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Financial Services Practice

Global Payments 2016: Strong Fundamentals Despite Uncertain Times

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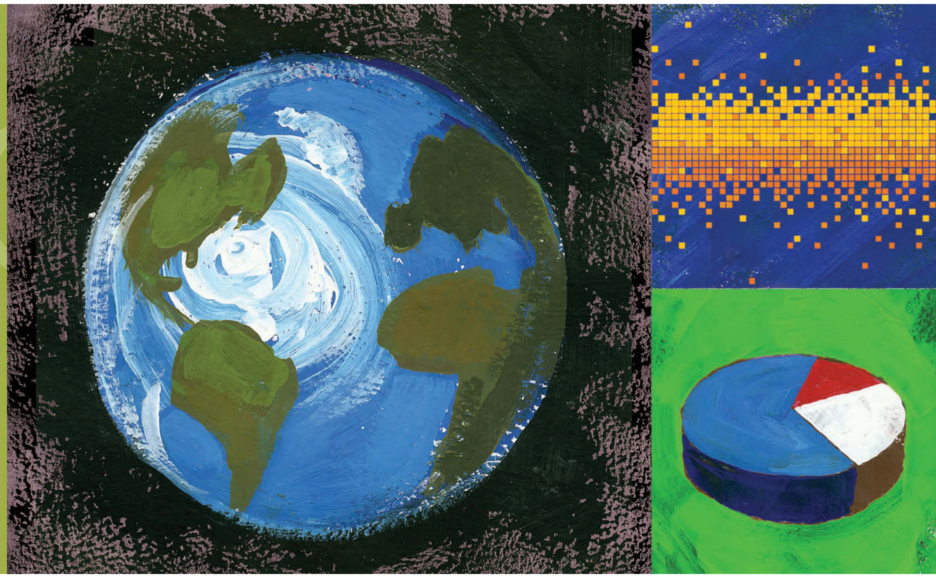


Introduction

By 2020, the global payments industry will generate an estimated $2.2 trillion in revenue, over $400 billion more than the figure for 2015 ($1.8 trillion) due to an average growth rate of 5 percent. Strong payments fundamentals underpin this forecast—primarily volume and transaction growth as well as outstanding balance growth. However, the macroeconomic factors that dampened growth in 2015 will likely continue to be a restraint over the next five years, especially low interest rates.

While McKinsey Global Payments Map projections for five-year global payments revenue growth have been pulled back from 6 percent to 5 percent, the foundations of this growth will be more balanced from a geographical perspective and more sustainable, in that they are based on fundamentals, and less reliant on macro factors, especially interest rates. In many ways, the payments industry is better positioned now for long-term growth and stability.

Global payments performance in 2015 can be seen as a turning point for the industry. Macroeconomic factors such as declining interest rates conspired to hold payments revenue growth to 3 percent, compared to the exceptional 9 percent growth recorded in 2014. Underlying payments fundamentals (transaction growth, adoption of electronic channels), however, remained strong and have established firm footing globally. This combination of strong fundamentals amid an uncertain macro environment will continue to play out in the coming years.

Important regional differences underpin 2015's results, as EMEA (Europe, the Middle East, and Africa) payments revenues were essentially flat compared to 2014, APAC (Asia Pacific) revenue declined for the first time since McKinsey began tracking regional segments, while North America and especially Latin America enjoyed higher growth than in previous years.

The Asia Pacific growth engine that drove much of recent years' stellar growth suffered a reversal of fortune. Although Latin America continues to post very high growth rates, its weighted impact on global results is less significant.

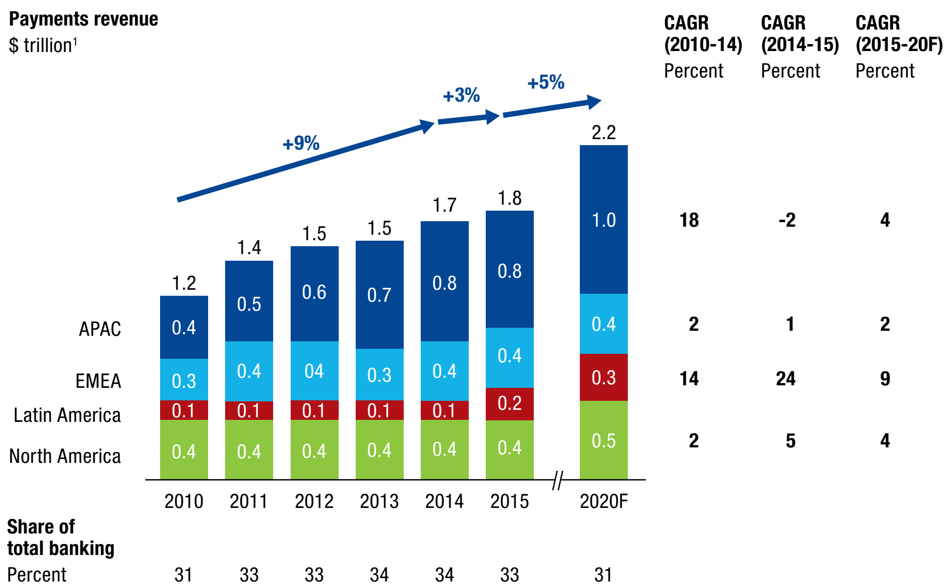
Looking ahead, digital innovation will continue to be a primary disruptive element in the payments arena. In this report we discuss in greater detail three areas McKinsey believes will have major implications for financial institutions' payments franchises: the reinvention of commercial cross-border payments and correspondent banking more broadly, the ongoing modernization of national payments infrastructures to match digital-era requirements, and the continuing shift of retail commerce from brick-and-mortar outlets to digital platforms. Payments providers seeking an edge in the coming years will need to come to terms with these developments—all in some way centered around digitization—in order to be on the leading edge of payments growth in the coming five years.

Strong Fundamentals Amid Slower Growth Yield Mixed 2015 Results

The global payments industry faced strong headwinds in 2015, as the promise shown in 2014 did not continue to play out on the top line. Following 2014's exceptional 9 percent revenue growth, global revenues rose by just 3 percent in 2015 (to $1.8 trillion). Important regional differences underpin these results, as EMEA (Europe, the Middle East, and Africa) payments revenues were essentially flat compared to 2014 and APAC (Asia Pacific) revenue declined for the first time since McKinsey began tracking regional segments, while North America and especially Latin

Exhibit 1

Global payments revenues increased marginally in 2015, and are expected to grow 5% per year over the next 5 years



[1] At fixed 2015 USD exchange rates, for the entire time series

Source: McKinsey Global Payments Map

America enjoyed higher growth than in previous years (Exhibit 1).

Payment fundamentals overshadowed by macroeconomic challenges

Most of the important payments fundamentals—transaction and account balance growth—continued on the solid path established in recent years. The headwinds faced by the payments industry in 2015 were largely attributable to the weak interest rate environment driven by economic uncertainty. Revenue trends for the industry in 2015 reflect the net effect of three combined factors:

- **Payments volume growth remains strong:** Both the number and the value of electronic payments transactions continue to grow at healthy rates, fuelled by the continuing substitution of cash with electronic payments and rising financial inclusion rates. In 2015, the global number and value of cashless payments grew by 9 and 5 percent respectively, slightly above the 8 and 5 percent CAGRs over the period 2010-2014. Moreover, the digital (r)evolution provides clear tailwinds to this trend, although it also places additional competitive and price pressure on banks.
- **Transactional account balances have never been higher:** Despite low (in some cases negative) interest rates, both corporates and individuals

continue to hoard cash in their transactional accounts—counter to classic economic theory. Outstanding balances on transactional accounts exceeded $27 trillion by the end of 2015, their highest level ever. Even as interest rates fell to historically low levels in several geographies, transactional account balances enjoyed 7 percent growth in 2015, comparable to annual growth rates over the prior five years.

- **Interest rates reached historically low levels:** After a small rebound in 2014 and early 2015 (in North America and the EU), when it seemed interest rates might have bottomed out, they fell again in several regions. While the EU and most Asian countries have been hit by continuous interest rate drops since mid-2015, with rates entering negative territory for a part of public and corporate debt in Europe, Latin America and North America have not experienced such (additional) decreases.

McKinsey expects that these trends—that is, strong fundamentals in a low interest rate environment—will persist for the next three to five years. McKinsey expects global payments revenues to increase at an average annual rate of 5 percent for the coming five years (compared to our 6 percent forecast from last year), exceeding $2 trillion by 2019, although macroeconomic and interest rate uncertainties could further affect performance in either direction. (Note that we have applied fixed exchange rates throughout this analysis using 2015 as the reference year.)

As a consequence, the share of payments revenues in global banking revenues is expected to decline. This trend began in 2015 with a decline from 34 to 33 percent, marking the first such reduction since the 2008 financial crisis, as low interest rates seem to have benefited banks' lending business. This trend should continue, with payments comprising 31 percent of banking revenues by 2020, matching 2010's revenue contribution level.

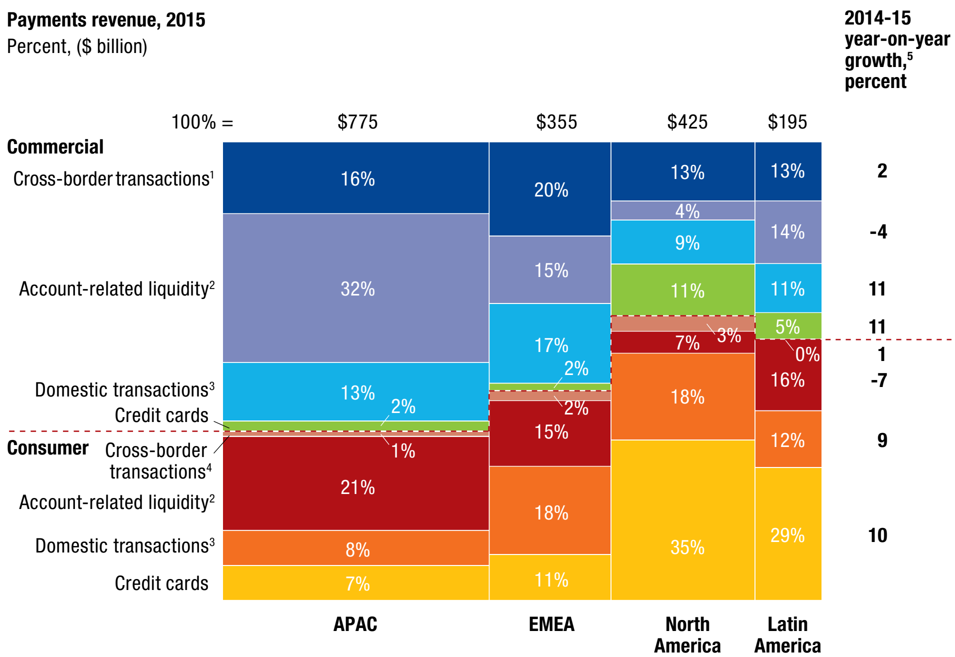
Pronounced differences in regional performance

The performance differences between regions are striking in terms of both absolute revenue sources and sources of revenue growth. North America and Latin America continue to derive the majority of their payments revenues from domestic transactions and credit cards, mostly on the consumer side, while revenues in APAC are heavily driven by account-related liquidity, mostly on the commercial side. EMEA also relies mostly on commercial lines and account-related liquidity, although to a lesser extent than APAC. This reliance on liquidity-related revenues combined with shrinking interest rates explains the weaker performance of both APAC and EMEA in 2015 (Exhibit 2).

