# **ATKearney**

# Why US Banks Should Make Contactless Cards an Immediate Priority

The coming rollout of contactless cards in the United States will bring benefits to consumers, merchants, and banks. The magnitude of the benefits should incent accelerated bank rollout.



Cash is still a popular form of payment in the United States, with consumers conducting almost 50 billion cash transactions a year, representing 26 percent of all consumer payment transactions. US consumers' use of cash at the retail point-of-sale, however, is a bit of an anachronism in an increasingly digital world. The persistence of cash reflects many factors, including consumers' slow adoption of mobile payments and limitations of the historical merchant acceptance infrastructure of many retailers. From both a consumer and merchant perspective, a strong case exists for the benefits of a faster, more convenient, more efficient, and more secure retail checkout process. Contactless cards, commonly adopted globally as a strongly efficient means of retail checkout, represent the best near-term solution for US consumers and merchants. Banks should act on this opportunity to improve the speed and convenience of retail checkout for both consumers and merchants.

Bank adoption and promotion of contactless cards are key to consumers and merchants capturing the immediately available retail point-of-sale benefits and efficiencies (see sidebar: How Contactless Cards Work and Their Benefits on page 2). Perhaps more importantly, US banks could generate an estimated \$2.4 billion in incremental card-related earnings over the next five years by introducing contactless cards, which can accelerate the migration of cash transactions to card payments. Beyond the direct economic benefits, banks that move early to roll out contactless cards may strengthen their market leadership and innovator position, benefit from market share gains and increased loyalty, and prevent disintermediation by alternative payment providers. Finally, the accelerated migration from cash to card payments could create an opportunity for banks to significantly reduce their own cash-handling operating costs. We believe there is a significant case for contactless payments—not only for consumers and merchants, but also for banks. US banks should act on the strong business case for contactless and move aggressively forward to roll out the new card capability and benefits to the US marketplace.

In this paper, which aims to inform decision-making by US banks, we review the important lessons learned from the global contactless experience, scope the contactless strategic opportunity for banks, assess how ready the US market is for contactless cards, and present what we view as the most likely US contactless scenario. Finally, we provide insights into what banks should do next to act on the contactless card opportunity.

# **Learnings from Global Experience: Contactless** Adoption and the Impact on Consumer Payment **Behavior**

Contactless cards have gained significant traction globally. In Australia, the United Kingdom, Canada, and South Korea, contactless cards today capture more than 20 percent of card-based retail point-of-sale transactions (see figure 1 on page 3). Looking at the top 15 global economies by gross domestic product (GDP), in countries where a meaningful portion of point-of-sale transactions are conducted using payment cards (more than 30 percent), contactless card payments usually account for more than 10 percent of all point-of-sale transactions, including non-card payments such as cash, and more than 20 percent of card-based point-of-sale transactions. Among major economies with advanced adoption of card-based payments, the United States is unique in its not yet having broadly rolled out contactless cards. Moreover, in multiple countries outside of the top 15 GDP countries—the Czech Republic, Poland, and Slovakia, for

<sup>&</sup>lt;sup>1</sup> Nilson Report, Issue 1122, December 2017

#### **How Contactless Cards Work and Their Benefits**

A contactless card is a chip card that is embedded with a near-field communication (NFC) antenna that can be used for proximity payments. These cards can be used for both contactless and contact payments (see figure a). To make a payment, consumers tap the card to a point-of-sale terminal and the

card communicates with the chip terminal via radio waves and creates a dynamic cryptogram (in particular, codes that are unique to the specific card and transaction). Contactless cards bring the same security as EMV chip payments, with an improved customer experience (in particular, speed). Contactless

cards create benefits for many parties in the payments ecosystem (see figure b).

#### Figure a

## A contactless card is a chip card that is embedded with an NFC antenna that can be used for proximity payments

#### **Contact EMV**





Note: NFC is near-field communication. EMV, which stands for Europay, Mastercard, and Visa, is a global standard for chip cards and the technology used to authenticate chip-card transactions.

