DIGITAL TRANSACTIONS
Trends in the Electronic Exchange of Value

EMV at 10

It's now a decade since the era of the EMV standard dawned for the U.S. payments industry. Here's how the industry has reacted—and how effective EMV has been.

Volume Twenty-two, Number Ten • DigitalTransactions.net • October 2025

ALSO IN THIS ISSUE:

The latest in payment technology and solutions with a mission to help small to mid-sized businesses grow.

celero

contents

OCTOBER 2025 • VOLUME 22, NUMBER 10

Cover: 123RF/payphoto. Above: 123RF/TEA. Above right: 123RF/lukianenko

Digital Transactions (USPS 024-247) is published monthly by Boland Hill Media LLC, 800 Roosevelt Road, Building B, Suite 212, Glen Ellyn, IL, 60137. Periodicals Postage Paid at Glen Ellyn, IL, and at additional mailing offices. POSTMASTER: Send address changes to Digital Transactions, P.O. Box 493, Northbrook, IL 60065-3553.

the gimlet eye

IS BNPL UNSTOPPABLE?

WE'VE BEEN GETTING signals lately that the intersection of short-term point-of-sale lending and payments is likely to be a permanent feature of the landscape.

While the continuing popularity of the buy now, pay later phenomenon won the attention of banks some time ago, now credit unions are starting to get in on the act. That news emerged late this summer just as statistics from the big BNPL platform Affirm Holdings Inc. showed that the increasingly popular shopping service had lifted the company's gross merchandise volume 43% year-over-year to $10.4 billion in the June quarter, pushing the company's stock up 15% on the day it reported its results.

Indeed, when we checked two days before the official start of fall, Affirm was up 50% for the year, at more than $91 per share.

Michigan State University Federal Credit Union cited BNPL as a "key factor" in consumers' purchase decisions as it announced its in-house version of the service, which lets members pay off online and in-store debit card purchases in a few installments. The credit union has $8 billion in assets and almost 400,000 members across the country.

"We invested in BNPL to give our members more control over their budget, with a payment method they prefer," noted chief technology officer Ben Maxim, in a statement. The school's service works through an application programming interface with BNPL processor equipifi Inc.

Overall, some 86.5 million Americans used BNPL in 2024, a number expected to grow to 91.5 million this year, according to Capital One Shopping. That's up from 49.2 million in 2021. The average transaction size is $135, the Cap One report says, though the average borrowed across a full year is $2,085.

Increasing consumer attraction to the payment method is helping to drive results for Affirm, which emerged 13 years ago to serve this market, which was then in its infancy. That move is paying off handsomely for the San Francisco-based company. It reported revenue less transaction costs for its June quarter of $425 million, up 37% year-over-year. The number of merchant firms using the service grew 24%, to 377, while the transaction count grew 52%, to 37.5 million, driven by a 23% rise in active consumers, to 23 million.

Eager to expand outlets for its service, Affirm widened its link with the payments company Stripe Inc. to launch what the companies called the first BNPL integration in a Stripe terminal. Nearly at the same time, the company said it is expanding a partnership with Google Pay to offer its payment options through autofill while users are checking out on a Chrome browser.

Maybe we should call it PNBPL—Profits Now, Bigger Profits Later.

John Stewart, Editor | john@digitaltransactions.net

OCTOBER 2025 • VOL. 22, NO. 10

DIGITAL TRANSACTIONS
Trends in the Electronic Exchange of Value

PUBLISHER Robert A. Jenisch

EDITOR-IN-CHIEF John Stewart

SENIOR EDITOR, DIGITAL
Kevin Woodward

CORRESPONDENTS
Jim Daly, Peter Lucas

ART DIRECTOR/PRODUCTION EDITOR
Elizabeth Novak

Digital Transactions, Digital Transactions News, and DigitalTransactions.net are publications of Boland Hill Media LLC, 800 Roosevelt Road, Suite B212, Glen Ellyn, IL 60137

John Stewart, Managing Director
Robert A. Jenisch, Managing Director

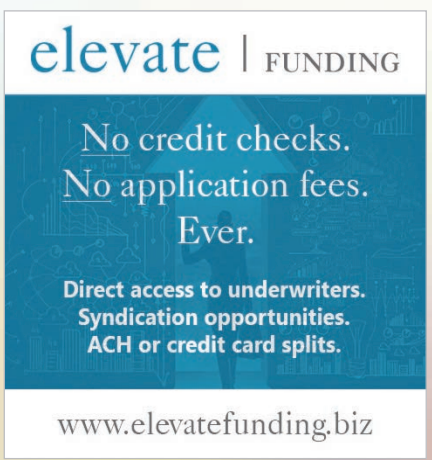
For advertising information, call 630-547-2887. To subscribe or give us a change of address, go to www.digitaltransactions.net and click on "Subscriber Care" or call 630-547-2887.

Subscription prices: $59/year for subscribers in the United States; $69/year for Canadian subscribers. All other subscribers, $119/year, payable in U.S. currency.

