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GLOBAL PAYMENTS 2017

DEEPENING THE CUSTOMER RELATIONSHIP

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INTRODUCTION

FOR RETAIL AND WHOLESAL banking institutions alike, the payments business is a crucial source of revenue and data and a critical anchor for broader customer relationships. As a result, the quality of the customer experience and the speed at which services can be accessed and decisions rendered have disproportionate impact on bank profitability. This is good news and bad news for established banks worldwide.

The good news is that banks bring formidable strengths to the payments arena; among them are well-established expertise, deep balance sheet resources, and stability. Even the highly regulated nature of banking activities has a silver lining: it provides banking customers with the assurance that their assets, data, and needs are being protected. These traditional strengths mean that banks remain the most trusted financial partners for both individuals and corporate clients.

The bad news, of course, is that banks' primacy in the payments arena is under attack. Digital tools, technologies, and capabilities have opened the vertically integrated value chain that gave banks their dominance. Competitors inside and outside the banking sphere no longer need the same physical footprint or scale to engage customers. Nor do rivals need to provide the same variety of products. Attackers can now pick off a formerly interlocked part of the traditional payments value chain—be it the interface, the product portfolio, or the underlying infrastructure—and go after it aggressively. That's threatening the traditional relationship that banks have had with customers and changing the stakes considerably.

Banks can't afford to sit back as these changes unfold. Deepening the customer relationship requires that banks simplify the user experience and employ automation, artificial intelligence, and other technologies to improve decision making, compliance, cycle times, and cost performance. Here's what leading banks will do to improve their payments business:

- **Redesign the customer journey.** Top banks will use digital technologies to redesign a daily banking customer journey—one that meets the specific needs of core customer segments and creates more intuitive and intelligent interactions.
- **Operationalize open banking.** To stay relevant, leaders will manage open banking as a business, with an enterprise-wide vision, a prioritized set of initiatives, a clear set of goals, and a strong governance framework.

- **Personalize and monetize data.** Analyzing transaction data can yield critical customer insights and drive revenue growth and efficiency. To capitalize on those insights, top banks will get their data house in order by developing clear applications for customer data for both internal and customer-facing business processes.
- **Identify what to build and maintain in-house and where to partner.** The most successful payments operations will be those that determine where they can carve out a unique advantage and become a leader and where they should partner, recognizing that few banks will be able to serve the entire value chain on their own.

Banks are no strangers to these ideas. But we have found that many institutions lack a sense of urgency or are unsure how to put their ideas into action given competing demands and the rapid rate of market change. The first step is for each bank to reflect on its existing strategy and market position and consider its appetite for risk and change. Should the bank focus on owning the customer interface; becoming a leading provider that offers, for example, specialized transaction services or working capital; or becoming an ecosystem or platform player? This report, BCG's 15th annual study of the worldwide payments business, seeks to help banks break through the inertia by providing concrete recommendations that they can start to execute. The first chapter offers an outlook for the global payments industry, and subsequent ones examine how retail and wholesale banks can respond.

MARKET OUTLOOK

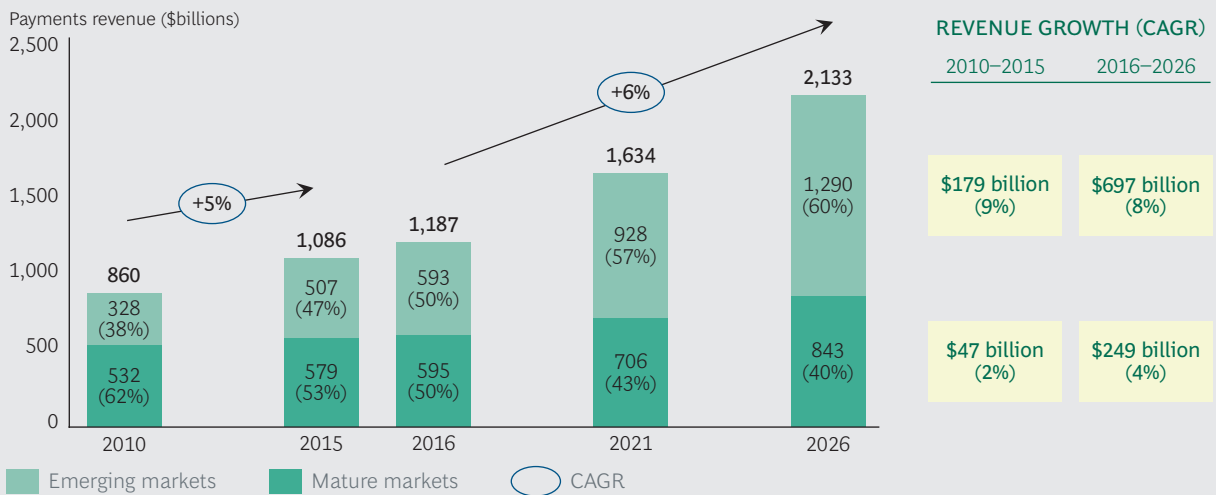
PAYMENTS CONTINUES TO BE one of the most important and fastest-growing areas of the financial services sector worldwide. In 2016, the payments business overall, including balances on current accounts, totaled \$1.2 trillion. Core payments revenue, excluding interest income, represented \$0.8 trillion, or 20% to 25% of global banking revenue. The value of global payments transactions stood at \$420 trillion, or 5.5 times global GDP. By 2026, we expect global payments revenue to increase by \$0.9 trillion as emerging markets continue to grow and cashless transactions become more widespread. A gradual recovery

of interest rates in mature markets will further boost account balances. We expect the compound annual growth rate (CAGR) of revenue in mature markets to increase to 4% from 2016 through 2026. (See Exhibit 1.)

Regional Overview

Emerging markets continue to drive most of the growth in the payments business. In fact, BCG’s Global Payments Model indicated that for the first time, emerging markets represent the majority of all payments revenue globally. That performance has been driven by the

EXHIBIT 1 | Payments Revenue Is Expected to Grow by \$0.9 Trillion by 2026



Source: BCG Global Payments Model 2017.
 Note: Any apparent discrepancies in totals are the result of rounding.

widening acceptance of noncash payment methods in markets such as China and India and by the persistently low interest rates that have suppressed revenue growth in mature markets. A comparison of average payments revenue per capita revealed the potential for significant additional growth in emerging markets. Whereas, on average, payments revenue per capita in North America is \$900, for example, in Asia-Pacific, it is only \$100.

