



GLOBAL PAYMENTS 2019

TAPPING INTO POCKETS OF GROWTH

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INTRODUCTION

LIFTED BY THE GLOBAL shift away from cash, buoyed by the uptake of electronic transactions, and amplified by big tech and fintech innovations, payments revenue worldwide is on track to grow by 5.9% annually through 2028—extending an unbroken streak that began in the aftermath of the 2008 recession. However, achieving growth above GDP levels will be challenging for incumbent players. To succeed, they must accelerate digitization, gain scale, and tap the potential of emerging markets.

The rapid digitization of payments technologies and products has created a tumultuous competitive landscape. Attracted by its burgeoning growth, new players and investment have poured into the payments space. Big technology companies like Ant Financial, Tencent, Facebook, Apple, and Google have entered the market, but so have neobanks with niche offerings. According to Boston Consulting Group's Fintech Control Tower, more than 27% of cumulative fintech funding globally from 2000 through the first quarter of 2019 has flowed into payments.

Although BCG does not believe that the traditional incumbent payments ecosystem is in immediate danger, systemic challenges are becoming more acute as the number of competitors attacking different points along the value chain grows. Attackers will continue to erode the edges of incumbent profit strongholds, focusing on high-growth niches. For instance, emerging working-capital lenders and point-of-sale (POS) financing providers have begun to target the payments-based lending pool—pursuing a revenue stream that accounts for approximately \$300 billion in revenue globally. Established players cannot cede ground in strategic areas such as these without weakening their core business over time. To stay relevant and sustain strong revenue growth, payments players must become ultra-focused, concentrating on areas that are likely to be critical in the future and selecting those where they have natural advantages.

For issuers, that means innovating in lending, cobranding, and customer experience, and monetizing the use of data and analytics. Merchant acquirers—particularly bank-owned ones—need to decide quickly whether to build needed capabilities in house or find a partner that can fill critical gaps and grow with them.

Wholesale payments players also need to double down on strategic avenues of growth. Promising green-shoot areas include trade finance, supply chain finance, and cross-border payments. In addition, incumbents may be able to unlock significant cost savings and customer value

by modernizing their technology platforms, advancing their use of automation and data, and transforming their customer service model.

These are among the findings of BCG's 17th annual analysis of payments businesses worldwide. Our coverage draws from BCG's proprietary global payments model, using data from SWIFT, a global provider of secure financial messaging services. The first chapter of the report outlines recent developments in the payments market globally and regionally. The second chapter explores how retail providers should respond to ongoing digital disruption, and the third chapter explains how wholesale banks can innovate from within and address the capabilities gap that exists between them and digital challengers. Ultimately, our report concludes, payments players that focus strategically on high-value opportunities will be best positioned to ride the current wave of growth and to capture an outsize share of its rewards.

MARKET OUTLOOK

FUELED BY THE STEADY expansion of cashless transactions and positive macro-economic trends, global payments revenues should rise by a compound annual growth rate (CAGR) of 5.9% from 2019 to 2028, in line with the average CAGR of 5.8% posted since 2010.¹ (See Exhibit 1.) The expansion will add about \$1.0 trillion to the payments revenue pool, raising the total to roughly \$2.5 trillion by 2028.² Rapidly developing economies will be the engine of that growth.

Retail payments revenues will increase by a CAGR of 6.0% from 2019 to 2028, modestly outpacing wholesale payments growth (5.6%).

E-commerce and other remote transactions, which BCG expects will grow by 11% annually over the next five years, should be a critical driver of retail payments growth.

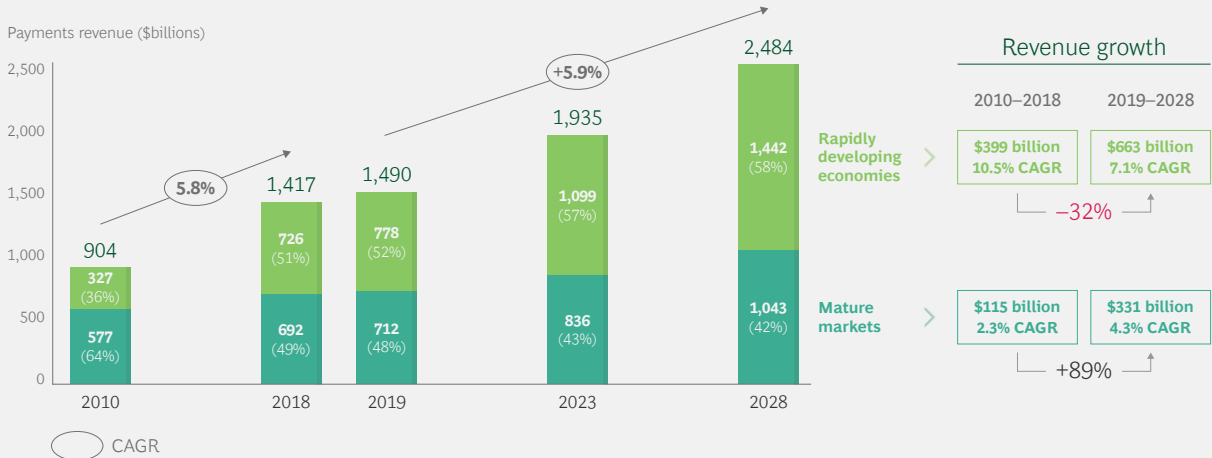
Global Trends

Payments is a diverse space. Nevertheless, BCG’s market data reveals several developments that may have strategic implications for participants globally.

CASHLESS IS KING

The move away from cash and toward digital payments has lifted payments revenues

EXHIBIT 1 | Global Payments Revenue Is Expected to Grow to About \$2.5 Trillion by 2028



Source: BCG Global Payments Model 2019.

worldwide. Card transactions per capita have grown at a CAGR of 13.6% globally from 2010 to 2018, compared with 5.2% growth in consumer spending overall. Adoption will continue to grow as rapidly advancing technologies make cashless transactions more convenient for customers and merchants. Some governments have also become proactive proponents of noncash initiatives, because cashless payments reduce money laundering, fraud, and gray economic activity and because evidence suggests that the migration to a more cashless society can boost annual gross domestic product (GDP) by as much as 3 percentage points.