BPA WORLDWIDE

Co-Branded E-Mail Marketing

Get the Results You Need



Here's how it works

You select the part of *Digital Transactions*' subscribers you want to reach, sorted how you need it, by function, location, or title. Just ISOs? No problem. Just executives on the East Coast? No sweat. Just CEOs? No worries. Or choose our entire circulation base. It's up to you! You give us your HTML creative. We create both a text version and a Web version of the e-mail deployment. After the deployment, we track deliveries, opens and clicks, and give you all the stats.

It's really that easy!

To get started, contact Bob Jenisch today.
630-547-2887
bob@digitaltransactions.com

ZELLE LAUNCHES AN SMB FEATURE AS VOLUME SOARS

Zelle, the peer-to-peer payment service, appears on track for a banner year with a record 2 billion transactions processed in the first six months of 2025, a 19% increase from the 2024 first half. The dollar amount of these transactions increased more, reaching nearly $600 billion, up 23% from $481 billion, Zelle owner Early Warning Services LLC announced last month.

Zelle data show growth is up across all segments. It was strongest in payments from individuals to small businesses, which rose 30% year-over-year, followed by small business–to–individual payments, up 22%.

Now, Early Warning is launching a new feature to make it easier for small businesses to use Zelle. The small-business Zelle tag is being rolled out by participating banks and credit unions, Denise Leonhard, Zelle general manager, said in an email.

"By the end of the year, many small businesses will be able to claim a custom handle (e.g., "brooklynbarbeque") that directs customer payments straight into the business's eligible bank or credit union account—no email address or U.S. mobile number needed," Leonhard said. In April, Zelle said about 7 million small businesses were enrolled in the P2P payment service, with many using it for payroll, purchasing inventory, and vendor payments.

Zelle also said there was a 20% increase in the number of active users making individual-to-small business transactions over the first six months of 2024 and a 5% increase in the average dollar amount.

"Whether it's paying for child care, hiring a contractor, or supporting farmers-market vendors, consumers value the ease and dependability of paying directly from their bank account," Leonhard said.

Growth in other segments increased, too. Rent transactions were up 13%, payments made on weekends grew 18%, and babysitter payments increased 7%. The classification is based on self-reported memo fields Zelle users voluntarily fill in. Launched in 2017 by bank-backed Early Warning, Zelle says the momentum from the first six months spilled into August, too. At more than $108 billion sent last month, it was the biggest month ever for the P2P payment service.

ZELLE BY THE NUMBERS

(First half of 2025, with change from same period in 2024)

Number of payments sent and received: **2 billion, up 19%**

Total dollar volume sent: **$600 billion, up 23%**

Payments to small businesses: **180 million, up 31%**

Source: Early Warning Services

Rent payments made with Zelle also stand out, partly because the volume is up 25% and the average rent amount increased nearly 5% to $958 from $914. Zelle can make it easier for roommates, in particular, to cover rent, she says. "And, at a time when housing costs continue to rise, it's striking to see more people turning to Zelle to manage one of their largest and most important expenses."

Zelle's popularity can be attributed to many factors, Leonhard says. "These are big, foundational expenses, and people choose Zelle because it delivers reliability. What really sets Zelle apart is that it's already embedded in more than 2,200 banks and credit unions, with over 151 million enrolled user accounts."

Leonhard also notes that so-called super users, those who use Zelle the most, are the top 20% of most active users and represent 60% of the total network volume. "Our analysis of Zelle super users—those already active on the platform, not just those now shifting from cash or checks—shows meaningful patterns in how Americans are choosing to spend their money," Leonhard says.

Zelle says even at this scale, its fraud rate is just 0.02%. While acknowledging it could change as new product features are added and criminals evolve their attacks, it means 99.98% of all Zelle transactions are made without reported fraud or scams.

—Kevin Woodward

FEDNOW IS POISED FOR A $10 MILLION TRANSACTION LIMIT, SET FOR NOVEMBER

The Federal Reserve said last month it will raise the transaction limit on FedNow transactions tenfold, to $10 million, effective in November. Launched in July 2023, FedNow is a real-time payments system linking more than 1,400 U.S. financial institutions.

The move will have come nine months after the rival Real Time Payments network in February boosted its transaction dollar limit, also to $10 million from $1 million. The RTP system, which predates FedNow by seven years, is part of The Clearing House Payments Co., a New York City-based firm owned by many of the country's biggest banks.

FedNow sees the higher limit as an opening for new applications, such as real-estate transactions, vendor payments, and corporate payroll, the network said in its announcement.

Indeed, the move comes "in response to growing demand," says a notice from the network. "The increased limit will enable financial institutions and businesses to support higher-value use cases and reflects an increasing need for speed and certainty," the notice continues. The network, which at this writing had not yet set a specific effective date for the new limit, says banks are free to set lower ceilings.

"Financial institutions need flexibility to serve customers and support internal processes," said Mark Gould, chief payments executive for Federal Reserve Financial Services, in a statement. "The FedNow Service is shaping how we move money, and the service will continue to be flexible to meet evolving feedback and increasing demand."