Source: A.T. Kearney analysis

Figure b

#### Contactless cards create benefits for many parties in the payments ecosystem

#### **Better customer experience** and speed for merchants

- Allows merchants to more quickly serve consumers (shorter lines), resulting in an improved customer experience
- Reduces time and money spent on cash-handling
- Helps capture information regarding customer buying behaviors through electronification of payments

## Seamless consumer experience

- Offers a convenient and easy-to-use alternative to cash (for low-value transactions) and other payment methods
- Increases speed in which card transactions are processed
- Provides the same dynamic EMV security provided by chip cards

#### **Economic benefits to banks**

- Provides incremental card-related profitability through migration of cash transactions to card
- · Lowers cash handling costs as lower use of cash results in reduction of consumers' banking cash-related activities
- Drives recognition for market leadership and innovation, driving loyalty and stickiness

Note: EMV, which stands for Europay, Mastercard, and Visa, is a global standard for chip cards and the technology used to authenticate chip-card transactions

Source: A.T. Kearney analysis

Figure 1 Contactless cards have gained significant traction globally

Top 15 economies

	Year of contactless cards deployment Year first card was issued, year of contactless acceleration	Drivers of contactle	ss adoption (2016)	Contactless penetration (2016)	
Country		% point-of-sale transactions conducted using cards	% cards in force that are contactless	% total point-of-sale transactions that are contactless	% card point-of-sale transactions that are contactless
Australia	2009, 2012	45.00%	67.45%	12.44%	27.64%
United Kingdom	2007, 2015	54.00%	63.87%	12.56%	23.27%
Canada	2007, 2013	61.00%	66.40%	13.93%	22.84%
South Korea	2004, 2012	58.00%	95.91%	12.07%	20.82%
Spain	2012, N/A	13.00%	53.09%	2.48%	19.11%
China	2006, N/A	6.00%	59.25%	0.96%	15.94%
France	2007, N/A	37.00%	42.85%	2.47%	6.67%
Italy	2010, N/A	14.00%	38.24%	0.89%	6.39%
Russia	2013, N/A	18.64%	21.88%	1.13%	6.06%
Germany	2012, N/A	16.60%	58.73%	0.88%	5.33%
India	2015, N/A	7.00%	3.14%	0.04%	0.52%
United States	2003, N/A	56.00%	3.47%	0.18%	0.32%
Mexico	2012, N/A	15.64%	0.37%	0.01%	0.07%
Brazil	2013, N/A	40.00%	0.69%	0.03%	0.06%
Japan	2001, N/A	16.20%	0.03%	0.00%	0.02%
Low card penetration	High card penetration	High contactless penetration	Low contactless penetration		

Note: Top 15 countries are based on gross domestic product.

Sources: Federal Reserve, European Central Bank, Next Generation IC Card System Study (NICSS Japan), Deutsche Bundesbank, British Retail Consortium, Euromonitor, Banco Central do Brasil, Payments Canada, Reserve Bank of Australia, RBR; A.T. Kearney analysis

example—50 percent or more of card transactions at the point of sale are conducted using contactless cards. The United States is late to capturing the benefits of contactless cards.

At the individual country level, several factors are driving the overall intensity of contactless card adoption:

- The general adoption level of card-based payments in the economy (for example, the percentage of consumers who are cardholders and the percentage of payment transactions that are conducted using cards)
- The level of contactless card availability (for example, the percentage of cards in force that are contactless)
- The scope of merchant contactless acceptance (for example, the percentage of merchants and terminals that accept contactless cards and in which merchant categories)
- The presence of restrictions, if any, on the use of contactless cards (for example, the transaction size limit for contactless transactions)

To understand how the rollout of contactless cards could impact US consumer behaviors, we assessed the global experience with contactless cards, focusing on six US-like countries— Australia, Canada, Ireland, New Zealand, Switzerland, and the United Kingdom—where the

"pre-contactless" consumer payment behaviors (for example, the percentage of point-of-sale transactions via card versus cash and the percentage of the population who own a payment card) were similar to the United States' current consumer payment behaviors.