Many countries are exploring a combination of infrastructure and policy measures to promote adoption. For instance, Singapore accelerated cashless transactions by introducing a national real-time payments platform, Pay-Now; and South Korea spurred adoption by offering end-of-year tax credits of up to 30% of spending on debit cards. Nations in an emerging group of “payments tigers” have also made rapid progress. Poland, for example, saw card transactions grow from fewer than 25 per capita in 2010 to about 130 per capita in 2018, driven by initiatives such as Cashless Poland, a public-private partnership supporting cashless payments for small businesses.

The US will see payments grow at a compound annual rate of 3.8% through 2028.

PAYMENTS REVENUES ARE LIKELY TO WEATHER AN ECONOMIC SLOWDOWN

Despite concerns about a looming slowdown in North America and Western Europe, macroeconomic trends point to a favorable outlook for payments revenue growth overall during the next decade. Our data suggests that labor growth is likely to hold steady, strengthening household balance sheets and giving consumers greater purchasing power, which should prop up retail payments activity. Barring a global shock similar to the recession of 2007–2008, we anticipate that corporate spending will remain similarly resilient. Many businesses are still dealing with pent-up

demand from the lean years following the financial crisis, and this should support future spending.³

Regional Outlook

We expect all regions to see growth over the next decade, albeit at very different speeds.

NORTH AMERICA

From 2010 to 2018, US payments revenue grew at a compound rate of 3.2%. While lower than the global average of 5.8%, this figure is roughly in line with those for the world’s other mature markets—in Australia, Canada, Japan, New Zealand, South Korea, and Western Europe. We project that growth in the US will continue at a compound annual rate of 3.8% from 2019 to 2028.

Credit cards have long been the heavyweight in the US payments arena. They accounted for two-thirds of all revenues in 2018, and we project that they will drive 62% of net growth from 2019 to 2028. BCG’s second Quarterly Credit Card Issuer Report for 2019 indicates that year-over-year credit card growth is slowing slightly after accelerating in 2017 and early 2018.⁴ However, we believe that payments revenues overall will be able to weather an economic downturn and that growth in cards will remain healthy.

That growth will receive a boost from a rise in contactless payments. We expect to see continued cash-to-card substitution for small purchases, with public transit use playing a key role. New York’s transit system began accepting contactless payments in June 2019, and growth in contactless payments should rise significantly as other urban hubs follow suit. Banks are also helping with the push. JP Morgan Chase announced in November 2018 that it hopes to move all customers to contactless cards by the end of 2019; and in June 2019, Bank of America issued 4 million contactless cards to customers in three key cities. Merchant adoption is growing, too. In the past 12 months, leading retailers such as Costco and Target have announced plans to accept contactless card payments. Future adoption could mirror that of other heavy card-using countries such as the UK, Australia, South Korea, and Canada. In Canada, for example,

the volume of contactless payments grew from less than \$10 billion in 2012 to more than \$100 billion in 2017.

In markets like Canada and the UK, where contactless card payments have been in use for some time, consumers rely on cards to transact many of their daily purchases, including lower-value items that they previously bought with cash. Growing card use by consumers led Canada to outpace the US in consumer credit card spending both per capita and per dollar. Average credit card transaction values reflect this shift: they fell by 1.4% per year in Canada (from 2012 to 2018) compared with a decline of 1.1% in the US.

Credit cards also dominate on the wholesale front. Since 2010, cards have accounted for more than 50% of revenues earned by financial institutions. As business-to-business (B2B) payments become more widespread over the next decade, revenue growth from commercial cards for financial institutions is likely to double.

EUROPE

Payments revenue in Europe is on track to see a CAGR of 5.9% through 2028. After flatlining from 2010 to 2018, revenues in Western Europe are projected to grow at 5% for the next decade, lifting growth for the region overall. Meanwhile, in Eastern Europe, payments revenue will continue to see above-average growth, with a CAGR of 7.4% forecast from 2019 to 2028. Russia is fueling much of that expansion. As we pointed out last year, a combination of cheap retail funding, heavy market concentration, and major technology investments has contributed to the “Russian Miracle,” making Russia the global leader in tokenized secured transactions and the largest market in Europe for digital wallets.

Consolidation is likely to have a significant impact on the payments landscape in both Western Europe and Eastern Europe over the next decade, as providers expand their capabilities, move to new markets, and seek scale. Several M&A announcements occurred in 2018 and the first half of 2019, and we expect a further wave of buyouts across the European payments landscape as providers strive to build cross-border scale and new digital capa-

bilities. We anticipate that this merger trend will be especially pronounced among merchant acquirers and networks.

Two other factors are likely to contribute to growth in the region. The first is the Second Payments Services Directive (PSD2), which went into full effect in September 2019. PSD2 opens the banking market in Europe, creating opportunities for banks and payments players to introduce innovative, frictionless payments solutions. Although payments players have yet to launch transformative business models that take advantage of the emerging possibilities—with a few notable exceptions such as ING’s Yolt, and HSBC’s Connected Money account aggregation solutions—that’s likely to change. New collaborative models such as the Worldpay–Mastercard partnership announced in 2018 allow consumers to access their bank’s app from the merchant checkout page. Similarly innovative models could be the way of the future.

Payments revenue in Europe is on track achieve a CAGR of 5.9% from 2019 to 2028.

The second factor is a dramatically improved interregional payments infrastructure. The Nordics, in particular, are leading this development with a new financial infrastructure that could greatly accelerate transfers across borders and currencies. Project P27, so-called for the 27 million people who live in Sweden, Norway, Denmark, and Finland, will build on the success of smart-phone payments applications that Nordic banks have already created, such as Swish in Sweden and Norway’s Vipps. The aim is to make it possible to clear payments and settle accounts within seconds, regardless of currency.

In addition, the Eurosystem’s launch in November 2018 of TARGET Instant Payment Settlement (TIPS), a new market infrastructure service, will allow European payments players to move closer to satisfying customer demand for low-cost, real-time, 24/7/365 cross-border payments.

ASIA

Asia will remain a hotbed of payments innovation and growth. From 2019 to 2028, payments revenue in the region should grow by a CAGR of nearly 6.4%. That heady expansion means that Asia will account for almost 40% of total global payments revenues by 2028. Retail transactions, which make up 77% of those revenues, will drive most of the region's payments growth.

By 2028, Asia will account for almost 40% of total global payments revenues.

China will continue to be a major force. Although GDP forecasts for China trend downward, taking payments revenue projections down with them, we forecast that China will still account for two-thirds of Asian payments revenue over the next ten years. Alipay and WeChat dominate mobile payments in China. Together, the two companies account for more than 90% of the roughly \$7 trillion third-party mobile payments market. However, we also expect to see strong credit cards growth, with a CAGR of nearly 10% forecast over the next decade. China's UnionPay is likely to be the big player in this category—as well as the primary beneficiary of traffic channeled through the Alipay and WeChat super apps. A lack of sufficient scale and ongoing regulatory barriers will make it hard for new entrants and foreign competitors (such as Visa and Mastercard) to make significant inroads.