For banks operating in mature markets, the increasing use of noncash payments will be a major contributor to their growth. However, our data shows a growing disparity between noncash champions and cash loyalists. The noncash champions are those countries that had the highest number of cashless transactions per capita in 2010 and that continued to expand their lead through 2016. By contrast, the cash loyalists, such as Italy, Spain, and Germany, are countries that did not see a significant expansion in the number of cashless transactions. (See Exhibit 2.)

Looking at the payments business overall, we expect the CAGR of wholesale payments revenue to outpace that of retail payments revenue (7%, compared with 6%) by 2026. (See Exhibit 3.) However, a decline in the transaction

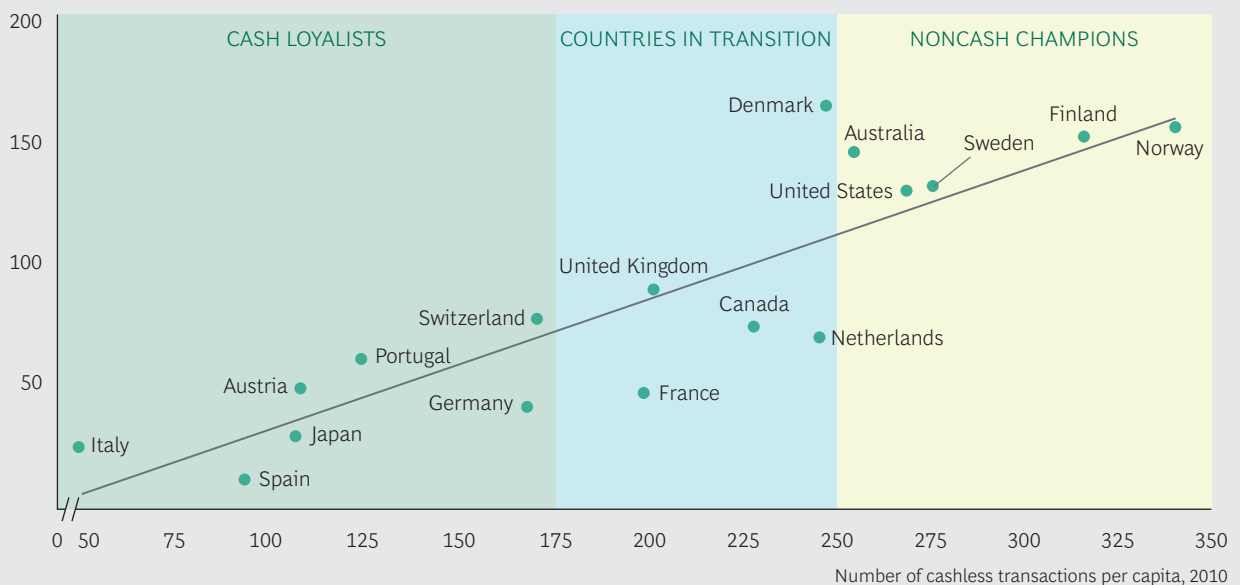
value of cross-border payments and increasing margin pressure may hinder growth in wholesale payments revenue.

Europe. In Europe, we see four important developments taking place. The first is that some countries are rapidly becoming cashless. This is especially true in the Nordic countries, thanks to the rapid growth in contactless card payments and the gradual adoption of digital payment. The second development is that private equity firms and incumbent banks are seeking to build scale and are continuing to acquire the payments and processing assets of European banks. These players are raising the bar in terms of innovation and efficiency, which will, in turn, lead to further consolidation.

The third development is on the regulatory front, where all eyes are on the second Payment Services Directive (PSD2) as regulators work to finalize the latest set of provisions. These provisions have been delayed for two main reasons: the financial community pushed back on user authentication requirements that were seen as too onerous and fintechs debated the ban on screen scraping. PSD2 will accelerate innovation and competition and lead to increasing fragmentation. In

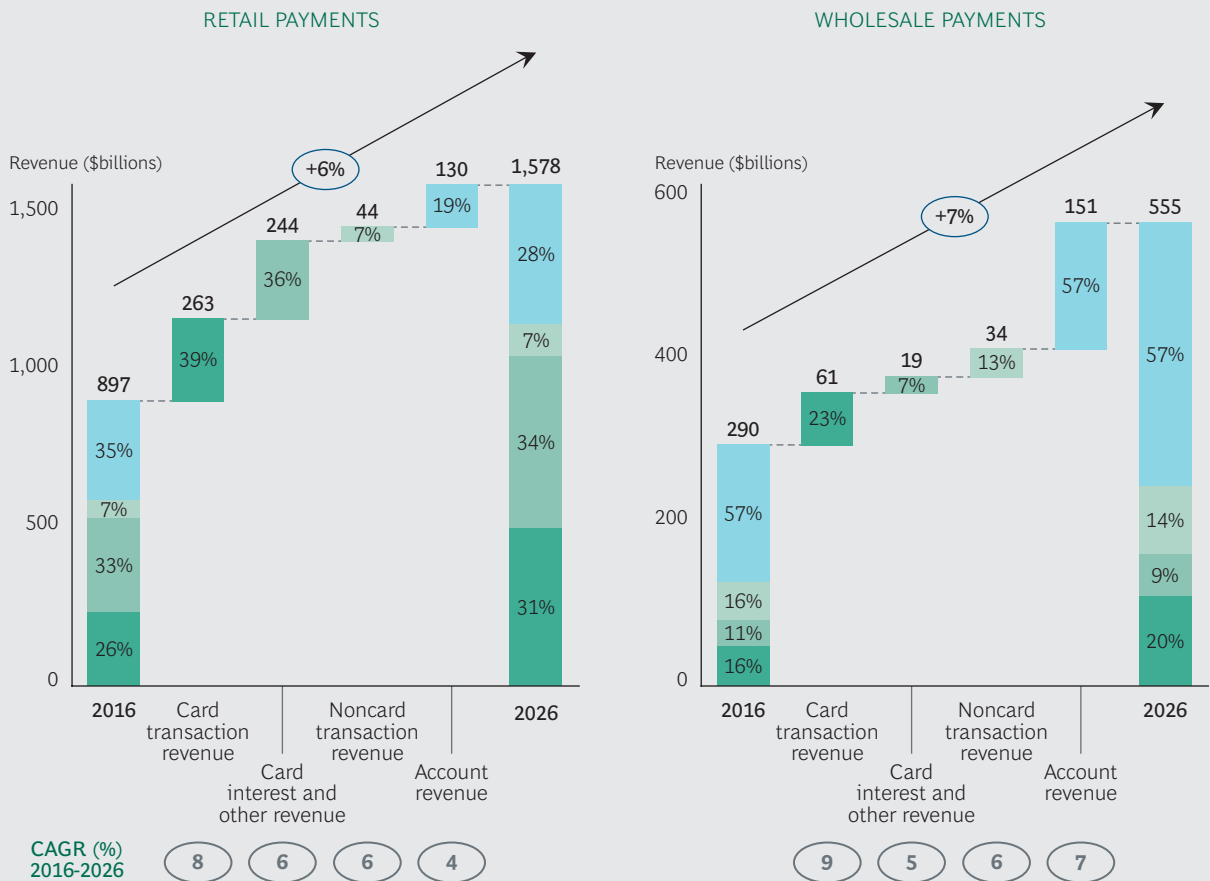
EXHIBIT 2 | The Divide Between Noncash Champions and Cash Loyalists Is Growing