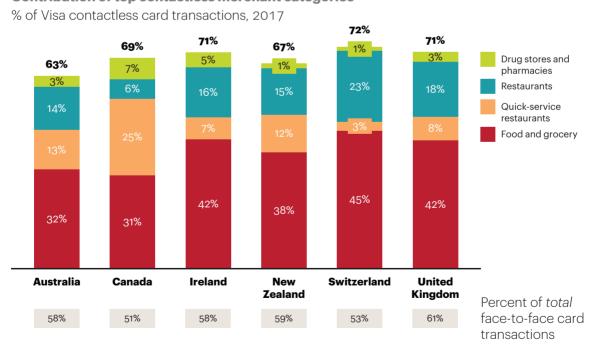
Our analysis of consumer payment behavior began by evaluating the merchant categories where contactless payments are most likely to be used. Contactless adoption and usage tend to be particularly strong in high-transaction volume, frequently used, merchant categories with a high share of lower-ticket transactions and where checkout speed and convenience matter. Across the six US-like countries, four merchant categories consistently exhibit above-average penetration of contactless card transactions in the face-to-face environment and account for the majority of contactless card transactions: food and grocery, quick-service restaurants (QSR), restaurants, and drug stores and pharmacies (see figure 2). In the United States today, these four merchant categories account for about 60 percent of cardholders' cash transactions, suggesting a large opportunity for improved convenience and migration to card payments.2

In addition, contactless adoption and usage tend to accelerate when consumers can use contactless cards to pay for public transportation, as occurred in the United Kingdom when the London Tube network (subway), Docklands Light Railway, London Overground, and most National Rail services started accepting contactless payments.

It is important to note that many countries restrict contactless card use to only small-ticket items, impacting the pattern of contactless use across merchant categories and the nature of

Figure 2 In US-like countries, four merchant categories have consistently experienced high adoption of contactless payments

## **Contribution of top contactless merchant categories**



Note: Based on Visa face-to-face card transactions. Chart includes merchant categories with above-average contactless card penetration in more than 50 percent of the countries under analysis. Sources: VisaNet; A.T. Kearney analysis

<sup>&</sup>lt;sup>2</sup> Visa Payment Panel Study, third guarter of 2016 to second guarter of 2017

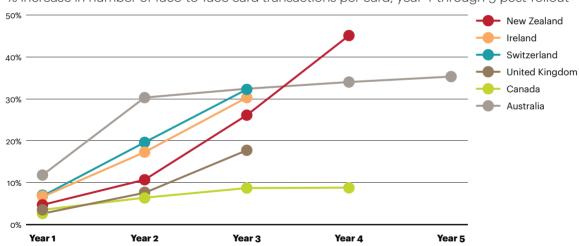
contactless retail transactions. In Australia, Canada, and the United Kingdom, for example, contactless transactions are restricted to AUD100 (\$80), CAD100 (\$80), and £30 (\$42) respectively because of chip and PIN requirements.

In the six countries with US-like "pre-contactless" consumer payment behavior, the rollout of contactless cards resulted in a significant lift in the number of transactions per card above and beyond the natural card trajectory that was experienced in the country prior to the promotion of contactless card usage. The greater convenience and speed of contactless cards drive this step-up in the migration from cash to card transactions. According to A.T. Kearney analysis, the US-like countries experienced between a 20 and 30 percent lift in the number of transactions per card in the three years following the acceleration of contactless. Overall, in the US-like countries, contactless card adoption has translated into 5 to 40 new transactions per card per year (depending on the "pre-contactless" mix of card versus cash usage and the average number of cards per person). Only one country—Canada—showed a more modest transaction lift (albeit still positive), closer to 10 percent (see figure 3). Highlighting the benefit of increased checkout speed and convenience offered by contactless, across the countries analyzed, the merchant category that exhibited the highest percentage lift in transactions per card is quick-service restaurants, such as fast-food chains.

Figure 3 In US-like countries, the rollout of contactless cards resulted in a significant lift in transactions per card

#### Card transaction lift from contactless card rollout

% increase in number of face-to-face card transactions per card, year 1 through 5 post-rollout



Note: Calculated lift is net of pre-contactless rollout growth in the number of card transactions per card in each of the countries, based on Visa transaction data as well as central bank and industry sources regarding evolution of consumer payments.