Latin American payments revenues grew at above 20 percent for the second straight year, making the smallest

Exhibit 2

Revenue sources differ across regions



[1] Trade finance and cross-border payment services
[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
[5] At fixed 2015 USD exchange rates, for the entire time series
Source: McKinsey Global Payments Map

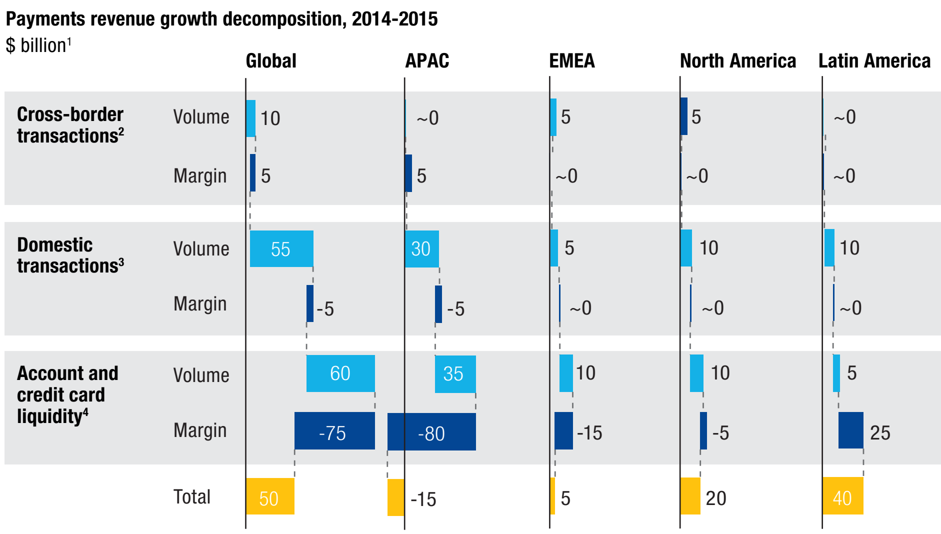
regional pool (at $190 billion) also the most vibrant. This was the only region to enjoy noticeable net interest margin improvement. The addition of solid volume fundamentals (the number of cashless payments grew by 11 percent in 2015 to increase their overall share in total payments to 14 percent, up from 12 percent in 2014 and 9 percent in 2010), led to 24 percent revenue growth. Brazil generated 78 percent of Latin America's payments revenue growth despite having entered recession in 2015, and GDP contraction of more than 3 percent.

Credit card revenues in Brazil accounted for more than half of the year's revenue increase, due to the expansion of both net interest margins and credit card loan balances. Brazil's earlier expansionary policies shored up payments growth during 2015, but there may be a compensating effect in 2016.

At the other end of the spectrum, APAC, the largest regional revenue pool at $760 billion, posted a 2 percent decline after five years of 18 percent average annual growth. As APAC's revenues are heavily driven by account-related liquidity

Exhibit 3

Growth in transactions was offset by a drop in liquidity margins



[1] At fixed 2015 USD exchange rates, for the entire time series

[2] Trade finance, cross-border payments and remittance services

[3] Fee revenue on domestic payments transactions and account maintenance

[4] Net interest income on current accounts, overdrafts and credit card balances

Source: McKinsey Global Payments Map

(mostly commercial), the net interest margin erosion ($80 billion) wiped out the region’s otherwise solid revenue gains, which were generated by strong volume growth in cashless transactions as well as higher transactional account balances ($65 billion) (Exhibit 3). In China, the region’s powerhouse, payments revenue declined by 4 percent for the year, disproportionately affected by a sizeable contraction in transactional account net interest margin of 85 basis points. Japan, the third-largest revenue contributor in the region after China and India, also experienced revenue contraction driven by shrinking transactional account net interest margins. It masked favorable results in countries as diverse as India and Indonesia (each growing payments revenue 7 percent in 2015 as financial inclusion drove double digit increases in card payments and the number of transactional accounts), Singapore (11 percent revenue gains due to balance growth and interest margin expansion) and Australia (6 percent growth, for the same reasons as Singapore but at lesser magnitude). As demonstrated by these statistics, the region’s geographic proximity does not result in shared economics.

After their first increase in four years in 2014, EMEA payments revenues plateaued in 2015 at $355 billion, with the region posting 1 percent growth. EMEA faced many of the same challenges as APAC but given less reliance on account balances and less dramatic interest margin reductions, the drag on overall growth was less severe. Western Europe's payments revenues declined by 1 percent—two-thirds of the revenue loss came from Italy and Spain, mainly through net interest margin contraction. These countries did not perform appreciably worse than the rest of Western Europe, but drive a large share of the region's payments revenue. Meanwhile, revenue growth was strong in Eastern Europe (6 percent, driven almost exclusively by interest margins in Russia) and the Middle East/Africa (9 percent, through ongoing gains in financial inclusion and cash substitution).

Payments revenue grew by 5 percent in North America in 2015, well above its 2 percent average growth from 2010 to 2014. North America continues to derive nearly half its payments revenues from credit cards—far more than any other region—and has a significantly lower reliance on account-related liquidity.

Strong payments fundamentals drive favorable forecasts, but macroeconomic factors pose uncertainty

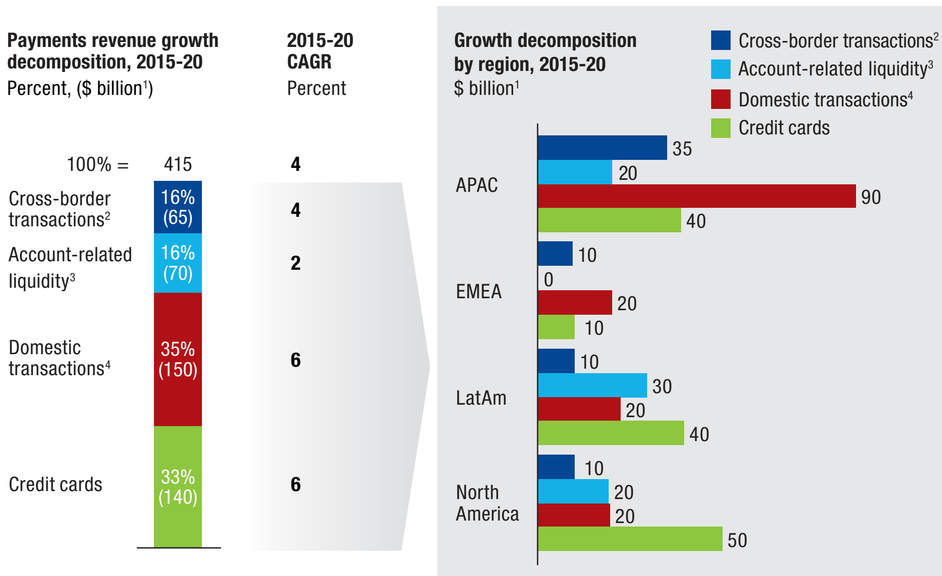
McKinsey's projects a five-year CAGR of 5 percent for global payments revenues. The forecast calls for balanced and sustainable growth across regions: 2 to 5 percent each for APAC, EMEA and North America. Even Latin America's projected 9 percent five-year CAGR reflects moderation from recent levels. The five-year projected CAGR of 5 percent (compared to our 6 percent projection from last year) outpaces 2015's 3 percent performance, but is well below the 9 percent CAGR seen between 2010 and 2014, which was fueled by the recession recovery and a particularly strong period of Chinese growth.

Payments fundamentals—volume and transaction growth as well as outstanding balance growth—remain robust and are expected to continue to spur revenue growth over the next five years. And, although interest rates are expected to remain low and possibly erode further slightly in certain countries and regions, the magnitude of net interest margin compression will likely be much lower than in 2015 and should not offset the positive fundamentals to the extent they did in 2015 (Exhibit 4, page 10). Continued challenges from non-bank attackers and increasing regulatory mandates will fuel persistent pressure on pricing (i.e., domestic and cross-border transactions margins). As in past years, however, the ongoing shift from cash to digital payments—both domestic and cross-border—as well as routine GDP growth is expected to more than offset these negative factors.