Indonesia and India are additional bright spots. Local champions will ride a wave of card growth in both countries, with total payments revenues expected to climb into the high single digits over the next ten years.

Elsewhere, digital wallets continue to drive strong payments revenue growth. Often based on the QR technology that Alipay and WeChat popularized, these wallets deliver efficient, low-cost payments. Country champions that have dominant share include Ovo in Indonesia, Boost and GrabPay in Malaysia,

and KakaoPay in South Korea. Still, many of these wallets are far from achieving significant monetization. Alipay, WeChat, and to a lesser extent Paytm have shown how to deliver significant revenue through scale and service breadth. Other wallets in the region will try to monetize their services by expanding their person-to-merchant (P2M) offerings and adding new financial services within their app ecosystems.

LATIN AMERICA

Latin America continues to be an attractive growth market for payments, with revenues forecast to grow by a CAGR of almost 5.3% over the decade from 2019 to 2028. In Brazil, fast-growing merchant acquirers such as Stone and PagSeguro are driving down incumbents' payments margins. Yet overall, the payments market continues to grow as new players develop new client niches. Incumbent banks in Brazil are introducing innovations of their own, especially in the area of digital wallets. Examples of activity on this front include Itau's newly launched Iti wallet and Cielo's recent improvements to Stelo.

Merchant acquirers in the region have new opportunities as Argentina and Chile join Brazil in opening up their markets. Argentina began transitioning from a single-brand acquirer model to a multibrand competitive model when Advent, a global private equity fund, bought a majority stake in Argentina's leading acquirer, Prisma (formerly owned by a consortium of banks). Prisma and First Data now hold the dominant market share in Argentina, and local banks are using referral agreements to expand their role as distributors. In Chile, banks such as Santander, BCI, and BancoEstado have announced plans to create merchant acquirers. Until now, Transbank, a company owned by a consortium of local banks, has been the primary acquirer operating in Chile.

Meanwhile, digital payments are exploding across the continent. Unlike the digital wallets in most other regions, where country champions tend to focus on a select market, Latin American digital wallets are taking a more regional approach. Mercado Pago, the well-regarded and largest wallet in South America, operates across Argentina, Brazil,

Chile, Colombia, Mexico, and Venezuela. Rappi, another competitor, seems to be poised to follow a similar strategy with its recently launched RappiPay initiative.

- 3. Our projections incorporate global average nominal GDP growth, holding currency constant, of 5.1% for the next 10 years, and assuming that consumer spending will grow at 5.2% over that same period.
- 4. BCG's Quarterly Credit Card Issuer Report is an email-based publication that BCG shares quarterly with clients. The analysis compared same-quarter year-over-year growth.

NOTES

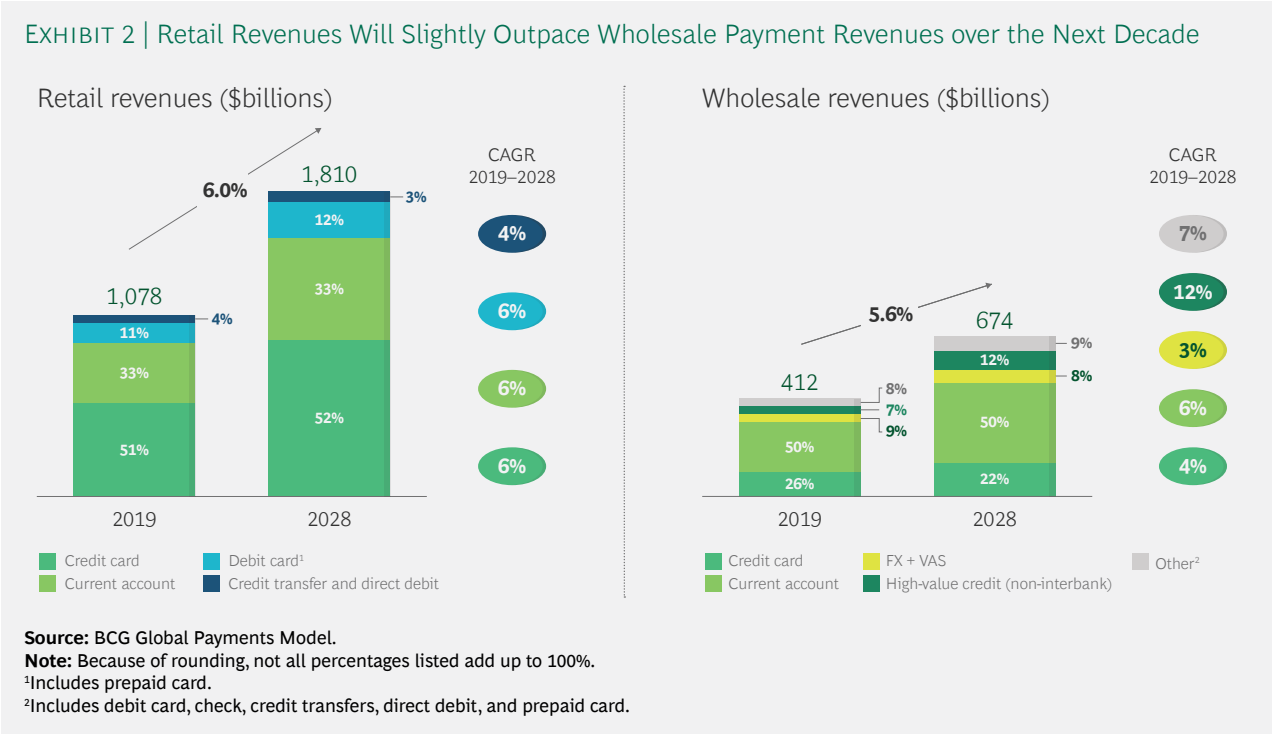
- 1. To minimize currency effects, percentages reflect nominal growth, holding currency fluctuations constant. All percentages were calculated using fixed US dollar terms.
- 2. Revenues from trade finance, working capital, and supply chain finance are not included in BCG's Global Payments Model. Instead, these figures are tracked in BCG's Trade Finance Model, whose main trends are discussed in the "In Wholesale, Some Parts Are Greater than the Whole" chapter of this report.

