



Innovation and disruption in U.S. merchant payments

The U.S. merchant payments landscape is undergoing a period of rapid, technology-driven change. Mobile, online and social technologies are revolutionizing consumer access to information and sparking demand for new services that can support multichannel commerce, big data analytics, enhanced loyalty programs and targeted advertising. Consumers use the new tools to move dynamically between computer, mobile device and in-store experiences while shopping. For merchants, these cross-channel “journeys” create opportunities to integrate business-to-consumer (B2C) sales channels and to leverage generated data to understand consumer behavior. To capitalize on this opportunity, merchants need payments solutions that integrate adjacent business services and enable new functionalities that enhance loyalty programs and advertising performance.

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For payments and non-payments companies, new merchant services are attractive areas for growth. For payments companies, revenues from new merchant services could double today’s market in traditional merchant acquiring and transaction processing. For non-payments players, new services represent a major step toward closing the loop between investments in advertising and loyalty programs and consumers’ ultimate purchasing decisions.

At the same time, cloud computing is lowering the barriers to entry for software firms seeking to provide merchant services. It is easier today to develop inexpensive pay-

ments solutions and to connect various systems and platforms than it was just five years ago. Coupled with hardware advances such as smartphones and tablets, point-of-service (POS) systems are transitioning from payments-only terminals to software solutions that help merchants operate their business, such as practice management software for medical providers or order management software for restaurants.

These changes will intensify competition and result in accelerating price compression. According to forecasts from McKinsey’s U.S. Payments Map, total electronic payments volume is expected to grow by about 7 per-

cent per year over the next five years—driven largely by continued growth in digital commerce and increased electronic payments acceptance at small merchants (Exhibit 1).

Despite growing volumes, increased competition will accelerate margin compression and constrain industry revenue growth. This compression will be felt most keenly in the small (less than \$5 million in annual electronic transaction volume) and medium-size (\$5 million to \$100 million in volume) merchant segments, where margins are relatively high today (Exhibit 2, page 36). For larger national merchants, whose margins are already near their structural floor, increased processing efficiency will result in margin compression of 2 to 3 percent per year—slightly below that of prior periods.

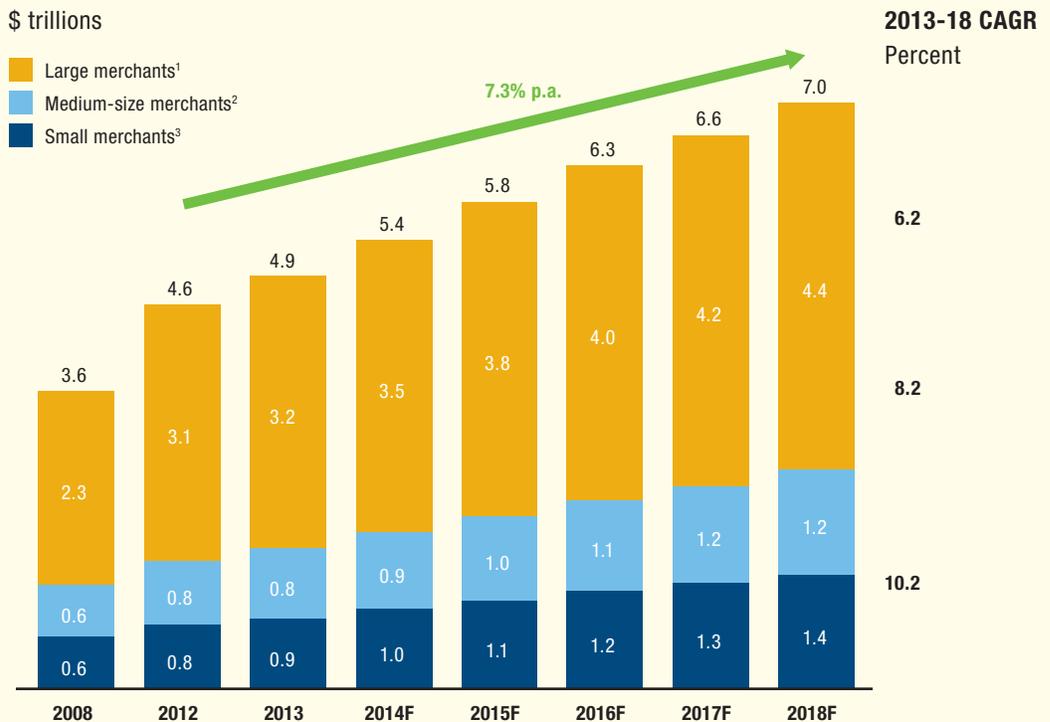
As a result, overall processing revenues are expected to grow by 2 to 3 percent annually over the next five years (Exhibit 3, page 36). Low growth in what is essentially a scale business will necessitate consolidation along the merchant payments value chain in order to sustain current market valuations. Firms such as independent sales organizations (ISOs), payments gateways and subscale payments acquirers and processors will need to merge to drive efficiency in a crowded landscape.