Domestic transactions and credit card revenues will be the primary drivers of global growth accounting for 35 and 33 percent respectively of absolute revenue growth between 2015 and 2020. Domestic transaction growth will be heavily weighted toward the APAC region, thanks in part to the

Exhibit 4

Revenue growth in liquidity and credit cards will be fueled by the Americas, while APAC will drive transaction growth



[1] At fixed 2015 USD exchange rates, for the entire time series
[2] Trade finance, cross-border payments and remittance services
[3] Net interest income on current accounts and overdrafts
[4] Fee revenue on domestic payments transactions and account maintenance (excluding credit cards)
Source: McKinsey Global Payments Map

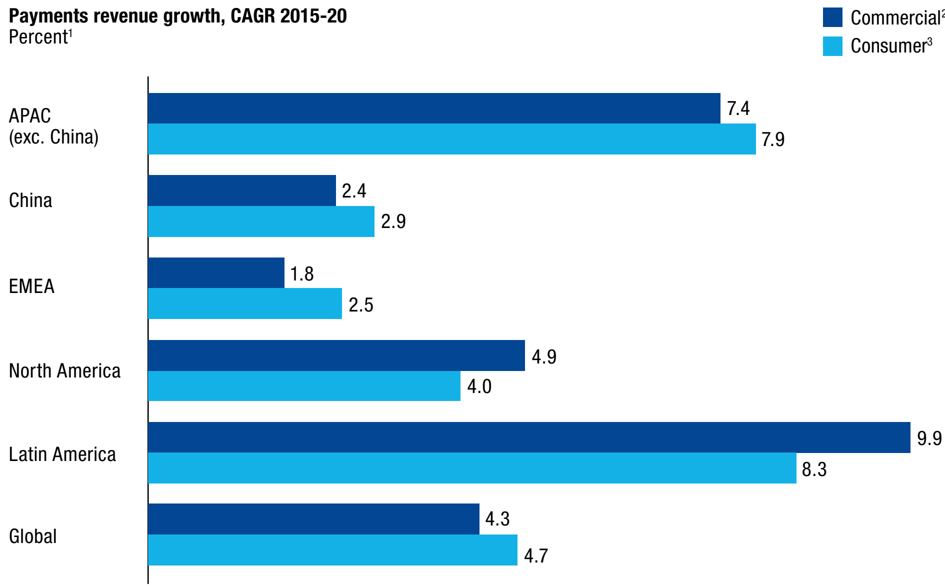
rapid conversion from cash to cashless transactions. As in past periods, North America and Latin America's payments revenues will be disproportionately driven by credit cards (both consumer and commercial), accounting for 51 and 29 percent of North America's and Latin America's absolute growth through 2020 respectively. At present, Latin America's card revenues are dominated by interest income, even more than in North America. This will be even more true going forward, as transaction fees will comprise a greater share of North American card revenues as transaction growth will outpace potential interchange reductions, and potential rebounds in interest rates are likely to compress card margins.

The good health of transaction-related revenues is a positive sign for the long-term resilience of the payments industry as such revenues are less exposed to changing macroeconomic and interest rate conditions, and are driven more by trends within the payments industry, which are more actionable for payments executives.

In contrast to domestic payments, **cross-border payments revenue** growth is expected to moderate over the next five years (4 percent compared to

Exhibit 5

Pressure on liquidity margins is expected to adversely affect commercial payments revenue growth in APAC and EMEA



[1] At fixed 2015 USD exchange rates, for the entire time series
[2] Revenue from commercial current accounts and overdrafts, commercial domestic payments transactions, merchant acquiring, cross-border payments and trade finance
[3] Revenues from consumer current accounts and overdrafts, consumer domestic payments transactions, card issuing and remittances
Source: McKinsey Global Payments Map

6 percent for the period 2010 to 2014). This moderation will result from margin pressures as non-banks move more aggressively to gain share in this space.

Account-related liquidity revenues will drive only 16 percent of the revenue increase (down from more than half of the increase between 2010 and 2014), as balance growth will be dampened by expected continued interest rate declines. This is especially true in APAC and EMEA, where the growth contribution of account-related liquidity is expected to be extremely modest compared to the overall weight of account-related liquidity in total payments revenues.

This low contribution of account-related payments revenues obviously hurts near-term growth prospects. However, it will lead to an increasing reliance on transaction-related revenues, which is positive for the overall resilience and robustness of the payments industry.

Finally, commercial payments revenues, which have been growing more robustly than consumer payments revenues for several years, are expected to lose some momentum in APAC and EMEA. The underlying reason is that commercial payments rely heavily on account-related revenues and cross-border fees, two revenue sources that are expected to face headwinds in the coming years (Exhibit 5).

Although McKinsey's five-year revenue growth forecast has been adjusted downward to 5 percent CAGR, the outlook remains quite impressive given that it is expected to be achieved without the benefit of the largest driver of recent growth—liquidity revenues. In many ways, the payments industry is better positioned now for long-term growth and stability, as the growth engines are more within payments executives' control. In other words, payments executives are more equipped to react to trends intrinsic to the payments industry, rather than macroeconomic trends like interest rate movements. Additionally, after another few years of nominal adjustments the interest rate environment should eventually shift direction (with the exception of Latin America, where rates remain relatively high), becoming a tailwind rather than a tether to growth.

The Digital Transformation of Correspondent Banking

Correspondent banking has stood the test of time quite well. Nonetheless, recent evolution in the payments and commerce worlds has created unique momentum for change in this age-old business.[1] Based on updated information on the segment's growth challenges, McKinsey offers a four-pronged approach to reinvigorate correspondent banking in the face of heightened disruptive forces.

Correspondent banking is the fabric on which international trade and cross-border payments are built, representing a lifeline for global supply chains and a key revenue driver for global banks in their service models for corporations and

[1] See "Rethinking Correspondent Banking," McKinsey on Payments, June 2016; *Global Payments 2015: A Healthy Industry Confronts Disruption*, McKinsey & Company, October 2015.

small and medium-size enterprises. Correspondent banking in its current state is a highly complex network of rules, agreements and relationships underlying the operational and commercial criteria by which one financial institution carries out transactions on behalf of a counterparty bank, often because it lacks local presence.

Business to business is the main revenue driver in cross-border payments

While cross-border payments account for less than 20 percent of total payments volumes, they comprise about 40 percent of global payments transactional revenues (i.e., transaction-related fees and float income), and generated $300 billion in global revenues in 2015. At a granular level, major differences exist in revenue contribution and associated revenue margins depending on the nature of the transaction (e.g., trade versus treasury), the geographic corridor and the end customers involved (consumer or commercial).

On one hand, consumer-to-consumer (C2C) remittances generate a healthy 6.2 percent global average revenue margin (fees and foreign exchange margins combined), on a relatively modest $405 billion in flows (less than 0.5 percent of cross-border activity) resulting in $25 billion of global revenue (8 percent of total cross-border revenue). On the other hand, higher value business-to-business (B2B) payments brought in $240 billion revenue on $135 trillion in flows. The resulting revenue margin of roughly 20 basis points is nonetheless quite lucrative, given the average transaction value of $15,000 to $20,000, which implies a typical fee of $30 to $40 per transaction (Exhibit 6).

After a period of double-digit growth, which largely reflected a rebound from the significant trade declines during the 2008 crisis, cross-border payments revenue growth has been moderate and has remained below that of domestic payments.

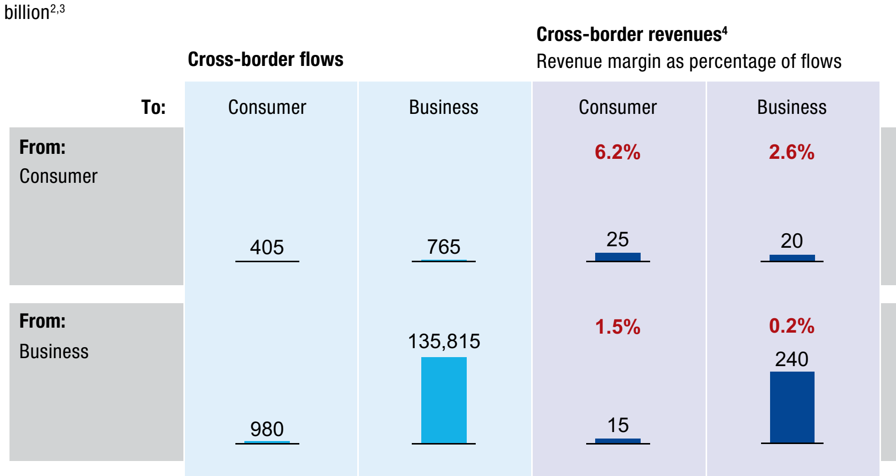
Since 2011, annual cross-border payments revenue growth has not exceeded 4 percent and reached a post-crisis low in 2015 with 2 percent growth. Since these rates are below those for domestic payments transactional revenues, this explains the gradual erosion of cross-border payments as a share of global transactional payments revenues (steadily declining from 48 percent in 2011 to 41 percent in 2015) (Exhibit 7). The muted growth is mostly attributable to slowing global trade and GDP, and reinforced by gradually eroding revenue margins (annual decreases averaging 2 percent between 2011 and 2015). The impact of this negative climate is felt more keenly in B2B payments, which drive roughly 80 percent of cross-border payments revenues and are a segment in which banks retain a near 90 percent share.

Although macroeconomic outlooks are slightly brighter, McKinsey does not expect cross-border payments revenue to

Exhibit 6

Business-to-business accounts for the majority of the cross-border payments market

Global cross-border payments flows and revenues,[1] 2015
$ billion[2,3]

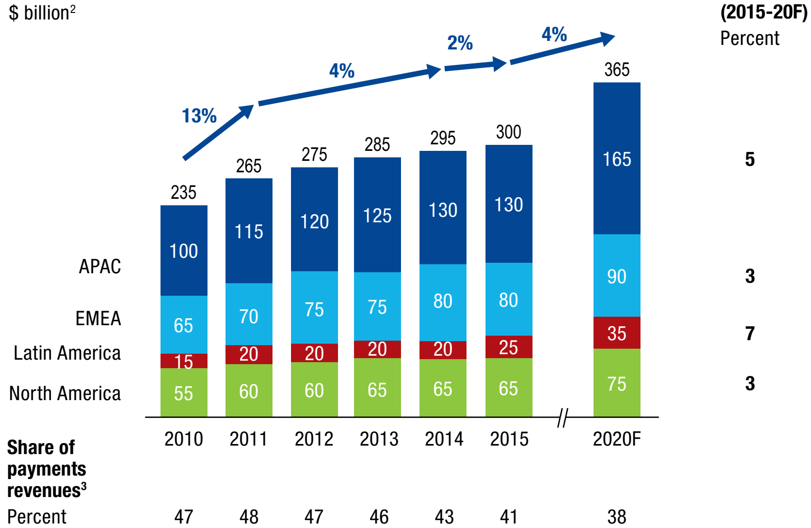


[1] Trade finance, cross-border payments and remittance services
[2] At fixed 2015 USD exchange rates, for the entire time series
[3] Excluding financial institution (FI)-to-FI flows and related revenues
[4] Includes transaction fees, foreign exchange fees and float income
Source: McKinsey Global Payments Map

Exhibit 7

Growth in cross-border payments revenues slowed in 2015, and is expected to grow 4% per year over the next 5 years

Cross-border payments revenue[1]
$ billion[2]



[1] Trade finance, cross-border and remittances services. Includes transaction fees, FX fees and float income
[2] At fixed 2015 USD exchange rates, for the entire time series
[3] Includes transaction fees and float income from all payments (domestic and cross border)
Source: McKinsey Global Payments Map

return to substantially higher growth than that of the recent past (2011-15) without a change in direction by the industry. McKinsey projects an average CAGR of 4 percent for the period 2015-20, assuming revenue margin compression continues at the same pace as in the recent past.

