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McKinsey on Payments



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Global transaction banking: The \$1 trillion question

Global transaction banking (GTB) is not the kind of business to generate headlines or draw attention to itself. Over a long period, it has been seen as the workhorse of the banking world—a reliable performer that quietly goes about its business. Despite its sleepy image, however, GTB is a big hitter—generating around \$1 trillion of revenues every year.

Alessio Botta

Nunzio Digiacomo

Dr. Franca Germann

Reinhard Höll

Reema Jain

Elia Sasia

Notwithstanding its success, GTB is subject to the same challenges as the rest of the financial industry, including low interest rates, heavy regulations, and a technology revolution that is reshaping customer expectations and the competitive landscape. Market disruption is increasing, as clients demand sophisticated products and services that few players can deliver, and as the corporate world digitizes, banks are under pressure to keep pace.

McKinsey's most recent Global Transaction Banking Survey shows that many GTB banks are responding to these trends—assigning budget to digital and customer services, consolidating capabilities, and looking to take on new entrants in key areas such as payments and trade finance. In an era where partnerships will be important, they are also exploring ecosystems, rethinking connectivity, and eyeing the next wave of M&A and private equity investment.

The shifting industry landscape has put pressure on GTB margins. In documentary trade finance, for example, they are estimated to be falling by around 2 percent a year. Moreover, there is no guarantee the dynamic will shift anytime soon. Indeed, digitization and regulations such as Europe's Payment Services Directive 2 (PSD2)—which increases

cost transparency—may exacerbate the trend. Given the challenges, GTB leaders must make astute decisions now, which could be the difference between winning and losing in the years ahead.

GTB executives expect liquidity management, documentary business, and supply-chain finance to drive growth

GTB is responsible for more than 40 percent of global banking revenues and its key growth drivers are reassuringly stable, McKinsey's latest global banking pools estimate shows (Exhibit 1, next page). Payments and documentary trade-related business have been the primary growth engines for most banks over the past three years. Some 71 percent of respondents cite payments as the number one growth driver in cash management and 67 percent cite documentary business in trade finance. In second place in cash management is accounts and deposits while in trade finance it is factoring (and reverse factoring). Transactional FX is also cited as an important driver of growth, with 57 percent of respondents saying it was a key revenue generator over the past three years.

Looking forward, however, there are signs that perspectives on growth drivers are

Global transaction banking annual revenues are nearly \$1 trillion.

Wholesale banking global transaction banking revenue pools, \$ billion, 2018

Core products

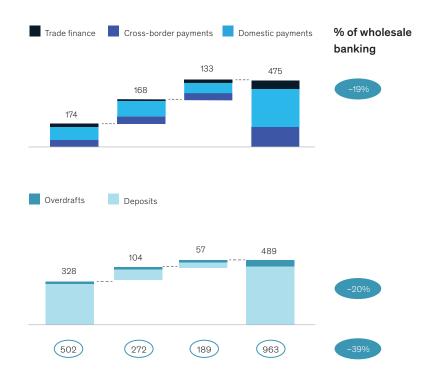
Trade finance: documentary business for international trade, supply-chain finance, and receivables finance

Cash management: domestic and cross-border payments, including liquidity management

Other working capital products

Overdrafts: pre-arranged or unarranged overdrafts at domestic banks

Deposits: current accounts and savings deposits at domestics banks



Source: McKinsey Panorama Global Banking Pools; McKinsey Global Transaction Banking Service Line; McKinsey Global Payments Map

starting to shift. A majority of bankers say liquidity management, documentary business, and supplychain finance are the most promising product lines, with growth likely to reach 5 or 6 percent annually (Exhibit 2, next page). Around one in five of those surveyed believe liquidity management and deposits could see growth of more than 10 percent, while around the same number see the same in supplychain finance.

Investment to focus on platforms and the customer experience

Transaction banking leaders are aware that they will need to change the way they play to grab a bigger slice of the pie. The two areas pinpointed for investment are the customer experience (cited by 95 percent of respondents as an area to build competitive advantage) and platform innovation (cited by 89 percent). Products, pricing, and geographical footprint are lower,

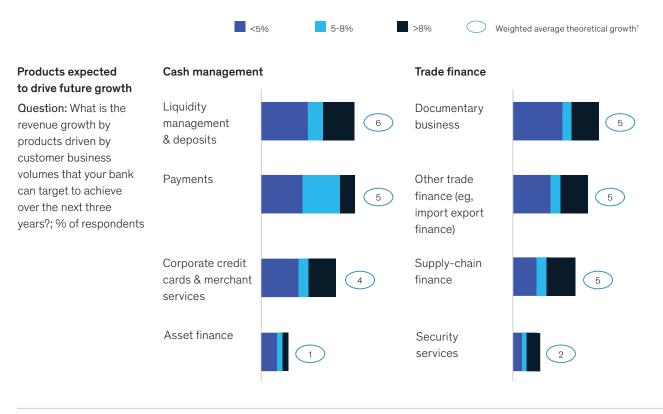
but still material, priorities. On barriers to growth, concern areas focus on capital/lending constraints, IT system/platform challenges, and counterparty risks.

Banks understand transformative change is impossible without a significant commitment of funding and resources. Half of respondents have set aside IT investment budgets in excess of \$100 million for GTB over the next three years (Exhibit 3, page 6). In the past, a significant restraint has been the need to spend large sums of money on maintenance and regulatory compliance. Notably this year the emphasis is shifting to change-the-bank priorities, with the highest proportion of respondents saying 60 percent of their budget is earmarked for those purposes.

When it comes to cost cutting, there is a clear bifurcation of strategies. Around 40 percent of respondents aim to significantly cut their GTB budgets. However, many others do not see cost

Exhibit 2

Future global transaction banking growth will be driven by elements of cash management and trade finance.



¹Calculated using different growth brackets and percentage of respondents for each bracket. Source: McKinsey Global Transaction Banking Survey 2018

cutting as a priority. Where firms do plan to take out costs, commonly cited levers include automation and straight-through-processing, process consolidation, and standardization of operational processes. Slightly larger redundancies are predicted in trade finance than in cash management, probably because trade finance offers more opportunities for automation.

Digital and analytics are more critical than ever

Some 95 percent of respondents say they will invest more in digital and analytics to ensure clients get a better, more tailored, and more seamless service. Digitization of the middle and back offices is seen as almost as important. Many GTB units have already made progress—three quarters have digital platform propositions up and running, relying on a mix of self-build and vendor offerings. A related strategic trend is the intention to phase out legacy IT frameworks,

which is the number one IT priority for almost half of survey respondents.

When it comes to innovation, the outstanding areas of focus are product and channel innovation, with the largest number of banks also set to prioritize big data and artificial intelligence capabilities (Exhibit 4, page 7). Among products and channels, the highest survey scores are assigned to domestic and cross-border real-time payments and mobile/tablet innovation. Bankers understand that the key to building data-led capabilities is relevant, standardized, and accessible data, and some 75 percent say they plan to invest in data lakes for big data applications over the next three years. When it comes to technologies, open APIs in cash management are top of the list for 90 percent of respondents.

In Europe, the impact of PSD2 began to make itself felt over the past year. Some 90 percent of respondents say they plan to invest in APIs to build their partnership networks and boost

connectivity. Blockchain remains high on the agenda, with 60 percent seeing distributed ledgers as potentially useful tools, particularly in the trade finance context.