Lessons from the past

The evolution of the merchant payments industry over the past three decades (see sidebar) leads to two important assumptions:

Exhibit 1

Electronic payments volume is expected to grow at about 7% annually over the next five years



¹ Greater than \$100 million in electronic sales volume

² \$5 million to \$100 million in electronic sales volume

³ Less than \$5 million in electronic sales volume

1. Innovation in payments technologies mostly affects merchant-facing functions in the value chain (i.e., sales and onboarding rather than clearing and settlement) and tends to attract new entrants before incumbent firms adapt. ISOs supplanted local and regional banks as the primary distribution channel for small and mid-size merchants in the 1990s. As a result of merchant adoption of more sophisticated POS solutions in the 2000s, value-added resellers (VARs) and payments gateways have become a significant distribution channel.
 2. Scale is fundamental to the competitiveness of the processing function. The advent of electronic payments triggered a massive consolidation of merchant payments processing volume toward a handful of firms (e.g., First Data, Fifth Third/Vantiv and Elavon) as banks elected to consolidate the cost of local and regional processing operations. Over time, processing economics have declined with the marginal cost of processing a payment transaction. At about five to eight basis points per transacted dollar, they are now at a level that would be unattractive to most new entrants.
- Over the next decade, technology will drive evolution in merchant payments that will rival the changes prompted by the intro-

A short history of disruption in U.S. merchant payments

The merchant payments value chain has seen dramatic change before. In the **1980s**, VeriFone introduced the electronic POS terminal, which reduced the time—and ultimately the cost—of payments acceptance. Thanks to this innovation, both merchants and consumers quickly embraced electronic payments. At the same time, large regional merchants in the U.S. began to expand into national chains. Banks seeking to build a significant payments processing business established national sales and service capabilities to meet the needs of these large, high-volume merchants. Competition for this volume drove down processing margins, leading to consolidation of the processing industry and the formation of large-scale processors like First Data and Midwest Processing Solutions.

In the **1990s**, as more and more small and medium-size merchants began accepting electronic payments, electronic volumes grew 14 percent per year in the U.S. But banks lacked the sales and service capacity to take on a substantial number of small and mid-size merchants. Business bankers were comfortable focusing on the higher-return credit opportunities available in the economic environment of the time. As a result, ISOs stepped in to provide much-needed distribution capacity to this growing segment.