Observers see both necessity and strategic opportunity behind the Fed's move as well as the earlier increase by TCH. "The higher limits should help both RTP and FedNow take share from wire transfer and support new use cases," notes Eric Grover, head of the consultancy Intrepid Ventures.

Other experts argue the Fed is responding to demand from banks, particularly following RTP's move. "FedNow customers have been push-

FEDNOW'S GROWTH PATH

(Total settled payments and growth rate, sequentially by quarter)

Q2 2024	156,076	60.2%
Q3 2024	336,487	115.6%
Q4 2024	915,263	172.0%
Q1 2025	1,310,017	43.1%
Q2 2025	2,130,889	62.7%

Source: Federal Reserve

ing for a higher payment level, which means they want to put more of their business into faster, safer, and more efficient payments," says Steve Mott, proprietor of the payments consultancy BetterBuyDesign and a longtime observer of real-time payments, by email. "$1 [million to] $10 million payments are a sweet spot, and we're at this place in the market evolution where demand from commercial customers is driving banks and networks to 'strap-up' to serve them better."

Observers like Mott also note a faster tempo building at both TCH and FedNow in moving to raise transaction limits. FedNow's competitive response in particular, Mott says, is coming more quickly these days.

"It is ... interesting that the Fed is comfortable matching the TCH moves up the payment ceiling ladder more quickly each time," he says. "TCH's volume provides a window into risks—mainly operating risks [versus] fraud risks. Member banks are the ones that have to handle high-value payments, and as they get comfortable with the transactions, the confidence and appetite to domm more grows."

— John Stewart

PAYPAL AND GOOGLE TEAM UP ON AGENTIC COMMERCE

PayPal Holdings Inc. and Google Inc. have partnered to leverage their artificial-intelligence capabilities in an effort to create what they see as more personalized shopping and payment experiences across their platforms and devices for consumers and merchants.

The deal, announced last month, will bring together the two companies' "global payment infrastructure, PayPal's data-driven personalization, and trusted identity solutions, alongside Google's AI expertise to deliver new AI experiences," where AI-powered agents can transact, make purchasing recommendations, and assist users in making commerce intuitive and proactive, PayPal chief executive and president Alex Chriss said by email.

The partnership announcement came hard on the heels of Google unveiling its Agent Payments Protocol, an open protocol to authenticate consumers initiating a payment using an AI agent when shopping online. PayPal says it and other companies are committed to advocating for adoption of the protocol.

"[Google and PayPal] are committed to delivering frictionless, secure digital-commerce experiences, leveraging AI for smarter, more personalized payment interactions across platforms and devices for consumers and merchants," Chriss said.

In addition to developing agentic commerce, Google will embed PayPal's payment technology, such as PayPal branded checkout, Hyperwallet, and PayPal Payouts, across its family of products. Google products include Google Cloud, Google Ads, and Google Play. PayPal will process transactions for those Google products, boosting its role as a trusted payment solution within Google's core platforms, Chriss said.

More important, integrating its payment offerings with Google products will give PayPal access to a "monstrous consumer base", which is what every payment company wants, notes Cliff Gray, principle at Gray Consulting.

"Payment channels like PayPal want access to riders on their rails, and Google not only has a lot of riders, it has a lot of huge stations [or products] filled with riders," Gray says.

Getting access to Google's customer base will help make PayPal a ubiquitous alternative payment network that is as easy and frictionless to use as the Visa and Mastercard networks, according to Gray. "That's the standard to reach," Gray adds.

MONTHLY MERCHANT METRIC

Attrition %

This is sourced from The Strawhecker Group's merchant datawarehouse of over 4M merchants in the U.S. market. The ability to understand this data is important as SMB merchants and the payments providers that serve them are key drivers of the economy.

All data is for SMB Merchants defined as merchants with **less than $5M in annual card volume.**

Date	Account Attrition %	Volume Gross Attrition %	Net Revenue Gross Attrition %
Jul'25 (T3M)	-21.7%	-13.3%	-18.8%

Metric Definitions: (Only use definitions related to an individual month's release)

Account Attrition % - Total attrited accounts in given period divided by total portfolio active accounts from same period of the prior year

Volume Gross Attrition % - Total volume of attrited accounts from given period of prior year divided by total portfolio volume from same period of the prior year

Net Revenue Gross Attrition % - Total net revenue of attrited accounts from given period of prior year divided by total portfolio net revenue from same period of the prior year

The deal also calls for PayPal to have increased access to Google Cloud, Google's suite of cloud-computing services that offers cloud-computing infrastructure for developing applications, services for data analytics, machine learning, and networking.

PayPal has had access to Google Cloud since 2021, but more access is a natural next step for PayPal, according to Gray.

"PayPal doesn't want Google to build a new infrastructure just for them to access Google's customer base, they want a tried-and-true infrastructure, which Google Cloud is," Gray says. "Nor does Google want to build a new infrastructure for PayPal."


Gray

Gray: "Payment channels like PayPal want access to riders on their rails."

Working with Google Cloud will enable PayPal to reimagine its "technology foundations, applications, and infrastructure to power PayPal's next-generation commerce and payments platform," Chriss adds.