Many banks, meanwhile, have started exploring artificial intelligence, with half of respondents saying they are active in that area. Three in five banks plan to invest in machine learning, so that they can make the best use of data assets to offer smarter customer services. Right now, however, the primary use case for artificial intelligence is in operations, where applications such as optical character recognition are being used for standardized tasks and processes such as document reviews.

The majority of banks are also using advanced analytics to sharpen their offering and protect their data, with anti-money laundering and cybersecurity use cases at the vanguard (Exhibit

5, page 8). Respondents again indicate a shift towards improving customer service for future use cases. Lead generation is an increasingly favored application, and investment in that area is set to accelerate over the coming years, the survey shows. Liquidity forecasting is seen by four in five banks as having significant analytics potential. Chat bots, meanwhile, are moving into the mainstream, and most banks say they will become a core element of the customer service proposition soon.

Organization and coverage: The winds of change

Given its prominence on the balance sheet, it is not surprising that most banks run GTB through a dedicated unit. More than nine in ten operate under that structure, according to our survey, albeit with some nuance around product coverage. Liquidity and traditional trade finance, for example, sit

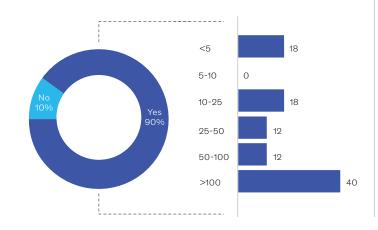
Exhibit 3

Half of respondents have an IT investment budget of more than €100 million for the global transaction banking unit; in most cases 60% is set aside for changing the bank.

IT investment budget (\$ million)

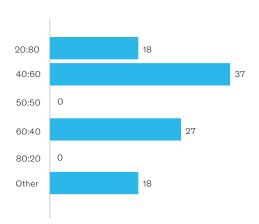
Question:

Does GTB unit have a specific IT investment budget for the next 3 years? If yes, please pick a range to choose the average yearly IT budget; % of respondents



Question:

What is the approximate split of run versus change¹ the bank in terms of IT investment budget over the next 3 years?; % of respondents



Run the bank refers to day-to-day activities required to support ongoing activities within a bank. Change the bank refers to activity aimed at improving how the bank operates, including enhancements to IT, operations, customer service, sales and marketing, and other areas.

Source: McKinsey Global Transaction Banking Survey 2018

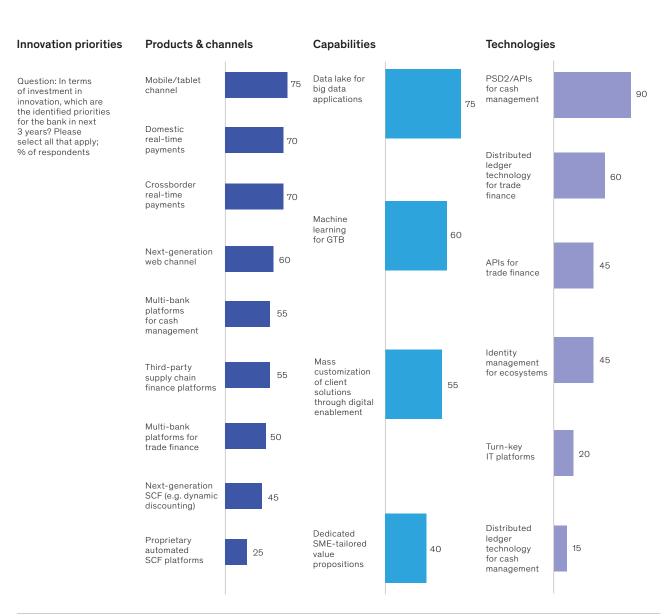
squarely within GTB, whereas cards/acquiring, asset finance, and transactional FX are often shared with other units or sit outside GTB (for example cards in retail and FX in the investment banking unit). A common ambition, however, is to bring these capabilities under the GTB umbrella.

Most global transaction banks cover a full menu of services (Exhibit 6, page 9). On the cash management side that includes payments, accounts and deposits, and transactional FX, while in trade finance almost every bank offers documentary

business and the majority are strong in factoring, and import and export finance.

The overwhelming majority of GTB units provide services to all corporate segments except small businesses and micro-enterprises, which are usually the preserve of retail units. Indeed, between 80 and 100 percent of banks cater to non-banking financial institutions, correspondent banks, banking financial institutions, multinational corporates, large corporates, and mid-corporates. On most counts there is very little variation between regional and

Exhibit 4 **Priorities across innovation portfolio.**



Source: McKinsey Global Transaction Banking Survey 2018

domestic banks, though regional banks tend to focus more heavily on correspondent banks than their domestic peers.

Contrary to the widely held perception, mid-corps remain a priority segment, while around half of banks say large corporates and multinational corporates are their dominant area of focus.

From a coverage perspective, GTB units tend to focus on product development and management, business development, sales, and implementation and onboarding, rather than customer support, IT,

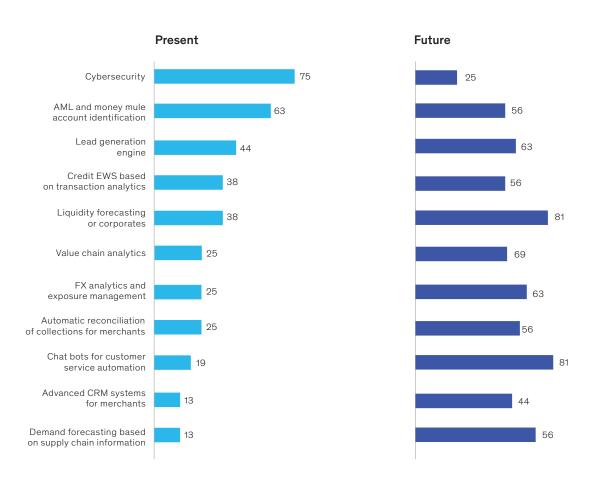
and delivery and operations, which are typically covered at bank level by centralized IT functions and shared service centers, often with dedicated GTB operations teams acting as "business partners" for the GTB unit. It is less usual to take on responsibility for the entire value chain.

GTB coverage models vary by customer segment, with banks tending to lead with RMs supported by specialists for clients with simple needs (model A in Exhibit 7, page 10) but to use services teams or specialist-led models for clients with more complex needs (models B and C in Exhibit 7).

Exhibit 5 Advanced analytics will play an increasingly important role in global transaction banking.

Advanced analytics

Question: Please choose which AA use case your bank is currently using and which are interesting for future (please choose all that apply); % of respondents



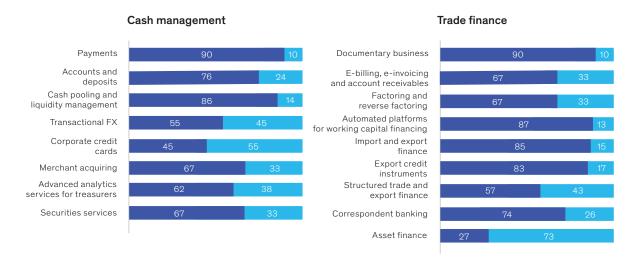
Source: McKinsey Global Transaction Banking Survey 2018

Exhibit 6

Most banks offer a wide range of transaction banking products.