FINDING THE GREEN SHOOTS IN RETAIL PAYMENTS

PROPELLED BY A STEADY rise in card use and e-commerce transactions, retail payments overtook wholesale payments in revenue growth in 2018, and we expect that trend to continue. We estimate that retail payments revenue will grow at a CAGR of 6.0% from 2019 to 2028, compared with 5.6% for wholesale. (See Exhibit 2.)

Established retail payments players will have to work hard to capture their share of that

growth amid significant global disruption in the payments landscape. Some of the disruption comes as regulatory bodies press for reductions in interchange rates. In Europe, for instance, regulators instituted new rules in 2018 calling for interregional interchange fees to be in line with existing caps for domestic purchases. Likewise, Brazilian regulators recently set a debit interchange cap. To preempt regulation, networks in Canada announced that they would voluntarily lower



their average interchange rates. These rate caps and reductions will force players to streamline their operations and find novel ways beyond card rewards to drive customer engagement.

The most profound shifts, however, reflect the impact of a rapidly expanding fintech presence that is accelerating technological innovation and increasing merchant power. Three factors, in particular, are poised to reshape the retail payments space over the coming decade:

- **Money movement makes a comeback.** For the first time in years, we are seeing massive innovation in the way money changes hands and in the infrastructure that enables that movement, with a number of new real-time payments rails being launched around the world. Person-to-person (P2P) apps are quickly displacing cash as a means of paying friends and family. Some P2P apps allow customers to transact entirely within the app's ecosystem, bypassing traditional payments rails for certain transactions. Large global players such as Facebook may also join the fray—and if Facebook's Libra offering overcomes regulatory challenges, the battle for customer share will become significantly more heated. More disruption is likely to come as P2P apps gain share in P2M payments. New country champions will emerge over the next ten years, and existing champions—particularly those across Asia and the Americas—will expand their base.
- **Increasing competitive intensity fuels mergers and blurs boundaries.** In an effort to gain critical capabilities and scale, issuers and merchant acquirers are looking for partners. Three of the top five acquirers struck major agreements in the first half of 2019, part of a growing trend toward megadeals in a rapidly consolidating industry.¹ In addition to having to fight off fintechs, incumbents face mounting pressure from networks. Institutions such as American Express, Mastercard, and Visa are acquiring new capabilities in noncard payments, cross-border payments, lending, and accounts payable software. Because of

those expanded portfolios, networks increasingly bump up against the traditional domains of financial institutions.

- **Data use cases move beyond risk assessment.** Payments players have long used data to improve underwriting and fraud prevention, but now leaders are beginning to shift their focus to the customer experience. The most advanced are using data to personalize outreach and customer journeys, including such facets as onboarding, spending and balance stimulation campaigns, retention, collections, and pricing. Only a handful of players have digital and analytics capabilities that are mature enough to let them employ the results effectively at scale, however. That gap gives fintechs an opening to press their digital advantages.

A rapidly expanding fintech presence is accelerating technological innovation.

These disruptive forces will increase pressure on incumbents for the foreseeable future. But with disruption comes opportunity. Retail payments players that focus on high-value growth opportunities can use their size and resources to carve out meaningful differentiation and performance.

Three High-Growth Areas for Issuers

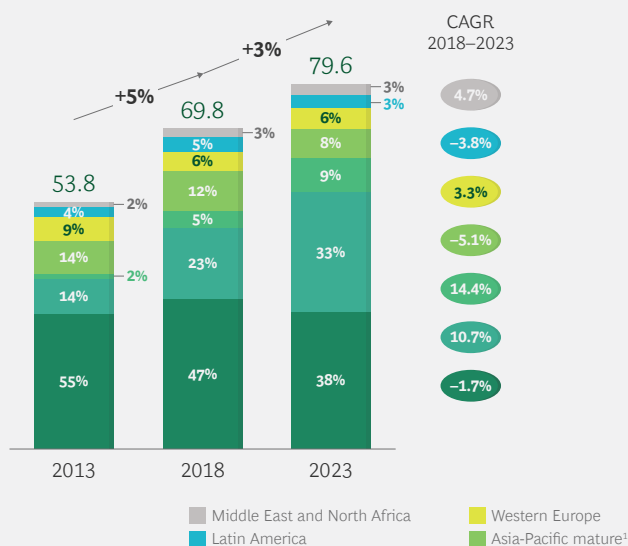
To gain customer share and competitive advantage, banks should prioritize strategy and investment on three fronts:

- **Focus on e-commerce.** In 2018, e-commerce sales accounted for 15% of issuer interchange revenue, and revenue from such sales during the 12-month period grew almost three times as fast as revenues from in-store transactions—14% for e-commerce compared with 5% for in-store. (See Exhibit 3.) That disparity in growth rates will only increase over the next five years. Established players can

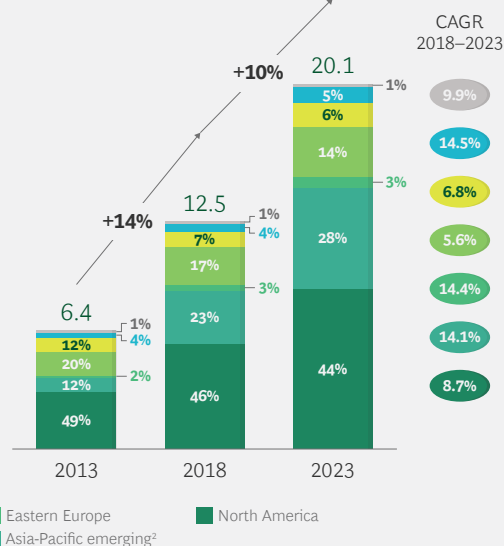
EXHIBIT 3 | E-Commerce Will Be a Major Growth Engine for Payment Revenues Across All Regions

INTERCHANGE REVENUES FROM RETAIL SPENDING, BY CHANNEL

In-store (POS) revenues (\$billions)



E-commerce revenues (\$billions)



Source: BCG Global Payments Model 2019.

Note: Because of rounding, not all percentages listed add up to 100%.

¹“Asia-Pacific mature” includes Australia, Japan, New Zealand, and South Korea.

²“Asia-Pacific emerging” includes all Asia-Pacific countries not included in “Asia-Pacific mature.”

tap into that growth by sharpening their e-commerce offerings. Winners will focus on simplifying authentication and provisioning (for example, by adopting the soon-to-be launched Secure Remote Commerce standard) and on employing digital integration. They will also develop value-added features such as instant financing, look for growth in card-not-present categories such as subscription-based apps, and use incentives and partnerships to improve their card-on-file leadership. In the US market, for example, card-on-file will account for almost 50% of e-commerce transactions over the next five years.

