

McKinsey
& Company

Global Banking Practice

**Global Payments
Report 2019: Amid
sustained growth,
accelerating challenges
demand bold actions**

September 2019

Executive summary

Alongside the headline of double-digit revenue growth in last year's global payments report, we cautioned banks of the underlying trend toward industry disruption and the imperative for near-term transformation in order to maintain their central position in the market. We have indeed seen many of these trends accelerate over the past year.

Global payments revenues totaled \$1.9 trillion in 2018, returning to a solid yet more sustainable growth level of 6 percent. In many ways, however, the context behind these top-line numbers is as remarkable as last year's attention-grabbing result. Our analysis reveals significant regional variations in performance as well as the perhaps counterintuitive finding that the largest and fastest-growing categories may not always be the most attractive candidates for entry. Chapter 1 of our report explores these findings in greater detail.

The ongoing evolution in payments ecosystems—which encompasses a blurring of the lines between payments types as well as bold entry moves by non-bank players leveraging non-traditional business models—has spurred a wave of industry consolidation. Chapter 2 delves into the rationale behind these acquisitions and explains why the next wave may look different. Chapter 3 addresses the

notion of “payments as a service,” which is lowering barriers to market entry and enabling the testing of many of these new business models.

Global transaction banking continues to comprise roughly half of global payments revenue. Chapter 4 explains how customer-facing innovations that first impacted the retail banking space are now moving into commercial banking. Finally, chapter 5 makes the case that despite margin pressures and heightened competition, the retail payments business remains a valuable catalyst for banking overall.

The insights in this report are based on the 2019 version of McKinsey's Global Payments Map, which has been the industry's premier source of information on worldwide payments transactions and revenues for two decades. The map gathers and analyzes data from 45 countries comprising nearly 90 percent of global GDP.

Phil Bruno

Olivier Denecker

Marc Niederkorn

The 2019 McKinsey Global Payments Map

Following a year of unprecedented, double-digit growth in 2017, global payments returned to its established pattern of steady yet strong performance. Global revenues reached \$1.9 trillion in 2018, reflecting 6 percent growth. Several long-standing trends were reestablished, offsetting 2017 outliers—notably, Latin America’s return to above-average growth. As always, however, the composition and dynamics of payments revenue vary dramatically by region, necessitating a disaggregated geographical assessment.

Sukriti Bansal

Phil Bruno

Olivier Denecker

Marc Niederkorn

Increasingly, nonbanks and nontraditional players are entering the fray to capture a share of this opportunity. In some cases, nontraditional players leverage payments to increase customer engagement and either expand existing offerings (for example, mobile wallet GrabPay) or establish a foundation for a broader-based model; for example, Stripe and Square (see chapter 3). As we note in chapter 2, a renewed wave of merger activity is blurring the lines among providers serving various stages of the value chain. This chapter focuses on some of the surprises and key takeaways emerging from McKinsey’s 2019 Global Payments Map (see note on page 9). Chapters 2 through 5 provide deeper analysis on more detailed aspects of the payments landscape.

After an unusual global payments revenue growth of 11 percent in 2017, largely because of a sudden surge in Chinese liquidity, growth returned to a more typical yet solid level of 6 percent in 2018. That figure is slightly above global nominal GDP growth of 5 percent projected by both the World Bank and Economist Intelligence Unit.

The regional view is more nuanced:

- In North America, payments revenues have been growing two to three percentage points faster than GDP for the past four years because of a combination of interest-margin expansion and rapid transaction growth. An improving interest-rate environment has enabled net interest margins on current account balances to deliver a small but favorable increase each year. The rate

of growth in electronic payments transactions has been nearly twice the GDP growth rate, propelled by the e- and m-commerce boom—as well as the continued shift away from cash and checks.

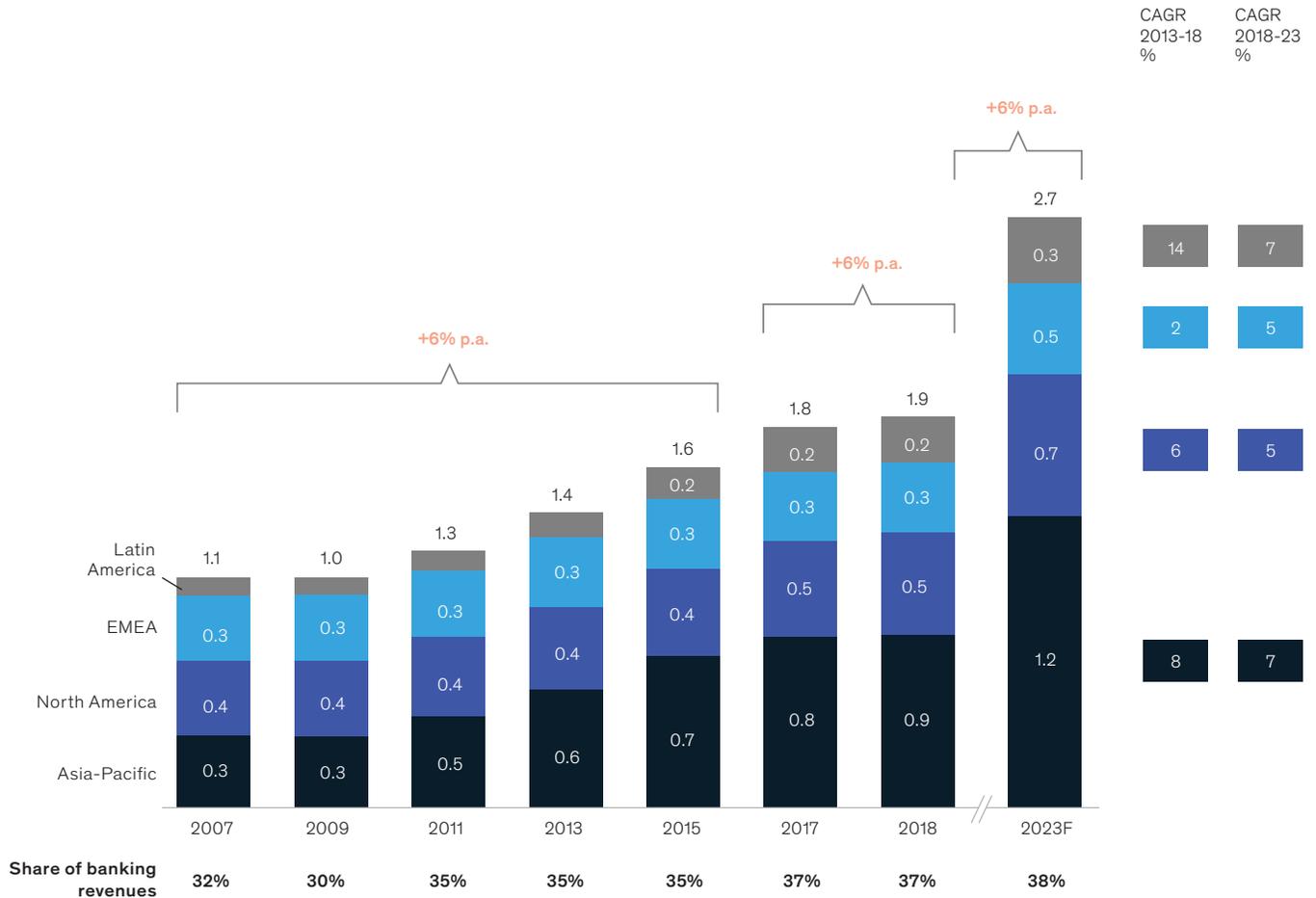
- Interest income on current accounts is estimated to have provided roughly one-fifth of US payments revenue in 2018, the lowest share among the four primary regions.
- Following a period of tepid growth between 2009 and 2013 (including two years of post-crisis declines), US credit card balances have resumed an upward trend, increasing by more than 4 percent consistently for the past four years.
- Payments revenue growth in Europe, in contrast with North America, has remained sluggish and below GDP growth, continuing the trend of the past two to three years (Europe comprises roughly 90 percent of the activity in EMEA—Europe, Middle East and Africa). If many of the underlying trends (for example, rapid growth in electronic transactions) in the two locations are similar, the European picture is dominated by the further weakening of the interest-rate environment, with negative interbank rates having reappeared in the euro zone. As a result, net interest income on account balances in Western Europe has been declining for the past six years, falling by nearly 40 percent over this period.

- Although it remains the slowest growing of the four primary regions, Europe has established a somewhat heartening revenue trend, with consistent growth in the region (in contrast to the contraction experienced in the first half of the decade). The European region continues to lag behind our estimates, stemming from a slower-than-predicted economic recovery. Despite the encouraging signs in transaction growth and fee revenue (4 percent in 2018), these gains are offset by marginal declines in liquidity revenue. This does not imply an absence of opportunity, however.
- Electronic payments transactions in Europe are growing consistently at double the European GDP growth rates (from 2013 to 2018, 7.9 percent compound annual growth rate [CAGR] versus 3.5 percent GDP CAGR). The continued shift away from cash is because of the strong performance of card transactions in combination with payments solutions enabled by genuine innovation (for example, real-time payments and mobile wallets) and regulation (for example, the second Payment Services Directive—better known as PSD2—and open banking). Account-to-account (A2A) payments systems at the POS are gaining momentum in countries like Denmark, Italy, and Sweden but do not yet add up to a significant volume shift at the aggregate European level.
- Asia-Pacific (APAC) payments revenues grew by 6 percent in 2018, in line with GDP growth for the

Exhibit 1

Global payments revenues grew 6% in 2018, similar to the historical rate.