He continues: "And it's not just Google. Leaders across technology—Perplexity, OpenAI, Anthropic, Salesforce, and more—are developing with our platforms and proving that PayPal's infrastructure is where the future of commerce is being built. This partnership with Google accelerates that vision and cements PayPal's role as the trusted platform powering the next generation of global commerce."

— Peter Lucas

BNPL DATA AFFECTING LENDING DECISIONS? IT COULD BE YEARS

The credit-scoring company FICO may be poised to unveil this fall new models that include buy now, pay later data, but some payment experts contend it could take years before there is widespread adoption by BNPL lenders. That, in turn, could significantly limit the effectiveness of the new models in the near term, they argue.

The Fair Isaac Corp., known as FICO, in late June announced plans to debut its new models, FICO Score 10 BNPL and FICO Score 10 T BNPL. One of the reasons FICO developed the models is to help BNPL lenders evaluate creditworthiness for first-time borrowers, but adoption is expected to be "gradual," which means their impact on credit decisions won't be felt by consumers for years, says Kevin King, vice president of credit risk for LexisNexis Risk Solutions, via email.

The reason: most lenders tend to relay on older versions of FICO models due to the cost of the resources required to implement newer versions, according to King.

"Think of this as owning a car: Most people don't buy the newest model of their preferred vehicle every year, they invest in a make/model planning to rely on it for many years," King says by email. "The same holds for credit scoring, and the reason lenders don't migrate to a new version annually, or whenever a new version becomes available, has to do with the costs, people, and resources required to make the change to a new credit model."

As a result, it will "be years (if ever) before BNPL activity will be fully and consistently reflected in the scores that determine credit eligibility," King adds.

Another hurdle, King argues, is that BNPL lenders are not obliged to furnish BNPL data to the credit bureaus. FICO uses data from the bureaus to formulate credit scores. Some BNPL lenders have actively refused to report such data "for over half a decade," King adds.

Still, King points out that BNPL lenders using older versions of the FICO models won't necessarily be handicapped in measuring a consumer's creditworthiness.

"BNPL providers can underwrite quite accurately. There's no question that BNPL providers would like to see

what consumers are doing at other BNPL lenders, and this FICO development offers one path to achieving that," King says.

"But BNPL providers have access to a wealth of credit data," he says, "including the traditional credit data reflected in FICO scores, alternative credit insights which provide visibility to credit behaviors not considered in FICO today, and the very predictive history of how a consumer has repaid past BNPL loans with their own organizations."

A FICO spokesperson counters by email that "the pace of adoption can vary across the industry." The company has worked closely with many of the largest lenders in the United States, the spokesperson says.

Those lenders "told us loud and clear they think there's a need for a credit-scoring model that includes BNPL data," the FICO spokesperson says. "Our clients see this as a smart, forward-looking move. It helps them make better lending decisions and opens the door for more consumers to build credit."

While FICO acknowledges the lack of uniform data reporting by BNPL lenders poses a potential speed bump to adoption of its new scoring models, the company is quick to add that, since June, it has "been inundated with responses from lenders eager to learn how/when they will be able to test these scores."

FICO adds that its new scoring models will be offered with existing versions of the FICO score at no additional cost. "This approach will allow lenders to evaluate the new BNPL-enhanced credit scores while continuing to use FICO's industry-leading models they use today, ensuring a seamless transition and added value," the FICO spokesperson says.

Several BNPL lenders have said they have no plans to report data for Pay in 4 BNPL loans, arguably the most popular BNPL product. But King suspects the majority of lenders will contribute payment data on their most widely used products and will continue doing so indefinitely, even if it's shown to ultimately hurt their customers' credit scores.

"It's critical to understand that, without BNPL providers contributing data in this manner, it won't matter if lenders adopt the new score, as consumers won't see their BNPL behavior reflected in their scores," King says.

—Peter Lucas

QU LAUNCHES A PLATFORM FOR RESTAURANTS. ONOSYS EXPANDS ITS WEB OF PARTNERS

Qu POS Inc. says it has bolstered its efforts to modernize the technology stack for quick-service and fast-casual restaurants with the launch of Qu Business Edge, a restaurant-management platform based on so-called edge computing.

The new platform, which combines edge computing with artificial intelligence, enables restaurants to increase sales across online and offline channels, engage in upselling at the point of sale, speed the ordering process, and improve operating efficiencies, Qu says.

Edge computing is said to bring data processing and storage closer to the source of data generation, as opposed to storing data in a centralized cloud server or data center.

Key features of the new platform include the ability to highlight popular menu items during the ordering process to increase upselling opportunities; analyze operating data, such as energy consumption; increase operating efficiency; and reduce operating costs and system downtime.

Reducing downtime is critical as system failure costs the restaurant industry billions in revenue annually. By improving uptime, Qu says its new platform allows restaurants to maintain a full POS-functionality kiosk, as well as kitchen-display systems and credit card processing, despite power outages, high-volume periods, and spotty Wi-Fi connectivity, the company says.