Number of cashless transactions per capita, 2011–2016



Source: BCG Global Payments Model 2017.
 Note: Includes only retail transactions.

EXHIBIT 3 | Wholesale Revenue Is Expected to Grow Faster Than Retail Revenue



Sources: BCG Global Payments Model 2017; BCG analysis.

Note: Card transaction revenue is from credit and debit cards and includes various types of transaction-specific fees (such as interchange fees and merchant acquiring fees). Card interest and other revenue include nontransaction-related revenue (such as credit card net interest income, monthly or annual card membership fees, fees for overdrafts and insufficient funds, and other service fees). Noncard transaction revenue includes transaction-specific fees, prepaid card transaction revenue, and card fee revenue. Account revenue consists of net interest income and maintenance fees on current accounts (such as demand deposit accounts). Because of rounding, not all percentages add up to 100.

addition to PSD2, regulators in the European Commission are likely to focus more closely on cross-border interchange charges, payments fees, and currency conversion services in the EU, which have been long-standing profit centers for banks.

The last development is that instant payments are also gaining traction. The banking industry and major clearing houses in Europe have adopted a voluntary instant-payment scheme called the Single Euro Payments Area Instant Credit Transfer, which is expected to go live at the end of 2017, supported by new pan-European instant payment infrastructures. In addition, the European Central Bank expects to start operating a service known as the Target Instant Payments Settlement in November 2018.

Together, these changes are likely to have a profound effect on the traditional payments business and will force banks to fundamentally rethink their payments strategy and customer journey.

Americas. In North America, competition in the credit card segment is intensifying: issuer spending on rewards is approaching record levels, more fintechs are vying for market share, and large merchants are looking to extract more revenue from cobranded deals. Digital wallet partnerships are also on the rise. Examples include PayPal’s tie-ups with Mastercard and Visa and Google’s partnerships with Visa Checkout and Masterpass for Android Pay. The payments infrastructure is also evolving to help facilitate real-time transfers. A new digital payments network

called Zelle allows people to send money instantly through participating banks' mobile apps. The Clearing House, a banking association and payments company, is set to launch its real-time payment initiative by the end of 2017. The flipside of this digital innovation is that fraud and other malicious activity have increased. Our data shows that the annual cost of payments-related fraud for North American credit card issuers has reached \$3 billion, and that figure is expected to climb. That's putting pressure on issuers to improve cyberthreat detection and fraud management.

India has become a global leader in providing digital payments access.

In Latin America as well, the digital payments business is evolving rapidly, fueled by innovation, mergers and acquisitions, the growth in peer-to-peer (P2P) transactions, and the wider adoption of digital wallets. New entrants, such as Mercado Pago and Todo Pago in Argentina, are gaining scale, especially in small- and midsize-enterprise financing. At the same time, regulatory activity is creating pressure. For example, new caps on interchange fees in Argentina are squeezing the margins of card issuers. In fact, regulatory pressure in Argentina, Chile, and Colombia has prompted some banks to consider putting their payments business up for sale.

Asia-Pacific. The Asia-Pacific region continues to be a hotbed of growth in digital payments. Nonbanks (especially those in China) have been at the forefront of much of this activity. As domestic competition in China intensifies, some Chinese players are expanding to tech-savvy economies in Southeast Asia, where fragmentation and sometimes clunky functionality have hindered customer adoption of local digital payment initiatives until now.

India deserves special recognition given the enormous changes that have occurred there recently. In only a few years, India has transformed its payments infrastructure and

has become a global leader in providing digital payments access. It has also led the way with biometrics-enabled security. A free, government-sponsored program called Aadhaar, for instance, has provided more than 750 million Indians with a unique 12-digit identification number, strengthened by fingerprint and iris scans. In addition, spurred by the government's currency demonetization initiative, digital payments have expanded beyond basic services, such as mobile recharge, to include utility bill payment, in-app payment for mass transit system tickets, P2P transfers, and merchant payments. The National Payments Corporation of India has launched a new Unified Payments Interface, which allows easy and instant P2P bank account transfers. In the six months since demonetization, the number of point-of-sale card transactions has nearly doubled and the number of mobile-wallet transactions has quadrupled. The number of merchants that have been accepted into various payments networks has also risen. For instance, Paytm has acquired almost 4.5 million merchants in the past six months. These factors will increase the number of noncash payments, which are expected to overtake the number of cash payments by 2022.

Fintechs and Digital Giants Are Serious About Entering Payments

According to our proprietary Fintech Control Tower database, there are close to 9,000 active fintechs that are backed by nearly \$100 billion in funding. Although sleek payments platforms, powerful analytic engines, and other market-shaping innovations have the potential to add enormous value, fintechs are unlikely to disrupt banks' payments business outright for several reasons. One, although fintech funding has grown exponentially, investments have been dispersed across thousands of companies, so the industry is highly fragmented. Two, most customers still don't trust fintechs in the same way that they trust their banks. And, three, the fintech industry is relatively young, and no dominant players have yet emerged. As a result, fintechs are unlikely to pose a vital threat to banks' retail and wholesale payments business in the near term. Instead, our modeling suggests that the most significant competitive

challenge to emerge by 2020 will be an ecosystem in which the most digitally savvy incumbent banks and digital attackers gain market share in some areas at the expense of less digitally advanced banks.