Global payments revenue, \$ trillion



Source: McKinsey Global Payments Map

region (but contrary to what one could expect, slower than in North America). Asia revenues have been very volatile over recent years: their growth significantly lagged behind GDP growth in 2015 and 2016 before sharply exceeding it in 2017. There are three underlying drivers behind this somewhat erratic growth trend:

- *Underlying transaction growth remains remarkably strong.* Electronic payments transactions have been growing at a staggering rate in the region—upward of 15 percent annually, more than 2.5 times the rate of GDP growth. This growth has been fuelled

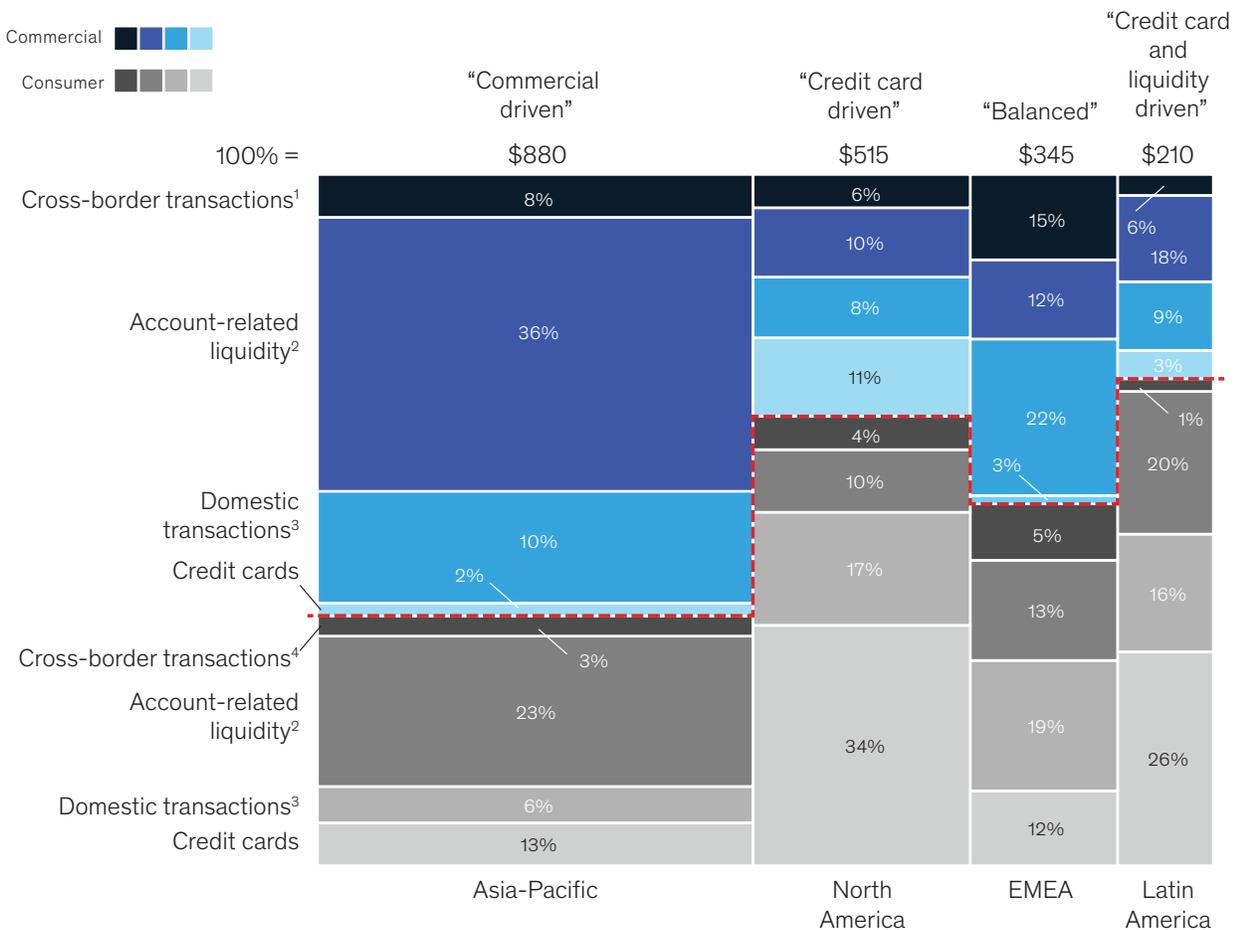
by the adoption and growth of alternative digital payment mechanisms (migrations of large pools of cash payments) in a strong push from regulators to reduce cash.

- *Transaction fee growth has been more muted,* as regulatory and competitive pressures have depressed margins (albeit from a very healthy starting level).
- *Current account revenues* (both consumer and commercial), representing 60 percent of payment revenues in the region, prove to be extremely volatile.

Exhibit 2

Asia-Pacific continues to dominate the global payments revenue pool.

Payments revenue, 2018, % (100% = \$ billion)



¹ Trade finance and cross-border payments services (B2B, B2C).
² Net interest income on current accounts and overdrafts.
³ Fee revenue on domestic payments transactions and account maintenance (excluding credit cards).
⁴ Remittance services and C2B cross-border payments services.

Source: McKinsey Global Payments Map

- Current APAC account balances (\$20 trillion in our analysis) are an important revenue driver, with China being the “swing factor.” If current account balances have been growing slightly faster than economic growth has in the region as a whole (pointing to additional growth coming from an increasing share of consumers with bank accounts in the region), 2017’s regional revenue “explosion” (21 percent increase) was driven by China. We will explore the dynamics of that explosion further in the next section.
- Latin America was the fastest-growing region in revenue terms, at 10 percent, in 2018. This result marks a return to growth following a 2 percent decline in 2017. It confirms 2017’s outlier nature, owing to a one-off regulatory intervention affecting Brazil, the region’s largest payments market. With nearly 40 percent of Latin America’s revenue growth coming from fee income, the fundamentals appear to point to continued strength.

China: The largest pool, perhaps not the largest opportunity

At roughly \$605 billion of revenue, China is the single-largest contributing country to global payments revenues, surpassing the United States by more than \$100 billion and comprising two-thirds of overall APAC revenue. At par with the US as recently as 2012, China has grown at a CAGR of 10 percent, compared with 6 percent for the United States.

The underlying developments are impressive. Both debit and credit card usage have grown at a greater than 35 percent CAGR over the past six years. In fact, we estimate that nearly half of all global debit card spending now occurs in China alone. In addition, the emergence of large ecosystem players, like Alipay and WeChat Pay, has boosted the growth of mobile payments. Mobile payments transactions grew at a 123 percent CAGR in China from 2013 to 2018 and, based on data published by the People’s Bank of China, are estimated to have exceeded 300 billion (or roughly 210 transactions per capita) in 2018.

Transaction revenues in China have “only” grown at a 13 percent CAGR from 2013 to 2018 because of lower transaction margins in China (compared with the United States, for example). Although card spending in China is nearly 1.5 times that of the United States, it generates a revenue margin of roughly 1 percent compared to 3.5 percent in the US.

Despite the headline-grabbing developments in Chinese retail payments, more than 60 percent of China’s payments revenue is sourced from commercial activity. This is among the highest shares observed across the 45 countries modeled in McKinsey’s Global Payments Map, which together comprise nearly 90 percent of global GDP. Indeed, a large share of China’s revenues is derived from liquidity, which is somewhat shielded from competition as inaccessible to nonbank service providers—and most likely to foreign bank entrants as well.

In 2018, the estimated account-liquidity-related revenue in China was \$410 billion, two-thirds of which was derived from the commercial side. This revenue source is extremely volatile, given its sensitivity to interbank rates and interest-rate changes that drive sharp margin fluctuations. For instance, account-related liquidity revenue jumped 38 percent in China in 2017 before slipping by 1 percent in the current cycle. In 2017, expanding margins and balance increases contributed to a similar degree to liquidity revenue gains; in 2018, contracting margins neutralized ongoing balance gains entirely.

All in all, despite the size and strong underlying momentum of China’s payments market, it is not easy for nondomestic competitors to play a role in it.

Retail and corporate trends: A matter of location

By segment, global payments revenues in 2018 were split close to equally between retail (\$1.02 trillion) and corporate (\$930 billion)—similar to the distributions of the past few years. However, this mix has not remained static at a regional level. In Latin America, for instance, retail payments have grown in dominance (63 percent share, up from 59 percent in 2013). On the other hand, in EMEA, commercial payments now account for a majority of the revenue (52 percent, up from 49 percent in 2013).

In Western Europe, which accounts for approximately 70 percent of the EMEA payments revenue pool, the reasons behind the commercial payments-share increase are twofold. First, retail card revenues have taken a hit because of interchange caps. Second, corporate account-to-account payments have exhibited solid revenue growth, driven by both increases in volume and unit pricing as banks seek to counterbalance the loss in liquidity revenue. These developments have offset

the fact that commercial account liquidity revenue has been more negatively affected than retail account liquidity revenue has.

Large-value payments systems: The backbone of payments infrastructure

Large-value and interbank payments systems—largely domains of corporate activity—are critical parts of any country's payments infrastructure. Compared with other payments instruments, these large-value transactions (settled in real time over systems like CHAPS in the United Kingdom and Fedwire in the United States) are quite low in volume but significantly higher in average value, at roughly \$200,000 compared with \$3,500 for an automated clearinghouse (ACH) credit transaction and only \$60 for a debit-card transaction. Low volume does not imply lower economic value for providers: the average fee on a large-value transaction is nearly eight times that of an ACH transaction.

Moreover, with a five-year historical CAGR in excess of 10 percent, these large-value transactions offer an attractive growth opportunity. This growth has been fueled by economic factors (especially in emerging economies), an ongoing shift from checks to electronic applications as means of payment for high-value transactions in many countries, and the need for enhanced speed and information that accompanies funds movement in these upgraded systems.

The development of real-time low-value payments and alternate payments solutions over the past few years has set the stage for retail payments disruption. In a new wave of activity, many countries, including Denmark, the United States, and the United Kingdom, have started upgrading (or have launched plans to upgrade) their large-value payments systems, given their systemic importance to financial systems worldwide. The need to modernize these systems cannot be ignored; fortunately, markets have begun to take notice.

Cross-border payments: Stable, with high-growth pockets

The estimated 2018 global cross-border payments revenue was \$230 billion, a 4 percent increase from 2017 and slightly below nominal GDP. Trade flows as

a percentage of global GDP have remained stable over this period. Growth has mostly been volume driven, as margins remain under pressure from stiff competition, the emergence of new solutions, and disintermediation from ecosystem players. WorldLink by Citigroup, which recently expanded coverage, allows clients to make payments via a single window without having to maintain local currency accounts. This and the cross-border payment solution by TransferWise, an online money-transfer system based on peer-to-peer matching, are examples of solutions that are competing with traditional correspondent banking.

Business-to-business (B2B) trade and nontrade payments, the largest share of cross-border payments by both volume and revenue, also grew by 4 percent. B2B cross-border revenues are expected to grow at a tepid 3 percent CAGR for the next five years.

Nearly half of 2018 growth stemmed from consumer-to-business (C2B) and business-to-consumer (B2C) cross-border payments, despite the fact that these payments represented only around 25 percent of the revenue, in absolute terms.¹ In 2018, estimated C2B and B2C cross-border revenues were \$37 million and \$18 million, respectively. The high growth rates make these segments very attractive for new entrants. For example, Hyperwallet is a payout platform targeting B2C cross-border payments that addresses the need for global mass payouts over a variety of payments rails, including wallets, cards, and bank transfers. The fastest-growing segment in cross-border payments revenue, however, is C2B, fueled by cross-border e-commerce, which we expect to grow at 7 percent CAGR from 2018 to 2023. This is in part because of cross-border e-commerce payments, which are the fastest-growing sub-segment in cross-border payments.

Outlook

Looking forward, expected average annual growth in payments revenues over the next five years is six percent, with total revenues increasing by \$715 billion and surpassing \$2.7 trillion by 2023. This growth rate is slightly above the expected global GDP growth rate of 5 percent, driven by a combination of factors.