The **2000s** marked a third major disruption in the U.S. merchant payments value chain. Already common at large merchants, electronic POS systems became more accessible to mid-market merchants by the early 2000s, thanks to falling PC hardware prices and expanding computing power. The availability of local processing power, local data storage, networking and graphical user interfaces made it possible to develop flexible, highly functional POS systems that could be tailored to payments-intensive industries such as retail, food service and hospitality. Contemporaneously, Internet use became widespread, and online commerce emerged as a new channel for merchants. These changes led to the entrance of two new sets of participants in the payments value chain: value-added resellers (VARs) and payments gateways. VARs distributed POS solutions on behalf of POS software companies such as Micros and NCR and enabled the integration of payments processing with those systems. Payments gateways enabled connectivity between off-line POS software, online commerce Web sites and payments processors. Essentially, software developers and VARs could integrate with one payments gateway, which could then route transactions to various processors, eliminating the need for costly, time-consuming integrations with legacy payments processing platforms.

Exhibit 2

Increased competition will result in accelerated processing margin compression, especially among small and medium-size merchants

¹ Merchant electronic payments processing fees net of network interchange, dues and assessments; includes recurring ancillary fees (e.g., annual fees, chargeback fees, compliance fees).

² Period where Durbin Amendment results in an initial increase in processing margins, followed by a subsequent unwinding of gains as merchant contracts expire and excess rents are competed away.

Source: McKinsey U.S. Payments Map

U.S. electronic payments acquiring/processing net revenue margin¹
bps

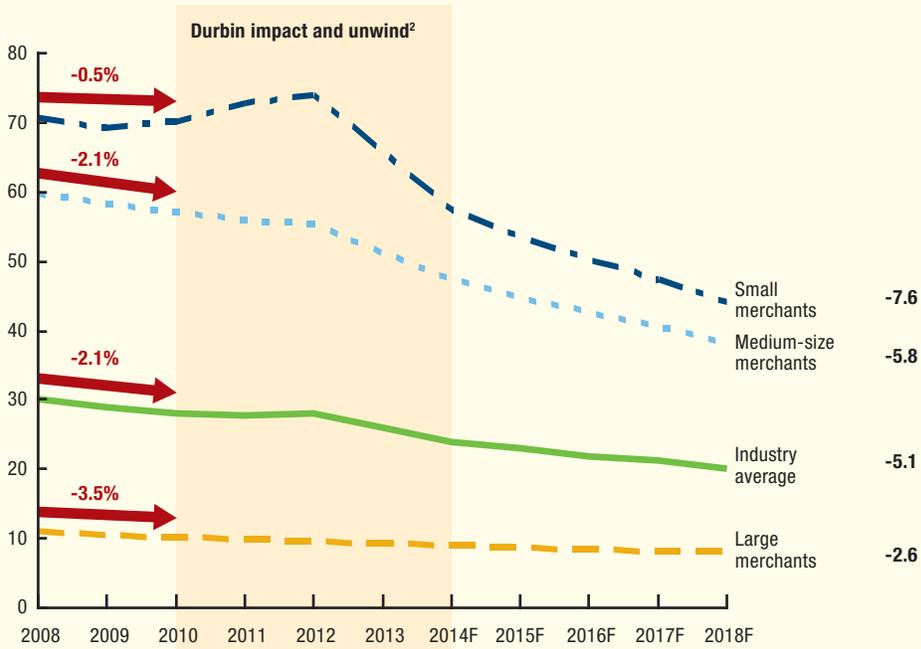
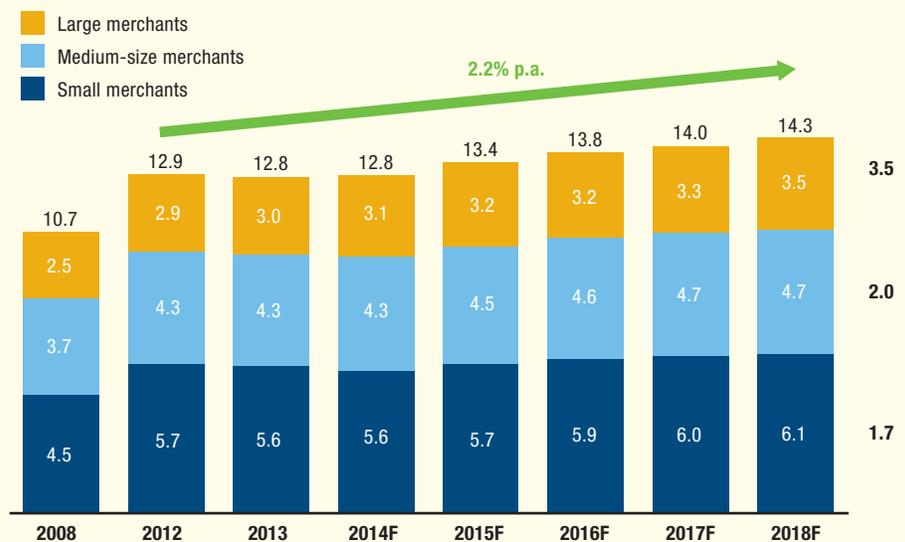


