December 2017

**Why Aren't Banks Getting More from Digital?**

A Focus by The Boston Consulting Group, December 2017

**Global Payments 2017: Deepening the Customer Relationship**

A report by The Boston Consulting Group, October 2017

**Getting Bank Automation Beyond the Pilot Phase**

An article by The Boston Consulting Group, August 2017

**The Seven Rules of Cost Excellence in Banking**

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**Global Asset Management 2017: The Innovator's Advantage**

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**Global Retail Banking 2017: Accelerating Bionic Transformation**

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**How Banks Can Close the Back Door on Attrition**

An article by The Boston Consulting Group, July 2017

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