¹ Cross-border revenues were revised upward by approximately \$15 billion compared with the 2018 Global Payments Map, incorporating various enhancements including margin updates for intra-European Union flows and revised C2B and B2C flows and revenue based on new insights.

The first is strong growth in account-liquidity revenue at 7 percent CAGR. Roughly 45 percent of revenue growth is expected to be derived from account-liquidity revenue—an increase from approximately 40 percent over the past five years. This is primarily driven by the increase in volumes in countries like China and India, which together hold about one-third of global account balances and where GDP growth is expected to be higher than the global average. Additional growth is also expected from some margin recovery in Europe. Notably, 95 percent of liquidity revenue growth stems from higher balances, a source more predictable than margin changes given the volatile interest rate environment.

The second factor supporting payments revenue growth is the increase in electronic payments transactions, especially in emerging countries. Electronic payments transactions have been growing at a staggering rate of 22 percent in emerging countries over the last five years. While this growth rate is unsustainable over the long term, it is projected to remain fairly high at a 14 percent CAGR for the next five years, well above GDP growth, based on our analysis of historical trends and projected macroeconomic growth in these countries. Growth will be fuelled by the continued shift from cash and increased adoption of digital payments solutions.

Exhibit 3

Within the \$230 billion cross-border payments market, there are four key sub-segments.

Cross border payments flows and revenues,¹ 2018

Segment	Flows \$ trillion	Revenue margin ² , %	Revenue \$ billion	Description
C2C	0.5	5.4%	26	Overall market largely flat; revenues grew at <0.5% and volumes at ~3% in last 5 years Rise in digital money transfer operators; emergence of closed-loop entrants, eg, Facebook
C2B³	1.5	2.5%	37	C2B e-commerce revenue growing fastest at a CAGR of 23% (2013-18) Volumes growing at a rate of CAGR of 9%
B2C³	1.2	1.5%	18	Traditionally bank dominated—with new entrants enjoying 50+% growth offering end-to-end experiences (eg, Payoneer, Hyperwallet)
B2B³	133	0.1%	149	Overall B2B growing 4% SMEs growing at 2-3 times the rate of large corporates – especially driven by emerging market SMEs
	136	0.2%	231	

¹ Only includes payments made on behalf of either corporate or retail clients.

² Inclusive of fees, FX spread and float.

³ 'B' includes business and government.

Source: McKinsey Global Payments Map

Credit cards alone will add an additional \$160 billion of revenue (23 percent of global growth) over the next five years, as the largest credit card market (the United States) will continue to deliver stable growth while emerging markets will contribute increased penetration and usage.

In our base case forecasts, we do not anticipate a significant change in average fees per transaction for domestic payments. Cross-border payments are expected to face some margin erosion, as a result of increasing competition from fintech firms. However, given already low margins in Europe (after the recent imposition of interchange fee limits) these new challengers are less likely to impact pricing. In APAC as well, A2A and credit card fees per transaction are already comparable to those

in developed countries and are not expected to undergo major shifts.

There will, of course, continue to be further differences by region and segment. By customer segment, retail payments are expected to fuel growth in the Americas, while commercial payments are expected to predominate in EMEA and APAC, extending the current revenue mix in the regions. Although nearly three-fourths of APAC's growth will come from China, growth rates in India and Indonesia (9 percent CAGR for each) are expected to outpace China's growth rate of 7 percent. Revenue growth in Latin America is expected to moderate to a more sustainable 7 percent over the next five years—approximately half of its historical growth rate.

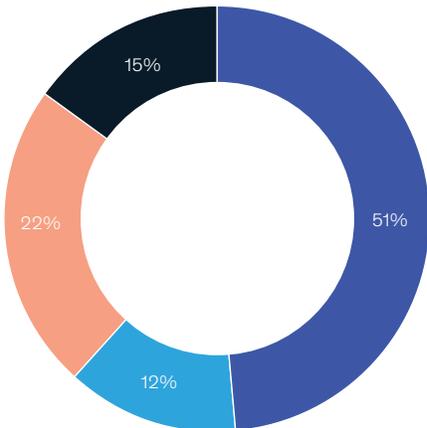
Exhibit 4

APAC and account-related liquidity revenues will continue to lead revenue growth.

Payments revenue growth decomposition,¹ % (100% = \$ billion)

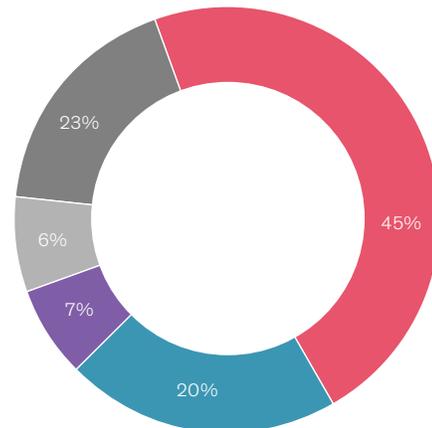
2018-2023F
100% = \$715 billion

- Asia-Pacific
- North America
- EMEA
- Latin America



2018-2023F
100% = \$715 billion

- Account-related liquidity⁴
- Credit card⁵
- Domestic transactions³
- Account fees
- Cross-border payments²



¹ At fixed 2018 USD exchange rates, for the entire time series.
² Fee revenue on domestic payments transactions, excluding credit cards.
³ Fee revenue on domestic payments transactions, excluding current accounts and overdrafts.
⁴ Net interest income on current accounts and overdrafts.
⁵ Includes charge cards.

Source: McKinsey Global Payments Map

Our forecasts assume global GDP growth averaging five percent annually from 2018 to 2023, based on projections from the Economist Intelligence Unit. Our outlook would likely change with a shift in the global macroeconomic climate. Based on

previous sensitivity analyses, we estimate that a change of one-half percentage point in GDP growth would likely drive a corresponding change of one to one-and-a-half percentage points in payments revenue growth.

McKinsey Global Payments Map revenues (historical and forecast) have been restated based on revisions to payments volumes and transactions by national authorities and transaction pricing in select countries, most notably China (around \$100 billion downward); a restatement of cross-border payments revenues further explained in that section (around \$15 billion upward); and an expansion of calculated versus estimated real-time gross settlements and real-time large-value payments across all regions (around \$3 billion upward).

Preparing for the next wave of payments consolidation

In a recent report (“As value creation reshapes payments, can banks catch up with specialists?” McKinsey.com) we identified three stages of M&A dating back to 2000. Following the first two stages—early and limited cross-border steps and a general move from banks to the specialists—the third stage, which began in 2012, brought an expanded role for private equity funds, particularly in customer-facing areas.

Reinhard Höll

Vikram Iyer

More recently, the rate of card payments growth has begun to show limitations, even in the fastest-growing regions. In turn, competitive pressures have increased as key growth sectors (for example, e-commerce, SME B2B, white-collar remittance) are globalizing and as open banking regulation opens up many payment services, particularly in Europe.

As a result, we now find ourselves in a fourth M&A stage defined by a blurring of competitive barriers across countries and payments rails (that is, where national cards and non-card players increasingly compete globally). The last 18 months have brought deals that are valued at levels approaching \$100 billion, are increasingly cross-border, and involve increasingly global players (for example, Fiserv-First Data; FIS-Worldpay).

This recent wave is characterized by a few themes (Exhibit 5). These include a desire to enter high-growth vectors (for example, cross-border payments with Earthport and Visa), expansion into complementary geographies (WorldFirst and Ant Financial), scale creation (Concardis and Nets), and combination of services across the various steps of the value chain (TSYS-Global Payments, which brings together issuer and merchant acquiring, as well as verticalizing SME solutions).

While it will take time for these new entities to execute integration plans and deliver on promised revenue and cost synergies, some indicators suggest that a more globalized consolidation is

slowing down under current market conditions. But even if announced deal sizes are smaller than in the past, the impact on the strategic position and business models of incumbents could be significant. In this chapter, we explore the factors driving recent actions, likely markers of progress for recent megadeals, and areas to watch.

Evolutionary pressures point to consolidation

Four main dynamics are shaping consolidation in the industry: growth in nontraditional areas, demand for integrated solutions, the significance of scale and efficiency, and the evolution of the trust equation.

1. Growth is accelerating in nontraditional pockets

An analysis of data from the McKinsey Global Payments Map illustrates the macro forces favoring consolidation. While secular transaction growth remains healthy, it is decelerating and is generally in the mid-single digits in the developed markets, where most of the leading players reside and derive the majority of their volume (Exhibit 6). Robust growth tends to be clustered in a handful of pockets—notably, emerging markets (including China), cross border, digital channels, and nontraditional card verticals.

However, selected C2B and B2B sectors are delivering high growth (Exhibit 7), with customers seeking increasingly sophisticated payment solutions and new providers emerging to address

these pain points. The segments with the highest expected compound annual growth rate (CAGR) are e-commerce for C2B, at more than 10 percent, and marketplace payouts to SMEs for B2B, at 5 to 10 percent. Growth in e-commerce, especially cross-border volumes, will remain attractive. Notably, these growth vectors tend to be outside the traditional players' established base, creating incentives both to acquire capabilities and to optimize operating leverage across the existing base.

2. Growing unmet needs for integrated solutions, especially for SMEs

The changing needs of customers also demand a shift in dynamics across the payments value chain. The secular proliferation of payment options and rails has compounded merchant pain points and complexity. In response, many merchants, particularly SMEs, are opting for competitively priced integrated solutions that streamline the process while meeting customer expectations. An omnichannel approach to

Exhibit 5

There have been \$100 billion in payments M&A since January 2018--many seeking scale and convergence across the value chain.

Target	Deal value (\$ billion)	Buyer	McKinsey analysis of deal rationale
Worldpay	35.0	FIS	Expand scale to provide an E2E platform for payments and cross-border omnichannel commerce
First Data	22.0	Fiserv	Drive scale in complementary capabilities across merchant services and integrated payments
TSYS	21.5	Global Payments	Accelerate verticalization of omnichannel payments capabilities with global reach
Gemalto	5.4	Thales	Create full suite of digital identity and security solutions with a more global footprint
Nets	3.2	Mastercard	Acquired account-to-account payment business for accelerating multi-rail capabilities
SIX Payment Services	2.7	Worldline	Realize scale in Western European merchant acquiring
iZettle	2.2	PayPal	Acquire strategic physical POS capabilities in complementary geographies
Worldfirst	0.7	Ant Financial	Enter the European payments market, acquiring local FX/ remittance capabilities
Earthport	0.3	Visa	Expand capabilities in high-growth cross-border account-to-account payment space
HyperWallet	0.4	PayPal	Strengthen PayPal's payout capabilities for marketplaces/e-commerce

¹ Permira acquired a 10 percent stake

Source: Press; company websites

payments is better attuned to today’s shopping behaviors, incorporating tools that create a more seamless checkout experience while also enabling merchants to better influence payment choices. Winners in this space are increasingly offering highly verticalized solutions to serve as a “one-stop shop” provider for SMEs, ideally across borders.