- Innovate lending, cobranding, and customer experience.** We believe that lending, cobranding, and customer experience have especially strong potential over the coming decade. Lending will remain a primary growth driver for credit card issuers. In 2018, card loans in the US accounted for 37% of total retail payments revenues, and that share is likely to grow. But as consumers diversify to POS financ-

ing and other offerings, incumbents must innovate in lending. Regional POS lending fintechs such as Klarna in Europe, Affirm in the US, and Afterpay in Australia have quickly gained share in their respective markets. Strategic acquisitions—such as Mastercard’s 2019 purchase of Vyze—could help established players enter the space. Amex, Chase, Citi, and other institutions have begun to offer installment lending alternatives such as Plan It (Amex), My Chase Loans (Chase), and FlexPay (Citi). Cobranding, meanwhile, offers the potential to pair unique assets from issuers and merchants; for example, the Apple-Goldman cobrand card includes personal financial management tools. In Asia, issuers are using their cobrand card relationships to offer instant issuance of cards with associated credit in order to meet customers’ POS lending needs and drive retail sales. As for customer experience, we expect to see significant innovation in this area as issuers experiment with improvements such as real-time rewards, exemplified by the Uber-Barclays cobrand credit card, and new digital

capabilities, exemplified by the Apple Card. The Apple Card combines simplified application, instant issuance and provisioning, unique financial tools, and a rewards link to a digital wallet (the proprietary Apple Pay product).

- **Use data as a customer relationship tool.** Payments players were early leaders in using big data to manage risk and costs, with major improvements in underwriting and fraud prevention; but that lead has dissipated. To sustain growth, leaders must take advantage of new use cases, especially ones that focus on the customer experience. Examples include personalized pricing for payments accounts, analytics

that drive retention, and use cases that improve collections. (See the sidebar “Collections Needs to Enter the Digital Age.”) Banks are beginning to combine behavioral pattern recognition data with marketing outreach, too—for example, by using spending data to identify customers who may be moving to a new house, and then customizing offers such as free access to competitor ATMs while customers get acquainted with their new neighborhoods. Better use of data would also enable issuers and acquirers to see both sides of a transaction, which could significantly improve authorization rates, particularly for e-commerce merchants. Recent mergers such as Fiserv–First Data, FIS–

COLLECTIONS NEEDS TO ENTER THE DIGITAL AGE

The economic recovery, which began in 2009, led many card companies to prioritize growth initiatives over cost leakage. As a result, many collections functions received little attention or investment over the past five to seven years. Now, however, collections is gaining renewed importance as evidence grows that digitizing the collections process can generate significant returns. Our data indicates that when clients take a data-centered, personalized approach to collections, they can lower their operating costs by 10% or more and reduce total charge-offs by 3% to 5%. This has the potential to yield savings of about \$1.8 billion in the US, excluding operating expenses, given an overall figure of approximately \$37 billion per year in charge-offs.

Advanced pattern-recognition algorithms and new sources of data can provide issuers with predictive insights based on borrower risk and behavior. Companies have found that using data and digital channels can be very effective, particularly in the first 60 days of delinquency. For example, they can use predelinquency data to help determine the channels and timing to use in outreach. Top players can use behavioral patterns and other data to design targeted offers for key segments. Such optimization can reduce delinquency

flow rates—defined as the flow of accounts from one delinquency bucket (such as 30+ days past due) to another one (such as 60+ days past due)—by 5% to 10%.

Experimentation and iteration are also critical factors. Leaders will continuously measure and test results and adopt agile development practices to speed development and implementation. Omnichannel delivery will become more important as customers move away from traditional telephone and voicemail systems and engage more with digital channels and devices. Digital tools such as email, chat, and interstitials offer broader reach and easier scale than do traditional channels such as dialer.

Companies should also digitize their post-charge-off processes. Issuers often use third-party agencies to assist with recoveries. But many of these agencies lack mature digital capabilities, which limits their effectiveness. By implementing a robust inventory management system, issuers can track placements more effectively. Robust processing engines will continually feed performance data into the inventory management system, allowing agencies to adjust their outreach and drive significantly better outcomes.

Worldpay, and Global Payments–TSYS, which combine issuer processing and merchant acquiring businesses, will help to improve end-to-end visibility.

Three Critical Capabilities for Acquirers

Merchant acquiring has been a bright spot globally, with net acquirer revenue reaching almost \$100 billion and growing at 14% between 2010 and 2018.² This space will continue to expand, but competitive pressure will reduce revenue growth to a CAGR of 10% over the next five years.

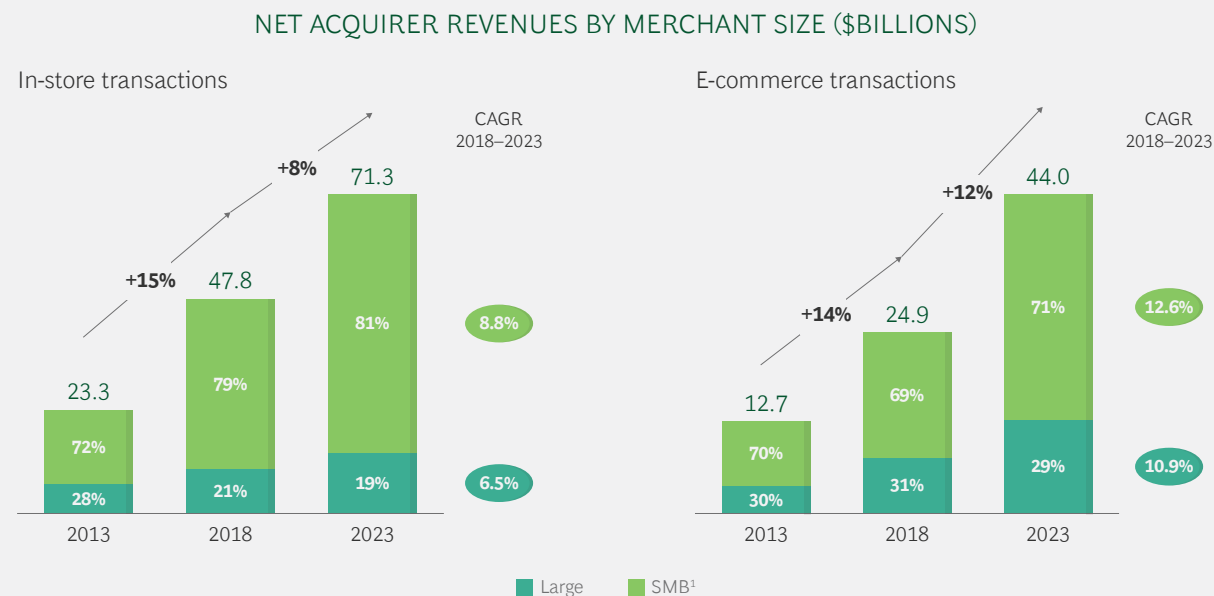
Bank-owned acquirers will feel the pinch especially sharply. Although they dominate in transactions with large retailers—the largest category by volume—that portion of the market is growing the most slowly. (See Exhibit 4.) By contrast, nonbank acquirers dominate the categories with the highest rates of growth, such as e-commerce, the small and midsize business (SMB) segment, and integrated payments. To date, bank-owned acquirers have struggled to compete in these faster-growing areas owing to a lack of investment and focus by the core bank.