Collaboration will define the banking-fintech relationship over the next several years.

Payments will be a natural focal point for fintechs and digital giants, because the processes lend themselves to digitalization. Our data shows that since 2000, 27% of fintech investments have gone into payments-related fintechs. Two payments businesses are now among the eight fintechs whose combined equity funding is more than \$1 billion. Many payments-related fintechs are actively targeting high-growth, high-margin payments products, such as foreign-exchange services, remittance transfers, cross-border payments, and small business banking. Although a handful of fintech leaders may achieve global scale in specific product verticals, we expect that collaboration, rather than head-to-head competition, will define the banking-fintech relationship over the next several years. Banks that follow the example of fintechs in service innovation—and move quickly to digitalize their core operations and lock up promising partnerships—will have a distinct advantage over slower-moving peers.

Open Banking Will Accelerate the Disruption

Open banking is becoming part of the banking firmament whether or not incumbents are fully ready. Part of the push is coming from new regulations. PSD2 in Europe, for example, requires banks to enable third-party access to customer account information. The other push is coming from the rapid growth of application programming interfaces (APIs), software that facilitates the exchange of data across systems and organizations.

The API market is projected to reach \$2.2 trillion by 2018.¹ Payments and financial

services-related APIs make up the second-fastest-growing category of APIs, with roughly 1,400 in use.² The monetization potential is significant. The companies that were among the first to offer third-party developers their APIs are seeing their API investments deliver enormous returns. Salesforce.com generates 50% of its revenue through APIs, eBay, 60%, and Expedia, 90%.³

Although some banks are actively investing in open banking and APIs, many others continue to take a wait-and-see approach. They are missing an opportunity—one that eager competitors are actively pursuing. Fintechs, credit card companies, and others are developing innovative APIs that, for example, allow for combining transaction data with travel data to create unique, location-based offers; let small businesses integrate banking data into their bookkeeping software; and enable companies to incorporate banking analytics into a management dashboard. Payments institutions should use open banking to grow revenue, deepen customer relationships, and increase their share of wallet. (See the sidebar “How Banks Can Take Advantage of Open Banking.”)

Data Management Has Become a Critical Capability

The transaction data that banks produce and capture is especially valuable. Such data can provide immediate (and otherwise hard to get) financial and behavioral insights. In addition, superior use of data through analytics can increase cross-selling opportunities, improve credit scoring, mitigate fraud, and reduce customer churn. It can also help banks secure evidence-backed insights into customers' needs and wants, provide more personalized service, and deliver specialized advice—efforts that contribute to stronger customer relationships and increased retention.

However, most banks are only putting a fraction of the data they possess to work. Weak data hygiene practices are not uncommon. And many lack the skill sets and technological resources to implement initiatives quickly and the governance processes to extract the most value from their data assets. Correcting these limitations requires banks to define an

HOW BANKS CAN TAKE ADVANTAGE OF OPEN BANKING

There are three ways that a bank can use open banking. The first is to incorporate third-party functionality into its own offerings to provide a wider variety of services, enhance the customer experience, and increase productivity and cost performance. One bank uses payment card analytics to provide customers with credit risk scoring and personalized credit offers. Another uses third-party APIs to provide customers with financial news and market data through its online portal.

The second way to take advantage of open banking is to embed the bank's APIs directly into third-party platforms. For instance, one bank created an exclusive partnership with a leader in bookkeeping

software. The agreement allows the bank's small business customers to link their transaction data directly to their accounting ledger. Another bank partnered with a leading membership rewards program to allow cardholder customers to use loyalty points to pay online at select partners.

The third way is to set up multiparty ecosystems, such as marketplaces and aggregation platforms, that allow customers to access a variety of services from the bank as well as from other businesses.

None of these approaches is mutually exclusive. Banks can employ one or more as they build out their open-banking presence.

enterprise-wide data strategy that is supported with clear data monetization models. As PSD2 turns transaction data into a “public good,” challengers have all the necessary tools to become competitive. Banks must improve their capabilities or risk being sidelined.

NOTES

1. “IBM Unveils Matchmaking Technology to Navigate API Economy,” IBM.com, November 5, 2015.
2. “Financial, eCommerce, Enterprise API Categories See Big Growth,” ProgrammableWeb, April 10, 2017.
3. “The Strategic Value of APIs,” HBR.org, January 7, 2015.

REINVENT THE RETAIL PAYMENTS MODEL

A STRONG PAYMENTS RELATIONSHIP IS the gateway to deepening the primary banking relationship. Customers that make a large number of payment transactions are more likely to use other bank products and can bring in 15 times more revenue than customers that make fewer transactions and use only one bank product. In addition, payment transactions provide banks with a wellspring of purchasing and behavioral data, an increasingly valuable currency in the digital age. Banks can analyze the data and apply the insights gleaned to improve customer journeys and create richer value-added offerings.

By 2020, digital transactions are expected to make up 20% of all transactions.

Yet, banks aren't the only ones fighting for the critical payments relationship. Digitalization has opened the market to a diverse group of competitors. They include device manufacturers such as Apple and Samsung, technology firms such as Google and Facebook, retailers such as Amazon and Alibaba, and thousands of fintechs. By 2020, digital transactions, including payments made using apps and browsers, are expected to make up

20% of all transactions, with 40% of that volume coming from payments at the point of sale. A decade ago, consumers had only two choices: cash or credit cards; now, they have dozens of options.

To stay competitive, banks need to look at their payments value chain to see which activities they should continue managing and which they should outsource. Most banks, for instance, will need to divest subscale businesses that cannot be differentiated from competitors' over the long term. With the exception of the world's largest banks, few institutions will be able to defend the payments relationship unaided: the rate of innovation is too fast, the capability gap is too wide, the advantages of the digital giants are too entrenched, and the investment needed by a single player is simply too great. But banks cannot afford to stand still. Here are four ways banks can reinvent their retail payments model.

Redesign the Customer Journey

Despite a genuine desire to put the customer experience first, most banks still think and work in terms of their internal processes—many of which were designed for a different era and are carried out among various groups and functions. From the customer's perspective, these processes may seem fractured. Banks that have redesigned their core cus-

customer journey and created a cohesive experience have increased revenue by as much as 25% and productivity by 20% to 40%.