Current M&A activity is playing out in this environment, with the simultaneous goals of improving the customer proposition, facilitating access to multiple technologies and rails, and building scale. As SMEs experience rapidly growing inflows of electronic payments, this group, which was until now satisfied with relatively basic solutions, will become a flashpoint. Conversely, the ability of very large merchants to deliver the scale needed for profitable payment processing has enhanced the value of this segment, just as their demands in terms of technology/rail access and omnichannel access have increased. At the same time, the growing capabilities of leading e-commerce ecosystems like Alibaba and Amazon create ever-larger pools of payments volumes, exerting greater leverage

in price negotiations and potentially making it viable for some merchants to bypass traditional processors entirely.

3. The need for scale economies and cost efficiency has become more acute

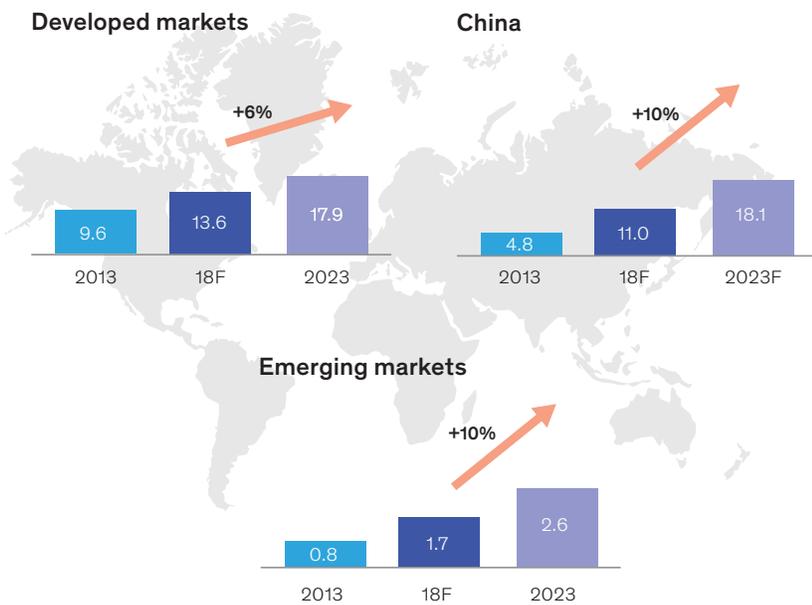
As previously noted, card usage and growth remain solid across all geographies, particularly in developing economies. Nonetheless, even the fastest-growing emerging markets have seen a recent tapering off from past increases that often topped 20 and 30 percent. At the same time, interchange regulation and competitive pressure from new account-based solutions have restricted the ability to leverage pricing as a means of revenue management. Focus therefore shifts to the cost side for margin preservation.

Since payments is a scale business by nature, several recent deals have aimed to build bigger foundations of volume across which to spread fixed costs. Moreover, Mastercard described itself as a “multirail provider” upon its acquisition of NETS. This is another aspect of the pursuit of scale, as well as a pillar of the “payments as a service” strategy we detail in chapter 3.

Exhibit 6

Card volume growth is expected to slow to low double-digits in emerging countries.

\$ trillion



55-60% of incremental value will come from digital channels over the next five years

Most emerging countries are expected to continue growing in low double digits—below historical rates—as markets mature

Debit card transactions are expected to grow faster than credit cards, while growth rate in spending stays similar

Source: McKinsey Global Payments Map

4. The trust equation is changing, and disruptors are capitalizing

While disruptors have been innovating on customer experience, product offerings, and so on for some time, incumbents have historically enjoyed a moat of consumer trust. Our recent US Digital Payments Survey indicates that this advantage is eroding: consumers have become more comfortable entrusting their financial transactions to nonbank-branded models, including brands that are not household names. Indeed, regulators have embraced this in certain jurisdictions through open banking, such as the PSD2 initiative in the European Union. The concurrent enhancement of APIs and software development kits (SDKs) has drastically

simplified the integration process, further lowering the barrier to entry and raising the bar for customer experience. This removes one of the primary barriers to customer acquisition for disruptors, leading to a potential boom in viable payments choices for users.

Beyond the hype around fintech disruptors, the increased focus of “big tech” players on creating payments ecosystems across their billions of global users (for example, Alibaba, Amazon, Apple) injects further pressure into the competitive landscape. Tech companies have made big moves in payments for a variety of reasons: accessing new revenue streams and protecting core products (Apple Pay), improving margins of existing revenue streams (Amazon credit cards), acquiring new customers

Exhibit 7

Cross-border payments will continue to grow, particularly C2B e-commerce, SME payouts, and gig economy flows.

Segment	Use case	Size of payments flows, 2018, \$ billion	CAGR 2018-23, %
C2B	Online e-commerce	450-550	>15
	Real estate investments by individuals ¹	100-150	~5 ¹
	Other online spend (e.g, tuition, online bills and taxes, online air travel)	300-400	~5
B2B	Accounts payable by SMEs	7,000-7,500	~5-10 ²
	Marketplace payouts to SMEs ²	5,000-8,000	~10
B2C	Wages and salaries	150-250	~5
	Periodic payouts (e.g, interest and social contributions)	500-700	~5
	Non-periodic payments (e.g, dividends, gig economy payouts)	200-300	~10
C2C	Individual remittance to individual (excluding pass-through bill payments)	500-600	~ 5

¹ US – which drives 25% of global numbers – faced a big decline of 36% in 2018 due to slow activity from Chinese all – cash purchases.

² Also includes payments through procurement platforms, invoice and EDI networks.

Source: McK GCI Cross-border Model

(WeChat), and deepening loyalty of existing customers (Alipay's Zhima). Additionally, they are hiring top talent from financial services; based on an informal analysis of public data, over 4,500 of Amazon's employees have been sourced from top US banks. These factors combine to create a true threat to incumbents.

Markers for success

A clear value proposition is a predictor of M&A value potential but does not guarantee value capture. Indeed, McKinsey's analysis of a global database of mergers and integrations reveals two major challenges: (1) a majority (51 percent) of failures to achieve targeted results can be attributed to cultural mismatches; and (2) M&A activities did not address the aforementioned customer, technology/rail, or scale aspect. Integration can be particularly challenging when combining businesses with different operating models, divergent cultures, and legacy tech stacks, though these conditions are often present in cross-border combinations, the roll-up of legacy businesses, and cases with a significant size mismatch between target and acquirer. Regulatory and political interventions are emerging as an additional complicating factor, as witnessed in Ant Financial's attempted acquisition of MoneyGram.

Successful M&A will result from investment in a tailored integration process with a focus on organizational design and working patterns. This process must run at pace and tackle these questions early. Importantly, the process will serve to bring the business and technology together and sharpen the focus on delivering the strategic aspects necessary to deliver growth and/or cost advantages. Successful mergers across industries need a clear investment thesis—client-first propositions, capabilities, or scale. We believe these factors will manifest themselves in payments integrations in the following ways:

- *Client-first propositions*, for example, cross-border payments, specialized and integrated SME solutions by vertical, omnichannel capabilities, and distinctive customer experience, such as ease of integration and simplicity of solution
- *Scale*, for example, consolidation of high fixed costs, acquisition of complementary geographic footprints to deploy products and capabilities in new markets, and development of “follow the sun” coverage for multinational businesses

- *Capabilities*, for example, payments technology/rail access, digitization and automation of legacy processes, access to real-time payments and settlement, and automation and advanced analytics as a muscle to deliver value in client-facing as well as mid- and back-office functions.

Looking forward

Whereas digital payments and merchant acquisition were the primary focus of the last M&A wave, we expect the current wave to be broader and further reaching. The highlighted underlying growth drivers, such as a rapidly expanding SME payments profit pool and the prospect for higher growth in scale-generating global volumes (electronic, value-added services), are broadly secular and—consolidation aside—self-sustaining.

The major deals of 2018 and 2019 have further blurred the lines of the payments value chain and gained global scale—a likely necessity for fully addressing client needs. The combination of TSYS (traditionally an issuer processor at its core) and Global Payments (with a greater focus on merchants) is a prime example of this trend. There are still many players who have much to gain from a broader customer proposition or additional scale, as well as many others who conversely still have assets and value-chain positions that may be more efficient elsewhere.

The pressure may indeed be felt most strongly among the incumbent processor/acquirers who did not participate in the most recent consolidation wave. Time will tell whether their stand-alone status proves to be a sustainable source of differentiation (for example, through a more agile customer orientation) or a hindrance in terms of scale and reach. In any event, these companies are likely to be viewed as prime targets in coming months, whether in the form of rumors or concrete bids.

The underlying growth drivers of payments—that is, the move away from cash and toward digital—will remain intact. Selected niches, particularly in cross-border, may, however, be affected by economic or political developments. In either case, the likely endgame following this next wave of consolidation will be a selected cluster of larger-scale payments players offering broader geographic coverage, greater processing efficiency, and a wider selection of services.

Whether there will be a fifth wave remains to be seen, but some would argue that traditional

B2B payments with high scale and high level of fragmentation might be next. Then again, it must be noted that the past decade has been a period

of persistent economic growth. A downturn, even one far less pronounced than the Great Recession, would adversely affect investment and M&A capital.

The emerging era of PaaS: “payments as a service”

Banking is continually undergoing transformations in response to new technology, regulation, and operating models. An important recent example is the rise of banking as a service (BaaS), a new approach to delivering banking services and products. Offering BaaS became an attractive strategy thanks to cloud-based technologies, API-driven architectures, open banking, and agile business processes. This transformation is accelerating innovation and competitive intensity in many facets of the industry.

Phil Bruno

Zac Townsend

Jonathan Zell

BaaS service providers offer their customers—which include banks, insurers, money managers, payments specialists, and the like—the ability to connect to a cloud-based platform on which they can manage the end-to-end value chain for a banking product or service. From this platform, they can more easily iterate an internally developed service or offer their customers a suite of products and services. Take, for example, a digital bank wishing to enter the point-of-sale (POS) lending business. To avoid the upfront investment and lead time required to develop a proprietary lending solution, the bank can integrate into a BaaS lending platform. The digital bank can quickly integrate its applications with the platform operated by the BaaS provider via an API, which frees the bank to focus more time, energy, and resources on its partnership, marketing, and distribution strategy. Thus, the BaaS solution speeds time to market and limits technology development costs.

The BaaS model gained traction in payments because of payments’ massive reach, high volumes, and transactional nature. Several payments as a service (PaaS) players are already active in the arena, with a wide array of business models. Some are developing payments solutions and delivering these services to their end customers, while others market their solutions on a white-label basis to financial institutions, which in turn design wraparound services catering to the needs of their consumer and business customers.