Unless that changes, nonbanks will probably continue to make inroads into traditional acquirer strongholds.

We believe that acquiring remains a critical capability for banks because it acts as a customer gateway for an array of wholesale bank services. To remain a viable contender, however, banks must consider whether they should continue to manage their acquiring business in-house or whether they should join the M&A wave. Whichever path they take, several steps will be crucial:

- **Develop next-generation e-commerce capabilities.** The e-commerce and omnichannel opportunity accounted for 34% of global acquiring revenues in 2018 and should rise by a CAGR of 12% from 2019 to 2023. BCG research shows that fintechs such as Adyen, for larger retailers, and Stripe, for smaller ones, are growing aggressively in this area. Differentiators include next-generation gateways that are designed specifically for e-commerce, agile capabilities that mesh well with the needs of technology-based e-commerce retailers, and faster deployment speeds. However, incumbent acquirers needn't cede this

EXHIBIT 4 | SMB In-Store Transactions—and E-Commerce Transactions Overall—Are Key Growth Drivers for Acquirers



Source: BCG Global Payments Model 2019.
Note: Excludes value-added services.
¹SMB includes small, micro, and midsize merchants.

space. The best will compete by offering APIs that permit simple and easy integrations, superior algorithms that improve authorization rates, and efficient processes that support the rapid launch of alternative payment methods and global service delivery—whether developed in-house or through partnerships. Omnichannel reach is also becoming increasingly important as customers push for greater seamlessness between e-commerce and in-store transactions.

- **Enhance SMB offerings.** The SMB opportunity accounts for approximately 76% of global net acquiring revenues (driven by the higher prices that SMBs pay compared with large corporations). Square in the US, iZettle in Europe, Stone in Brazil, PineLabs in India, and other regional pure-play providers that can offer micro merchants low-cost terminals and value-added services, such as payment-linked lending, are poised to capture significant growth. To compete, bank-owned acquirers need to create winnable industry verticals. Ensuring easy integration with independent software vendors (ISVs) and tech-forward merchants will be especially important. ISV revenues are growing at approximately twice the rate of the rest of the acquiring market in the US, and we expect growth to spread quickly to other parts of the world over the next decade. Carefully choosing which industry verticals to enter is critical, as acquirer profitability varies significantly by vertical. Pricing power has begun to shift in favor of ISVs in some verticals where ISVs have strength. Industry subverticals such as childcare and home improvement are likely to become a new growth avenue. Bank-owned acquirers that lack strong, dedicated ISV offerings will be at a significant disadvantage as players like Stripe, iZettle, and Global Payments acquire their own ISV platforms and as others, such as Worldpay and First Data, build entrenched relationships with ISVs in high-growth verticals.

- **Expand value-added services (VAS).** As compression in merchant acquirer transaction fees continues, expanding VAS will become an increasingly important area for acquirers. We have seen a wave of innovation in this space. Payments players have launched new services that span the entire life cycle of business operations. Payments companies can help businesses get up and running with various services. For example, Stripe's Atlas product helps with incorporation and obtaining bank accounts. Companies can receive financing through iZettle's working capital loans. Square's payroll management software helps companies run their business. And JetLore (acquired by PayPal) helps merchants market their business by personalizing their sales messaging. To create a competitive VAS portfolio, acquirers can choose to develop their in-house capabilities (along the lines of Square's approach), buy a fintech or startup with the relevant skills (as PayPal did), or build partnerships with fintechs (an approach that most bank-owned payments players have taken).

NOTES

1 The three acquirers are Worldpay, First Data, and Global Payments. Size is based on total number of transactions, as reported by Nilson.

2 Includes merchant acquiring margin and value-added services; excludes interchange and network fees from the acquiring margin.

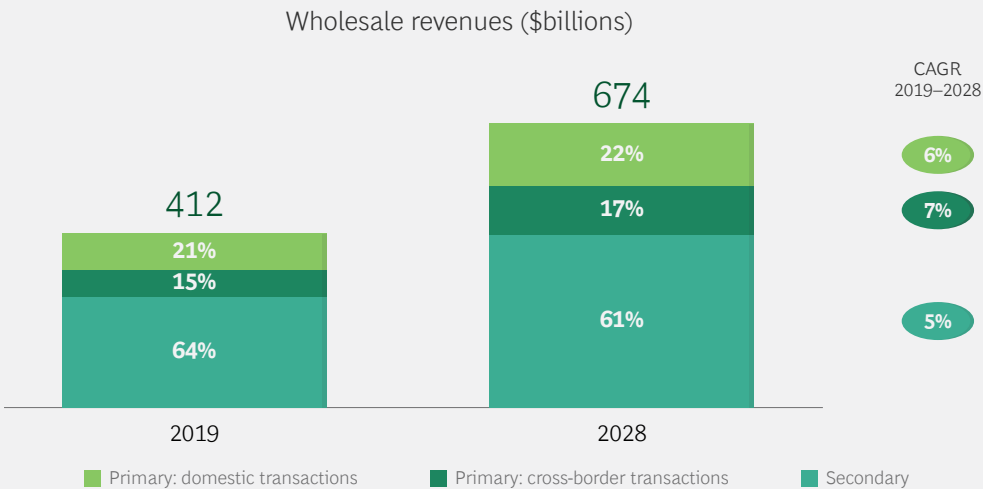
IN WHOLESALE, SOME PARTS ARE GREATER THAN THE WHOLE

REVENUE GROWTH IN WHOLESALE payments from 2019 to 2028 is likely to remain at a similar pace to that seen over the past decade, with a forecasted CAGR of 5.6%. However, that moderate and steady global average masks several areas of above-average growth in products, regions, and sectors. For example, about 60% of wholesale payments revenues are related to secondary payments fees and interest, rather than to direct fees earned per transaction; however, primary revenues—particularly those involving

cross-border transactions—will grow faster than secondary payments fees over the next 10 years. (See Exhibit 5.)