The historical persistence of relatively high revenue margins on cross-border payments is due in part to cross-border payments not having faced the same systemic pressures as domestic payments. Forced to reduce domestic fees in the wake of heightened regulation and increasing competition over recent decades, banks responded with drastic cost reductions for domestic transaction handling through front-end automation, process simplification, standardization and outsourcing and development of new applications for existing payments products. As cross-border payments did not face the same regulatory and competitive pressure, banks have had little incentive to innovate structurally on customer offerings, back-end systems and processes. And as cross-border payments revenue margins remained healthy and price erosion moderated, no structural cost-reducing processes were introduced across the industry. As a result, operational cost per transaction for international payments continues to average well above $20 (these costs vary widely across institutions and between cross-border corridors).

Over the last few years, however, this situation has been challenged by structural developments. While these challenges yet have to drive meaningful fluctuations in market share, there are clear signs of accelerating revenue-margin compression and customer pressure making the current situation unsustainable, in terms of revenue levels, but also system efficiency. This makes the case for urgent and fundamental change to the correspondent banking business.

The challenges

Over the last three years, it has become clear that change is urgently needed in correspondent banking, not only in the face of relatively weak underlying market performance, but more so given increasing customer expectations, growing competition and regulatory requirements. Structurally depressed interest rates in several major correspondent banking currencies are making the need for change even more urgent. These four major forces are negatively impacting cross-border payments revenue margins and are challenging the position transaction banks currently hold.

Customer expectations for digital solutions

The digital revolution will dramatically change cross-border payments over the next five years, as customers demand a more compelling user experience: transparent, real-time, data-rich and easy to use. Customers also expect cross-border payments to be integrated in their overall value chain, as for domestic payments. Correspondent banking—particularly its trade finance functions—remains one the least digitized of all transaction banking businesses, making it ripe for transformation. Corporate clients are increasingly aware of overall changes in commerce platforms and now expect the same upgrades to cross-border payments. These clients increasingly question why a domestic payment can be executed in real time at very low cost, while it can take two or three days for a higher-priced cross-border transaction to be executed.

Changing customer expectations and technological advances have set in motion a wave of innovation driven by financial technology providers targeting the cross-border opportunity.

Innovative competitive landscape

Changing customer expectations and technological advances have set in motion a wave of innovation driven by financial technology providers targeting the cross-border opportunity. Although the competition of nimble, deep-pocketed competitors originated in the high-margin C2C market, it is rapidly shifting from the consumer to the commercial space, with innovations across the value chain. Players like Traxpay, whose solutions include dynamic discounting services in addition to payments, and even large non-bank entities such as SAP/Ariba are moving toward integration of the customer relationship rather than a point solution. This approach is in line with the ongoing consumerization of corporate payments, with corporate treasurers expecting the levels of service they see on the consumer side. At the same time, traditional money transfer operators (MTOs) are shifting their attention. Western Union Business Solutions, for example, is moving from traditional C2C and customer-to-business (C2B) offerings to disintermediate corporate banking relationships. According to a recent report,[2] over 70 percent of surveyed corporates are willing to consider alternative providers for cross-border payments.

These new market entrants mostly leverage closed-loop payments solutions, avoiding the complexity of the “many-to-many” correspondent banking system to provide faster, cheaper and more transparent payments. While these closed-loop systems struggle to offer ubiquitous reach, global compliance and sufficient scale, they also risk relegating correspondent banks to managing back-end requirements like know-your-customer (KYC) and dealing with less lucrative payments destinations, while insurgents wrest control of the broader client relationship and emerge as aggregators or key interfaces for corporate customers.

Regulatory changes

Unlike domestic payments, regulation has not been a primary driver of cross-border change. Nonetheless, new compliance

[2] *Cross Border B2B Payments: Today’s Landscape; Tomorrow’s Opportunity*, Banking Circle & Saxo Payments, 2016.

requirements related to money laundering and other financial crimes have heavily impacted banks offering correspondent banking services, imposing additional financial burdens. Total fines paid by global and regional banks amount to tens of billions of dollars. With the cost of KYC for a correspondent now running up to $15,000 per bank, some banks are gradually downsizing their networks as part of the de-risking process. An IMF Survey of leading large banks[3] reveals that about 75 percent are systematically exiting correspondent banking relationships. One U.S.-based global bank reportedly cut ties with 500 network banks in 2013 and 2014. And new entities have emerged (e.g., Wayerz) with the sole purpose of helping banks rationalize their correspondent networks. A direct implication of this trend is that some countries are at risk of being cut off from international payments networks.

Additional concerns around cybersecurity, triggered by high-profile events over the last six months, are creating an extra layer of protocols to increase operational safety of systems—again increasing costs, but also potentially bolstering banks' value proposition compared to market entrants.

Low interest rates

The further erosion of interest rates places additional pressure on correspondent banks. Large correspondent banking network banks generate meaningful net interest income from the liquidity "trapped" in vostro accounts[4] used by their participating correspondents banks. Moreover, banks rely on net interest revenues from corporate balances left in transactional accounts to balance the cost of difficult cross-border payments executions.

As recently as 2014, every cross-border payment generated between $7 and $10 in interest from vostro account liquidity. In 2015, this indirect revenue source eroded significantly and in some regions (e.g., eurozone) vanished entirely as rates on financial institutions' overnight deposits fell to 0 percent or even moved into negative territory. Although interest rates may rise nominally in the medium term, a full reversal of this trend does not appear likely in the foreseeable future. Correspondent banks must adjust to this new reality and seek alternative revenue sources.

The combination of these four forces could substantially impact the already relatively modest forecast for 2020 baseline revenue growth and drive the industry into a strong compression (Exhibit 8).

If banks are to retain their leading role in cross-border payments, especially in the B2B space, they must embark now on a multi-year journey to modernize the business. The journey builds on the strengths of the existing network, but requires banks to significantly change their focus and business models.

A four-step journey

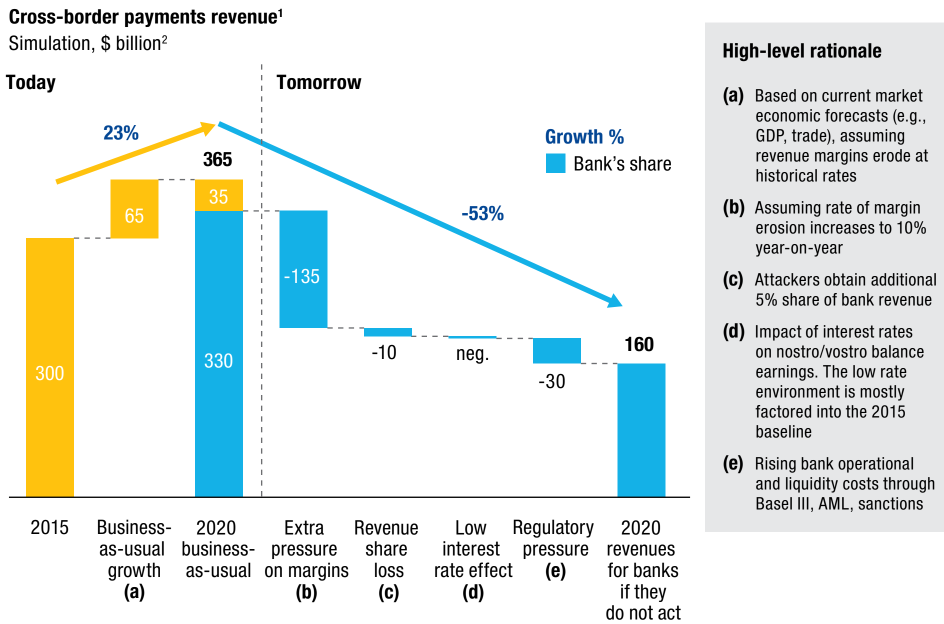
In order to preserve both profitability and growth in cross-border payments, banks need to embark on a holistic

[3] *The Withdrawal of Correspondent Banking Relationships: A Case for Policy Action*, IMF, June 2016.

[4] The terms *nostro* and *vostro* are used when one bank keeps money at another bank. Both banks need to keep records of how much money is being kept on behalf of the other. In order to distinguish between the two sets of records of the same balances and set of transactions, banks refer to the accounts as nostro (*our* money, held by *other banks*) and vostro (*other banks'* money, held by *us*)

Exhibit 8

Bank revenues in cross-border payments could be significantly impacted in the next 5 years



[1] Trade finance, cross-border payments and remittance services
[2] At fixed 2015 USD exchange rates, for the entire time series
Source: McKinsey Global Payments Practice

transformation across four key dimensions. First, banks must rapidly identify and create new customer-driven services to match today's digital expectations. Second, they need to streamline operating processes to reach near-domestic levels of efficiency. Third, they should adopt a collaborative approach to innovation in order to leverage the power of their global networks. Finally, they need to renew underlying clearing and settlement technology to institutionalize the changes they make.

The opportunity is significant. Banks can aspire to a future with new revenues from additional services and where the operating cost of a cross-border payment drops to between $1 and $3, with full transparency and execution in less than 15 seconds. It would foster the creation of solutions that compete with new "closed loop" propositions in market, while maintaining the key benefits of the existing global correspondent network model: ubiquity, resilience and compliance.

While the goal is a full system transformation, it is essential for banks to focus initial changes on the most tangible benefits for customers and banks, rather than starting with an expensive systems overhaul. While some steps can occur in parallel, McKinsey suggests that banks embark on these changes sequentially in order to ensure the rapid realization of benefits. The customer value proposition is a critical first step, for numerous reasons. It can generate learnings to inform subsequent efforts, helping to refine an effective end state. It also engages clients in the process, creating confidence that change is forthcoming, creating new revenue possibilities (e.g., from more efficient supply chain and treasury solutions), while warding off competitors' challenges. These steps, however, must be followed closely by an operational "correction," structurally reducing the cost difference between cross-border and domestic payments and enabling banks to offer cross-border payments at much lower fees but similar profit margins.

Start with the customer

One learning from retail payments transformations is that all successful changes start with the customer. Rather than focusing on expensive and difficult-to-change core systems, banks should first design compelling client value propositions, targeting the major dissatisfactions with today's correspondent banking model, creating real end-to-end transparency both in terms of charges and achieving delivery close to that of current domestic payments (i.e. next day). Banks can achieve these improvements through better alignments and agreements, without massive systems changes. The increased reliability and predictability are likely to attract new users to international commerce, in particular SMEs. Evidence of this can be found in the EU, where the introduction of SEPA led to a doubling in the share of importing SMEs. SWIFT's Global Payments Innovation (GPI) initiative is one of the industry efforts addressing these issues, with 78 banks participating in the ongoing effort.