Transaction banking product offerings

Question: Please choose all the global transaction banking products offered by your bank; % of respondents



Coverage implies either revenue responsibilities lies with the unit and/or resources within the unit dedicated to this particular product; refers to hierarchical reporting. Source: McKinsey Global Transaction Banking Survey 2018

In some client segments the preferred service model may be set to change, while in others it is more stable. Where units serve small and medium size enterprises, a majority of banks (around 60 percent) prefer to run teams of RMs supported by specialists. Only around one in ten currently run client-services teams with RMs and GTB specialists, but executives say that model may become more popular in future. The midcorps segment, meanwhile, appears to be on an even keel, with service teams accounting for around twothirds of offerings, and RMs supported by specialists for around a third, amid little sign of change.

Large corporate services are a different matter. Our survey suggests that a regime change is imminent (based on executive preferences), with the RM/ specialist model potentially becoming obsolete as banks operate with client-service teams or specialist-led models. The majority currently employ client-service teams and around 70 percent of respondents see it as the most favored model for the future.

A similar pattern plays out in the multinational corporate segment, with RMs and specialists increasingly likely to be replaced over time by client-

service teams supported by RMs and specialists or by specialist-led models. The latter model is emerging as the fastest-growing option for GTB executives and may account for around 40 percent of coverage models in future, compared with around 15 percent at present.

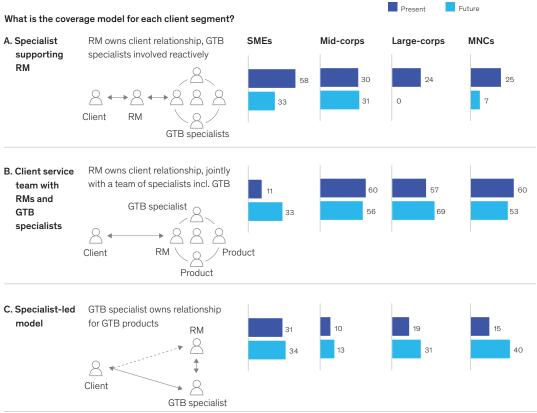
There is some geographical variation, with more than half of banks leveraging centralized capabilities for product development but tailoring coverage models to individual countries. Around one in three banks surveyed run the same coverage model globally.

Navigating a shifting landscape

GTB is set over the coming years to continue to make a significant contribution to the banking industry bottom line. The quantum of that contribution will depend on multiple factors; not least the trajectory of interest rates in core GTB markets. Assuming interest rates recover in the next three years and moderate pressure on margins, we expect annual growth (CAGR) of as much as 7 percent in cash management and 6 percent in trade finance. Under a gloomier scenario of flat interest

Exhibit 7

Global transaction banking service models are set to change depending on client size.



Source: McKinsey Global Transaction Banking Survey 2018

rates and significant margin pressure we still expect to see annual growth in cash management of around 5 percent, but a slightly more moderate 2 percent expansion in trade finance. Under both scenarios we expect deposit and overdraft businesses to perform reasonably well.

GTB executives in our survey echo these views. In particular, they highlight liquidity management, payments, documentary business, and supply-chain finance as areas of outstanding opportunity.

Still, as executives plan to move forward, they should take into account several key trends. These include the rising influence of nontraditional players with new models (such as tech giants and fintechs, which may be enablers or competitors), and technology innovation, likely to be manifested in new channels, increased connectivity, and opportunities in data and analytics and artificial intelligence (as well

as blockchain). We also see a new needs-based approach to client segmentation taking center stage, leading to reformed operating and service models. (For a more in-depth discussion please refer to McKinsey's 2019 Global Payments Report). As these trends play out, leaders must make strategic choices to ensure the business can perform to its maximum potential in the years ahead.

Alessio Botta and Nunzio Digiacomo are partners in McKinsey's Milan office, where Elia Sasia is an associate partner. Dr. Franca Germann is an associate partner in the Frankfurt office, Reinhard Höll is a partner in the Dusseldorf office, and Reema Jain is a knowledge expert in the Gurgaon office.

US lending at pointof-sale: The next frontier of growth

Unsecured lending volumes in the United States are at an alltime high, thanks to improving eligibility rates, enhanced awareness and access, and continued investments in new lending models and start-ups. A key source of growth for some lenders and worry for others has been the acceleration in use of pointof-sale (POS) financing. Most traditional issuers are still in the early stages of assessing their POS lending strategies, so many are not entirely aware of the scale and pace of disruption.

Puneet Dikshit Diana Goldshtein Udai Kaura We see four key factors having an impact on the POS lending segment: shifts in consumer and merchant awareness and preferences, a broadening market share in smaller ticket purchases and higher prime segment, increasing competition, and a more important role for integration of POS financing into the pre-purchase phase of the customer journey. Several business models offer a choice of tactics for seizing the opportunities that result.

Consumer and merchant awareness and preferences are shifting

While point-of-sale financing is a proposition that has been around for a while, the pace of its growth has accelerated in response to enhanced integration of POS financing offers into purchase processes, better application experiences, and newer business models.

Based on McKinsey Consumer Finance pools, the total US outstanding balances originated through POS installment lending solutions stood at \$94 billion in 2018 (Exhibit 1). Those balances are expected to exceed \$110 billion in 2019 and to account for around 10 percent of all unsecured lending. This volume has more than doubled between 2015 and 2019 and has taken three percentage points of growth from credit

cards and traditional lending models, worth more than \$10 billion in revenues.

Although a recession would test the viability of certain business models within POS lending, the underlying shift in consumer awareness is here to stay. So is borrowers' growing preference to borrow at point of sale and get a line of sight to paying down balances, potentially at lower rates subsidized by merchants. Additionally, as emerging digital merchants rely on POS financing to drive growth, larger merchants also are more willing to engage with and integrate POS financing solutions, as Walmart is doing with Affirm.

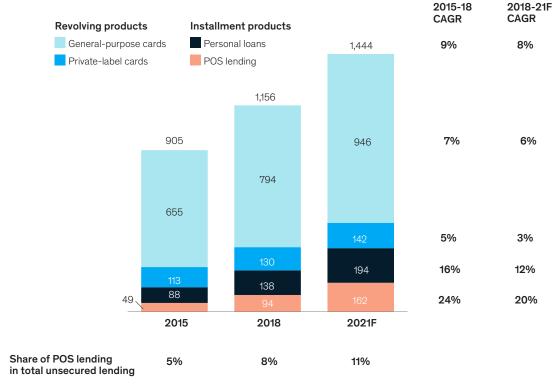
POS financing is capturing greater shares of smaller-ticket purchases and higher-prime segments

Initially, POS loans mostly targeted lowerprime or higher-ticket segments, such as those seeking a loan for home remodeling. Today, however, newer entrants, such as Afterpay, Klarna, and Sezzle, are displacing credit card spending more directly. Purchasers with ticket sizes as low as \$200 to \$300 are shifting to shorter-tenure (four- to six-week) POS financing. These smaller-ticket (less than \$500) POS loans, which are estimated to total

Exhibit 1

US point-of-sale financing is growing at a much faster rate than traditional unsecured lending.





Source: Transunion; Experian; McKinsey Consumer Lending Pools

\$8 billion to \$10 billion in 2019, are growing at rates exceeding 40 to 50 percent.

Additionally, a rising number of premium merchants are offering financing at 0 percent APRs from POS financing providers. These services, combined with a seamless application experience, are starting to attract prime customers. In 2019, around 55 percent of origination volume is expected to be from the prime segment (buyers with credit scores above 680).