Sources: VisaNet, Bank for International Settlements, Euromonitor, RBR, Reserve Bank of Australia, Payments Canada, Bank of Canada; A.T. Kearney analysis

Some observers believe the introduction of mobile near-field communication (NFC) payment solutions has held back the usage and growth of contactless cards, given the potentially overlapping consumer use cases. However, global evidence shows that, at the point of sale, contactless card penetration far outweighs mobile payment penetration across all countries in which both payment methods are available. In the US-like countries, contactless card penetration ranges from 21 to 82 percent of card payments at the point of sale, while mobile

payment penetration contributes no more than 3 percent in those counties.<sup>3</sup> Even in Russia, where contactless cards and mobile wallets were introduced in a similar time frame, contactless cards are seeing a much higher penetration at the point of sale than mobile wallets. Moreover, the global experience suggests that mobile payment usage at the point of sale, despite active mobile wallet promotions in many countries, does not dilute the adoption and usage growth of contactless cards. In the US-like countries in particular, contactless transactions per card continued to grow at a fast pace after the introduction of mobile wallets.

Our review of the relevant global experience provides strong evidence that contactless cards' simplicity, convenience, speed, and security drive consumer contactless adoption and usage, contributing to the accelerated displacement of cash transactions at the point of sale and providing benefits to all parties: consumers, merchants, and banks.

# The Contactless Strategic Opportunity for Banks

Given the clear, strong consumer and merchant benefits, we anticipate the rollout of contactless cards in the United States will lead to comparable changes in consumer payment behavior, with three potential benefits for the banking industry:

Card-related economics. Because of the incremental number of card transactions and payment volume that migrate from cash transactions, banks can generate incremental revenues and earnings (net of the incremental cost of issuing contactless cards, as contactless cards are more expensive than traditional cards) from the rollout of contactless cards.

Cash-handling cost savings. As cash transactions migrate to cards, decreasing the amount of cash activity in the retail marketplace, banks may have the opportunity to reduce their cash-handling costs and streamline their cash-related operations (for example, by reconfiguring or closing branches, eliminating ATMs, or reducing the costs associated with holding and transporting cash), thereby achieving significant operating cost savings.

A stronger market leadership position. For banks that launch contactless cards early and position themselves as innovators and leaders in the payments space, meaningful strategic benefits can be accrued. Leadership in contactless rollout and promotion could result in market share gains (for example, stronger customer acquisition, top-of-wallet position by becoming the card of choice for everyday transactions such as transit, and a greater share of wallet), and increased customer loyalty (for example, lower attrition), leading to better economics.

Given the potential strategic and economic benefits, establishing a go-forward contactless strategy should be a priority for banks in 2018. In today's competitive environment in which a number of financial institutions—large and small—have already introduced or are in the process of introducing contactless cards, no banks will want to miss this opportunity to deliver for consumers, merchants, and their own shareholders.

# **How Ready Is the United States for Contactless?**

In light of the global contactless experience and the significant benefits that contactless cards can bring to issuers, we assessed the contactless readiness of the US payments ecosystem.

<sup>&</sup>lt;sup>3</sup> Based on Visa transaction data from VisaNet, January to December 2017

For contactless card payments to become mainstream, three conditions must be met:

- Merchants need to have point-of-sale terminals and infrastructure to accept contactless payments, including customer-facing terminals with appropriate contactless signage.
- · Consumers need to embrace contactless cards as a better form of payment than the current EMV experience.4
- Card issuers need to issue contactless cards and drive awareness and usage through extensive marketing campaigns.

Some argue that with contactless cards, the United States is facing a chicken-or-egg dilemma: Merchants will not deploy contactless terminals until they know consumers want to pay using contactless options, consumers will not adopt and use contactless cards until they can use them everywhere they want to, and banks will not incur the incremental cost of issuing contactless cards until they are confident they will get a positive return on that investment.

To assess the validity of this argument, we examined the US market and its readiness for contactless along those three dimensions.