In the card payments segment, we have found that six customer journeys generate roughly 80% of total revenue and total costs. Those journeys are customer onboarding, reward point redemption, bill payment, card upgrades, the management of fraud and other issues, and changing account settings. Banks can transform each journey by using a structured approach. (See Exhibit 4.)

To begin, banks should map an existing journey, understand customers' pain points, and study the example of digital leaders. Then, a team of user experience designers, product managers, software programmers, and other stakeholders should participate in formal ideation sessions to define the target experience. Working in small groups, the team develops a minimum viable product (MVP) and runs that prototype through repeated, rapid iteration cycles until it reaches predefined business or customer thresholds. Finally, with the new experience developed and tested, the bank focuses on revamping enterprise processes and procedures to enable it. Such changes include updating the governance framework, the operating model, collaborative structures, and the underlying technological architecture to provide a seamless end-to-end experience.

The results can be profound. For example, a European bank converted a ten-day, 15-step

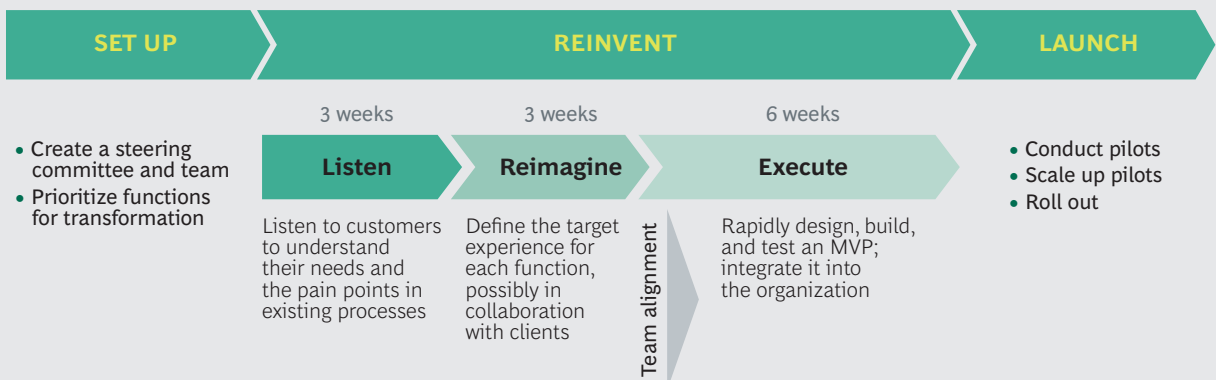
onboarding process into a fully automated, self-service experience that could be completed in five minutes. In another example, a large travel chain significantly improved the application process for preapproved cobranded credit cards by embedding the underwriting process of its banking partner directly in the chain's travel app. Because the bank's servicing platform is seamlessly connecting to different systems, customers need to sign in to the app only once. Customers don't realize that they are using a different app when they check their credit card balance because the activity takes place behind the scenes.

Collaborate to Tackle the Digital Wallet Challenge

Digital giants have been moving aggressively to become serious contenders in the digital wallet segment—and they have the scale and innovation capabilities to attract a strong user base. However, although consumers have responded favorably to the idea of using digital wallets at the point of sale, few are yet willing or able to do away with their plastic cards or physical wallets altogether. That said, we expect the use of digital wallets to spike over the next several years as companies resolve these adoption issues and consumers become increasingly accustomed to digital payment methods.

Banks need to prepare for that future now to avoid being left out when digital wallets reach widespread adoption. Partnering should be the first step since most banks lack

EXHIBIT 4 | A Structured Approach to Reinventing a Customer Journey



Source: BCG analysis.
 Note: MVP = minimum viable product.

an established customer and merchant base. Nearly all organizations that have successfully created proprietary digital wallets have collaborated with others. By contrast, banks that have attempted to go it alone have yet to achieve critical mass.

Card networks, such as Mastercard and Visa, could make attractive partners, since they are actively investing in new digital payment capabilities. They could also be more natural allies for banks than digital attackers because they don't bring the same inherent risk of disintermediation. Alternatively, in locales where advanced digital players have established a strong first-mover advantage (Alipay and Tenpay in China, for example, and Paytm in India), banks will need to collaborate directly with these platform businesses to bring standardized and customer-friendly digital payment solutions to market.

Regardless of the partnership strategy employed, incumbents must ensure that they stay at the "top of the third-party wallet." They can do this by exploiting their superior financial insights, financial controls, and reward programs to differentiate their payments-related services. Banks should also accelerate the deployment of contactless cards, because they are likely to be adopted by consumers for point-of-sale purchases, and they are difficult for nonbank digital solutions to match.

Develop an API Portfolio

As noted earlier, the second-fastest-growing category of APIs comprises those for payments and financial services. That momentum has the potential to transform the retail payments business. Banks that are large but slow players in their domestic markets, for example, could be overtaken by nimble, global players. To maintain market share and compete with new players, incumbents should develop an open banking strategy and build an API portfolio. By doing so, banks can expand distribution for existing payments products, cut processing times for customer transactions, mitigate fraud, reduce IT infrastructure complexity, and create new revenue from data and analytics. Leading banks are building developer platforms to expose their APIs. By enabling third-party developers to create

new offerings that would be difficult to build independently, leaders are shortening their innovation curve.

Although banks recognize the opportunities, only a handful manage open banking as a business that is supported by a dedicated organization with profit and loss accountability and the authority to form outside partnerships. However, those banks that operationalize open banking most successfully give their leaders the authority to define the payments API strategy, manage developer engagement, and oversee the resulting API portfolio. API program leaders also have the freedom to experiment with various monetization approaches. These include direct options, such as pay as you go and revenue sharing, as well as indirect options in which APIs are created to enrich the product offering or customer journey.

Incumbents should develop an open banking strategy and build an API portfolio.

To optimize collaboration with the developer community, banks should create a set of technical standards, amass good test data, and prepare their infrastructure to meet the needs of developers. This includes creating an innovation platform that enables collaboration and rapid, iterative development. Banks that develop an enterprise-wide payments API program will have a considerable advantage over slower-moving peers in retaining and extending customer relationships.