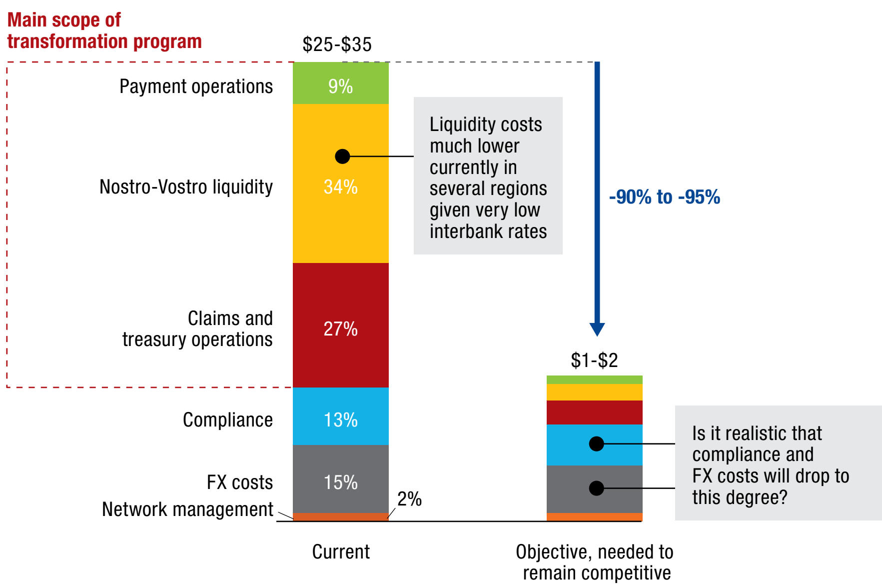
A second wave of upgraded services is likely to include enhanced digital payments services aimed at improving specific customer journeys, leveraging enhanced data transfer and analysis capabilities to provide services like cash-flow forecasting and access to invoice financing, dynamic discounting through improved predictive analytics, and cross-border account management services including account opening and closing and easier reconciliation by sharing rich payments data through a central repository. Such a repository can also help banks protect clients from fraud through real-time monitoring and flagging transactions such as a single invoice being financed multiple times.

Starting with customer-focused services not only strengthens correspondent banks' competitive position against digital innovators, it also offers a real possibility to monetize new services through subscription or license-based fee rather than purely transaction-based pricing. It also enables banks to explore the rich payments data at their disposal, enabling the cross-sell of other value-added services to their customers. Capturing revenues from new services across the payments life cycle should help counterbalance the expected attrition of fees.

Exhibit 9

To remain competitive, back-office costs for international payments will need to drop by 90% to 95%

Cost per international payments transaction, average for 2013-15



Source: McKinsey Global Payments Map

Closing the efficiency gap

To deliver these services at a competitive price, there is a compelling need to reduce operating costs for cross-border payments. The average cost for a bank to execute a cross-border payment via legacy correspondent banking agreements remains in the range of $25 to $35, more than 10 times more than for an average domestic ACH payment. With revenue margins under pressure, banks must radically reduce this cost base in order to compete profitably in the cross-border payments business (Exhibit 9).

While certain cost drivers—such as higher compliance burdens and FX-related tasks—are inherent to cross-border payments and cannot be eliminated, roughly 70 percent of the cost base is in direct scope for transformation.

- **Payment operations:** Operational costs linked to reconciliations and investigations/exceptions items are largely caused by lack of standardization across banks. Automated data validation could be achieved by sharing of transaction information along the process or by establishing a common rulebook. Ensuring correct data at initiation would help increase the straight-through-processing (STP) rate and reduce reconciliations and investigation costs.
- **Nostro-Vostro liquidity:** Banks should also focus on unlocking the

opportunity cost of trapped liquidity caused by the absence of systematic real-time reporting and the lack of trust (e.g., uncommitted lines) among correspondent banking partners. A shift toward real-time reporting of balances and a closely aligned shared rule book can greatly reduce these vast pools of trapped capital, saving as much as 35 percent of total costs per payment. While this item may not carry as much urgency given the low interest rate environment, the need for capital to satisfy stringent regulatory requirements underlines its long-term importance.

- **Claims and treasury operations:** Complex interbank pricing rules create the need for manual invoicing, claims-handling and dispute management, requiring substantial teams to spend valuable time on transaction execution. Greater clarity on pricing and easier interbank charging mechanisms can help reduce these costs.

There are additional savings opportunities, more challenging but worth pursuing. Banks can address fraud and compliance costs by improving information-sharing across banks through compliance utilities and more stringent admission rules for participants to the network. These steps could further remove the need to negotiate and maintain the multitudes of bilateral agreements and large numbers of correspondent banking relationships that contribute to high cost of network management.

This transformation journey has the potential to reduce the overall cost of cross-border payments for banks by up to 90 percent, reaching a target cost of $1 to $2 per transaction or a total cost reduction for banks of up to $140 billion or almost 50 percent of the current cross-border payments revenue pool.

While the above changes do not require the replacement of the underlying fabric of correspondent banking as a prerequisite nor a full-scale IT systems change, they are by no means low-hanging fruit. They will require a new operational framework between banks, including redesign of numerous processes, reduction of the number of handling locations and a more disciplined overall approach to interbank exchanges, possibly putting higher requirements on correspondent agreements.

Open innovation model

In the current environment, transaction banks are unlikely to be the sole source of innovation. FinTechs have proven themselves adept at crafting compelling consumer experiences and developing highly focused solutions. These FinTech-developed functions are not necessarily competitive with those offered by banks. An examples in the trade arena is Taulia, which RBS has leveraged to enhance its supply-chain finance offerings and e-invoicing capabilities.

Allowing non-banks to develop services along various points of the value chain will likely prove beneficial to all parties and will be an essential part of the correspondent banking model of the future. This implies that the future system should be open to innovation through common APIs. Opening of systems is also a focus point for regulators, as shown by the EU's access to accounts and UK Open Banking Standard initiatives. Opening the system also includes opening bridges between domestic and cross border-systems, allowing innovations to apply across both.

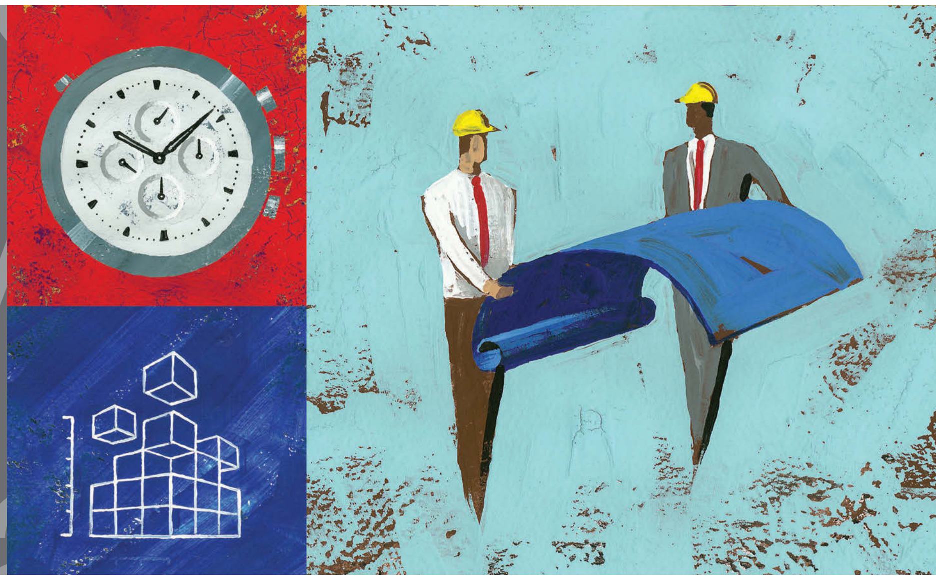
Technology-enabled possibilities should be thoroughly investigated today, but real change brought about by new clearing and settlement solutions should only be expected in the longer term.

A new model for clearing and settlement

While improving customer value propositions, operational redesign and co-operation will take the industry a long way, a more close-knit clearing and settlement system would serve as the capstone of a full system transformation. This could be achieved through the creation of a central clearing body, as happened for many domestic payments systems, but could also leverage distributed ledger technology. A number of industry players are already exploring the possibility of using distributed ledger technologies such as blockchain in place of the hub and spoke network.

While this final transformational step would open the final door to true "real-time" cross border payments, McKinsey's view is that it only makes sense to do so after the revamping of operational processes and client value propositions, making it a final step rather than a prerequisite for change. Only then will the full value of a systems overhaul become available. As an example of why this is the case, there is little benefit to adopting a real-time settlement engine if other aspects of the back-end fulfillment process continue to delay payment by multiple days. Technology-enabled possibilities should be thoroughly investigated today, but real change brought about by new clearing and settlement solutions should only be expected in the longer term.

As commerce inevitably proceeds down a digital path, the correspondent banking business must transform from the world of paper to a truly digital correspondent banking future. This transition will require a fundamental change in agreements between banks, the value delivered to customers and removal of the inefficiencies in today's system. The future digital correspondent bank will be capable of offering global payments at prices comparable to that of complex domestic payments, while retaining a healthy profit margin thanks to radical operational efficiency gains. Only this course will ensure that network of international banks we know today as "correspondent banking" remains the fabric for tomorrow's global and digital commerce and trade.



Modernizing Payments Infrastructure

As digitization drives demand for immediate services and instant information, more than 30 countries are working to modernize their payments architectures. As noted in last year's report, 45 percent of global credit transfers are executed in countries where payments infrastructure has been modernized or real-time enabled, even if many transfers do not yet leverage those capabilities. Another 45 percent are expected to follow in the near future, starting with the eurozone and the U.S., both in the process of developing updated infrastructure. The evolution of the world's payments systems has several ramifications for banks, in terms of technology and operations upgrades and integration (to efficiently and securely run instant payments at large scale) as well as in terms of the development of new products and solutions addressing customer needs and leveraging the modernized infrastructure for revenue capture.

Evolving end user expectations require new capabilities

Over the last several decades, advancements in technology have raised end user expectations for both the ease and speed of payments. Over the past five years, the pace of disruption has accelerated in both consumer and business settings. The ongoing digital revolution, with the mass adoption of smartphones, e-commerce and multichannel buying behaviors, has led to an expectation that everything from access to information to execution of daily activities has to be immediately available at the push of a button. Since payments are a component of many of these digital experiences, the same expectations extend to execution as well. Legacy payments infrastructures are simply ill-suited to support this model.