Corporate credit cards account for more than 20% of the wholesale payments revenue pool, and they will attract significant attention and funding as networks expand their foothold in the B2B payments arena. These cards are proving to be popular because they reduce accounting effort, improve cost control, and help companies analyze and manage busi-

EXHIBIT 5 | Primary Revenues Will Play an Increasingly Important Role in Wholesale Payments Growth Over the Next 10 Years



Source: BCG Global Payments Report.
Note: Primary revenue includes revenue from transactions only; secondary revenue includes annual account maintenance fees, interest on account deposits, card fees, and penalty fee revenue.

ness spending more effectively. That said, overall global revenue growth in the B2B payments space has begun to taper off somewhat, and we expect revenue growth from corporate cards to hover at around 4% annually through 2028. At the same time, growth is becoming increasingly concentrated. Over the next decade, the US and China will account for 72% of total wholesale credit card revenues, compared with 66% in 2010.

Regionally, we see wide variation in growth prospects. Asia, with its many rapidly emerging countries, will account for the highest share of growth in wholesale payments (40%). The Middle East and North Africa will also see strong growth, with payments revenues rising at about twice the global average from 2019 to 2028. But mature markets will have bright spots, too—notably in Western Europe, where wholesale payments revenue is on track to grow by a CAGR of more than 5% from 2019 to 2028, making it the region with the second-highest rate of growth after Asia.

Steady advances in digital tools continue to profoundly shape wholesale payments.

Banks will have to work smarter and harder to maintain their strong competitive position against such nonbank entrants as enterprise resource planning (ERP) and treasury management system (TMS) providers, card networks, and specialized fintechs that are competing in the wholesale payments segment in cash management, e-invoicing, working capital, and supply chain financing. The changing landscape will exert pressure on incumbent banks to improve their product and service offerings, as well as their digital and data analytics capabilities. Banks that can provide their customers with simple, convenient connections—whether through the bank's portal, an ERP system, or a TMS—will put themselves in a position to reap the largest rewards. To capture that opportunity, however, they must deliver the simplicity that customers seek while navigating an increasingly complex environment.

Reckoning With Digital Disruption

The wholesale payments category continues to be profoundly shaped by steady advances in digital tools and by the fast-maturing capabilities of digital attackers and fintechs. The following disruptive forces are among the most significant:

- **Adoption of Real-Time Payments (RTP) Systems.** With roughly 46 RTP systems now online globally and 12 more in development, wholesale players are beginning to roll out the first use cases that employ these new rails. We expect most initial B2B use cases to disproportionately benefit the SMB segment. Examples include instant loan funding, digital payments in lieu of cash on delivery for restaurants and related businesses, instant insurance payments for health practitioners, and instant insurance payouts for all businesses. With business-to-customer, the leading types of near-term use cases will be in insurance payouts and similar disbursements, and in payroll—particularly among gig economy companies. The rise of RTP use cases will invite an infrastructure battle between incumbent payments systems operators and card networks that offer their own RTP capabilities over card rails. Although the earliest use cases generally focus on speed, we expect other applications to begin taking advantage of the enhanced data-carrying capabilities of most new RTP systems as the space matures. For that to happen, banks must overcome legacy technology barriers, including outdated payments engines that have prevented them from processing new data payloads. Banks must also ensure that the payments architecture and customer support system that they have in place can serve needs 24/7. Compliance management must adapt to the more rapid pace as well.
- **Greater Cross-Border Competition.** Cross-border payments, historically a high-margin product for wholesale banks, are under increasing pressure as competitors introduce cheaper and more convenient innovative solutions. Over the past several years, fintechs have created unique systems that can move money

across borders at much lower prices than banks have traditionally charged. Businesses like TransferWise and Revolut that began in retail payments are now hoping to disrupt parts of the wholesale market, focusing especially on the SMB space, where companies have traditionally paid higher cross-border fees. Other businesses, such as Swift and Ripple, are offering new engines designed to provide large corporate customers with increased transparency and faster transaction speed.

To succeed, businesses must target specific areas that can deliver above-average growth.

- **A Growing Number of Touch Points and Connections.** The more diversified payments ecosystem has increased the number of connections and interdependencies between corporate and vendor payments systems. In response, treasurers from large corporations and smaller businesses are increasingly turning to non-bank platforms to reduce the resulting complexity. To retain strong corporate relationships, incumbents need to provide a similar level of convenience, helping treasurers streamline their wholesale payments interactions and gain access more readily to cash management, account reconciliation, supply chain finance, and cross-border payments capabilities. Their service quality needs to improve, too. Support for technical problems, execution of urgent payments orders, international payments tracking, and error identification and correction are increasingly important selection criteria for larger corporations.

Investing to Win

Wholesale banks can use their scale, resources, and other natural advantages to turn disruption into opportunity. The rapid expansion of the wholesale payments space over the past decade has created enormous complexity within the offering space, the competitive

space, and the technological space. For incumbents and newer entrants alike, attacking complexity and providing simpler solutions throughout the value chain will yield the greatest returns.

To be successful, wholesale payments businesses must invest aggressively but selectively, focusing on a handful of strategic and operational areas that can deliver above-average growth. We recommend that banks consider building opportunities in the following high-value niches:

- **Cross-Border Payments.** As competition intensifies, global trade flows and the global payments standard, SWIFT gpi, will make processing large international payments easier, faster, and more transparent. Combined with a flurry of fintech innovation, this niche is likely to see especially strong growth in payments revenues, with a CAGR of 6% forecasted over the next ten years.
- **Trade Finance.** This growth area comprises cross-border documentary trade finance instruments (including letters of credit or documentary collection) and open-account instruments (such as cross-border supply chain finance or dynamic discounting). Trade finance accounted for approximately \$50 billion in revenue in 2018, calculated on the basis of global trade flows of \$19 trillion. The base case forecast in our global Trade Finance Model expects trade finance revenues to rise by a CAGR of 3% over the next decade. However, the recent intensification of global trade tensions between the US, China, and Europe could downgrade that forecast. Under a more bearish scenario, trade revenues would grow by a CAGR of 0.3% through 2027. Despite these gray clouds, we see disproportionately large growth in open-account trade finance, driven by the ongoing industry shift away from traditional documentary trade and toward more-efficient, lower-cost solutions. Leading banks and nonbanks are investing substantial sums in digital trade finance ecosystems and consortia, especially those supported by blockchain and distributed ledger technologies. Examples include the

Marco Polo Network and the we.trade initiative. Most of these initiatives are still at an early stage of development, but we expect that a number of solutions will be market ready within the next decade.