Employ Personalized Marketing

The use of payment products (particularly payment cards) creates rich pools of customer data that banks can use to personalize their marketing. Consumer-focused digital companies, such as Amazon, Starbucks, and Netflix, have demonstrated the value. Starbucks doubled its net incremental revenue through highly personalized offers, and Netflix saved \$1 billion per year by optimizing content procurement and personalizing cus-

customer recommendations. Credit card issuers are experimenting with personalization, but many banks and other financial players are lagging behind.

The most effective personalized marketing campaigns support strategic outcomes, such as the repeated use of a particular card, an increase in transaction amounts, or the purchase or sell-through of a given product or set of products. Although personalization is a sophisticated means of marketing, the campaigns can be quite simple initially. A proof-of-concept campaign that requires minimum investment and is not disruptive to existing technology and processes is frequently the best way to begin conducting personalized marketing.

The requirements can also be simple: customers' information and transaction data, a library of preapproved campaign modules, and basic modeling systems. These elements al-

low marketing teams to mix, match, and test thousands of differentiated offers quickly and have the added benefit of being easy to maintain and explain to business colleagues.

By employing personalized marketing, a European card company saw a 100% increase in customers' average card use over a two-year period, and a global card issuer experienced a 20% bump in customer card transactions. Some financial services institutions are seeing other benefits. A US bank now uses personalization techniques to target microsegments at scale. A financial planning fintech that tracks clients' savings progress uses personalization to recommend the next investment product to buy when a customer has reached a personal financial goal. And a major insurer is using personalization capabilities to determine which offers to recommend.

REMAKE THE WHOLESALE PAYMENTS MODEL

CORPORATE TREASURERS ARE GROWING increasingly impatient with the lack of integration, automation, consistency, and customer-centricity in many bank payments platforms. To remain relevant—and profitable—wholesale banks must reassess how they do business, streamline their processes, and implement digital tools and practices that improve the experience of their customers and the productivity of their back office.

Revamping these fundamentals is especially important given changes in the wholesale payments market. These include the continuing shift toward a two-speed global economy as well as changes in the growth of cross-border payments revenue and trade flows. By the end of 2026, emerging economies should see revenue from wholesale payments grow by 8%, compared with about 4% in mature markets. (See Exhibit 5.) In addition, from 2016 through 2026, the average annual CAGR of wholesale payments revenue from cross-border transactions is expected to be 6.8%, down from 7.5% for the period from 2010 through 2015. The decline is due to slower trade growth and pressure on margins. Shifting trade flows may also affect the wholesale payments market. Trade finance revenue has the potential to reach \$44 billion in 2020. But the health and duration of the global economic recovery and changes in countries' trade policy could affect trade flows leading to a high variation in scenarios.

Wholesale banks also face changing competitive dynamics. New entrants from inside and outside the financial services arena are taking advantage of open banking and new technologies and successfully vying for market share in high-margin niches. Despite these challenges, banks that leverage their longstanding client relationships and balance sheet strength can win in this environment. The first step is fine-tuning their strategic focus.

Become a Payments Leader

Amid an increasingly complex treasury management landscape, treasurers are looking for a trusted partner that can help them execute their myriad responsibilities and steer them through countless choices. To meet these needs, wholesale banks must adapt their payments model and strategy. By assessing the types of companies that a bank has in its client base, its capabilities, and its financial strength, the bank can determine which one of the following approaches is the best fit. (See *International Payments: Accelerating Banks' Transformation*, BCG and SWIFT white paper, October 2017).

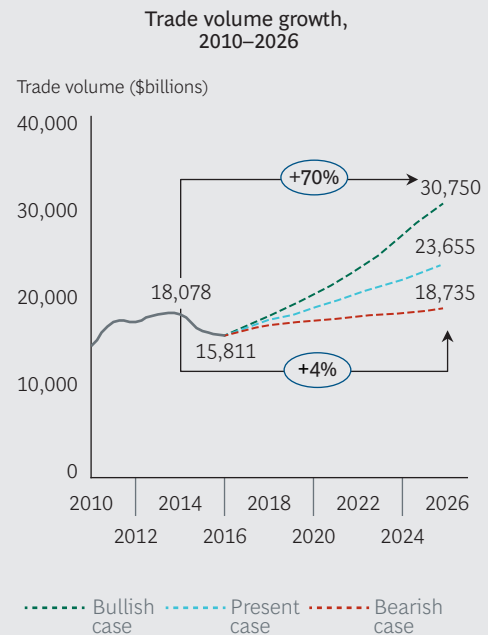
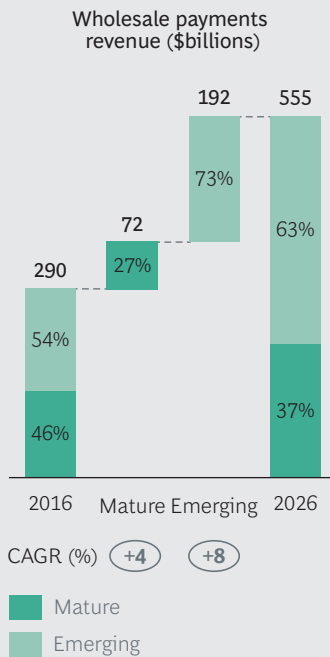
- **Become a vertical leader.** Digitally savvy banks that have a market-dominant product or service can build global scale in that vertical segment. Flagship products such as working capital optimization, accounts payable and receivable automa-

EXHIBIT 5 | Wholesale Payments Has Strong Fundamentals Amid Uncertainty

EMERGING ECONOMIES MAY GENERATE TWO-THIRDS OF GROWTH

GROWTH OF CROSS-BORDER PAYMENTS REVENUE IS SLOWING

GROWTH OF TRADE FLOWS IS UNCERTAIN



Sources: BCG Global Payments Model 2017; BCG Trade Finance Model 2016.
Note: Any apparent discrepancies in totals are the result of rounding.

tion, foreign-exchange services, and cross-border payments are prime candidates for globalization. This strategy requires banks to invest in modernizing their IT capabilities, augment their digital talent pool, and partner with or acquire relevant B2B fintechs. Some fintechs have already found success with this model. PrimeRevenue, for instance, is a supply chain finance platform that connects buyers and sellers with multiple banks and enables the tracking of goods and cash flows. Incumbents can do the same; they can scale such a platform by leaning on their experience in providing working capital to a strong existing client base.