Exhibit 3

Margin compression will result in payments processing revenue growth of only 2% to 3% annually over the next five years

2008-18 U.S. electronic payments acquiring/processing revenue
\$ billions



Source: McKinsey U.S. Payments Map

duction of the electronic terminal 30 years ago. As a result, firms providing merchant-facing functions—ISOs, VARs and the captive sales forces of banks and nonbank acquirers—are likely to see significant disruption. New entrants armed with the latest technologies will challenge existing customer relationships. Competition for growing payments volumes will drive down industry margins further, requiring incumbent firms to consolidate to defend and grow their businesses.

Over the next decade, technology will drive evolution in merchant payments that will rival the changes prompted by the introduction of the electronic terminal 30 years ago.

The implications of tech-driven change

Changes in the payments industry are affecting all participants in the value chain. Those closest to the consumer will experience the greatest impact.

Traditional terminal manufacturers

Traditional terminal manufacturers who fail to adapt to the evolving market may face the highest potential negative impact. Historically, software embedded in the payment terminal allowed for the secure collection and transmission of data onto the network. The device was “smart,” allowing other software interacting with the point of sale to avoid handling payments information in a manner that would subject that software to network certification requirements. Today, technology—specifically cloud computing—is making the integration of payments func-

tionality into other software solutions less burdensome. As a result, a host of different business software solutions can provide payments functionality on lower-cost hardware such as tablets. To retain their dominant position with merchants, traditional POS providers must innovate beyond the POS or expand their products’ functionality beyond payments acceptance. Large terminal manufacturers are already acting on this premise, as demonstrated by VeriFone’s acquisition of Global Bay, a mobile payments solution provider.

POS solution providers

Over the next five years, the vast majority of merchant payments processing revenue growth in the U.S.—more than \$1.5 billion of new revenue—will be acquired through software solutions rather than traditional payment terminals (see sidebar, page 39).

Transactions via solution providers are expected to grow from 24 to 33 percent, approximately, of total acquiring/processing revenue during this period (Exhibit 4, page 38). In particular, solution providers will become more prevalent in middle-market payments, with health care and retail expected to see the largest increases. Large enterprise software companies will focus on providing holistic, cloud-based process services to small businesses.

Traditional independent software vendors (ISVs) that provide POS solutions to the retail, restaurant and hospitality industries—such as Micros and NCR—are building or buying new payments-related capabilities in response to growth expectations. NCR, for example, acquired Radiant, their principal payments gateway, and developed Silver, a cloud-based POS solution. Ventures of this

kind will enable existing POS software companies to grow in two ways: by participating directly in payments economics by virtue of owning the gateway, and by expanding into smaller merchant segments with lower-cost, cloud-delivered solutions.

Beyond the traditional POS solution providers, emerging ISVs and start-ups are developing POS solutions that integrate payments. For example, PayPal is integrating payments processing with value-added business intelligence services while leveraging existing POS hardware. Others, like Square and Intuit, are reinventing the POS process with tablet-based systems that offer access to payments processing solutions with low up-front costs.