PaaS is not a mere matter of migrating legacy software, payments processes, or product offerings

to the cloud. PaaS providers offer their customers a cloud-native platform, into which customers can integrate via advanced and developer-friendly APIs. The PaaS platform typically includes a modular service offering, giving the customer optimal flexibility to choose which products and services they want to use at any given time. Leading PaaS players invest in developing secure and resilient platforms, directly addressing their customers’ growing concerns for cybersecurity and data safety and privacy (Exhibit 8).

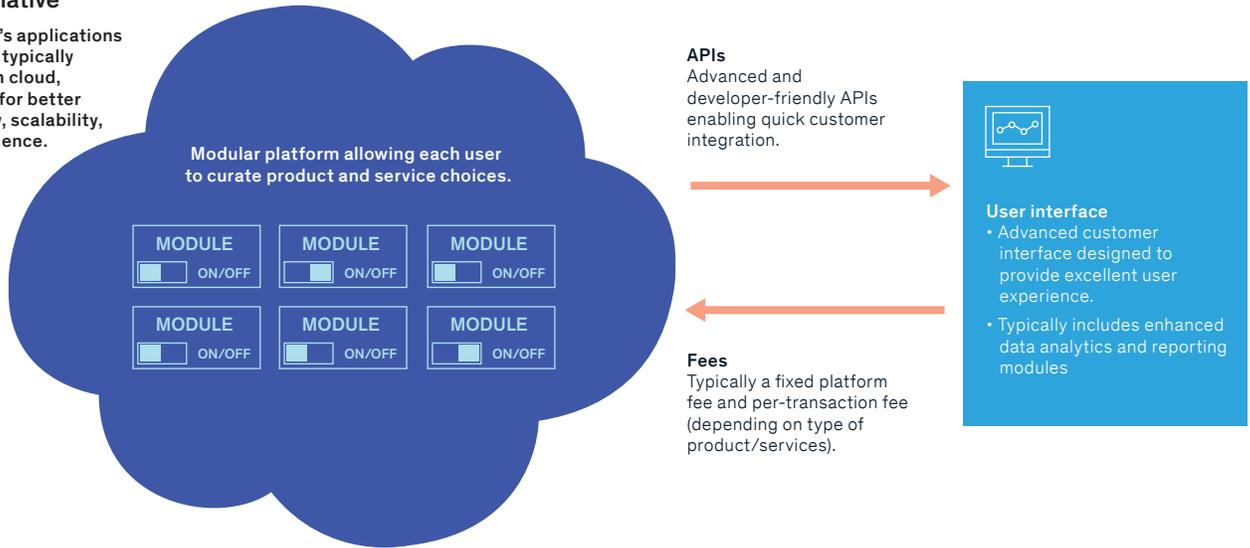
PaaS use cases are proliferating, with efforts to leverage the PaaS model led by both established payments players and fintech “attackers.” Besides consumer services, an increasing number of examples involve commercial payments businesses driven by PaaS technology. The examples are wide-ranging and point to the innovation and new business models that are changing the landscape:

- JPMorgan Chase has an effort well under way in Asia for its treasury services business. As described at its recent Analyst Day presentation, the bank has built a cloud-native solution with centers of excellence serving the region.
- ACI Worldwide, a provider of technology solutions to banks, intermediaries, merchants, and corporate customers, has migrated its retail payments platform to the cloud. A leading European bank is an early adopter of ACI’s cloud platform and has estimated savings at 90 percent of their legacy cost for this solution, while another major acquirer is implementing the

Payments as a service.

Cloud native

Platform's applications and data typically stored on cloud, allowing for better flexibility, scalability, and resilience.



Source: McKinsey Payments Practice

cloud platform for international expansion to accelerate time-to-market.

- ClearBank, a UK-based fintech attacker bank, has developed a cutting-edge payments-clearing platform, which customers can access through PaaS. Building its technology operations largely from scratch, ClearBank has crafted a niche—offering clearing services to other banks and financial institutions—by combining the benefit of an efficient de novo platform with the advantage of a banking license that enables them to hold customers' funds.
- In retail financial services, Marqeta offers a card-issuing platform that allows its financial institution customers to instantly issue virtual cards and integrate them into a digital-wallet proposition while the customer enjoys full issuing processing and value-added services (for example, transaction analytics) through Marqeta's service offering.

A new opportunity for value creation

In the past, 85 percent of payments revenues have been earned by players at the endpoints of the value chain—by virtue of either “owning” the customer

relationship or offering use of their balance sheet, that is, accepting the transaction or credit risk. For example, in US consumer credit cards, issuers and acquirers earn 91 percent of the \$171 billion in revenues across the value chain.¹ Thus, for both consumer and commercial payments, transaction banking economics are driven by the end customer, not the processors or wire/ACH networks that move the money. Processors and networks in the center of these value chains, while not earning the lion's share of revenues, benefit from scale economies, which have translated into significant recurring revenues and valuations: look no further than the global card networks' P/E ratios, which were in the range of 30 to 35 as of the third quarter of 2019.²

While these sources of value creation are expected to remain relevant, a new value creation point has emerged in the payments industry: the role of “platform integrators.” This new industry role, enhanced by the growth of PaaS, exists for all constituencies in the ecosystem, including financial institutions, merchants, billers, SMEs, B2B corporates, and even consumers. Platform integrators use payments as the cornerstone of a broader integrated offering built around value-added software-as-a-service businesses, often a

¹ McKinsey Global Payment Map; estimate for 2018 consumer card revenues, including merchant acquiring.

² Based on trailing earnings, per Bloomberg data.

curated offering of products/services (both owned and third-party) tailored to a specific segment's needs. Players using this model offer services that go well beyond payments and integrate deeper into their customers' operations. The most successful of these players focus on helping customers grow their business, improve the experience of their customers' end customers, and/or improve operating efficiency. For PaaS providers looking to optimize the value of their platforms, the key will be adding customer services to existing payments solutions offered on the platform, thereby creating a more holistic and attractive service offering.

A good example of a platform integrator is Adyen, the merchant e-commerce gateway provider. One of the core customer segments that Adyen targets is digital-commerce marketplaces. To increase their platform's value to this customer segment, they have developed automated marketplace onboarding capabilities and KYC services, which support marketplace customers by helping them meet three goals: increase revenues, provide a better merchant experience, and reduce onboarding costs.

Another example of a platform integrator is Square, although strictly speaking it is not a PaaS player. Square began as a payments processor built around a card acceptance form factor but has turned into a holistic service platform for many small businesses. By integrating payroll, point-of-sale, marketing, loyalty, invoicing, and lending, Square has leveraged its attachment point into a deeper, more profitable software-driven relationship. Today, roughly two-thirds of Square's revenues are derived from sources other than payments.

A type of platform integration business serving financial institutions is the payments hub. Core processors were early to see the potential of payments hubs, and many bought them with the intention of targeting the needs of financial institutions. As an example, Dovetail, now owned by Fiserv, offers several dozen different products and services from which financial institutions can select.

In time, these platform integrators, with their modern technology backbones, will be in position to compress their own payments margins as they generate more revenue from higher-margin adjacent services, thereby retooling the economics for the entire sector.

Another direction to take with integrated offerings is to become a platform by manufacturing best-in-class, efficient, and scalable products for nonfinancial companies. This approach may provide an opportunity for payments providers without unique distribution capabilities. So far, some small banks and payments providers have taken this route, and we expect that interest in this strategy will markedly increase in the coming years.

In the future, we might even see several payments services being offered as either a free value-add (in the case of nonfinancial companies) or a loss leader (in the case of payments-driven attachment integrators). Niche players with a compelling offer for a specific vertical—encompassing payments and likely beyond—also stand to disrupt the banking market. They will dominate a segment by offering a few world-class integrated products that are hyperfocused on the segment's needs.

Implications for buyers of PaaS

The emerging conclusion is that over time, profits generated by banking and payments services providers will become increasingly concentrated within companies that choose one of the following approaches:

- Develop platforms that manufacture best-in-class products distributed widely
- Create channels that integrate offerings for a captive customer base
- Leverage huge scale advantages based on incumbency, a strong balance sheet, and access to massive amounts of data

This last option is viable for only a handful of the largest banks and payments providers, but to compete effectively, even these incumbents must respond with radical technology overhauls. Banks are investing to keep their capabilities up to date, approaching a 15 percent increase in technology spending as a percent of total operating expenses since 2011.

With the PaaS model, banks and other financial institutions have an attractive option for offering customers cutting-edge products and services without committing undue resources to develop these offerings internally. Building in-house payments technology is associated with heavy

¹ McKinsey Global Payment Map; estimate for 2018 consumer card revenues, including merchant acquiring.

² Based on trailing earnings, per Bloomberg data.

upfront investment, long development lead times, and execution risk. Also, players building in-house solutions must constantly invest in maintenance and innovation of their payments platforms. In contrast, PaaS providers allow banks and other players to move to a more flexible and agile model: offering best-of-breed products through a cloud-based third-party platform (or platforms). And switching costs are much lower, so institutions that use PaaS can more readily switch if their PaaS provider begins to lag the latest market advancements.

To make the best use of the PaaS value proposition, financial services providers will need to adjust their operating models. We have found the following measures to be prerequisites for success:

- Become comfortable with outsourcing a fair share of development efforts to the provider of the external platform.
- Repurpose existing engineering resources and attract new engineering talent that can execute fast integrations made possible by PaaS providers.
- Develop strong governance measures and controls to ensure that PaaS providers are compliant, resilient, and safe.

We expect PaaS to continue, and possibly accelerate, the rapid pace of change and innovation in the payments landscape. For financial and non-financial institutions that consume payments services—both retail (via card issuing, for instance) and commercial (through items like treasury services and payments clearing)—the PaaS model offers a new way to gain cutting-edge payments capabilities without the upfront capital investment to develop these capabilities in house and without the ongoing maintenance and update costs. For payments services providers, the PaaS model offers a way to expand into higher margin value-added-services as a platform integrator, as “pure” payments services become commoditized and margins contract.

However, to fully realize the value of the PaaS model, both customers and providers need to rethink their operating models. They will need new agile ways of working to rapidly commercialize and go to market with new services in these platform integrator models. Customers will need to gradually divert development and infrastructure talent and resources into integration and vendor management activities. Service providers will need to consider how to expand product offerings beyond their traditional payments solutions, into services that extend deeper into their customers' value chains and core businesses.

Global transaction banking in the digital era

Global transaction banking (GTB) continues to be an attractive business, accounting for \$965 billion in 2018 revenue. Nonetheless, a combination of significant challenges—rapid technological innovation, rising customer expectations, continued margin pressure and intense competition from both new and traditional sources—promises to reshape the dynamics of this market over the next few years.

Alessio Botta

Nunzio Digiacomo

Franca Germann

Reema Jain

In the past, large multinational institutions have driven disruptions in corporate banking. Change is now originating from multiple angles, including fintech innovators, fast-growing B2B platforms, and savvy customers open to new models offering greater ease and efficiency. A rapidly evolving regulatory environment, which often varies by geographic region, further complicates the medium- to long-term outlook for GTB.