Increasing competition is transforming the economics of POS lending

As consumer and merchant awareness increases, so does competition, and this results in changing economic and risk models in POS financing. Around 50 to 60 percent of loans originated at point of sale are either partially or entirely subsidized by the merchant. As merchants become more willing to bear interest costs, lenders are experimenting with new pricing models. In sectors with a high cost

of acquisition and high margins, such as jewelry and luxury retail, merchants are willing to fully subsidize APRs.

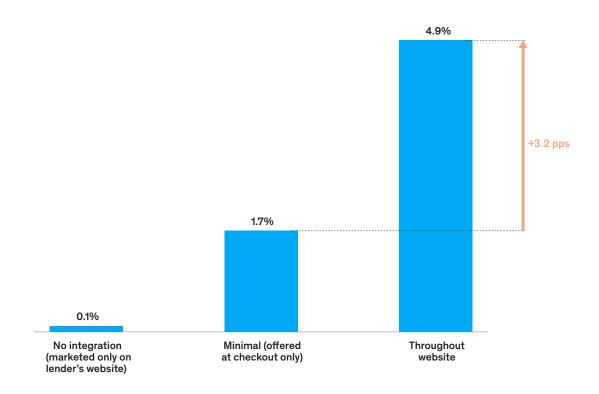
As POS lenders are starting to partner with smaller merchants, risk models also are changing. For smaller merchants, lenders are now underwriting both the merchant and the consumer.

Integration of POS lending into the pre-purchase phase of the consumer journey is now essential

Around 75 percent of consumers who finance large-ticket purchases decide to do so early in the purchase journey, before the actual purchase. Embedding their offerings earlier and more directly in the consumer's purchase journey increases the likelihood of consumer adoption. And integration of financing offers throughout the consumer journey, from research to checkout, increases the conversion rate by two to three times, relative to a simple

Conversion rates in point-of-sale financing vary greatly based on depth of integration, so strong merchant partnerships are critical to success.

Conversion rate of financing plan offered at leading digital furniture retailer based on depth of integration %



Source: McKinsey Digital Commerce Benchmark

integration at checkout (Exhibit 2). Additionally, deeper integration drives stickiness, so it is tougher for competitors to displace lenders at point of sale.

Key business models are emerging in POS financing

As the players engaged in a land grab for merchants increase in quantity and diversity, the competition for merchant access in POS lending also is growing. Traditional players exploring a play in POS financing have a limited period to enter the market and grow. In 18 to 24 months, laggards either will be unable to compete, because most merchants will already have POS financing partners, or will need to pay a heavy premium to get into the market.

To get into POS lending, traditional lenders typically explore a mix of five business models. Some of these also apply to acquirers and entities with direct merchant access:

 Rent out the balance sheet. Banks can partner with established POS financing players to originate loans. This strategy offers only limited and indirect access to consumers but nonetheless permits entry to the market with minimal investment.

- Join a marketplace. Banks can lend in online ecosystems that bring multiple lenders to merchants. This avenue offers greater consumer access and brand presence at a low initial investment. It also affords greater control over underwriting. For merchants, it offers higher approval rates and limited integration fatigue.
- 3. Rent a technology platform. Banks can rent existing POS financing technology platforms to monetize their merchant relationships and balance sheet without needing to invest in building a POS lending infrastructure in-house. This path monetizes existing merchant relationships but requires greater investment in business development.
- 4. **Become an end-to-end solution provider.**With a greater up-front investment and market

- development effort, banks can construct their own end-to-end POS financing operations and engage the fintechs head-on.
- 5. Innovate around the card platform. For a simple alternative that grants consumers lower interest rates and line of sight, banks can enhance their card offerings with installment loans within existing credit card accounts to capture a larger share of consumer borrowing and monetize unutilized credit lines. Integrating card-enabled installments at point of sale can

be an industry disruptor, and first movers will be able to see significant upside in wallet share.

Puneet Dikshit is a partner, Udai Kaura is an associate partner, and Diana Goldshtein is a knowledge expert, all in McKinsey's New York office.

A perspective on German payments

Germany has a reputation for being a high-tech country with a cash-dominated economy. Its cash usage is indeed high (67 percent of total number of consumer-to-business transactions in 2018), but the payments infrastructure is well developed, with approximately 165 million cards, roughly 1.1 million terminals, and a well-established processing landscape (Exhibit 1, next page).

Dr. Franca Germann Reinhard Höll Marc Niederkorn For incumbents, payments are an important source of revenue and the most important customer touchpoint. The question now is whether developments such as Apple Pay or Alipay, ubiquitous card acceptance, and emerging specialists such as Adyen and Wirecard lead to a leapfrogging moment that relegates banks to the role of high-cost providers of cash, cards, and infrastructure, pushing them further away from the heart of the vibrant payments industry. Or more succinctly, will nonbanks and fintechs be able to reap the benefits of the shift away from cash?

Noncash payments are growing

Payments can be defined as covering issuing activities—transactions made through accounts, credit and debit cards, and (new) payments types such as PayPal, Apple Pay, and Amazon Pay. It also covers payments acquiring (terminals, merchant payments solutions) and ranges from the "traditional" point of sale (POS) to the growing e- and m-commerce channels, as well as the underlying processing and current-account, cash supply, and logistics activities. More than 80 percent of payments revenues in Germany are fee based (either directly or usage based from merchants, current accounts, or instruments); the remaining 20 percent are generated from interest margins.

Importantly, most customer touchpoints with their bank are payments related and linked to

current accounts, generating approximately €12 billion in associated revenue in Germany. Leaving aside interest rate effects on the net interest income on current accounts, the revenue from payments has increased in recent years (Exhibit 2, next page). The growth has been driven by the following trends:

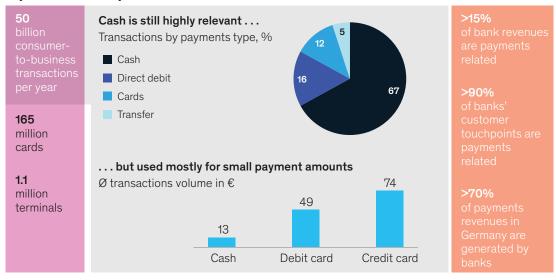
- A steady 1 to 2 percent annual decline in cash usage across all age groups, leading to an increase in use of card and digital payments
- A steady 5 percent annual increase in card usage, albeit with moderate revenue growth (mostly due to regulations such as MIF—Multi-Interchange Fee—regulation)
- An increase of approximately 10 to 15 percent per year in e- and m-commerce channel usage

In a European context, German payments revenues are lower than average; at about €22 billion, they amount to 0.7 percent of German GDP, compared with the 1.0 percent European average and the 1.3 percent US average. German banks rely more on account-related liquidity than most other markets (Exhibit 3, page 17), making them more vulnerable to the current low-interest-rate environment.

While German payments behavior is unlikely to suddenly rival that of China, where mobile payments methods such as Alipay are now used for 28 percent of consumer-to-consumer and consumer-to-business payments, some trends are evident:

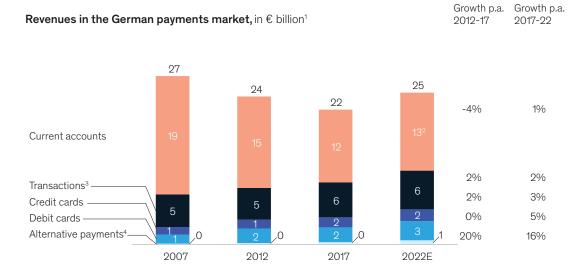
Exhibit 1 An overview of the German payments market.