In response to these shifting expectations, legacy payments infrastructures worldwide are being retooled and modernized.

Modernized infrastructure is about more than speed

Although the modernization of the payments infrastructure is often referred to as "faster," "instant" or "real-time," speed is not the only dimension being addressed. The modernized payments infrastructure needs to provide not only real-time confirmation of good funds, clearing and payor/payee notification, but also: (1) the flexibility to support convenient omnichannel access to the payments system across all end users and use cases; (2) robust messaging standards enabling remittance data to drive value for business customers and support e-invoicing for corporate customers; (3) real-time fraud prevention tools and capabilities; and (4) ultimately, the integration of foreign transfers to generate value for both consumers and commercial customers.

An enabler for non-bank attackers as well

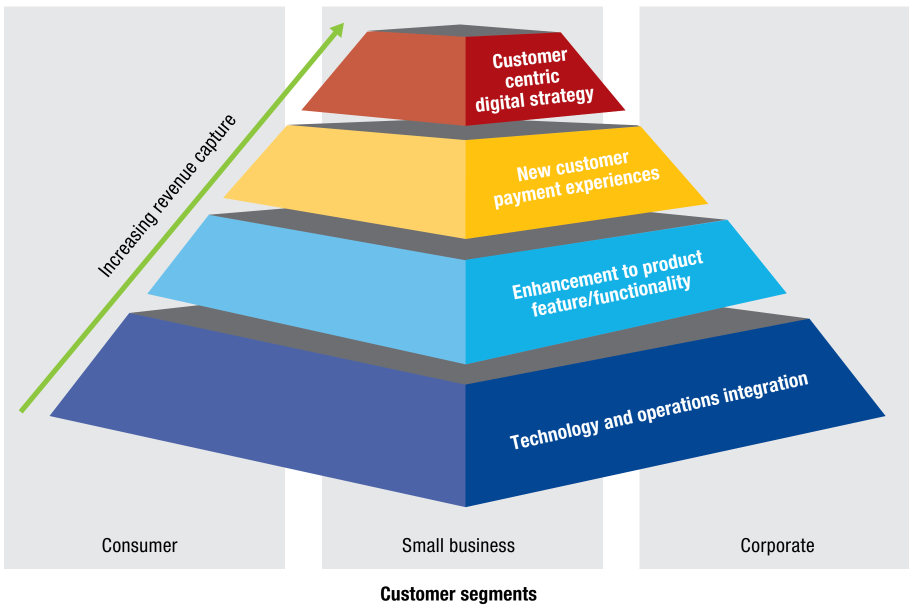
Modernized infrastructure will also open new avenues for non-bank attackers, as it will simplify access to user accounts. With the consent of end users, access to customer accounts will now be real time as opposed to the legacy batch models. This creates opportunities for players lacking direct ownership of the account, or at minimum a direct agreement/partnership with banks conferring the ability to immediately process transactions on behalf of shared customers.

It can be argued that banks may still protect their interests by preventing or restricting non-banks' access to the banks' customers' accounts. In the EU, this option is being at least partly eliminated by the Payments Service Directive 2 (PSD2). Indeed, one of the aims of the PSD2 regulation is to promote innovation

Exhibit 10

Modernized infrastructure could be a catalyst for a digital transformation that drives customer acquisition, engagement and retention

Modernized payments infrastructure will generate opportunities to drive revenue and customer engagement



Source: McKinsey Payments Practice

by requiring incumbent payments providers (banks) to provide access to accounts to third-party payments providers (TPPs) for both payments initiation and information-gathering. This means that banks will no longer have sole ownership of customer transaction information stored on customer accounts, and will be required to allow TPPs to initiate payments from those accounts, based on prior customer consent, but without explicit bank agreement.[5] Other regulators, such as the UK Treasury, are advocating even farther-reaching efforts to open banking infrastructure access to digital innovators, via initiatives such as the Open Banking Standard.

To capitalize on the benefits of modernized payments infrastructure—and to protect share from attackers—banks must embrace a transformational journey with the integration and upgrade of current technology and operations as its foundation (Exhibit 10). Whereas with cross-border transformation McKinsey suggests starting with the customer, for this more holistic, national system-driven endeavor we believe the leveraging of enhanced payments infrastructure capabilities into bank operations is the essential first step. These capabilities can then drive enhanced product functionality, fueling new payments experiences and development of a full customer-centric digital strategy.

[5] McKinsey's white paper *Access to Account: The End of an Era Or Digital Opportunity For Banks?* (April 2016) provides additional background on PSD2's implications for banks.

Technology and operations upgrade and integration

The decision to modernize a country's payments infrastructure can be based on a number of aims: increasing ubiquity, eliminating systemic risk, meeting end user demands, and increasing competition and innovation. Regardless of the rationale, financial institutions must redesign legacy payments operations, both to process instant payments efficiently and securely and also to capitalize on new capabilities, meet emerging end user demands and capture resulting product opportunities.

Against this backdrop, banks must proactively develop a vision and strategy for ensuring their payments architecture is positioned to best support changing end-user needs and to process in real time. Banks must keep three requirements in view:

1. Modernize payments platforms (e.g., payments hub implementation) to enable faster payments and real-time processing, with a goal of gradually eliminating batch processing. The transition from a disparate and fragmented set of systems and platforms to a streamlined payments infrastructure facilitating straight through processing can be lengthy and expensive; it is nonetheless a necessity to effectively compete in the modern payments ecosystem.

2. Retool operations to support a 24/7/365 payments environment, which likely implies staffing increases and an around-the-clock presence. There will be a growing need for subject matter expertise on emerging standards such as ISO 20022, as well as national and international payments regulations and processes, as opposed to deep knowledge of proprietary internal systems.

3. Develop real-time fraud and risk management capabilities, which requires robust omnichannel customer authentication tools. For example, as payments activities shift to real-time, financial institutions' fraud prevention platforms—designed for a batch environment—will face significant pressure to assess a transaction's legitimacy. Financial institutions can bring the entire customer relationship into view more quickly by building an integration hub and querying data and credentials from any and all channels a given customer uses to interact with the bank. Only financial institutions with the ability to authenticate both the customer and the device (e.g., smartphone, iPad, laptop) in real time will be able to fully capture revenue opportunities from modernized infrastructure and develop new customer centric use cases without the ongoing fraud and security concerns.

When such retooling is executed thoughtfully and comprehensively, it can also improve bank efficiency. While additional resource commitment will be required in certain areas (particularly for real-time fraud monitoring), necessitating substantial near-term initial investment, the process should also rationalize the patchwork of processes that have developed over time to accommodate the incremental, siloed features that typify payments' evolution. The faster settlement of funds across accounts and institutions will also foster efficiency by unlocking non-productive balances that have become a permanent byproduct of the current process. Over the long haul the net effect of a reset across those areas should be a lower-cost (or at least more profitable), more efficient operation overall.

Enhancements to existing products

Once bank platforms and back offices have been enabled for faster payments, the priority will shift to a rapid upgrade of existing payments offerings that leverage these enhanced capabilities. A natural starting point is the addition of speed options to products and services (e.g., real-time cash management services, real-time account-to-account transfers). Other opportunities include the addition of richer remittance information to existing product offerings. It is essential that participants devise and promote new use cases in order to generate the scale and adoption necessary to validate the business case for a significant retooling. To date, Singapore's FAST system has been focused exclusively on delivering real-time account-to-account transfers, for instance. Most likely, broader use cases will be developed over time.

Creation of new payments experiences

Legacy processes typically involve batch platforms geared toward specific payments channels, instruments and use cases. Under modernized payments infrastructures, solutions execute in real-time with the flexibility to address various use cases, including those in which paper vehicles (cash and checks) still dominate. While it is often difficult to monetize the payments transaction itself, value-added services surrounding the payment can be fertile ground (Exhibit 11).

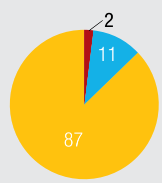
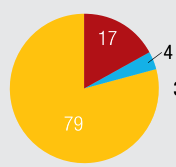
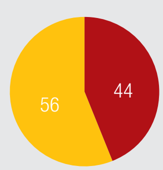
Unlocking such use cases will require banks to not only upgrade existing products with speed or data-rich features, but also to develop new payments experiences focusing on customer pain points. Such innovative solutions are now emerging in some geographies. Most have started with use cases in the consumer to consumer (C2C) space, where cash (and in some countries checks) still holds a predominant position. PingIt (UK), Paym (UK), and Swish (Sweden) are examples that leverage modernized infrastructure to issue payments requests, bring real-time confirmation of good funds, clearing, and in some cases, funds availability to the end user, creating tangible benefit for both the payer and payee. Some of these solutions rapidly expanded from C2C use cases to B2C. This is the case with Swish in Sweden and with Danske Bank's MobilePay solution.[6] Both offerings have successfully moved into the small merchant space, a retail segment in which traditional card acceptance penetration remains relatively low, even in advanced cashless economies like the Nordics. Recently, MobilePay took on another important business use case with its digital

[6] Technically MobilePay runs on local debit card rails rather than modernized infrastructure. However, a similar solution and customer experience leveraging modernized infrastructure (i.e., clearing houses) is easy to envision.

Exhibit 11

Modernized payments infrastructure could drive the migration from cash and checks to new instruments

Cash and checks | Cards | Credit transfers and direct debits

	Example use cases likely to drive adoption	**Relevance for global payments** Percent, number of transactions, 2015E, 100% = billion		
Person to person	• Non-commerce payments • Commerce related payments for informal services • Payments to self-employed individuals • Online purchases		**625**	10-20% cash replacement could add 60 billion to 120 billion credit transfer transactions
Person to business[1]	• High value face-to-face payments • Bill payments and insurance premium • Payment at POS with a mobile device • Online purchase • (Re)activation of services • Government payments • Donations		**2,400**	10-20% cash replacement could add 200 billion to 400 billion credit transfer transactions
Business to business[1]	• Expedited inventory purchases, shipping • Non-recurrent pay-on-delivery • Just-in-time payments to suppliers/ billers • Online purchase • Payment for capital good purchases • High-value intercompany transfer payments • Government payments • Return payments		**355**	10-20% cash replacement with transfers could add 25 billion to 55 billion credit transfer transactions
Business[1] to person	• Irregular employer payments • Other one-off payments • Payments for delivery of service from freelancers, self-employed, day-workers • Return payments		**50**	10-20% cash replacement with transfers could add up to 2 billion to 5 billion credit transfer transactions

Total: 290 billion to 580 billion additional transactions, with 10-20% cash replacement

[1] Business includes government but excludes FI-to-FI flows

Source: McKinsey Payments Practice; McKinsey Global Payments Map invoicing feature, addressing another key pain point.