Incumbent banks are focusing their GTB investments on the core capabilities necessary to deliver a distinctive and economically sustainable value proposition. We see three key trends changing the GTB market landscape: the entry of nontraditional players with new models (including fintech ecosystems), technology innovation proceeding at an unprecedented rate, and a shift toward needs-based client segmentation. These trends are reshaping the way GTBs should look at their client base, and introducing new segmentation imperatives.

New entrants redefining the GTB space

Nontraditional players have been investing heavily as well as banks, with a mix of financial services and non-financial services firms making forays into GTB.

The global shipping company Maersk announced a partnership with IBM in 2016 to deliver a blockchain-based supply chain solution called TradeLens. The platform now manages and tracks the heretofore paper trail associated with shipping containers and provides real-time reporting of events.

Another example is Goldman Sachs. Primarily an investment bank by pedigree, in its investor presentation in 2018 the bank announced plans

to expand its product offering to include cash management leveraging its corporate relationships.

New competition could intensify from large digital players such as Alibaba or Amazon, who have established B2B platforms with millions of buyers and sellers and could easily provide financing services for this vast client base. Amazon, for instance, could in theory provide full-scale financing options to corporates, including trade finance capabilities. Many other “Big Tech” companies are making similar moves towards developing ecosystems.

Fintech firms are poised to play either of two roles in this new landscape—enablers of banks' service offerings or direct competitors for client business. The jury is out on banks' likely reaction to these challenges as well. Armed with innovative business models and nimble organizations, fintechs continue to change market dynamics at a rapid pace.

Tradecraft is an example of a fintech ecosystem offering a full B2B procure-to-pay solution in which customers are engaged early on in the commercial process, can use a suite of supply-chain management apps, and can select from among financing instruments such as virtual credit cards, dynamic discounting, or supply-chain financing. ClearBank provides agency banking services to other banks in the payments clearing space, therefore acting as a bank partner. Banks can also choose to embrace the innovations brought about by fintechs and respond in their own constructive manner, for instance by syndicating lending in fintech ecosystems or adding dynamic discounting capabilities to their corporate banking platforms.

Technology is driving disruption on several fronts

Technological developments have accelerated across several dimensions at once to redefine GTB client experiences. Heightened expectations for digital channels, open APIs, advanced analytics, and the application of the blockchain's fundamental strengths—all have altered the landscape, creating opportunities for new players to establish themselves through new value propositions. Banks are at risk of being relegated to the role of balance sheet providers if they fail to embrace this multifaceted challenge to deliver new customer experiences.

Digital channels provide a step change to customer experience that allows for the evolution of truly holistic digital CFO/treasurer workbenches, catering to the needs of different users in one solution and finally delivering on the promise to move away from standalone corporate portals that are loosely integrated at best.

Early-mover banks have gone as far as providing seamless omnichannel experiences for busy CFOs and treasurers and developing customer journeys tailored to specific situations, moving away from the traditional product-centric view. Such interfaces allow for personalization based on client needs. The

creation of different personas (sample profiles of users of GTB digital channels), typically based on the role in the organization and on the complexity of the organization itself, allows firms to call out and differentiate the specific needs of each user group from others. For instance, a top manager like the CFO requires a holistic overview of account balances and credit lines of their company to support decision making, while such features would not be relevant for a general employee focused on the entry and completion of individual transactions. Next generation channels must incorporate these journeys and offer tailored solutions.

Several banks have initiated programs to improve service levels by simplifying the client experience and creating the ability for a corporate treasurer to navigate seamlessly across multiple channels—including a secure website, a mobile app, a customized direct connection to bank systems, or a corporate banking branch—to interact with their GTB. Such models shift volumes from physical to digital channels apart from addition of new flows. Based on our reference cases, we expect the digital flows to increase as much as five-fold.

Open APIs are software interfaces that enable access to banks' products and services externally in an easy, safe and standardized manner. Although

Exhibit 9

Technology is bringing rapid and significant innovation to global transaction banking.

 Digital channels	 Open APIs	 Advanced analytics and artificial intelligence	 Blockchain
<p>From corporate portal—to CFO workbench</p> <ul style="list-style-type: none"> • Smart omnichannel • Cross-product journeys • Extreme personalization • Modern customer experience • Digital marketing 	<p>From multi-bank payments—to multi-bank banking</p> <ul style="list-style-type: none"> • Open banking and PSD2 • Bespoke APIs • Seamless ERP integration • APIs catalogue 	<p>From reporting—to predicting</p> <ul style="list-style-type: none"> • Liquidity forecasting • FX exposure management • Predictive operational risk management • Natural language processing for middle offices 	<p>From point-to-point—to distributed ledgers</p> <ul style="list-style-type: none"> • Trade finance consortia • Smart contracts • Real-time messaging • Risk sharing

much of the early attention has been devoted to retail applications, the potential benefits of open APIs are at least as powerful in GTB settings and could facilitate the entry of third party attackers. For instance, by allowing payment initiation through an app developed by a trusted third party rather than exclusively through the bank's proprietary website, the corporate payments space once dominated by banks can be altered by the entry of third parties who can develop value proposition for treasurers based on aggregation of different services.

Open APIs will also accelerate the shift underway from host-to-host models (for instance, file transfer) to support of API catalogs—regulatory as well as bespoke GTB services offered through modern IT platforms. These technologies, which are also pursued by ERP systems such as SAP and Oracle to provide seamless integration, create the potential to shift the market from multi-bank *payments* (for example, API initiation of bulk payments and reporting, often under regulatory umbrellas such as PSD2) to multi-bank *banking* (for example, APIs for documentary business and financing), hence requiring a significant shift for banks in terms of GTB product strategy, development, and management.

Advanced analytics and artificial intelligence applications can further enhance the delivery of value-added services. This technology can be used to enhance front-office solutions with features including liquidity forecasting and FX exposure management, as well as middle-office operations. For instance Kyriba, an analytics firm focused on liquidity forecasting, recently strengthened its FX risk capabilities by acquiring FiREapps to further enhance its product offering. In operations, artificial intelligence can be used in credit scoring, fraud prevention and natural language processing, which in turn can enable intelligent automation of document processing. For instance, HSBC announced an initiative to develop a cognitive solution combining optical character recognition with artificial intelligence for its trade finance middle offices. Citi is developing an AI-based risk analytics scoring engine to review trade transactions, and Standard Chartered has announced an augmented intelligence engine for trade document processing—automating the manual review process hindering paper-based, unstructured documents. A key benefit of this technology is the enhanced customer experience

enabled through making fewer informational requests of clients for data that can be auto-populated from other sources.

Blockchain initiatives are particularly well suited to the field of trade finance and continue to draw significant attention and investment beyond the established use cases in cross-border payments and correspondent banking, such as those developed by Ripple. Distributed ledger technology enables the secure and trusted sharing of validated data among all participants in a given transaction in real time—a powerful value proposition to increase the efficiency and safety of most trade finance products. In the past three years, several industry initiatives (such as we.trade, Marco Polo, Voltron) have been initiated to explore blockchain's use in trade finance. Those consortia have either recently gone live or are expected to do so in the near future. Beyond the initial trade finance examples, additional consortia in the areas of commodities and logistics have also emerged.

The relevance of this trend is also highlighted by the fact that as of early 2018, nearly 60 percent of the top 50 wholesale banks were engaged in at least one blockchain-enabled industry initiative in trade finance. As of mid 2019, it has increased to nearly 90 percent, leaving fewer than ten banks not pursuing at least one initiative.

The client segmentation imperative

As a result of these four trends, we anticipate that in the near future GTBs will need to objectively assess their ability to serve four very different client segments with varying client needs and preferred channels (Exhibit 10).

On one dimension, corporate clients can be categorized in two groups. Those with simple GTB needs have a limited number of system users, a straightforward approval hierarchy, primarily domestic focused, and are typically structured as a single legal entity. More complex ones often operate as a mirror image of these traits, with a broader suite of products and cross-border channels. Within each set will be firms preferring to conduct business through their own systems or the bank channel.

For each segment, the level of product, service and technology required varies markedly. Service providers should develop capabilities accordingly, and in some cases decide to focus strategic investment and marketing efforts on a subset

of these segments. Complex clients wishing to employ internal channels will require direct ERP integration with large legacy systems, for instance, while simple needs clients can be accommodated through third parties and standardized open banking APIs.

The next phase of the journey

We expect to see the following GTB trends take hold over the next 12 to 18 months, further raising the competitive bar:

Acceleration of digital GTB investment: The majority of large bank digital transformation budgets will shift from the retail to the corporate side of the house, igniting a new wave of channel/process digitization. We expect an increasing number of GTB powerhouses to invest up to \$500 million in the next three to five years.

Launch of straight-through-process trade finance: We expect to see the first trailblazer firm announce an AI-enabled, 100 percent straight-through-process for letter-of-credit transactions. While AI techniques can be applied to traditional trade finance workflows and IT systems, commercially viable blockchain-based trade finance

stands to dramatically accelerate this trend.

Rise of B2B ecosystems: In mature markets, B2B digital platforms (such as procure-to-pay and dynamic discounting) are poised to gain significant traction. Incumbent GTBs will need to decide how to tackle this challenge, participating in such ecosystems as service and financing providers, or developing their own platforms.

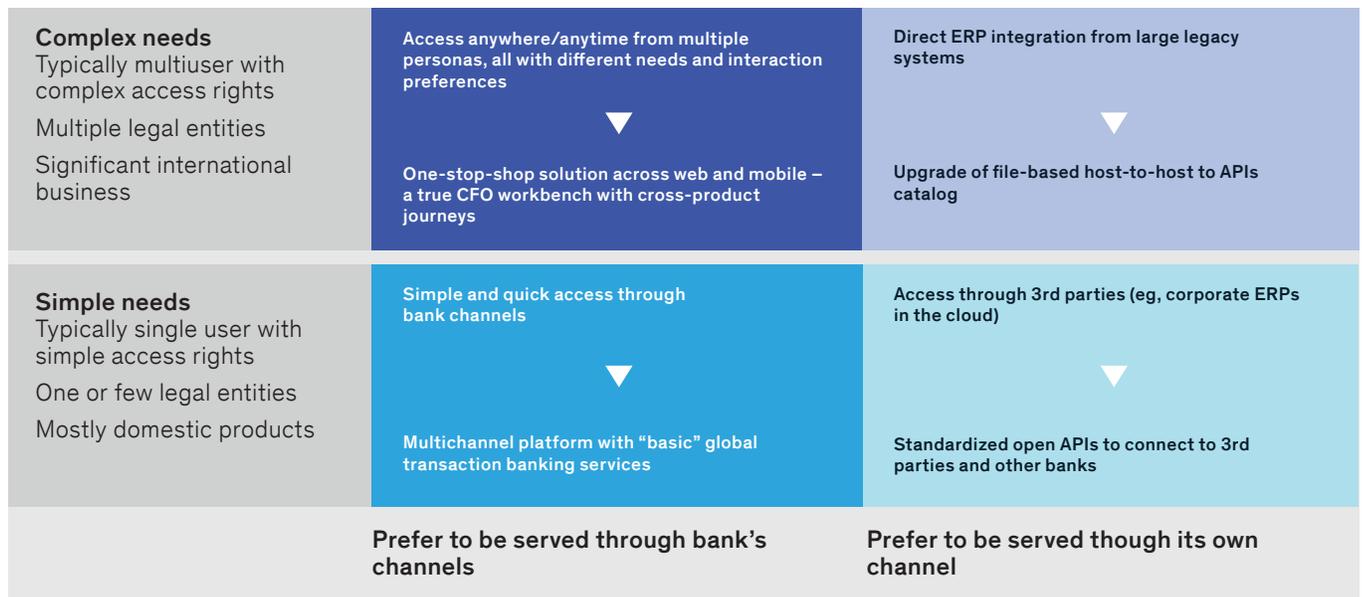
Creation of GTB centers of excellence: Banks will accelerate their consolidation of front-to-back GTB capabilities (for example, digital customer care, middle office) into dedicated units focused on best-of-breed delivery.