Payments in Germany



Source: McKinsey analysis

German domestic payments are dominated by current accounts, transactions, and debit cards.

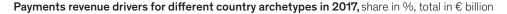


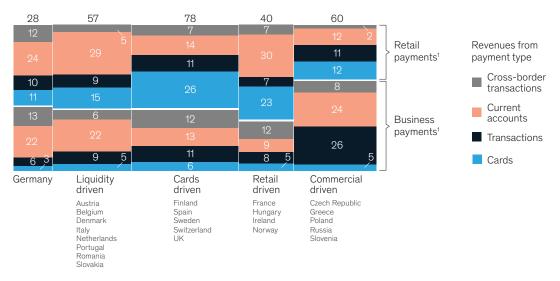
Excluding cross-border business.

² €13 billion assuming constant interest rates, 2017-22; €17 billion assuming rising interest rates.

<sup>Includes cash, checks, transfers, direct debit, documentary business, remittances.
E.g., AmazonPay, PayPal, Sofort, paydirekt, giropay, ApplePay, GooglePay.
Source: McKinsey Global Payments Map</sup>

Exhibit 3 **Germany falls into the current account-related-liquidity-driven country archetype.**





Retail versus business split dependent on revenue recipient.
Source: McKinsey Global Payments Map

- The number of digital payments methods will continue to increase in the near term, enabled by increased adoption of mobile technology. However, other than in niche applications, this growth in payments methods will likely be temporary, with merchants and consumers pushing for convenience and less complexity.
- Germany may follow the trend in other European markets and experience a continuing decline in cash usage to 30 to 50 percent in the next three to five years, as increasing numbers of people pay by smartphones or cards.
- The customer interface remains the competitive focus of banks, card schemes, and payments specialists. Nonbanks—that is, payments specialists and utilities—will continue to gain ground, particularly in non-customer-facing areas such as cash logistics and processing. Banks will continue to hold the balance sheet, and big technology firms are likely to focus on the customer interface to support their core business.

We believe that customers, not technology, will be the key driver of change, as they increasingly expect seamless experiences across channels.

A short-term proliferation in digital payments methods

Online, Germans still mostly pay through traditional means: direct debit and bill pay account for 63 percent of all transactions, with PayPal and credit cards carving out most of the rest (20 percent and 11 percent, respectively). Meanwhile, mobile payments are still seen as distinct from online and brick-and-mortar payments. Actual mobile payments are still very low (less than 1 percent of all transactions) in Germany compared with countries such as Denmark, where mobile payments now make up 14 percent of total noncash payments.

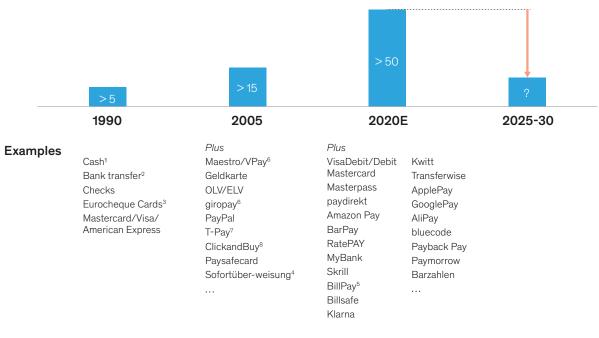
However, digitization, the advent of PSD2, and strong e-commerce growth have paved the way for the development of many new payments methods (Exhibit 4). The emergence of Apple Pay, Google Pay, and mobile payments solutions from banks, such as Kwitt, are likely to fuel mobile growth. It remains to be seen, however, how deeply digital payments will penetrate, given German consumers' skepticism toward new providers. Experiences from other markets such as Switzerland, where the increased usage of TWINT has not led to a fall in card usage, imply that cards are here to stay (mostly at the

expense of cash) and are likely to continue growth in either physical, contactless, or digital form.

Overall, we expect both mobile and online payments volumes in Germany to continue to grow in the high single digits. However, the number of payments methods may decline, given that merchants and customers prefer simplicity and that payments solutions are highly scale sensitive. This may even lead to a leapfrogging moment when market volatility leads to more fluid customer preferences where alternative payments methods may gain a significant market share. In this competitive environment, it is unlikely that payments providers will be able to charge payers significantly, as a large user base will be crucial in gaining scale and ensuring enough merchant access. Moreover, in some very specific, niche use cases (e-gambling, for example), distinct digital payments methods are likely to endure.

To succeed in this race, many payments providers have already started to enhance their offers with omnichannel service and more seamless shopping experiences—for example, allowing consumers to use the same PIN and password credentials online and on mobile. PayPal has significantly updated its mobile payments app; Visa and Mastercard are facilitating connectivity to multiple channels including third-party digital wallets; and Alipay is working with acquirers to offer an omnichannel experience (so far focused on Chinese tourists). Admittedly, banks have not yet been able to translate their relevance in POS transactions to the online and mobile arena. Still, girocard as a national debit system has around 58 percent of noncash transaction volumes, and banks have led several initiatives to upgrade girocard (for example, by allowing contactless payments) and their digital assets such as paydirekt.

Exhibit 4 The estimated number of payments methods in Germany has grown significantly, but in the midterm future, we expect this number to decline.



- Includes cash on delivery.
- ² Includes payments in advance.
- ³ Later girocard.
- Since 2014 part of Klarna.
- ⁵ Since 2017 part of Klarna.
- ⁶ Since 2006.
- ⁷ Until 2010.
- 8 Until 2016.

Source: McKinsey analysis

The future of cash in Germany

Although the number of cards per capita in Germany is comparable with that of other European countries, domestic card usage is comparatively low, with 75 transactions per capita per year, versus 84 in Spain, 173 in France, 279 in the United Kingdom, and 401 in Norway.

Cash usage in Germany today is like that of Sweden in 2003, Italy and Poland in 2015, and Europe overall in 2006 (Exhibit 5). Cash remains a major value proposition for most banks: ATMs are a key customer touchpoint and major reason for charging current-account fees.

The trend in cash usage in these markets has been a steady decline. In some countries (for example, the Netherlands, Poland, and Sweden), this decline accelerated in recent years. Germany will likely follow the same trend with an acceleration of noncash usage within the next three to five years.

As cash becomes less relevant, so too do the existing cash/ATM value propositions, particularly at a time when supermarkets are offering free cash withdrawals. According to McKinsey analysis, banks in Germany currently spend about €2

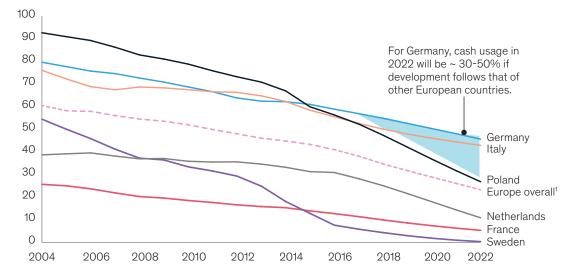
billion on services to support cash transactions: a combination of setup and maintenance of ATM networks, cash logistics, and other related costs. It is likely, therefore, that banks will cut cash-related costs aggressively while actively managing potential public reactions. While market forces may prefer no use of cash at all, this seems unlikely, as there are some groups (tourists and senior citizens, for example) who lack easy access to noncash payments methods, and access to ATMs is often seen as a public good.