"Restaurants have long been stuck between brittle client-server systems that crash and cloud-only platforms that fail when the Internet drops—costing the industry over $5.4 billion annually," Brooke Heinzmann, Qu's senior director for product marketing, says by email. "Cloud-only platforms not only buckle during outages, but also drive up operating

costs with heavy bandwidth demands and recurring fees."

During the pilot phase, a multi-brand fast-casual chain using Qu Business edge increased average check size by 22% through cross-sells on kiosks, while a burger chain doubled drive-through volume from 50 to 100 cars per hour — twice the industry average—while reducing its IT workload by 30%, according to Qu, which did not name the restaurants.

In addition, Taco John's, a St. Louis Park, Minn.-based fast-food chain, improved order routing to its kitchen-display system, including orders placed via the drive thru, by 80%, Qu says.

"The restaurant industry is at a pivotal moment. Guest loyalty is fragile, labor is tight, and costs continue to rise," Heinzmann says. "At the same time, digital-first brands are redefining expectations for speed, reliability, and personalization. Restaurants that remain on outdated systems face mounting risks, including costly downtime and operational inefficiencies, as well as lost revenue opportunities."

Meanwhile, digital-ordering platform provider Onosys has partnered with Qu and Montreal-based Cluster to enable restaurants to connect with leading POS platforms.

Onosys has partnered with several other vendors to enhance its platforms' loyalty programs, payments acceptance, and delivery capabilities. Onosys is also partnering with Fishbowl Inc. and Incentivio to enable loyalty programs and with Shift4 Payments Inc. to expand the payment options through its platform.

"Restaurants shouldn't have to compromise on their technology choices. With our growing ecosystem of partners, we're giving brands the ability to scale faster, deliver richer customer experiences, and remain agile in a competitive market," Onosys president Chris Anderle says in a statement.

—Peter Lucas

CRYPTOLOGY: THE BATTLE OF WITS MAY BE ENDING

BY GIDEON SAMID
gideon@bitmint.com

IT HAS BEEN going on for thousands of years. Smart people build secret codes, and smarter people crack them. New codes are put forth, smarter cryptanalysts show up. This long-lasting battle of wits has decided the fate of two world wars, as well as ancient conflicts. This smart-versus-smart drama is also the cornerstone of cyber payments.

Now, the question is: Is the curtain coming down on this show?

Some 107 years ago, a Bell Labs New Jersey engineer, Gilbert S. Vernam, filed a patent for a cypher he claimed was unbreakable (typical of most code builders). Twenty-five years later, the father of the information age, Claude Shannon, published a proof backing up the bravado of Mr. Vernam, stating plainly that the Vernam cipher was indeed unbreakable. For a moment, it seemed that the longstanding battle of wits between code writers and code breakers had come to its end.

Not so fast. Vernam required a very rich source of high-quality randomness, which was not easy to handle and, further, was not available at the time. So the Vernam patent (#1,310,719) remained listed, but the news on the death of cryptanalysis was premature.

Using the new powers of "AI-assisted Innovation, AIAI" (Google it), the underlying principle of the Vernam cipher was adjusted for modern technology.

All the ciphers we use today are built as hardened shells designed to withstand cryptanalytic hammering for the lifetime of the protected secret. These ciphers have no proof of efficacy because no one knows for sure how big the hammer would be. Vernam, by contrast, had not fortified the shell. He simply threw the shell on the sand, so to speak, next to all the other shells on the beach.

Vernam's idea was to confuse his attacker, to overload him with candidates to hammer. If you encrypt a chess move, and the cryptogram can be decrypted to all the possible moves on the board, then the codebreaker has to work hard to uncover all the possible messages that could have been hidden in the cryptogram, and after doing so remain confused—which decrypted message is the correct one and which are misleading?

Claude Shannon has proved that Vernam achieved perfect confusion—perfect secrecy.

The new AI-empowered innovation science (InnovationScience.net) pointed out that it is not necessary to confuse the cryptanalyst with all possible chess moves because most of them are foolish. It is sufficient to equivocate the attacker vis-á-vis only the reasonable moves, which are much fewer, and hence less randomness is needed.

This lesser, yet sufficient, level of confusion is the essence of the modern use of the Vernam principle. It is achieved through the use of non-trivial ciphertexts comprising content-bearing bits and content-devoid bits. The intended reader distinguishes between them, but the attacker's resources are spread thin because all the bits need to be evaluated. The transmitter can unilaterally, in real time and without pre-coordination with the recipient, determine the level of confusion, namely the level of projected security. The resultant ciphertext is larger in size, but it delivers the Vernam promise, 107 years later.

Anyone familiar with how much work, coordination, design, and construction goes into fitting a cipher into a bank's cyber operation will understand this scientific milestone will not translate to the "street" any time soon. That's unless, of course, quantum computers crash our financial cyber life, and the NIST (National Institute of Science and Technology) remedy fails.