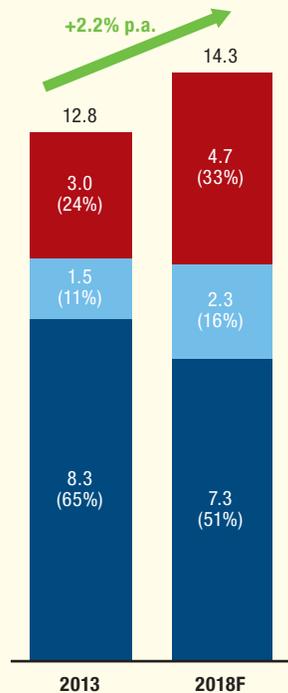
ISVs will become increasingly relevant partners for the distribution of payments processing. Almost all of this growth will occur in the small and medium-sized merchant segments. Many new, small-business payments solution providers are looking to established acquirer-processors or ISO sales forces as a potential route to market; the economics of this segment, however, will not support “payments only” distribution.

The adoption of cloud-delivered POS solutions is a long-term threat to VARs’ business models, given that these solutions often offer lower up-front installation costs, subscription pricing and remote servicing. In the near term, VARs will remain relevant for middle-market merchants in payments-

Exhibit 4

Over the next five years, the vast majority of U.S. merchant payments revenue growth will be acquired through software solutions

U.S. electronic payments acquiring/processing revenue
\$ billions



	CAGR 2013-18 Percent	Description	Examples
POS solution provider¹	8.9	Transactions acquired via a software POS solution (non-terminal)	QSI Dental Web Micros Symphony NCR Aloha
Online business-to-customer e-commerce	9.4	Card not present (CNP) transactions excluding telesales and other direct marketing transactions	Retail e-commerce Online travel & entertainment Online payment of consumer services
Traditional	-2.5	Transactions that originate at terminals or merchant data centers and route directly to the payments processor	Terminals connecting directly to processors Direct marketing and telesales

¹ POS solution providers include ISVs, VARs/dealers and gateways that do not serve e-commerce.

Source: McKinsey U.S. Payments Map; expert interviews

intensive industries who lack national merchants' IT staff but whose needs are too complex for the packaged payments solutions available today. However, the general trend toward cloud-based delivery of payments functionality will slowly erode VARs' revenue streams from installations, servicing and upgrades.

Over 500 payments gateway companies enable connectivity and provide other value-added services for U.S. merchants.

Historically, gateways have served as an important link between POS software or e-commerce Web sites and payments networks; by eliminating the need to integrate with multiple processors, they save software developers and VARs time and money. Today, payments processors are investing heavily in making their platforms easier to integrate with software solutions. At the same time, software companies with a strong payments focus are building in-house gateway functionality (e.g., Micros)

POS solution providers

Changes in payments technology make several categories of companies important actors in the payments value chain:

- **ISVs** write business solution software that may or may not include a payments solution (e.g., Micros, Oracle). The software can be distributed and serviced through a direct sales force, by VARs or, if cloud-based, remotely. Historically, only ISVs that focused on POS solutions for payments-intensive industries (e.g., retail, restaurants) sought to integrate payments functionality into their solution, but as software moves to cloud-based platforms, the integration of payments functionality becomes easier for software companies with less payments expertise.
- **VARs** (sometimes called “dealer networks”) install POS software and/or hardware solutions at the merchant site and often provide ongoing services for the merchant (e.g., regional Micros dealers). VARs do not write the software but instead serve as an independent distribution channel and servicing arm for software companies and existing POS solutions. Payments acquirers/processors often encourage VARs to “pitch” processing services in return for one-time or recurring revenue.
- **Gateway providers** connect merchants to multiple processors and protect credit card information (e.g., Merchant Link, Authorize.net). Gateways have enjoyed strong growth since the emergence of online commerce. A key driver of their rise was the point-to-point communication protocols typically required by legacy payments processing platforms. Since software companies did not want to limit their product to communication with one payments processor, gateways emerged as front-end aggregators that enabled communication between multiple software solutions and payments platforms.