Germany's banks will therefore need to address the costs of running the roughly 50,000 ATMs in the country. The number has been relatively stable, as falling usage is counteracted by branch substitution (ATMs replacing bank branches). Banks could follow the example of payments markets in Sweden and the Netherlands and pool their existing networks. This approach could likely start with banks' noncustomer-facing, back-office areas, and potentially result in a model like the Dutch Geldmaat, in which all banks pooled their cash/ATM activities in 2015 and rebranded all ATMs under a common brand in 2019.

Exhibit 5

Strongly declining cash usage in Germany expected given experience from other European countries.

Cash usage in selected European countries, in % of card and cash consumer-to-business transactions



¹ Includes Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the UK.
Source: McKinsey Global Payments Map

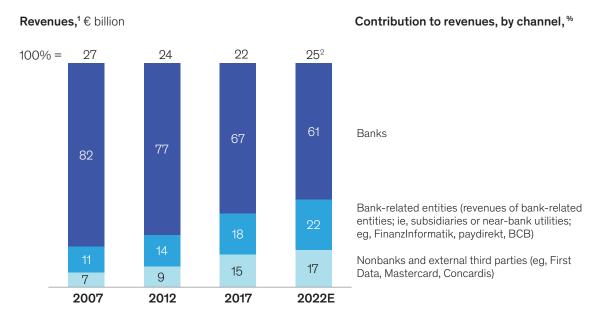
A value chain of specialists: Are banks falling behind?

Germany has mirrored European trends toward a non-bank-driven consolidation in payments as banks' value chain share has steadily decreased over the past decade (Exhibit 6). This is particularly the case in digital payments and non-customerfacing areas:

— Issuing revenue shares are dominated by bank-related entities and nonbanks. In debit cards, girocard—the national debit card run by the banks—is the market leader, with cards held by around 95 percent of the adult population. However, girocard has very limited online and mobile capabilities, which constrains its contributions to related bank-internal revenue growth. Germany has low credit card penetration, serving around 36 percent of the adult population. International schemes (Mastercard, Visa) have focused on their debit solutions (for example, Debit Mastercard) and started to add online/mobile capabilities that were originally developed for credit cards.

- **Digital and mobile payments** are growing rapidly from a low base, with only small market shares for bank-based solutions.
- Acquiring is mainly performed by nonbanks, which account for more than 80 percent of these revenues. It has not been a focus for banks of late, either in Germany or across Europe. The bank-owned Concardis was divested in 2017, and currently only the Sparkassen continue to own a significant (albeit minority) share in Ingenico's German operations after Ingenico's acquisition of BS PAYONE.
- Payments processing in Germany is still relatively fragmented, mainly between bank-related entities and nonbanks. While Commerzbank and the cooperative banks have partially outsourced processing to larger European nonbank players, the market-leading Sparkassen still run their own system (i.e., nearbank), as do some of the private banks, such as Deutsche Bank.
- Current accounts, cash supply, and logistics have remained firmly in the hands of banks,

Exhibit 6 **German banks' share of revenue generation in payments is declining.**



Excluding cross-border business.

² In the event of rising interest rates 2017-2022, total revenues reach €29 billion (67% banks, 19% near-bank, 14% non-bank). Source: McKinsey analysis

with the help of their contractors; related revenues are mainly earned by banks and bank-related entities. Unlike in other European countries, such as the Netherlands, the United Kingdom, Sweden, and Finland, cash supply and logistics utilities across sectors have so far not emerged at scale.

Overall, the trend toward specialists and utilities in noncustomer areas is set to continue; scale effects in processing and cash, as well as regulation (such as PSD2) and security remain important. In customer-facing areas (cards and digital payments, for example), the picture is complex. Specialists such as PayPal are focusing heavily on digital payments but have not achieved broad market leadership. Banks clearly aim to strengthen and defend their customer touchpoints. They have an asset in girocard, a significant stake in credit cards, and at least a foothold in digital payments with paydirekt, giropay, and other methods. Customers seem to trust banks with sensitive payments data, but so far banks have not significantly benefited from this advantage. Card schemes are both their allies and competitors; their networks act in direct competition to girocard and may siphon significant value away from banks. They may, however, still be beneficial to banks, providing them with customer and data access.

What should market participants do?

As cash loses relevance, cards and digital payments expand, regulation fuels competition, and consolidation looms, firms need a clear strategy for strengthening their value proposition. While German banks are struggling to generate returns on equity (ROEs) of more than 5 to 10 percent and losing their share in the payments value chain, the valuation and total shareholder returns (TRS) of payments specialists have been high. For example, Wirecard's price-to-earnings ratio is about 43 (as of September 6, 2019), with a 21 percent ROE in 2018, and the overall payments TRS since 2010 is more than 20 percent per year. Given that payments-related activities are a primary customer touchpoint and a key to cross-selling, payments should be a central theme for almost everyone.

Individually, banks should decide on their payments strategy and whether they will be a differentiator—that is, play for a competitive advantage—or aim to just keep pace with market developments. Independent of the strategy, for most banks a significant share of their banking revenues will still

be payments related, and banks should make sure to have clear management responsibility. Similarly, all banks should focus on achieving operational excellence, particularly pricing power (for example, considering fees for cash usage by businesses), the ability to accelerate sales, new product and service propositions, and further digitization.

A more ambitious differentiation will require strengthening the bank's current position through integrated offers, ecosystem plays, and partnerships with fintechs and—selectively—big technology firms. Regulation such as PSD2 and the proliferation of APIs may support such moves but will also put pressure on laggards as third parties can more easily gain access. As advances in technology and the accelerated growth of digital commerce rapidly reduce the viability of legacy systems, banks should consider divestment or outsourcing of assets where scale or differentiation cannot be achieved. An example is payments processing, where leading European players (such as Worldline) generated an estimated €2.2 billion in revenue, compared with €5.7 billion in revenue in Germany for transactions overall. Nonetheless, selective insourcing of assets appears possible, when they may play into a differentiation strategy. Moreover, for certain players, such as small privatebanking players, a complete exit from offering payments services may be advantageous.

Banks as a group need to acknowledge the threats inherent in industry trends but also grasp the opportunities, such as where they may want to cooperate to enable superior propositions vis-à-vis payments specialists and new market entrants. They should give industry utilities serious consideration, given successful examples such as TWINT for digital payments in Switzerland aiming at the customer interface and Geldmaat for ATMs in the Netherlands aiming at cost efficiency.

For customers, banks need to accelerate the development of payments solutions and create highly convenient, omnichannel offers. With girocard, banks have an asset, but compared with their peers in other European countries, German banks' response to non-cash-related payments has been fragmented. Offers focus on separate solutions, such as girocard (offline), paydirekt and giropay (e-commerce), and Kwitt (peer-to-peer). Banks could also link their current accounts more directly with the digital world (for example, by making online banking credentials/apps usable for e-commerce payments).

Banks may want to consider acting on statements by European politicians on the development of a European consumer-to-business/business-to-consumer scheme (potentially involving girocard, Europe's largest domestic scheme). They might even reach into payments issues around mobile-to-mobile payments and the Internet of Things, with applications to, for example, machinery, automotive, and insurance.