Fundamentally, infrastructure modernization can serve as the catalyst for a much-needed large-scale digital bank transformation.

Such examples tap only a few of the potential benefits modernized infrastructure can support in the C2B and B2B spaces, where cash and checks represent a meaningful share of transactions. For instance, the development of integrated e-invoicing platforms has strong growth potential, offering data-rich payments capabilities between buyers and suppliers that remove key supply chain pain points. With infrastructure enhancements like Same Day ACH rolling out in the U.S. and breakthroughs like virtual currency and distributed technology on the horizon globally, the foundation is being laid for the next generation of payments offerings. The challenge for players in the payments ecosystem is to apply these capabilities to a high-quality customer experience that meets evolving expectations.

It is also worth highlighting that modernized infrastructure can also support the case for digital transformation of correspondent banking discussed earlier. Linking different domestic modernized infrastructures with each other could greatly contribute to the development of a new cross-border payments experience that would finally be at par with domestic solutions.

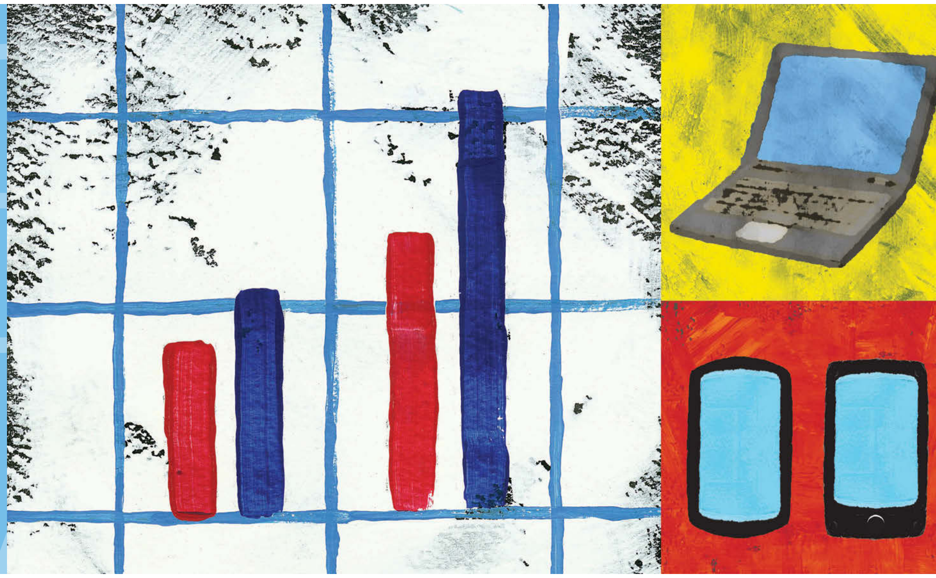
A customer-centric digital strategy

Fundamentally, infrastructure modernization can serve as the catalyst for a much-needed large-scale digital bank transformation. Although the impetus is a regulatory push in this case, such transformation programs should nonetheless take a “customer-back” approach as well, since the end goal is to strengthen customer relationships in a world where banks’ customer franchises are facing unprecedented threats of disintermediation. We explored this threat in detail in last year’s report; specifically, we identified four foundational components to such transformations:

1. Implement new internal processes, including the deployment of agile methodologies across functions and business silos
2. Think in terms of omnichannel and cross-functional customer journeys
3. Design customer-centric products, providing delightful user experiences
4. Leverage digital marketing to drive customer adoption, engagement and retention

Modernized infrastructure opens a large number of potential new revenue streams for banks that can develop new customer-centric products, solutions and even redefined customer journeys. However, success will require banks to develop numerous capabilities beyond those of a traditional IT project. Banks must, in other words, go beyond “Build it and they will come.”

Non-bank attackers are already making inroads into the payments business, and their access to a new set of rails will pose an even greater threat to banks’ customer relationships. Attackers will develop and aggressively package new solutions that focus on alleviating customers’ pain points. To preserve their valued position with customers, banks need to rapidly form cross-functional teams across traditional silos—coordinating joint strategies across retail and wholesale, with cross-functional implementation teams from all relevant parts of the bank—and deliver solutions to customer needs and pain points. Only then will banks be in a position to defend and grow their payments businesses.



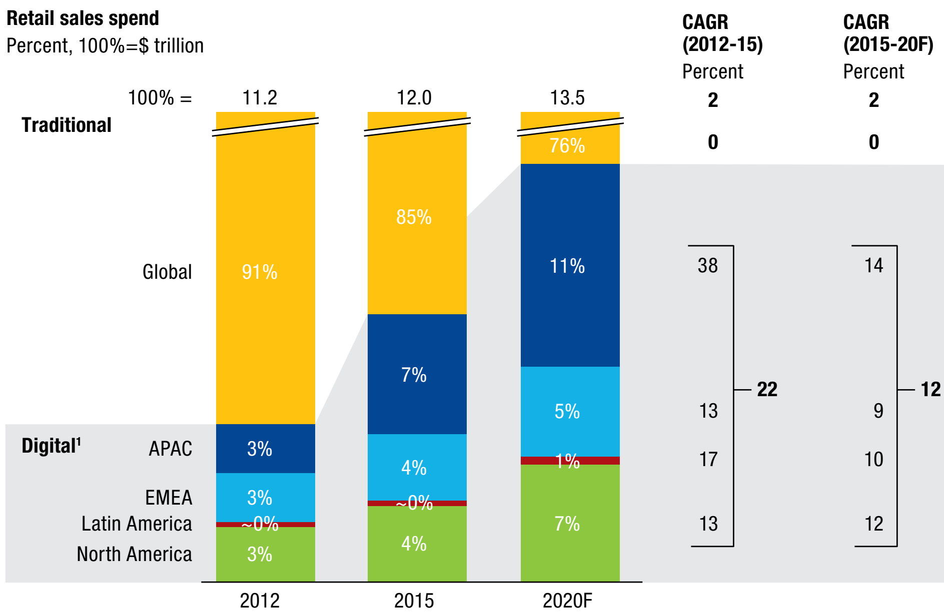
E- and M-commerce Payments Continue Rapid Growth

Electronic and mobile commerce continue to capture an increasing share of retail sales, jointly surpassing $1.8 trillion in sales in 2015, representing a 22 percent CAGR since 2012. Over the same period, global sales through traditional retail channels were essentially flat. As a result, e- and m-commerce (collectively referred to as digital commerce) now comprise 15 percent of total retail sales, up from 9 percent just three years earlier (Exhibit 12).

McKinsey expects this trend to continue. Digital commerce growth is expected to “slow” to 12 percent, but still significantly outpace overall retail sales growth. By 2020, we

Exhibit 12

Digital commerce currently represents 15% of retail sales and is expected to account for 24% of total retail sales by 2020



[1] Digital retail sales are e- and m-commerce retail sales

Source: McKinsey Global Payments Map

expect digital commerce to reach $3.2 trillion, or 24 percent of overall retail sales.

Growth will be fueled in large part by m-commerce

A closer look at the numbers reveals more actionable trends in the digital commerce arena. While e-commerce sales (those initiated from a desktop) remain twice the size of m-commerce (initiated from a smartphone or other mobile device), the latter category is rapidly closing the gap. M-commerce grew from 1 percent to 5 percent of total retail sales between 2012 and 2015, reaching $600 billion, with a CAGR of 87 percent. E-commerce growth rates have begun moderating to levels that would be expected of a maturing product, at least in the most developed regions. Indeed, the e-commerce sales CAGR for 2012 to 2015 was a relatively moderate 6 percent for both EMEA and North America. In that context, McKinsey forecasts that by 2020 the m-commerce share of total retail sales will match that of e-commerce, with each accounting for 12 percent of total retail sales. Rapid m-commerce growth is enabled by the successful development of app-based merchant solutions and the increasing adoption of e-wallets, both of which make mobile payments more convenient. This trend is centered in APAC, where m-commerce (17 percent) is expected to surpass the share of e-commerce (11 percent) of overall retail sales by 2020. In EMEA and North America, m-commerce share should grow to 6 percent and 11 percent respectively, but remain below e-commerce levels (12 percent in EMEA and 15 percent in North America). Only in Latin America is m-commerce not expected to gain appreciable share.

APAC continues to lead retail sales digitization

APAC boasts the highest level of digital commerce penetration (18 percent of retail sales in 2015), more than three times the level seen in Latin America (5 percent) and nominally higher than North America and EMEA penetration (16 percent and 13 percent respectively). Not only is APAC is the largest global digital commerce market (45 percent share of global digital spend, followed by North America at 28 percent, EMEA at 25 percent and Latin America at 2 percent), it remains the fastest growing. APAC's absolute spend on digital commerce grew 2.6-fold from 2012 to 2015. Through 2020, APAC is expected to continue to post the fastest growth. Although APAC's digital spending growth is expected to slow substantially (CAGR down from 38 percent for the period 2012-2015 to 14 percent for the coming 5 years), its growth will nonetheless outpace North America (12 percent CAGR), Latin America (10 percent) and EMEA (9 percent).

While APAC's overall digital commerce penetration is 18 percent, this metric varies widely across countries. Korea and China have the highest penetration at 28 percent and 25 percent respectively, and both are expected to exceed 35 percent by 2020. Even as digital commerce becomes more mainstream, the notion that in select major countries over a third of retail sales will bypass brick-and-mortar stores in only a few years is truly remarkable. On the other end of the spectrum, weak smartphone and internet penetration have suppressed adoption in Indonesia, Malaysia and Thailand (all 2 to 3 percent of retail sales).