	Conventional wisdom		Reality
Merchants	Merchants are not ready for contactless; implementing contact- less would require a big investment	$\leftrightarrow$	Much of the required merchant infrastructure to accept contactless is already in place and turned on, in particular in merchant categories that disproportionately drive transaction share <sup>5</sup> About 48 percent of Visa transactions take place at contactless-enabled merchants  70 percent of locations have hardware capable of accepting contactless payments  More than 95 percent of new terminals shipped are contactless-capable
Consumers	Consumers resist adopting new ways of paying	$\leftrightarrow$	<ul> <li>Contactless is not a new way to pay, but a new way to use the card—a payment method that is becoming increasingly popular around the world</li> <li>About 60 percent of US consumer payment transactions today are conducted using payment cards, up from around 40 percent a decade ago<sup>6</sup></li> <li>Contactless offers the quick and seamless experience consumers are seeking<sup>7</sup></li> <li>More than 75 percent of consumers say contactless payment methods are at least somewhat appealing</li> <li>Half of consumers express being extremely or very interested in using contactless cards (debit and/or credit)</li> </ul>
Banks	A critical mass of contactless cards is required for contactless to become mainstream; today, the issuance of contactless cards is low	$\leftrightarrow$	<ul> <li>Today in the United States, about 5 percent of cards issued are contactless<sup>8</sup></li> <li>Issuers' interest in and preparedness to issue contactless cards is high</li> <li>US issuers that have rolled out contactless cards are already seeing double-digit contactless share of face-to-face transactions<sup>9</sup></li> </ul>

<sup>&</sup>lt;sup>4</sup> EMV, which stands for Europay, Mastercard, and Visa, is a global standard for chip cards and the technology used to authenticate chip-card transactions.

<sup>&</sup>lt;sup>5</sup> Visa, March 2018

<sup>&</sup>lt;sup>6</sup> Nilson Report, Issue 1122, December 2017

<sup>&</sup>lt;sup>7</sup> Visa Contactless Awareness and Usage Tracker: fiscal year 2018, first quarter

<sup>&</sup>lt;sup>8</sup> Based on Visa transaction data from VisaNet Enterprise Data Warehouse, December 2017; Visa Operating Certificates, December 2017; and RBR London

<sup>&</sup>lt;sup>9</sup> Based on Visa transaction data from VisaNet, January to December 2017

Next, we examine each dimension of market readiness.

## Merchants are well on their way to being ready for contactless

Conventional wisdom is that US merchants are not ready for contactless and that implementing contactless would require a big investment that they are not willing to undertake. However, the reality is that, in the United States to a large extent, the infrastructure to accept contactless payment is already in place.

The 2015 migration to EMV contact chips required setting up new merchant terminal infrastructure, which for the most part included the required contactless technology. Contactless payments ride on the same secure EMV architecture as contact chips, though some terminals will require software upgrades to become compatible with contactless. Additionally, while mobile wallets have yet to become a popular payment method at the point of sale, merchants continue to invest in mobile payments-enabling technology, which is the same technology required for contactless card payments. The readiness of merchants in the United States today is evidenced by the already-high share of transactions occurring at contactlessenabled merchants, the portion of locations that have the required hardware for accepting contactless payments, and the share of new terminals shipped that are contactless-capable.

Importantly, US merchant readiness for contactless is particularly strong in categories that globally have experienced high adoption of contactless payments (quick-service restaurants, drug stores and pharmacies, and food and grocery). Looking at the top 50 merchants within each of these three categories—which account for 76, 92, and 65 percent of total merchant category transaction volume for QSR, drug stores and pharmacies, and food and grocery respectively—a significant share of transactions already take place at merchants that are contactless-enabled today.10

## Percent of face-to-face card transactions conducted at contactless-enabled merchants, among top 50 merchants in each category



Moreover, transit authorities in several major US cities, including the New York Metro Authority and the Boston Transit Authority, have recently announced plans to implement contactless payment systems. As has been the experience in other countries, rollout of contactless payments for transit should be a catalyst for broader contactless usage in the United States.