- Become an ecosystem navigator.** Ecosystem navigators differentiate themselves from competitors by guiding clients to the most appropriate offerings in the ecosystem. Local or regional banks with longstanding client relationships can pursue this strategy by offering a customer-centric platform that packages and distributes proprietary and third-party offerings; these banks can also provide

one-on-one advice to companies that want help assessing a variety of solutions. Rather than providing a full suite of services directly to customers, ecosystem navigators use data and analytics to deliver proactive advice and support treasurers with their core corporate treasury requirements (such as real-time overviews on cash positions, predictive models that anticipate demand spikes, and virtual accounts and tokens that facilitate invoice and payment reconciliation).

- Become a payments factory.** Regional banks with above-average process efficiency can serve customers as a digital data custodian or by providing banking-as-a-service, risk assessment-as-a-service, and other similar offerings. These services could have wide appeal among corporate customers and pay for maintaining a high-performing core banking infrastructure, which has become increasingly costly for many banks. Banks could implement this approach using a hub-and-spoke model, with one or two main payments factories serving the needs of many

corporations in a particular region. Some banks have already begun to apply the payments factory approach to international payments; others, for example, Fidor Bank and solarisBank, are providing new digital banks or fintechs with access to a banking and payments platform.

- **Become an international transaction banking leader.** Since the financial crisis, many midsize banks have cut back on their regional presence, and the stricter regulatory landscape has led them to reduce their correspondent banking activities. As a result, these banks are stuck in the middle: their network is too small to compete with global wholesale banks yet not sufficiently integrated to work as an attractive regional alternative. This creates a market opportunity for regional banks. They can serve internationally active corporations by extending their correspondent banking services or by becoming a regional champion specializing in a particular locale and offering an integrated network experience.

The central element of each of these approaches is providing an exceptional client experience, which requires putting the right fundamentals in place. That includes significantly improving cost performance and productivity.

Improve the Payments Experience

Wholesale banks can improve the customer experience, increase revenue, and reduce costs by taking the following steps.

Focus flow banking on what matters to the customer. Although competition is likely to intensify on the platform and product fronts, banks have a major opportunity to place themselves at the heart of the customer relationship by improving flow banking. Flow banking services include the broad set of everyday banking products (such as accounts, payments, foreign exchange, cash management, and trade finance) that enable companies to efficiently execute their treasury management operations.

Rather than seeking to lead in every product category, flow product champions prioritize

two or three solutions on the basis of their areas of strength. Then they focus bank resources on creating rich, high-touch journeys—using digital enablers such as data, analytics, and APIs—and source other products through third parties. Self-service automation, painless onboarding, one-day turnarounds on questions and requests, and end-to-end issue tracking allow these champions to provide a fast and tailored experience, one that aims to anticipate client needs and questions. For example, one bank harmonized flow banking across all of its local country branches to offer a single customer experience for companies across Europe. In addition, improved data and analytics allow flow banking champions to offer sector-specific insights, such as benchmark data and market expertise, and improve decision making on matters such as credit, cybersecurity and fraud. For example, a major European bank uses a credit-scoring algorithm created by a fintech to speed credit approvals for small business clients—many of which are too young to have the detailed financial histories that banks typically rely on.

Flow product champions prioritize two or three solutions.

Develop an API strategy and partnership network. API-enabled ecosystems allow wholesale banks, developers, and partner organizations from various adjacent industries to create value-added offerings that help clients access needed data and insights and process transactions more quickly. Some API partnerships have already begun to assist mid-cap companies in the B2B ecosystem. With the help of APIs that embed bank functionality in the most commonly used accounts payable automation platforms, mid-cap companies can automate their accounts payable processes. Other opportunities include aggregating transaction histories across bank accounts through APIs. Banks could then pursue additional opportunities, such as enriching these aggregation platforms with simple cash-pooling solutions, working capital optimization, and liquidity forecasting.

Internationally active mid-cap companies that have a presence in multiple countries may be especially interested in such solutions, since formal treasury management systems are something that traditionally only large-cap companies have been able to afford.

To make good on such opportunities—for customers and themselves—banks need to develop an API strategy, identify which developers and partners can help them execute it most effectively, and define the monetization and platform model that will deliver the biggest and most sustainable returns.

By using digital tools and platforms, banks can lower the cost of doing business.

Scale analytics capabilities. Wholesale banks need to be more aggressive in using advanced analytics to reduce client attrition and enhance risk management. For example, better predictive modeling can help banks improve client retention. BCG research shows that annually, wholesale banks lose 10% to 15% of gross revenue as a result of client attrition. Stemming even part of this loss could improve bank revenue dramatically. However, most banks learn about losing an account only after the client has decided to leave. By employing predictive analytics and arming relationship managers (RMs) with data-driven insights and digital tools, most wholesale banks could reduce attrition by 20% to 30%—a result that would nearly double their average annual revenue growth.

BCG's smart-retention approach helps banks determine which clients they risk losing. It monitors accounts, detects which clients are reaching critical thresholds, and notifies the appropriate RM. The approach is based on predictive retention models that use client information—such as the products they use, the transactions they make, and the services they rely on—to identify which clients are most likely to leave, enabling RMs to intervene proactively.

Superior analytics can also be used to transform a bank's credit processes. Although some credit managers believe manual checks are needed to ensure quality decision making, the credit team can use data-enabled insights to focus on high-risk accounts and provide faster and accurate credit decisions. Banks that successfully weave transaction data analyses into their credit review processes can speed cycle times significantly. Automating analytics-driven insights provides further benefits. A Nordic bank cut approval times from 21 days to 5 days by automating its credit-scoring processes. In addition, transaction data can be used to flag accounts that have a higher risk of defaulting. A Canadian bank created an early-warning system for small and midsize enterprises on the basis of transaction data. The system enables the bank to identify 90% of at-risk accounts six months prior to default, compared with 5% previously.

Embrace smart processing. By using digital tools and platforms, banks can significantly lower the cost of doing business. But wholesale banks haven't benefited from these advances, because they haven't revamped their back offices. Now these banks face soaring compliance costs and significant expense to digitalize the wholesale payments process. To remain competitive and enable customer service improvements, wholesale banks should embrace smart processing.