Remember, NIST builds a hardened shell against an unknown hammer. Whatever the bad guys are preparing for us, the new Trans Vernam Ciphers will stay put. DT

AI'S A BIG DEAL. BUT NOT AS BIG AS YOU THINK

BY BEN JACKSON
bjackson@pa.org

ARTIFICIAL INTELLIGENCE will be the reason many companies return to the office.

Like every new technology, AI has sparked predictions of sweeping change. But history shows reality is usually more measured. The Internet didn't erase brick-and-mortar retail or banking. Amazon bought Whole Foods and launched its Go stores, and the United States still has more than 76,000 bank branches.

AI will also reshape business, but in ways more restrained than headlines suggest. Here are my more restrained predictions for how AI will reshape the world of payments.

First, AI will bring employees back to the office because of fraud. As deep fakes become better, people responsible for moving money will want to confirm that requests are legitimate. The easiest way to do this is to walk down the hall and talk to the supervisor in person.

I am not the only one to think this. While giving an anti-fraud presentation and talking about deep fakes, I heard members of my audience talk about moving back to in-person meetings for big purchases. There will be technical solutions to combat AI, but the tech arms race is expensive, and solutions are fallible.

Second, AI will drive more in-person collaboration. Companies will need people onsite to understand how AI affects operations, compare notes, guard against manipulation, and protect the security of internal models and data sets. These systems often run on limited or proprietary data, which can shift quickly with market changes. Having strategists and operators together in the same room will feel faster and safer than relying on remote coordination. This connects to my next prediction.

Third, AI will force us to learn and know more, not less. The current handwringing is about how AI will cause people to rely on AI for everything. But this assumes AI always delivers correct and relevant answers.

In an Instagram post, Sara Landi Tortoli, the founder of Claritys.AI, wrote that two skills are necessary to use AI effectively: prompting, which is asking the right question; and verification, which is understanding whether the output is right, both factually and contextually. For this, a good knowledge base is critical.

A real-world example comes from an interview I did with an AI company, Deep Labs, a few years back. Its fraud-detection algorithms had to turn 180 degrees during the pandemic as consumer and business buying habits changed. In 2019, booking travel looked normal, and buying a lot of electronic equipment for home looked suspicious. But in 2020, when conferences were canceled and people worked from home, it was the opposite.

My last prediction: AI will not eliminate as many jobs as people predict.

Computers can consistently outplay people in chess and even on "Jeopardy!" American Express was using AI for its "Authorizer's Assistant" when making credit decisions as early as 1988. Nonetheless, we still have credit analysts, and we still have chess tournaments.

There will be jobs where people will be a competitive advantage or even command a premium where customers want to deal with people. AI work is derivative of its training data, so opportunities to stand out in marketing or product design will likely come from humans. Those people may use AI to make their work easier, but that will not be the driving force.

Thinking about AI, I remember reading long ago where someone made a prediction that the Segway would lead to cities being redesigned. Now they are mostly used in another legacy context: shopping malls. AI will have a bigger impact. But even that will be shaped by how people use it. DT

K IS FOR KIOSK

Lower staff costs, better order accuracy, and more volume are big reasons kiosks are taking on more importance in the point-of-sale product mix.

BY KEVIN WOODWARD

KIOSKS SET UP as point-of-sale devices are not new—the first one reportedly was at a grocery store in New York in 1992—but their saturation has amped up recently, especially as consumers get used to tapping touchscreens, and labor costs and a challenging labor pool cause many merchants to seek alternatives.

Couple that with consumers being able to place orders quickly—plus the upsell opportunity—and it's not difficult to see why kiosks have become more important.

Kiosks can be especially well suited to quick-serve restaurants, fast casual dining, venues with high volumes, such as stadiums and cafeterias, and in locations with urban, younger demographics, though their utility is not exclusive to these factors.

Add in that restaurants, which are prime kiosk prospects, are rethinking their technology and whittling down the number of vendors they deal with, and kiosks can become more critical.

A study from Qu Inc. earlier this year found that 64% of restaurants said technology and systems consolidation was a priority. "Digitalization with restaurants increased fast during the pandemic, but now is starting to level off, which is prompting restaurants to take the time to understand what a unified tech stack means to their business," Qu chief executive Amir Hudda told *Digital Transactions* in May.

Now, kiosks have bloomed, thanks to the proliferation of more sophisticated payments technology reaching deeper into the small and medium-size segments, along with growing merchant expectations to do more than just payment acceptance with technology.

"Some major chains, such as Panera, have been offering this [technology] for nearly a decade, but hardware and software limitations have held back the [small and medium size business] market. However, this gap has been bridged, and we will continue to see more and more merchants move towards kiosks. It is already a big [piece] of the mix if you wish to compete in this space," says

123RF/TEA

Dustin Magaziner, partner and chief executive at PayBright, a Raleigh, N.C.-based payments provider.

Others agree. "We've offered kiosks to our customers for more than a decade, and what was once seen as an expensive solution to a rare problem seems to be more of a necessity in the past few years," says Alex Schwartz, marketing director at Signature Systems Inc., a Warminster, Pa.-based payments company that sells under the PDQ POS banner.