<sup>&</sup>lt;sup>10</sup> Based on Visa transaction data from VisaNet, fourth quarter of 2017, and A.T. Kearney analysis

Contactless cards can significantly benefit merchants by driving speed, transparency, reduced fraud, and lower cash-handling costs. The required level of merchant readiness and interest in contactless exists in the United States to support successful rollout and adoption.

## The consumer appetite for the convenience of contactless cards is strong

Some argue that US consumers resist adopting new ways of paying. However, contactless cards are not a new way to pay, but rather a faster and more convenient way of paying using payment cards, a method that is already popular and well-understood by consumers today.

Recent research suggests that US consumers are interested in contactless cards as they are perceived as "fun and exciting," secure, and simple. Moreover, contactless cards are viewed as the future of payments, suggesting US consumers are ready for—and even expecting—the change given how prominent contactless cards are in other countries. When compared to other payment methods (cash, checks, card swiped, card inserted, mobile wallets, and wearable devices), consumers perceive contactless cards as being faster and more convenient. Interestingly, while security is a driver of interest in contactless cards, it is also a main consumer concern. Contactless card payments can be perceived by some consumers as less secure than cash, magstripe, and EMV payments.11 The research findings highlight the need for education around the fact that contactless cards provide the same level of security as EMV.

Interest among US banks is high, and we anticipate seeing momentum in contactless issuance increase over the next 12 months.

While the introduction of EMV contact chips addressed the need for improved security for point-of-sale transactions, it also introduced a slower, more cumbersome checkout experience for consumers (and merchants). Contactless cards can bring the speed, simplicity, convenience, and security consumers seek to the point-of-sale experience.

# Card issuance is the missing piece

Given the relative readiness of merchants and consumer interest in improving the current retail point-of-sale experience, banks' issuance of contactless cards is the missing puzzle piece in the United States. The good news is that interest among US banks is high, and we anticipate seeing momentum in contactless issuance increase over the next 12 months.

Contactless cards can drive the next evolution of US payments at the point of sale, as they did when introduced in other countries where the "pre-contactless" consumer behavior was similar to that in the United States today. Contactless can be the solution that solves the consumer need and preference for simplicity, convenience, speed, and security. With mobile payments

<sup>&</sup>lt;sup>11</sup> Visa Contactless Awareness and Usage Tracker, fiscal year 2018, first quarter

still nascent in the United States, banks should invest today in contactless cards to ensure long-term relevance and brand preference with consumers. If banks do not provide increased speed and convenience and help consumers sort through today's suboptimal point-of-sale experience, over time some competitor will.

Consumers in the United States still conduct almost 50 billion cash transactions a year (representing 26 percent of all consumer payments), worth \$1.6 trillion (16 percent of total consumer spend).¹² Popular categories for cash usage among US cardholders, which combined make up about 60 percent of cardholder cash transactions, include drug stores and pharmacies (47 percent of transactions conducted in cash), QSR (44 percent), restaurants (41 percent), and food and grocery (40 percent), which are also merchant categories that globally have experienced high adoption of contactless payments.¹³ In the United States, cash is particularly predominant in small-ticket items—a ticket-size category that experienced significant migration from cash to contactless card transactions globally. In the United States, for in-store transactions under \$10 and for transactions between \$10 and \$25, 60 and 40 percent respectively are conducted using cash.¹⁴ The potential to accelerate the migration of cash transactions via the rollout of contactless cards represents a compelling opportunity for banks to capture additional transactions and the corresponding card economics, while at the same time creating the future opportunity to reduce bank operating costs by streamlining their own cash-handling operations.

Banks should invest in contactless cards to ensure long-term relevance and brand preference with consumers.

With many merchants able to accept contactless card payments and consumer preference for fast and convenient payment methods, we believe the contactless business case for banks is clear, but not yet well-understood. As US banks continue to study the opportunity and better understand the strategic and economic dynamics at play, we anticipate more decisive commitment to rolling out contactless cards.

# The US Contactless Card Scenario

Leveraging the Visa/A.T. Kearney Contactless Business Case Calculator—a tool to help issuers assess the potential economic benefit of deploying contactless cards—we have developed a go-forward view of the scenario for contactless cards in the United States and estimated the potential impact on issuers' economics (see sidebar: Modeling the Business Case for Contactless on page 11).