Digitalizing trade finance is one way that wholesale banks can get an immediate lift. The paper-intensive processes that support the global trade finance ecosystem are estimated to generate more than 4 billion pages of documentation on an annual basis. More than 20 billion data fields are reviewed and transmitted to at least 20 participants during each transaction. Given the volume of paper-based data, trade finance lends itself well to intelligent optical character recognition (OCR), robotics, and other technologies that could be used to automate and speed processing, with more accurate results. Intelligent OCR solutions, for instance, are able to categorize documents, screen for compliance, remove duplicate pages, and flag key data fields for processing operators—automatically and within minutes. Such solutions can help

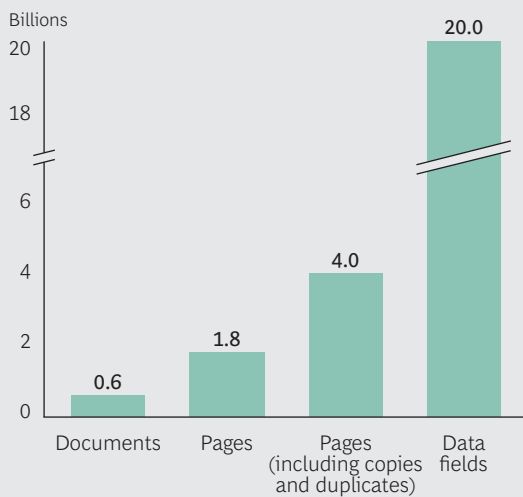
banks reduce costs (by having up to 70% fewer full-time data entry employees and making up to 80% fewer manual validations) and improve the customer experience (by boosting processing time by as much as 60%). (See Exhibit 6.)

transactions that require manual assessment, without producing the high number of false positives that are common with older solutions. In the future, banks could use the same AI-enabled decision-making capabilities in other commercial and trade operations.

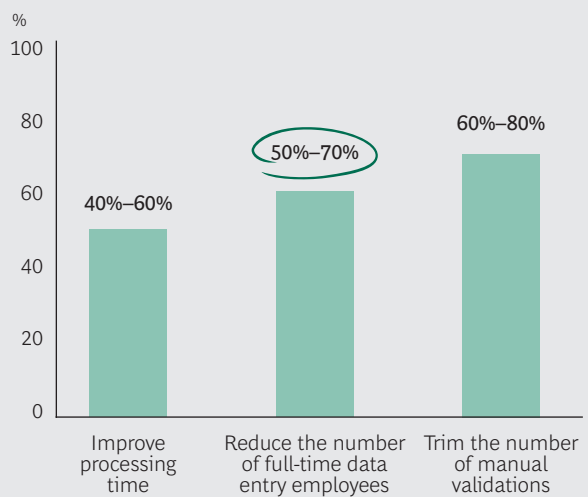
From a compliance perspective, robotics and artificial intelligence (AI) solutions can be used to improve transaction screening and shift credit team attention toward higher-risk

EXHIBIT 6 | Banks Can Reduce Costs by Digitalizing the Back Office

GLOBAL TRADE FINANCE TRANSACTIONS REPRESENT ABOUT 4 BILLION PAGES AND 20 BILLION DATA FIELDS



BANKS CAN BENEFIT BY USING INTELLIGENT OCR



Source: BCG analysis.

Note: OCR = optical character recognition.

THE WAY FORWARD

IN FINANCIAL SERVICES AS in many other industries, digitalization has not only reshaped what's possible but also changed what's expected. In the retail and wholesale payments business, customers have made it clear that simple, efficient, relevant service has become essential for doing business. However, the current fragmented landscape creates significant challenges for banks to meet customers' expectations.

Given their prowess at creating sleek front ends, engaging and easy-to-use portals, and tailored services, many fintechs and digital giants are taking aim at the customer relationship. By positioning themselves at the front of the value chain, these companies could undercut the primary banking relationship that has long been a critical competitive advantage for banks and limit their direct access to their customers, drawing away market share and business volume. The result could leave slow-moving banks to compete against each other for the remaining low-margin, commodity services and back-end processing business.

Banks' role as the main customer interface may disappear if the payments experience becomes invisible or fully embedded in the digital experience. To stay relevant, banks must respond faster and more strategically to the altered payments environment. In determining how to play, banks need to reflect on

their existing market position, innovation capabilities, and appetite for risk and change.

Whatever strategy a bank chooses, executing successfully will require ramping up the rate and scale of digitalization. The battle for customers' hearts and minds will center on how well banks and their competitors use data and analytics to increase value and lower risk. Banks can take advantage of digital marketplaces and e-commerce platforms to embed banking-related activities directly into the purchasing experience. For example, they could redesign treasury management solutions to integrate corporate payments into sourcing, shipping, inventory management, and customer acquisition processes. And they can collaborate with developers and other outside partners to monetize transaction banking data by using APIs to create value-added offerings that help clients access needed data and insights.

Nearly all banks will benefit from employing advanced analytics, robotics, AI, and process automation to redesign workflows, make payments more convenient, foster innovation, trim their cost base, and significantly improve risk management.

The payments industry is undergoing a period of profound change, but banks that move quickly from ideas to execution have the opportunity to carve out significant long-term advantage.

FOR FURTHER READING

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

International Payments: Accelerating Banks' Transformation

A white paper by The Boston Consulting Group and SWIFT, October 2017

The Seven Rules of Cost Excellence in Banking

An article by The Boston Consulting Group, August 2017

Getting Bank Automation Beyond the Pilot Phase

An article by The Boston Consulting Group, July 2017

Global Asset Management 2017: The Innovator's Advantage

A report by The Boston Consulting Group, July 2017

Global Retail Banking 2017: Accelerating Bionic Transformation

A report by The Boston Consulting Group, July 2017

How Banks Can Close the Back Door on Attrition

An article by The Boston Consulting Group, July 2017

Transforming Bank Compliance with Smart Technologies

A Focus by The Boston Consulting Group, July 2017

Getting Big in Small Business Banking

An article by The Boston Consulting Group, June 2017

Global Wealth 2017: Transforming the Client Experience

A report by The Boston Consulting Group, June 2017

Global Capital Markets 2017: Mastering the Value Migration

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Is Open Banking an Opportunity, a Threat—or Both?

An article by The Boston Consulting Group, April 2017

Global Risk 2017: Staying the Course in Banking

A report by The Boston Consulting Group, March 2017

Corporate Treasury Insights 2016: It's All About Security and Client Experience

A report by The Boston Consulting Group and BNP Paribas, May 2016

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