Diverse and rapidly evolving payments behaviors

Digital commerce has lowered geographic barriers in many ways, with cross-border digital sales estimated to account for 15 to 20 percent of total digital spend. However, digital payments behaviors are fragmented and subject to local preferences. Payments instrument usage differs meaningfully in digital versus traditional brick-and-mortar settings, and behavior continues to evolve rapidly by geography. Deep local market understanding is imperative to compete effectively as a payment service provider (PSP) in the digital commerce market, not only in terms of payments behaviors but also in understanding the relative importance of different verticals. For example, travel is the largest vertical in the U.S. (44 percent of digital spend) whereas apparel and consumer electronics are the largest categories in China (45 percent). Similarly, for preferred instrument, while e-wallets are hugely popular in Hong Kong and China (54 percent of digital commerce), in Japan and Malaysia, e-wallets account for 1 percent and 2 percent of digital commerce respectively. It is important to note, however, that an e-wallet is a hybrid of a form factor and a payments instrument in itself. The wallet facilitates payments through an existing instrument (e.g., debit card, pay later card, credit transfer/direct debit); its adoption triggers a re-stacking of the deck with regard to payments preference, upending long-established habits. Therefore, banks and card issuers should be prepared with strategies to defend or claim prime wallet position as e-wallets gather critical mass.

Digital payments behaviors are also often locally defined and, as with traditional payments, acceptance of local solutions is critical.

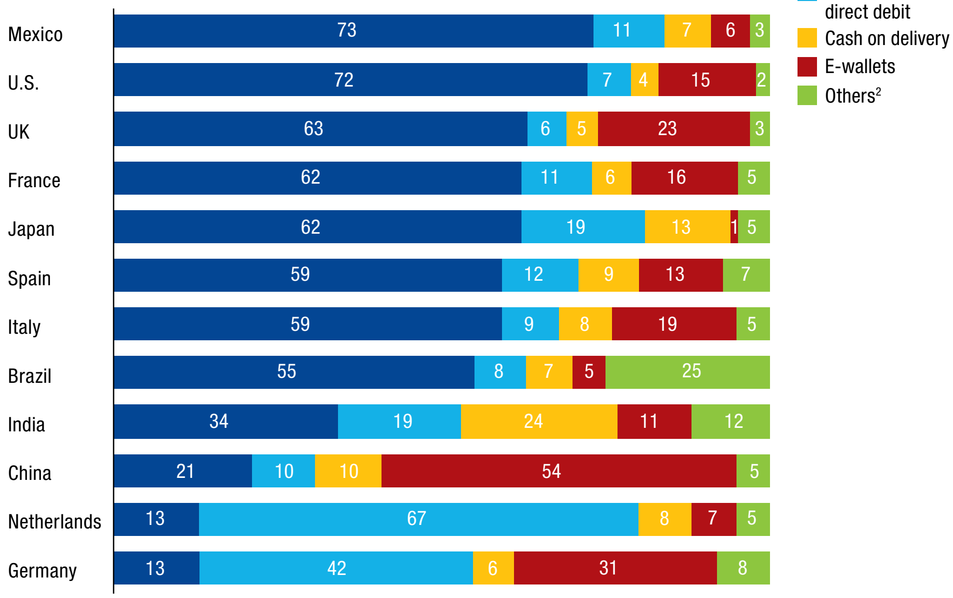
Digital payments behaviors are also often locally defined and, as with traditional payments, acceptance of local solutions is critical. Globally, for traditional retail sales and other C2B payments (mostly bill payments), direct debits account for 29 percent of 2015 spend, followed by debit cards (21 percent), credit transfers (18 percent), pay-later cards and cash (15 percent each). On other hand, pay-later cards (credit and charge combined) are the most commonly used digital commerce instrument (28 percent) followed by e-wallets (26 percent) and their various embedded payment methods. However, global and even regional views hide country-specific nuances.

In several countries—mostly mature economies spanning regions (U.S., UK, Japan, Brazil, Mexico, France)—cards are the predominant form of payments for digital commerce. France, the UK and the U.S. in particular exhibit similar characteristics. In these three countries, cards account for two-thirds of digital commerce spending, followed by e-wallets with 15 to 20 percent (mostly PayPal in these cases). In the U.S., PayPal is now accepted by 14 of the 15 top online merchants (Amazon is the exception). By contrast, shoppers in Germany and the Netherlands show strong preference for credit transfers over cards, facilitated by solutions like Sofort and IDEAL. India has by far the highest cash on delivery rate (24 percent) of the large countries, likely as a result of lower card penetration. As noted above, China is far and away the leader in e-wallet use. Local e-wallets like Alipay and Tenpay are among the most commonly used digital commerce vehicles in China, accounting for 72 percent of e-wallet spend in 2015. Alipay has dominated China's third-party payments market for years due to exclusive tie-ups with its sister e-commerce platforms, Taobao and Tmall. Alipay has also encouraged mobile payments through a series of promotional campaigns (Exhibit 13, page 36).

Exhibit 13

Digital payments preferences differ widely across countries

Digital commerce[1] spending by instrument, 2015
Percent



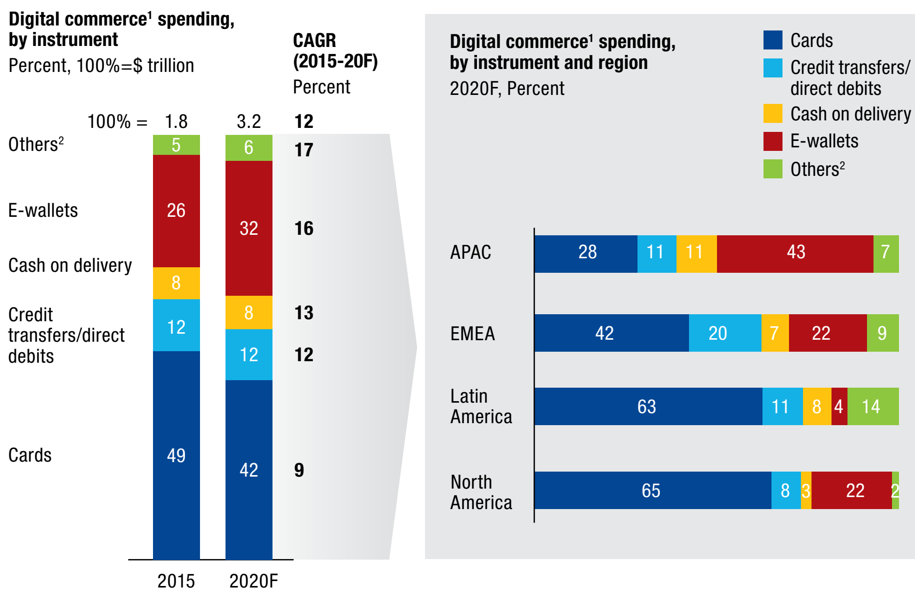
[1] Digital commerce includes e- and m-commerce retail sales
[2] Includes, among others, pre-pay solutions (non-card based)
Source: McKinsey Global Payments Map

Digital payments behaviors are not only diverse and often locally defined—they also evolve far more rapidly than traditional—and ingrained—payments behaviors (Exhibit 14). By 2020, the share of e-wallets in digital commerce is expected to increase to 32 percent from 26 percent in 2015, at the cost of pay-later and debit cards, which will fall from 49 percent in 2015 to 42 percent in 2020. M-commerce's rapid growth is a natural catalyst for e-wallets, and the emergence of instant payments in many regions will provide attractive new payments options within those wallets. Instant payments could also provide a lift to credit transfers, although the full effect may not be seen by 2020. In Europe specifically, the implications of PSD2 and third-party access to account (which will allow third-party providers access to customer accounts via APIs), combined with the development of instant payments, is likely to further favor credit transfers over card payments.

By 2020, the share of digital commerce flowing through e-wallets in APAC is expected to reach 43 percent, nearly double the levels in EMEA and North America (22 percent each). This increase would come at the cost of card payments

Exhibit 14

E-wallets will enjoy the strongest growth among digital payments instruments



[1] Digital commerce includes e- and m-commerce retail sales
[2] Includes, among others, pre-pay solutions (non-card based)
Source: McKinsey Global Payments Map

(35 percent in 2015 to 28 percent in 2020), although as mentioned above many e-wallet transactions may also be card-enabled. It is worth noting that the share of cash on delivery is expected to remain stable across regions, with nearly a quarter of digital commerce spending in a few large emerging countries like India, Indonesia and Thailand still expected to be settled via this method. In both North America and Latin America, cards should remain the preferred instrument for digital commerce, accounting for more than 60 percent of digital commerce spending, decreasing only marginally from 2015. In North America, e-wallets are expected to gain share (15 percent in 2015 to 22 percent in 2020) and in Latin America, a shift from credit cards to debit cards is expected but with no significant e-wallet pickup. In EMEA, while cards should remain the preferred instrument (42 percent of digital commerce spending in 2020), their share is expected to decrease from 2015 (48 percent), with e-wallets (22 percent) and credit transfers (19 percent) gaining share. Credit transfers are likely to remain a preferred instrument in EMEA only, where their share is nearly double that of other regions.

With digital commerce already comprising 15 percent of global retail sales and likely reaching 24 percent by 2020—more than a third of sales in a few countries—banks will need proactive strategies to both defend and extend their role in the payments ecosystem. They must bear in mind, however, that retail payments behaviors are far more local than global in nature, making deep local market understanding essential to success.

Conclusion

By 2020, McKinsey estimates that the global payments industry will generate over $400 billion more in annual revenue than it does today. This growth will be more evenly distributed geographically than in the recent past, but it does not follow that all institutions will gain an equal share of the rising revenues. There are multiple fronts on which banks can act to better position themselves, but there could also be a reshuffling of the deck, in which non-bank attackers gain share.

New cross-border models stand to erode lucrative commercial margins unless proactive steps are taken. Fast-growing digital commerce firms could begin usurping banks' positions in customer wallets. Non-bank attackers could take advantage of modernized national infrastructure capabilities to open new revenue streams. In each case, however, established payments providers that act decisively can turn a changing landscape to their advantage, and the rewards for successful payments strategy and execution will be considerable.

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The authors would like to acknowledge the contributions of colleagues Olivier Denecker, Rob Hayden, Baanee Luthra, Pavan Kumar Masanam and Sylvie Quackels to this report.

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McKinsey's Global Payments Practice

McKinsey's Global Payments Practice is a network of more than 100 partners worldwide serving a broad range of institutions (banks, credit card companies, transaction processors, payments cooperatives, technology firms and nonbanking firms) on strategic, organizational and operational issues in retail and wholesale payments. The practice is recognized as a leader on topics such as digital payments, payments industry profitability, credit card strategy for issuers and merchants, loyalty and marketing, payments processing and transaction banking.

McKinsey Global Payments Map

The McKinsey Global Payments Map 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 more than 40 countries. For information on the McKinsey Global Payments Map, or to contact the McKinsey Global Payments Practice, e-mail paymentspractice@McKinsey.com.

Financial Services Practice
September 2016

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