Square and the micro-merchant segment

Square changed the game in the micro-merchant segment (merchants with electronic sales volume below \$250 million) through innovative “self-service” distribution and seamless wireless connectivity. Today, Square continues to drive innovation in merchant payments through increasingly sophisticated solutions (e.g., Square Register) and partnerships with large merchants such as Starbucks.

While innovative, Square's moves in the micro-merchant segment are far from disruptive for incumbents. In fact, assuming continued volume growth in the 30 to 40 percent range, Square is on track to achieve 20 percent market share in the micro-merchant segment by 2018—less than 1 percent of total U.S. electronic payments volume.

The ability of Square and other emerging ISVs to take real market share from incumbent players in the middle and large merchant segments over the next few years will likely foreshadow the intensity of disruption in merchant payments.

or buying their primary gateway service providers (e.g., NCR/Radiant). Going forward, gateway companies whose primary value lies in connectivity will be under pressure to justify their role and may become acquisition targets for upstream or downstream players. Successful gateways will offer specialized services such as cross-border payments or analytics to maintain their relevance in the payments value chain.

Large merchants will likely employ new, cloud-based POS solutions, but they will continue to integrate these solutions with their existing enterprise technology.

ISOs

The ISO channel is facing intense pressure due to declining margins and the emergence of competitors that augment payments with other revenue streams. Some ISOs, such as Mercury Payment Systems, have tailored their business models to specific merchant segments and distribution channels and have gained market share as a result. On the other hand, traditional ISOs, whose principal role in the value chain has been to provide distribution reach to small businesses, will likely continue to lose market share.

Merchant acquirers and processors

Growth will be the primary challenge for acquirers and processors over the next several years. Electronic sales volume growth is decelerating, with about 8 percent growth per year expected through 2018 as compared to the 10 to 15 percent volume growth over the past two decades. In addition, intensifying competition for merchant

relationships—increasingly from new entrants who view payments as an adjacent revenue stream—will accelerate margin compression. As a result, industry revenues from acquiring and processing merchant payments are expected to grow by only 2 to 3 percent over the next five years.

It is important to note that changes in the merchant payments industry will largely impact the small and medium-size segments. In general, new competitors pose little threat to acquirer and processor relationships with their large merchants. Large merchants will likely employ new, cloud-based POS solutions, but they will continue to integrate these solutions with their existing enterprise technology over the next three to five years, and will thus continue to maintain direct relationships with payments processors. On the other hand, small and medium-size merchants, unburdened by legacy enterprise technology, are more likely to leverage new solutions.

Payments networks

Among all industry participants, payments processing networks will be least affected by today's disruptions. Because they are paid on a per-transaction basis, the networks are likely to ride the wave of continuing volume growth unless a new competitor figures out how to displace them. How that volume will get onto the networks is another question. To ensure a continuous flow, networks are striking deals (see Chase and Visa's decision to create Chase Merchant Services, which could aggregate and lock up merchant payments volumes for the next 10 years).

Banks

As economic and regulatory forces compress margins, banks will look for ways to improve

their returns. In particular, they will seek to transform small business banking by moving to remote coverage, expanding the breadth of products offered and increasing non-credit revenues. Banks may also renew their interest in merchant payments services.

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To succeed in this rapidly changing market, payments players must examine the impact of these trends on their business and make clear decisions about where and how they will compete along the value chain. They

may need to rethink what it means to partner with others—today's competitor could be tomorrow's partner. Finally, companies seeking success in the evolving environment should strengthen their strategic planning and mergers and acquisitions skills so that they can quickly react in what is likely to be a dynamic environment over the next several years.

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