With regard to cost, banks need to collectively improve their structure, ensuring that cash stays affordable, through cross-industry consolidation and optimization of cash infrastructure and by redistributing the true costs of cash between all users (banks, consumers, and merchants). This means banks will almost certainly need to develop new value propositions without cash. Indeed, withdrawals may even become free for customers of all banks, as they are in many other EU markets, to compete against payments specialists.

Specialists should be cognizant of what leads to success: mainly convenience and scale. Further consolidation might be a smart strategy. Acquisitions—often of payments assets divested by banks—can deliver cost synergies or extend a provider's services to less penetrated markets. Specialists should continuously evaluate technology architecture and options for integrating systems as part of any deal. This consideration should also encompass evaluation of the strategic focus, whether to partner up or compete with other specialists in the market. Specialists may also extend their payments offers to leverage into cash management, corporate accounts, and even other areas such as leasing and factoring for large merchants. Some specialists (e.g., Adyen) have already obtained a banking license and are offering services such as cash management and foreign exchange. Similarly, credit card schemes may want to focus on enriching their omnichannel offers to solidify and expand their business in both the offline (particularly in debit) and digital channels.

So far, **big technology firms** have not treated German payments as a core target and have generally been agnostic toward payments methods used on their platforms. Most digital wallets, for example, have been open to what payments methods they consider to work with. Some big

tech firms look at payments methods in terms of control of the customer interface. Others see payments as a value driver from a sales funnel management perspective, meaning they favor the methods that will increase the number of consumers who click, buy, and pay while minimizing risk and complexity. Of course, they may still try to introduce their own payments methods, which could lead to a marginalization of banks. An example of this might be an overarching customer interface for payments where all scheme/interchange as well as transaction fees are captured. However, if truly distinctive, omnichannel offers emerge from banks or specialists, tech players are likely to integrate them into their platforms.

Merchants should take a more holistic view of the cashless trend and focus on the effects of payments complexity on buying behavior, data generation, and costs. The growth of digital payments opens possibilities for creating transparency on revenues and actively using payments data to manage sales funnels. These advantages are also more and more accessible for smaller retailers. Larger merchants may also opt to actively push selective payments methods.

In **conclusion**, all players, and banks in particular, need to decide whether payments is a differentiator; they can play for a competitive advantage or just keep pace with market developments. Playing for competitive advantage requires a flexible approach that can deliver superior value propositions to customers. Here technology is important but not decisive, whereas keeping pace with changing customer needs, as well as a sharp focus on creating scale at selected points along the value chain is always essential. On the other hand, a fast-follower strategy will rely on third-party providers and may be more cost-efficient. In each case, customers can continue to expect more convenient payments offers and more tailored solutions.

Dr. Franca Germann is an associate partner in the Frankfurt office, Reinhard Höll is a partner in the Dusseldorf office, and Marc Niederkorn is a partner in the Luxembourg office.

Are convenience and rewards leading to a digital flashpoint?

The long-awaited inflection point in US digital wallet adoption may finally be upon us. This finding is among the key takeaways of McKinsey's most recent Digital Payments Consumer Survey, an annual study of US consumers conducted since 2015.

Lindsay Anan Deepa Mahajan Marie-Claude Nadeau Other survey insights challenge the conventional wisdom surrounding digital payments behavior, and point to unexpected shifts in segmentation that financial services providers—both traditional and non-traditional—are already acting upon. In this article we share some of the key insights as well as the implications for financial services providers of all stripes.

McKinsey's research reveals that over three-quarters of US consumers made a mobile payment of some type (whether online, in store, or in-app) in the twelve months ending August 2019 (Exhibit 1, next page). The most meaningful increase is in the use of digital wallets, which are defined here as an app or solution that can be used to store card or bank information to make purchases, pay for services, or make online payments to family or friends—that is, peer-to-peer (P2P). Close to half of consumers are now using in-app digital wallets, a 7 percent uptick from one year earlier. In-store usage remains lighter, however (around one-fifth of respondents).

Another critical takeaway from the survey is that digital behavior is not confined to the Millennial cohort most commonly associated with digital transactions. Although Millennials do lead the way, all groups show significant uptake—including 64 percent of Baby Boomers participating in mobile payments in some form.

A top-of-wallet paradigm shift

One significant surprise is that consumers are beginning to treat digital wallets more like their legacy analogs. The inception of these digital credential containers was thought to exacerbate the "top of wallet" paradigm that long governed payments card preference.

Major issuers have engaged in a "land rush," striving to establish their card credentials as the default payments option in a variety of apps—witness American Express offering \$200 in annual Uber credits to its Platinum cardholders, and Citibank and others touting statement credits for users using their card to settle recurring charges with iTunes, Netflix, and others.

The prevailing wisdom has been that most consumers would take a "set it and forget it" approach, making top-of-wallet status in the digital world far stickier and more lucrative than in the physical setting. This tide has shifted, however; a majority of in-store and in-app wallet users now report switching to a non-default card at least every couple of weeks (Exhibit 2, next page). This may be attributable to added functionality from segment leaders like Amazon and ride-sharing companies simplifying the process of toggling between cards.

Exhibit 1

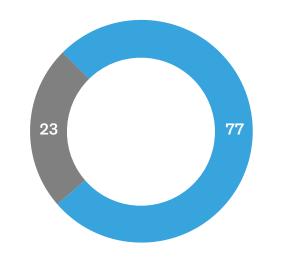
Not a fad: Three out of four people use mobile payments.

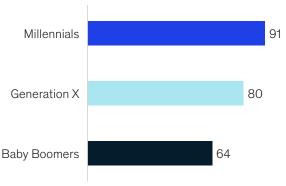
77% of people use one or more types of mobile payments

% using mobile payments last year

More than Millennials

% using mobile payments last year



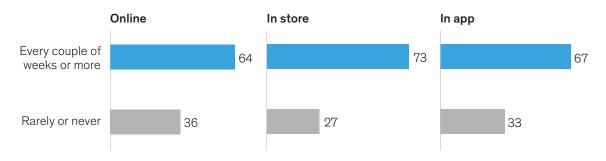


Source: McKinsey 2019 Digital Payments Survey

Exhibit 2 Consumers are starting to treat digital wallets like a leather wallet.

I switch the card I use in my digital wallet to a non-default card...

% penetration



Source: McKinsey 2019 Digital Payments Survey

Four distinct segments, three digital plays

Behavior also varies across segments defined by factors other than age as well (Exhibit 3). Our 2018 research identified four basic archetypes: The digitally averse cohort comprises a quarter of the US adult population. Only half of this group has so much as completed a digital payment, and until their trust/channel security hurdles can be overcome, they are unlikely to migrate from traditional payments methods. Two groups—tech savvy and offer junkies—represent a combined half of shoppers and are certainly candidates for the type of card-toggling described above. Notably, however, offer junkies prefer to shop via browser rather than in-app, in order to facilitate deal comparisons—giving rise to market solutions like Rakuten (Ebates) and Wikibuy.

Convenience seekers, the final group, comprise the strongest digital adopters to date—surprisingly even more so than the tech savvy group. Consistent with its name, this group also shows the greatest interest in embracing features beyond payments that mirror

those of physical wallets—storage of coupons and tickets, for instance. They also show willingness to toggle between cards to realize those benefits; two-thirds of this group regularly makes payments with a non-default card. Even among the leading digital wallet players, consumer preferences vary markedly by use case, implying that users are not averse to maintaining multiple wallets, at least at this stage of market evolution (Exhibit 4, next page). Early mover PayPal holds a leading share for in-app and online purchases whereas Apple Pay, an early mover for in-store purchases, in the channel, enjoys a wide advantage in that channel.