"Kiosks are vital to plenty of restaurants, especially those in more rural areas or newer locations that have difficulty finding and training staff," adds Schwartz. "Even for businesses that have established clientele in urban areas, kiosks are unmatched in their ability to take care of the weekday lunch rush and deliver orders with better accuracy. We get plenty of questions about kiosks on a daily basis because their use case has become so evident as more larger franchises and chains have integrated them into their POS mix."

CUSTOMERS IN CONTROL

Kiosks are part of the recently launched Genius POS platform from Atlanta-based Global Payments Inc. "Right now, our customers view the technology as additive to what they are already doing," says Chris Siefken, Global president of restaurant POS. "It's another way for customers to place orders and for them to improve operational efficiency. Many consumers, especially younger ones, actually prefer the kiosk experience."

Global launched the platform in May, aiming it at restaurants, and has since launched it in the United Kingdom and released a retail version of it in June. It expects to add an enterprise version, too.

There can be clear benefits for merchants using kiosks, Magaziner says. "It enables faster service, lower labor costs, and when done right, a better customer experience," he says.

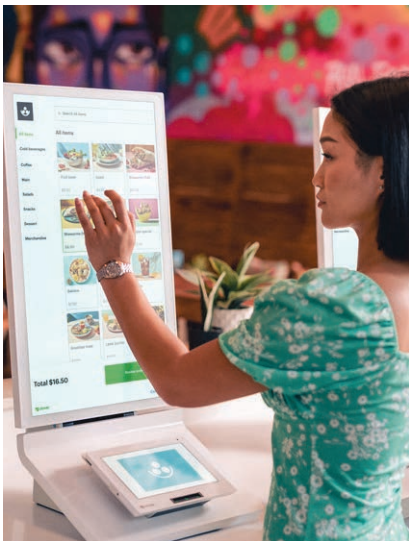
"Going up to a counter and ordering with a cashier can be frustrating when you want modifiers, are unsure of what comes on a specific item, [and so on]," he adds. "Giving a customer the ability to control the experience fully can, in many cases, lead to a better experience, while significantly saving the merchant on labor costs. It can be a true win-win."

Schwartz agrees, arguing kiosks can help maintain the flow of customers in a physical location, maintain order accuracy, and afford merchants more flexibility in scheduling and labor costs.

At Fiserv Inc., which added a kiosk to its Clover POS platform in 2024, when pitching merchants about its kiosk, the focus is on the simplicity of implementation and the return on investment, on the fact that the device has a low-touch setup process, and that it syncs directly with existing


Magaziner

Magaziner: "We will continue to see more and more merchants move towards kiosks."


The Clover kiosk, which Fiserv added last year, syncs directly with Clover POS devices.

Clover devices, says Will Karczewski, Fiserv head of Clover.

"Clover Kiosk has the potential to save more money than it costs to implement through significant labor savings, higher customer throughput, and increased average ticket size," Karczewski says. Operational efficiency, profit growth, and an enhanced customer experience are three key parts of the pitch for the Clover kiosk, he adds.

Fiserv views the Clover kiosk as a natural extension of its product set, he says, that evolves the traditional POS system into a comprehensive business-management tool.

"It's designed to seamlessly integrate with a merchant's existing devices, creating a unified ecosystem that streamlines the entire ordering process from the customer to the kitchen. By blending digital and physical experiences, the kiosk becomes a key component in an adaptable platform that grows with our merchants," Karczewski says.

Acquirers, too, benefit, and not just from transaction processing.


Karczewski

Karczewski: What works with merchants is to choose the option that best fits their budget and cash flow.

"Kiosks have helped us keep plenty of customers happy, undoubtedly helping us retain their business, particularly because our kiosks are so easy to integrate into all of our existing configurations," Schwartz says. "For many owners and operators, cost is less of a concern than the headache of managing a kiosk or multiple kiosk units, but when customers learn that our units are set up in their store by a professional and then require negligible management beyond cleaning, they tend to be relieved."

PAYING FOR ITSELF

Kiosk pricing ranges from a one-time cost to a subscription model and many other variations. Generally, the average cost of a retail POS kiosk can range widely, from $700 to more than $5,000 for custom models. Schwartz says PDQ POS kiosks are generally sold with a one-time upfront fee and a small monthly fee for service and support.

"The merchants that we serve really want kiosks, and this technology is a regular part of the conversation we have with customers and prospects. A kiosk can easily pay for itself in under a year," Global's Siefken says.

Magaziner says merchants should be wary of kiosks being sold as margin grabs, in other words, pitches such as extolling the labor savings costs but charging higher prices for the device.

He also says they are best used as a layer in the merchant's payment-acceptance matrix. "They need to layer kiosks on top of their current ordering experience, not replace it. The reality is, some customers will want to talk to someone—they don't know how to use a kiosk, [or] they have [food] allergies and want to ask questions, etc.," he says.

At Fiserv, Karczewski says what works with merchants is to choose the option that best fits their budget and cash flow.

And the perceived disruption of a kiosk isn't much of an issue, Magaziner says. When implemented in the right way, that's a positive, he says.