- **Working Capital and Supply Chain Finance.** BCG analysis suggests that this rapidly developing market for SMBs, which encompasses both domestic and cross-border instruments, could represent a \$75 billion revenue pool worldwide by 2022. E-invoicing, supply chain finance, dynamic discounting, and factoring will give buyers more payments flexibility and allow sellers to get paid faster. The market remains wide open, since financial institutions have generally focused on custom solutions for large corporate customers and fintechs have primarily focused on the long tail. As a result, we

see significant revenue growth opportunities for payments players that commit to investing in this area. Competition will certainly intensify. (See the sidebar “Working Capital and Supply Chain Finance.”) But despite that, banks have an opportunity to double down in this space and use supply chain finance as a basis for selling other products that have better margins, such as foreign exchange instruments or cash management.

Collectively, these green-shoot opportunities are likely to prompt a new wave of bank-fintech partnerships to give banks needed capabilities and fintechs needed scale.

Besides investing in high-growth product niches, banks should commit to addressing several foundational areas within the core business in order to improve efficiency, ser-

WORKING CAPITAL AND SUPPLY CHAIN FINANCE

Thanks to globalization and digitization, supply chains running across industries and regions have become more extended, international, and complex. In recent years, many corporations’ CFOs and treasurers have made optimizing the procure-to-pay and order-to-cash cycles a priority, with the goal of improving how the company deploys working capital throughout the supply chain. Among the multiple instruments they may use are the following:

- Buyer-centric working capital solutions such as supply chain finance and dynamic discounting
- Supplier-centric solutions such as factoring and invoice discounting
- Related, traditional banking products such as overdraft facilities and credit lines

In this growing market, global and regional banks typically use existing client relationships and trust to make a wide range of products—including sophisticated supply-chain finance solutions—available to large,

multinational corporations. Local banks typically lack scale, international reach, and product expertise, and many offer only traditional banking products such as credit lines and overdraft facilities. In recent years, specialized fintechs and supply chain management platforms have entered the market to offer advanced working capital and supply chain finance solutions not only to multinationals, but also to the widely underserved SMB segment. The new market entrants use a digital platform to connect buyers with sellers. Their operational excellence enables them to offer improved e-invoicing options as the basis for advanced supply-chain finance solutions. In addition, many of them can structure and ramp up complex supply-chain finance programs in a few weeks or months and orchestrate the trade finance ecosystem (including buyers, sellers, and insurance companies). As the market has grown, many specialized working capital and supply chain finance players, such as Greensill and C2FO, have attracted significant external investment from strategic investors, venture capital, and private equity.

vice, and value. We consider the following to be the most critical imperatives:

- **Automate more aggressively.** Manual processes drive a significant portion of wholesale transaction banking costs. Many midsize banks, in particular, have hundreds of full-time employees who handle messaging exceptions and other routine payments operations. Tools such as intelligent optical character recognition, robotic process automation, and machine learning can help banks redesign and automate many core transaction operations (such as guarantee closing) in documentary trade finance. These improvements could shave costs, streamline service, and free employee capacity. We estimate that autonomous operations, which encompass a broad range of capabilities from basic rule-based automation to advanced AI, represent a \$30 billion to \$40 billion cost-saving opportunity worldwide over the next three years. Those savings could amount to 33% of a typical wholesale transaction bank's operations costs.
- **Become a data-enhanced organization.** BCG surveys show that treasurers continue to rate fintechs, treasury management system providers, ERP system providers, and their own internal IT organizations higher than banks at delivering data-driven insights. Better use of data can help wholesale banks identify promising leads, optimize pricing for different customers and segments, improve credit scoring, and

deliver compelling business insights to clients. For example, to educate clients and support sales, banks can use working capital analytics that compare a client's balance sheet ratios to those of industry peers. In order to provide these services, banks must have good analytical capabilities, access to supply chain information, and balance sheet information on both the client and the industry as a whole.

- **Offer agile-based customer service.** Banks in all regions of the world outperform ERP providers, technology firms, and fintechs at building trust with treasurers. However, the traditional relationship manager model doesn't give banks the scale they need or the coverage breadth their customers want. Many tech providers offer customers access to a wide variety of expertise—from products to technology to customer service—but most bank relationship manager models don't have that flexibility. Corporate treasurers have been increasingly vocal in calling for agile solutions to their challenges. Banks should heed those calls by deploying the right cross-functional experts at the right time.

Although the paths that global, regional, and local players take will vary tremendously, banks that capitalize on green-shoot growth areas, fast-track digitization, and operational improvements will reap outside rewards.

FOR FURTHER READING

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

Banks Brace for a New Wave of Digital Disruption

A Focus by Boston Consulting Group, July 2019

Breaking the Commodity Trap in Trade Finance

An article by Boston Consulting Group, July 2019

How Cashless Payments Help Economies Grow

An article by Boston Consulting Group, May 2019

Global Risk 2019: Creating a More Digital, Resilient Bank

A report by Boston Consulting Group, March 2019

What Does Personalization in Banking Really Mean?

An article by Boston Consulting Group, March 2019

How CIB Markets Divisions Can Boost Revenue Growth

An article by Boston Consulting Group, March 2019

Trimming the Sails: Insights from BCG's Treasury Benchmarking Survey 2018

A Focus by Boston Consulting Group, December 2018

What Do Corporate Banking Customers Really Want?

An article by Boston Consulting Group, November 2018

Global Payments 2018: Reimagining the Customer Experience

A report by Boston Consulting Group, October 2018

Retail Banks Must Embrace Open Banking or Be Sidelined

An article by Boston Consulting Group, October 2018

Banking's Cybersecurity Blind Spot—and How to Fix It

A Focus by Boston Consulting Group, August 2018

Corporate Treasury Insights 2018: A Game of Trust

A report by Boston Consulting Group and BNP Paribas, June 2018

NOTE TO THE READER

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