The rapidly evolving P2P space is even more complex. Although PayPal again holds a lead, the gap to number-two player Venmo is narrower. Venmo is a subsidiary of PayPal, reinforcing the notion that variations on functionality and branding appeal to different segments. Close behind is Zelle, the fast-growing bank-owned alternative which is riding the network effect of its large-financial institution reach as well as a stated preference

cards)

Exhibit 3

Consumers can be classified based on their attitudes and preferences towards digital payments.

Share of respondents per segment

Digitally averse Tech savvy Half have performed a digital Active adopters of latest technology, including alternative payment payments (eg, digital point-of-sale Strong preference for traditional loans, social-media-based methods (cards, cash, checks) 15 payments) on retail purchases 25 Apps are preferred digital Heavy security concerns, low payments channel trust in non-bank digital wallets 23 Convenience seekers Offer junkies Most active adopters of digital Actively seek best price via payments; more than 60% make coupons, offers more than one digital transaction Prefer to make digital payments per month through a browser (to enable Interested in using a digital wallet in comparison shopping) the same way as a physical one (eg, Strong interest in ability to pay storing balance, coupons, tickets,

Source: McKinsey 2019 Digital Payments Survey

in points for digital purchases

across all cohorts for banks as the provider of digital wallet services.

Zelle's significantly higher average transaction size is again a sign of a markedly different core user or use case. Both Zelle and Venmo have also moved beyond P2P. Zelle offers business-to-consumer (B2C) payments, such as rebates, rewards, or other disbursements. Venmo is now available as a consumer-to-business (C2B) payments method on millions of websites through PayPal. This could mirror the experience of MobilePay in the Nordics, which began as a P2P solution before gaining traction as a more all-purpose wallet.

The handset as segmentation device

Another interesting attitudinal disparity exists between users of iOS and Android handsets. iOS users indicate a similar level of trust in Apple than in financial institutions (Exhibit 5, next page). This is perhaps unsurprising given the intense brand loyalty Apple enjoys. It is nonetheless an important factor to consider given the long-discussed notion of a non-bank entering the US payments equation in a customer-facing role.

The majority of US smartphones are Android-based, however. Among these users, PayPal is the most trusted entity for financial services in 2019, surpassing banks as the top choice in 2018; Android's parent Google ranks a distant third.

Digital wallet adoption has been strongest in areas where the new solution addresses substantive existing pain points. Some have suggested that outside of e-commerce settings, digital payments are a "solution in search of a problem." While we wouldn't go that far, evidence indicates that consumers are reasonably satisfied with existing physical payments methods and require an enticing incremental benefit in order to alter established behavior.

Such a reading would not bode well for the prospects of US contactless adoption unless it is paired with a compelling proposition, such as the public transit rollouts pending in several metropolitan areas. Apple's new credit card, launched in conjunction with Goldman Sachs, offers richer rewards for Apple Pay in-store transactions, which could provide a boost to wallet use, and advance the contactless mindset overall.

Digital wallet wars are still raging, but clear leaders exist by environment.

Popular payment method

% penetration

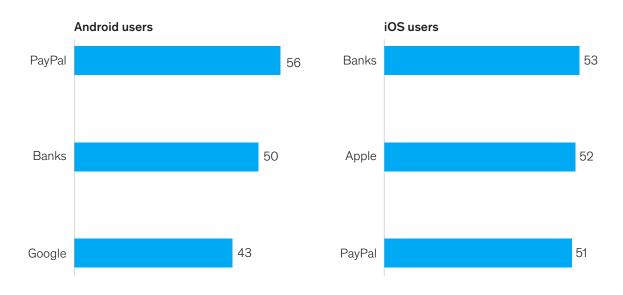


Source: McKinsey 2019 Digital Payments Survey

Exhibit 5

Android users trust PayPal more than banks.

% penetration



Source: McKinsey 2019 Digital Payments Survey

Avenues for advancement

As consumers' trust in technology companies increases, traditional institutions will need to step up their offerings to protect share and prevent disintermediation. Apple's recently launched credit card venture with Goldman Sachs can be viewed as an attempt to address this trust gap, although the natural audience of Apple enthusiasts has already overcome that objection. Banks can emphasize the security of financial institutions, as Zelle does with its P2P messaging.

More broadly, banks' efforts tend to target the convenience seeker segment, leveraging wallet features as a way to acquire attractive customers. American Express' Plan-It installment feature has captured an additional \$1 billion in card spending, almost half coming from traditional transactors in addition to revolvers. Chase is introducing convenient digital features such as simplified bill payment and P2P quickpay. Chase also aims to broaden the appeal of its Sapphire credit card by extending the branding to checking accounts and offering rewards tie-in for mortgage originations.

Given clear opportunities across three distinct segments, players should also look to tailor offerings to appeal to particular subgroups. Capital One has been particularly aggressive in its outreach to the tech savvy—the one cohort that has shown receptivity to wallet-based lending offers. Capital One has extended its digital suite to include Paribus (which automatically tracks purchases and issues refunds when lower prices are found), Eno (establishes a virtual card as a browser plug-in for each purchase), Resy, and Wikibuy in an effort to increase spend and cement top-of-wallet status. Meanwhile, Wells Fargo heavily promotes the convenience and cost savings of Control Tower, which monitors recurring charges for unneeded expenses.

Although the focus has been on open networks, nonbanks continue to experiment with closed-loop ecosystems as well. T-Mobile has offered a deposit account with above-market rates (on limited balances), a degree of overdraft protection, as well as a \$10 credit for Lyft rides. Although not a digital wallet per se, it is a sign that mobile carriers have not yet relinquished their long-held designs on a consumerfacing role in payments via the smartphone.

While not technically closed loop, the significant balances maintained in Venmo accounts leads to similar behavior. Venmo's Uber partnership points to a robust potential ecosystem encompassing transit, dining (UberEats), and PayPal merchants.

The success in Asia of Alipay and WeChat are inevitably cited as potential models for the US. Although these players may not pose huge threats themselves—US expansion plans appear to be limited to serving Asian tourists—they may serve as a cautionary tale of potential outcomes when technology-forward players enter the payments space and dictate the innovation agenda. Amazon is arguably positioned to achieve something similar if it expands digital wallet acceptance (the Whole Foods acquisition provides an opening on this front) and aggressively promotes Amazon Cash. Seamless experiences address the need to deliver clear incremental benefit over the status quo, and also defend top-of-wallet status.

Later this fall, McKinsey will release broader results from the survey tracking US consumers' digital

payments behavior through mid-2019. It will be interesting to see the extent to which the additional promotion of products like Zelle for P2P and Rakuten for reward shopping has altered existing digital adoption trends. At the same time, major developments like Apple's credit card rollout and contactless payments enablement for leading public transit systems will not yet have had time to impact the numbers—reinforcing the "long game" aspect of the adoption curve. In any event, financial services providers of all stripes have stepped up their efforts to establish presence and influence the trajectory of a market that shows clear signs of realizing its promise.

Lindsay Anan is an associate partner, and Deepa Mahajan and Marie-Claude Nadeau are partners, all in McKinsey's San Francisco office. January 2020 Copyright © McKinsey & Company www.mckinsey.com/industries/ financial-services/our-insights