Continued convergence of payments channels: The ongoing convergence of payments schemes—across card and account-to-account rails, for instance—will lead to new solutions (such as hybrid e-commerce gateways) and business models.

A wave of M&A transactions in GTB: After a huge wave of deal activity in retail payments and processing, we expect the M&A focus—including investments from private equity firms—will progressively shift to GTB. (See chapter 2 for more on M&A in payments.)

Exhibit 10

GTBs will need to cover four very different client segments, with deep implications for business model and technology.



Source: McKinsey Payments Practice

Navigating the changes ahead

GTB remains a critical contributor to the banking product mix. Its reliability as a solid financial performer has been proven over time, and cash management remains the most effective strategic anchor for establishing core corporate banking relationships, and—through cross-selling—extending reach into broader international banking services.

The segment's allure, however, has attracted new players, with both established banks and fintechs gearing up to offer new digital forms of transaction banking services. At the same time data and analytics are unlocking opportunities to

work smarter, faster and more efficiently, creating opportunities to streamline and tailor the client experience.

Over the past decade, GTB leadership teams have focused on re-establishing a firm business foundation, becoming more efficient, building structures to adapt to regulation and remaining in the game. Over the next five to ten years, as the impact and memories of the financial crisis continue to fade, the next challenge of bringing GTB into the era of digital and analytics will be equally existential.

For additional insights on global transaction banking, see "Global transaction banking: The \$1 trillion question," McKinsey.com

Unlocking the value of retail payments

Consumer-initiated retail payments remain the foundation of deep customer relationships between banks and their clients, with the average customer initiating several payments daily. Even as open banking—which facilitates the switching of providers—joins other sources of disruption in disintermediating banks from their customers, this foundational link remains exceptionally valuable.

Megha Kansal

Blazej Karwowski

Jonathan Zell

However, the retail segment is increasingly being disrupted by neobanks such as Chime, Digit, Varo, and Aspiration in the United States; Monzo and Revolut in the United Kingdom; and Alipay, WeChat, and NU Bank in Brazil. Many of these fintech attackers have recognized the value of payments as a gateway to customer acquisition. Investment in nonbank European fintechs has approached 4 billion euros in each of the past two years, enabling at least five of these disruptors to surpass two million users and demonstrate their ability to deliver at scale (Exhibit 11).

Since the financial crisis, retail payments have been a source of stable returns for financial institutions seeking to increase their share of balance-sheet light revenue. In Europe, payments revenues grew 5 percent per year from 2010 to 2018, compared with virtually flat revenues for the overall banking sector. This difference is reflected in total shareholder returns, which since 2007 increased fivefold for payments companies, while only increasing 1.5 times for asset management firms, and have declined for retail and corporate banking. Nonetheless, most banks have not paid sufficient attention to the cultivation of payments franchises, as if assuming disruption of that large profit pool is a foregone conclusion. Only seven of the top 12 European banks explicitly referenced payments in their 2019 first-quarter investor presentations, for instance (including mentions of both retail and corporate payments).

A rewritten rulebook

At the same time, macroeconomic and regulatory shifts have altered the drivers for payments revenue

and, by extension, sources of growth (Exhibit 12). Interchange fees, long a primary source of issuer revenues, have been capped in an increasing number of countries, making it challenging to fund the ever-richer rewards programs issuers have relied on to increase card usage. The growing use of digital wallets, both at physical checkout and on e-commerce websites, has made it harder for banks and other card issuers to attain and preserve “top of wallet” status for their cards—that is, ensure the customer selects their card over competitors’ when making a purchase.

The other primary source of card revenue—interest rates on outstanding balances—depends on a growing base of revolving consumer balances. Low (often zero) introductory rates for the transfer of existing balances have been a common strategy on this front. Consumers, meanwhile, have begun seeking cheaper and more transparent credit options, with new alternatives like point-of-sale installment lending enabling them to more readily link purchases and loans while retaining a sense of control over their unsecured borrowing.

Regulations and relatively straightforward digital tracking tools have cut into late-payment and other penalty fee revenue. The situation is similar for cross-border transactions and foreign-exchange revenues, as European regulators are starting to focus on high transaction costs and lack of customer visibility on the breakdown of cross-border fees.

Outside the card arena, categories like account-to-account transfers and cross-border payments are being simultaneously transformed as new players are attracted by the increasing e-commerce-fueled

volumes. The resulting declining margins as customers are offered transparent fees and more competitive rates will likely be offset by higher volumes in aggregate, but at best, a promising source of revenue growth will be curtailed, and at worst, legacy players will experience share loss and outright revenue declines.

Four levers to boost segment value

Innovating banks have four primary levers at their disposal to position themselves for success in retail payments and to protect this important value pool from new entrants. Given that the most common barriers to entry have been significantly lowered, these same tools are available for the most part to industry disruptors but are particularly critical to traditional banks and card issuers that are looking to retain a holistic retail banking relationship with their customers and protect an important source of revenue.

Increase usage and spending in growth areas, preserving top-of-wallet status

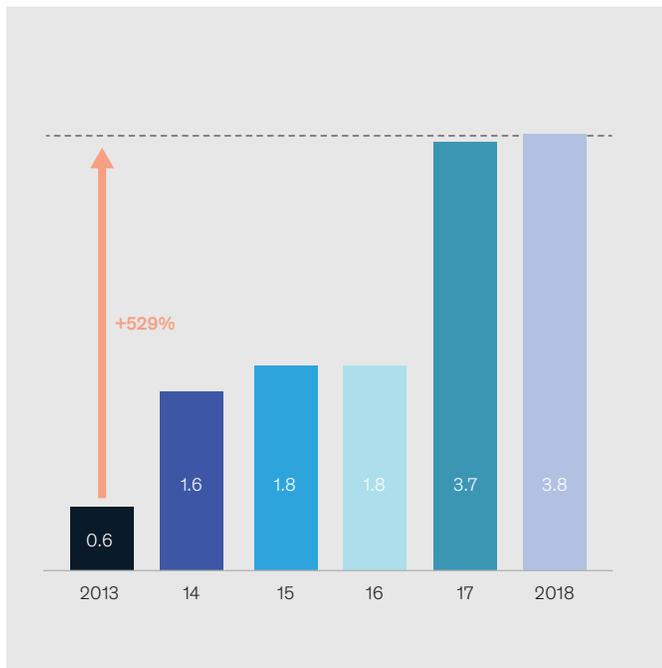
Although top-of-wallet status remains a fundamental objective for card issuers, the means of achieving this goal and maintaining primacy have shifted notably. Given the rapid and continuing rise of e-commerce volumes, issuers must prioritize this segment by addressing common customer concerns and pain points. For example, some card players have automated the refund and price-monitoring processes, both of which are frequently cited as barriers contributing to cart abandonment.

Partnerships with fast-growing e-commerce merchants are another effective tactic. Depending on an issuer's existing or desired footprint, the target list may vary. Consider cobranded offers and unique value-add features to establish a compelling reason for your card

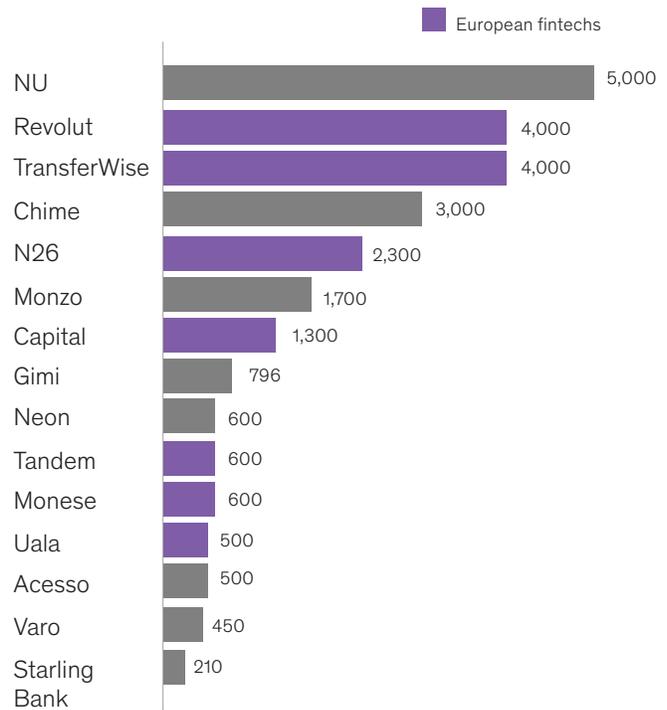
Exhibit 11

Investment in nonbank European fintechs has approached €4 billion in each of the past two years.

European fintech investment, € billion



Fintech customer scale (thousand users)



Source: Pitchbook; press; company announcements

to be used in ride-sharing or food-delivery activities, for instance. Consider partnering with e-commerce merchants to offer priority in customer pickup or delivery times. Wells Fargo's Control Tower, a recurring-payment management panel, enables customers to turn subscriptions on or off while also displaying offers to incentivize spending or payments behavior. These types of features represent a step forward in control and offer a compelling reason for consumers to maintain the bank portal as the central dashboard for their financial lives.

Issuers should continually look for opportunities to expand the use of cards for payments not traditionally settled in this fashion (for example, utility bills, rent, taxes, and other government fees). As one example of this model, US fintech Plastiq expands the field of card-eligible purchases, appealing to rewards maximizers while generating new volume for card issuers.

As e-commerce volumes continue to increase sharply worldwide—digital commerce in Europe is expected to rise from 19 to 26 percent of total C2B transaction volumes by 2022—the criticality

Exhibit 12

The traditional sources of growth for retail payments are rapidly changing.