Similar to what unfolded in "pre-contactless" US-like economies, we expect specific merchant categories (quick-service restaurants, drug stores and pharmacies, and food and grocery) to

<sup>&</sup>lt;sup>12</sup> Nilson Report, Issue 1122, December 2017

 $<sup>^{13}</sup>$  Visa Payment Panel Study, third quarter 2016 to second quarter 2017

<sup>&</sup>lt;sup>14</sup> Federal Reserve 2015 Diary of Consumer Payment Choice

#### **Modeling the Business Case for Contactless**

Visa, in partnership with A.T. Kearney, has built a business case analysis tool to help banks understand the implications of their contactless decisions and assess the economic impact of alternative contactless strategies. The Contactless Business Case Calculator examines the potential net benefit of issuing contactless cards, focusing on the impact of migration from

**Drivers of contactless economics** 

cash transactions to contactless card transactions as a result of contactless implementation (see figure c).

The calculator estimates the economic impact of a contactless card issuance strategy in both card-related economics and banks' cash-handling expenses. Within the card-related economics module, US banks that are planning to be among the first to deploy contactless cards can also estimate the impact of market recognition as a leader in the market (for example, gains in market share and share of wallet).

### Figure c

## The Contactless Business Case Calculator estimates the potential economic impact of a contactless strategy

**Key elements of the Contactless Business Case Calculator** 

# Number of contactless cards in force Incremental card-related economics Reduction in cash-handling expenses Economics associated with incremental Economics associated with the decrease in cashcard transactions handling activities and related infrastructure based on the migration from cash to cards Interchange Net interest income Rewards costs **Credit losses** Economics associated with enabling contactless cards Incremental issuance costs Start-up costs Incremental revenue Incremental costs Incremental cost savings Non-economic metrics

Sources: Visa; A.T. Kearney analysis

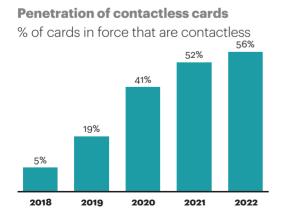
experience a significant migration from cash to card transactions as contactless cards are rolled out on a large scale. 15 Based on the global experience and accounting for differences in payment cards penetration (for example, the percentage of consumers who have payment cards) and speed of contactless cards rollout (for example, the share of cards that are contactless over time), we estimate that by 2022, above and beyond the current cash migration trends, contactless cards will contribute an incremental annual transaction migration impact of 4.6 billion transactions, equal to about 10 percent of US cash transactions. As a result, and including the pre-existing migration from cash to card, by 2022, at least 70 percent of all consumer payment transactions will be card-based compared with an estimated 62 percent in 2017.16

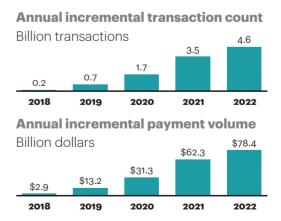
A.T. Kearney forecasts that US banks will start rolling out contactless cards in a large scale by no later than 2019. By early 2020, all top 10 banks will have launched contactless card programs, including converting their active cards into contactless as cards expire or are lost or stolen (versus accelerated conversion). In that same time frame, we expect 70 percent of US banks ranked 11 to 50 and 50 percent of banks beyond the top 50 to roll out contactless. Within each of these bank segments, we anticipate phased implementation between 2019 and 2020. Finally, we assume banks will make the required infrastructure investments to launch contactless cards starting in 2018 and that the start-up investment will be amortized over five years.

Based on our forecast of the timing and pace of contactless cards rollout, we estimate the following (see figure 4):

- By the end of 2022, 56 percent of all cards in force will be contactless.
- Through 2022, 10.7 billion cash transactions (representing around \$188 billion in payment volume) will migrate to card transactions as a result of contactless rollout. Roughly half of the incremental transactions will migrate to debit cards and half to credit cards.
- Importantly, this incremental contactless migration is above and beyond the migration that is already occurring through consumers' general cash-to-card payment transaction migration.

Figure 4 The US contactless card scenario suggests a large potential benefit of issuing contactless cards for banks





Sources: Visa/A.T. Kearney Contactless Business Case Calculator, VisaNet, Visa Payments Panel, Nilson Reports, Euromonitor, global central banks, SNL Financial, Bank for International Settlements, RBR, public sources, bank 10-Ks, expert interviews; A.T. Kearney analysis

<sup>15</sup> We assume that use of contactless cards in the restaurant category, while high in some US-like countries, will not be as predominant in the United States.

<sup>&</sup>lt;sup>16</sup> Nilson Report, Issue 1122, December 2017; A.T. Kearney analysis

We anticipate that the incremental contactless migration from cash to card transactions will translate into attractive economics for the banking industry, with around \$2.4 billion in cumulative incremental card-related earnings between now and 2022. This would translate into an incremental card-related earnings contribution of about \$3 per contactless debit card and \$12 per contactless credit card over a five-year period. Our analysis of the card economics accounts for transaction-based economics (including interchange, net interest income, rewards cost, and credit loss) as well as relevant fixed costs (including incremental card production costs for the initial issuance and card reissuance, and allocated start-up costs for rolling out contactless cards).

Additionally, banks could potentially achieve industry-wide cash-handling cost savings of up to \$22.2 billion through 2022, or 6 percent of annual consumer banking operating expenses. This cash-handling cost savings would be driven largely by savings in branch-related costs (for example, branch reconfigurations or closings and labor reductions) and benefits derived from holding less cash in the retail network (for example, the opportunity cost of the cash).

The incremental contactless migration from cash to card transactions will translate into attractive economics for the banking industry.

Given the large potential benefit of issuing contactless cards, both in terms of consumer and merchant experience as well as improved bank economics, banks should focus on developing and launching their go-forward contactless card programs.

## What US Banks Should Do Next

Contactless is now a global phenomenon, and it is time for US banks to leverage the available global learnings to capture the strategic and economic benefits of contactless cards. Consumer and merchant readiness is high with clear adoption benefits. Given the potential role of contactless cards in optimizing and growing bank card-related earnings, reducing the costs associated with handling cash, helping position the bank as an innovator and leader in the space, and protecting against others doing so, establishing a go-forward contactless strategy should be a priority for banks in 2018.

To successfully launch a contactless card product and take advantage of the contactless opportunity, US banks should immediately pursue the following steps:

- **Commit to rolling out contactless cards.** Address any outstanding business case questions, and reach internal agreement to deploy contactless cards.
- Establish a contactless value proposition for US success. Establish the appropriate
  positioning of contactless cards with existing and potential customers, and agree on the
  messaging regarding the benefits of contactless.

- **Develop a strategy to migrate existing card portfolios to contactless.** Develop a road map for rolling out contactless cards to existing card portfolios.
- **Develop an implementation plan.** Assess the requirements for system integration to deploy contactless cards, and design an implementation plan including tasks, ownership and responsibilities, timeline, and resources.
- **Create an integrated marketing campaign.** Develop a marketing campaign across channels, and establish activation and usage strategies to quickly gain traction.
- Launch the contactless card effort, and promote the consumer and merchant benefits.

Being among the first US banks to issue contactless cards can lead to immediate and ongoing earnings growth while demonstrating payments leadership and innovation, potentially capturing meaningful first-mover advantages (for example, customer acquisition, a higher share of wallet, and increased loyalty).

Contactless should be understood as an important evolution in consumer and merchant payment convenience and checkout speed. The lessons from global rollouts of contactless spotlight the value consumers and merchants place on contactless capabilities. More importantly, the global experience shows a clear pattern of increased card activity and an accompanying reduction in cash transaction volumes. Beyond the benefits to consumers and merchants, contactless provides issuing banks both new revenues as well as reduced operating expenses.

With compelling economic and strategic benefits and growing industry understanding of those benefits, a wave of US banking industry commitment to contactless should begin in 2018 and roll through 2019 into 2020. The US banking industry's embracing of contactless will yield significant benefits to consumers, merchants, and all participating banks.

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