Major revenue sources	From...	To...
Interchange fees 	<ul style="list-style-type: none"> • Interchange fees creating issuer revenues • Reward programs as key incentive for card usage 	<ul style="list-style-type: none"> • Interchange fee caps creating: <ul style="list-style-type: none"> - Challenges in funding reward programs - Need to increase transaction volumes by becoming a “top of wallet” card (especially in digital channels)
Credit 	<ul style="list-style-type: none"> • Credit revenues fueled mainly by revolving credit card balances • 0% introductory APR as common customer incentive 	<ul style="list-style-type: none"> • Customers looking for cheaper and sustainable credit options – eg, POS lending
Cross-border/ FX payments 	<ul style="list-style-type: none"> • High margins on cross-border payments 	<ul style="list-style-type: none"> • Cross-border volumes increasing, driven by e-commerce • However, margins are declining as customers are offered competitive rates and transparent fees
Additional fees (late fees, penalties) 	<ul style="list-style-type: none"> • Late payments penalty fees deliver meaningful revenues for issuers 	<ul style="list-style-type: none"> • Decline in penalties/late fee revenues due to: <ul style="list-style-type: none"> - Increased regulatory scrutiny - Increased customer awareness of simple tracking tools

Source: McKinsey Payments Practice

of establishing a strong presence in this channel further intensifies. Capital One's Paribus seeks to maximize value for both e-commerce shoppers and merchants by tracking price changes and initiating refunds for things like price drops and late deliveries, which in turn reduces cart abandonment and increases spending volume.

McKinsey's Digital Consumer Survey revealed a surprising new development. Although consumers still tend to "set it and forget it" when shopping on a laptop or browser, design advancements in mobile wallets like Apple Pay make consumers more likely to switch cards regularly in that setting—approaching levels found in physical wallets. Therefore top-of-wallet primacy, which is particularly important for market leaders such as Amazon, PayPal, Walmart, and Apple Pay, may require more effort than anticipated to defend.

The number and value of cross-border transactions also is growing rapidly, facilitated by both the growth of e-commerce and the resulting evolution of more user-friendly solutions to support it. Simultaneously, consumer-to-consumer payments have undergone a pronounced shift toward digital channels, creating growth opportunities for digital money-transfer operators (MTOs) such as TransferWise and WorldRemit. Banks have been losing ground in cross-border payments (at least for the more popular cross-border corridors) and should examine the strategies of these firms, which center on a transparent, safe, and seamless cross-border transaction process, supported by an advanced user interface.

Banks should address the pain points that have driven customers to digital MTO attackers while building on their inherent advantages: a strong reputation for safety and reliability, correspondent networks enabling them to execute cross-border transactions in corridors not supported by attacker MTOs, scale economies, and for large global banks, the ability to conduct "on us" cross-border transactions.

Integrate with evolving consumer payment-to-lending journeys

Tools are now readily available to reinvent the legacy revolving-balance model, with alternatives that directly appeal to consumer desires and pain points. For example, a top five US issuer generated \$2 billion in new balances within its first year through this approach, promoting a card-to-installment

program, appealing to customers who seek a line of sight to their next payments and desire a closer connection between their credit obligations and specific purchases.

The emergence of real-time underwriting and decision-making engines allows issuers to develop new point-of-sale financing propositions such as buy now/pay later and installment plans, which are appealing to merchants (who see greater opportunity for spending uplift and decrease in transaction abandonment at checkout), as well as consumers, who are increasingly aware of similar offers from nonbank providers. Because our research shows 75 percent of consumers who seek financing decide to do so early in the purchasing journey, lenders are increasingly opting to integrate at the point of sale, as well as upstream in the online shopping journey, as Affirm has done. While multiple fintechs have made inroads in this space, the ability to consolidate financial activity with a trusted provider remains a powerful incumbent advantage.

Banks also possess the consumer data necessary to design flexible personal credit lines allocated across credit card, point of sale, and multipurpose installment loans. This approach empowers consumers to tailor their borrowing to match needs and cash flow, for example, opting for fixed installments versus revolving credit, covering large purchases without a separate application. Again, this holistic approach to relationship management provides additional customer value, deepens the relationship, and leverages a strategic angle that an early-stage disruptor would find difficult to match.

Citi's new Flex feature allows its card customers to convert available credit lines into a fixed APR loan, with no formal application and no prepayment penalties, potentially extending relationships into additional products. American Express Plan-It and My Chase offer similar capabilities, applicable to either unused credit lines or existing card balances.

Prepare for account-to-account transfers to alter the landscape

Beyond the need to increase spending in cards in digital channels, retail banks and card issuers need to recognize that alternative account-to-account (A2A) payments methods are quickly rising in popularity and convenience, particularly in Europe and Asia, and will eventually threaten cards' position as the main source of noncash retail payments.

While this model has existed for some time (for example, through direct debit and credit transfer services, including now well-established brands like PayPal), recent changes have made the process faster and more convenient. As an example, the introduction of instant-payments infrastructure (such as Faster Payments in the United Kingdom) allows merchants to track the movement of funds in near real time, increasing their level of comfort in accepting A2A payments. Open banking regulatory frameworks encourage A2A transfers and allow third parties—payments initiation service providers—to initiate these payments on behalf of a customer, enhancing the seamless customer experience.

From a merchant's point of view, there is perceived economic benefit to diverting payments volume to A2A "rails," due to potentially lower costs for payments acceptance. Merchants must be convinced of the scale of a new payments method before adopting it, however, because supporting multiple channels can simply add costs.

Certain A2A payments methods around the world have successfully gained major footholds in their local payments landscape, often squeezing card's market share in the process. Examples include Swish in Sweden, iDeal in the Netherlands, and Alipay and WeChat in Asia.

Singapore has seen significant uptake in account-based ticketing, an account-to-account approach to transit fares that displaces traditional stored-value cards, as well as eliminating the need for top-ups. Mastercard's recent acquisition of NETS' A2A payments business was aimed at enabling the former to expand its infrastructure capabilities in noncard rails, including A2A (see Chapter 2 for more on this combination).

Banks have certain structural advantages in operating A2A solutions, as they own the current account infrastructure and have established links to payments-clearing schemes. As a result, they are well positioned to lead the trend from a marketing standpoint as well, even as they must manage the P&L implications of volume migration from cards to these new alternative payments methods.

As more consumers and merchants gravitate toward this channel, banks must decide how to participate in this market. If they don't lead the establishment of A2A market solutions, they run the risk of being intermediated by third-party solutions offering a front-end user application leveraging bank

infrastructure—not necessarily with the banks' blessing. If they do lead the charge, they run the risk of cannibalizing their card revenues (predominantly interchange fee and revolving-credit revenues), but this can be managed by offering additional value-added services on the back of A2A platforms, such as point-of-sale lending. Either way, these new models represent important conduits for payments value creation, ones on which banks need to move to capitalize.

Apply advanced analytics across the value chain

Issuers have been experimenting with advanced analytics techniques across the value chain. Two use cases have gained prominence recently: approaches to mitigate attrition, given rising costs of acquisition, and collections optimization in anticipation of an eventual reversal in charge-off rates. Even more importantly, payments generate roughly 90 percent of banks' useful customer data, creating value well beyond its direct value contribution. It is essential to leverage this data for personalization, not only for payments products but also in support of other bank businesses.

Of course, one of the best ways to ensure growth is to limit the amount of attrition that must be backfilled. Issuers can improve proactive retention by using machine learning to identify customers at risk and create tailored reengagement campaigns. Using machine learning to predict attriters and building a program to limit attrition can deliver \$10 million to \$12 million in incremental revenues for every \$1 billion in outstanding balances.

Despite the technology underpinning such analysis, this should not be an exclusively automated process. A successful campaign will include a digital component but also a human-staffed "save desk." Advanced analytics can further contribute to churn reduction through client microsegmentation, revealing characteristics that enable marketing programs to prevent accounts from falling into at-risk status in the first place.

While risk costs remains at all-time lows in many markets, many issuers are preparing for the inevitable turn of the cycle and higher credit losses. Issuers have several opportunities on this front. Omnichannel contact models, in which delinquent customers are contacted in the channel they prefer, has been shown to increase payments by as much as 12 percent, while collections groups have identified analytics and related technology as their top priority.

A “value at risk” approach to collection prioritization, combined with tailored contact strategies including machine learning to enable agent matching, has been shown to deliver a further 15 percent improvement. It only stands to reason that the more complex, higher-value situations should be routed to higher-performing collectors. Machine learning allows this to be done more accurately and swiftly—and is likely to yield further insights informing additional training and fine-tuning of credit policy.

As the traditional sources of value in retail payments continue to be threatened by growing fintech

disruption, migration of volume to e-commerce, and introduction of new regulatory frameworks, banks and card issuers must take action to protect this large yet historically less attended source of revenue. Industry innovators have already moved to address these changing dynamics. They are racing to win the war for the customer’s top-of-wallet position, offering new sources of credit perceived by customers as more transparent and flexible, exploring alternative payments methods such as A2A transfers, and leveraging advanced analytics across the payments value chain. Others cannot afford to stay on the sideline.

Authors and acknowledgements

Sukriti Bansal

Knowledge Expert, Gurgaon
sukriti_bansal@mckinsey.com

Alessio Botta

Partner, Milan
alessio_botta@mckinsey.com

Phil Bruno

Partner, New York
phil_bruno@mckinsey.com

Olivier Denecker

Partner, Brussels
olivier_denecker@mckinsey.com

Nunzio Digiacomo

Partner, Milan
nunzio_digiacomo@mckinsey.com

Franca Germann

Associate Partner, Frankfurt
franca_germann@mckinsey.com

Reinhard Höll

Associate Partner, Dusseldorf
reinhard_hoell@mckinsey.com

Vikram Iyer

Associate Partner, San Francisco
vikram_iyer@mckinsey.com

Reema Jain

Knowledge Expert, Gurgaon
reema_jain@mckinsey.com

Megha Kansal

Partner, London
megha_kansal@mckinsey.com

Blazej Karwowski

Expert, London
blazej_karwowski@mckinsey.com

Marc Niederkorn

Partner, Luxembourg
marc_niederkorn@mckinsey.com

Zac Townsend

Associate Partner, San Francisco
zac_townsend@mckinsey.com

Jonathan Zell

Associate Partner, London
jonathan_zell@mckinsey.com

The authors would like to acknowledge the contributions of Divya Garg, Yash Jain, Baanee Luthra, Kunal Mahajan, Marie-Claude Nadeau, Elia Sasia, and Kai Schindelhauer to this report

September 2019
Copyright © McKinsey & Company

[www.mckinsey.com/industries/
financial-services/our-insights](http://www.mckinsey.com/industries/financial-services/our-insights)

 @McKBanking