Siefken also dispels the disruption notion. "The restaurants and venues that we talk to are not concerned about the disruption kiosks might cause," he says. "They are focused on the very real operational improvements and improved average ticket size they can achieve with kiosks. That is because they view them as another way to serve customers—not necessarily a wholesale move to a different operating model."

'BELLS AND WHISTLES'

Easing labor issues, providing another way to serve customers, and potentially increasing order throughput are some ways kiosks can benefit merchants. And, for acquirers and payment providers, the benefits are just as evident, observers say. The devices can help merchants achieve their goals in maintaining and potentially growing sales, which benefits payments companies, they argue.

"Kiosks are ideal for any environment where a merchant wants to offer a self-order and checkout experience, including quick-service restaurants," Siefken says. "Another strong use case is stadiums and other food-service management environments like corporate cafeterias and university food halls, where we are seeing strong interest from customers and prospects."

Kiosk adoption may signal a systemic shift for many merchants, especially smaller ones that typically could not afford them in the past or didn't have a clear use for them. That's changing.

Karczewski says customer expectations are changing and merchants need a complete and adaptable POS system "that can grow with its merchants' businesses and enable them to blend digital and physical experiences to meet evolving customer expectations."

"Historically, restaurant POS was all about cost, reliability, and ease of ordering, all of which should be a basis of a solution these days," Magaziner says. "Now, there are more and more bells and whistles to allow a business owner to actually improve their operation. If a restaurant hasn't explored POS in the last few years, they are likely leaving profits on the table." DT

MAGTEK®
SECURITY FROM THE INSIDE

Fast Transactions. Secure Data.

DynaFlex II SCR for Restaurants and ISVs.

Give your guests the speed they want and your business the security it needs, with faster development time.

DynaFlex II SCR
Deliver tap, dip, swipe, and scan acceptance.

Images are simulations of what is possible. Please contact a representative to see how we can help bring your ideas into reality.

Connect with customers on their terms by accepting a wide variety of payment methods; offering tokenization solutions, and cloud services - all through a single, secure platform.

With AES-256 encryption, DUKPT key management, and Magensa Gateway L3 certification, your data remains protected from the point of capture. ISVs enjoy simplified integration and lower development costs with Magensa Cloud Services, resulting in faster time-to-market and easier app maintenance, empowering your app to achieve more with less effort.

SCAN THE QR CODE

Learn more about our restaurant payment solutions.

562-546-6400 | sales@magtek.com | www.magtek.com

WHAT THE *CORNER POST* RULING REALLY MEANS

Here's how a federal court decision rendered in August will fundamentally reshape debit card economics.

BY **ERIC GROVER**

123RF/lukianenko

THIS SUMMER'S WATERSHED *Corner Post* ruling that the Fed did not faithfully implement the Durbin Amendment's debit-interchange price controls will rock the debit market. There will be losers and winners. Billions of dollars of large debit issuers' capped interchange revenue will be eliminated. Issuers not shackled by interchange caps will take payments share. Visa and Mastercard will lose debit share but increase debit yield. And Discover's debit networks will gain share.

The Durbin Amendment is bad policy, but it is the law. The Fed's October 2011 implementation of the amendment, flouting Congress's intent, was *ultra vires* ("beyond the law"). U.S. District Court for North Dakota Judge Daniel Traynor's Aug. 6 *Corner Post* decision affirmed the rule of law, not the rule of absolutist regulators, however enlightened and well-intentioned.

The decision will also realize most of what Senator Richard Durbin with his eponymous amendment hoped to accomplish a decade and half ago. And it will eviscerate the debit economics of issuers with more than $10 billion in assets.

What matters, however, isn't what Illinois's senior senator hoped or says the law means. Congress's intent as expressed in the legislation's text is dispositive. It instructed the Fed to set a debit-interchange cap(s) permitting issuers to recover reasonable and proportional incremental authorization, clearing, and settlement (ACS) processing and documented fraud-prevention costs. It was never the Fed's prerogative to fix or mitigate a destructive law.

The central bank took enormous and unlawful license implementing the price cap by including fixed and transaction-monitoring costs and fraud losses in its debit-interchange fee standard.

REVENUE WILL PLUMMET

The largest debit issuers' marginal ACS processing costs aren't more than a cent. While small covered debit issuers, particularly those using third-party processors, have higher variable ACS costs, they're still well under the Fed's charitable interchange cap. In 2011, it set a uniform debit-interchange ceiling of 21 cents per transaction for ACS processing costs, 5 basis points for fraud losses, and 1.2 cents per transaction for documented fraud-prevention costs. Even small debit programs don't have marginal ACS processing costs of 21 cents per transaction.

The Fed's single price cap on average reduced covered dual-message and single-message debit interchange of 57% and 32%, respectively. If it had impartially and ruthlessly implemented the law, debit Goliaths' interchange-revenue would have been slashed by more than 95%.

Retailers filed a right-minded suit contending the Fed didn't faithfully implement the law. In 2013, Judge Richard Leon agreed, ruling the Fed had ignored "the expressed will of Congress." The Fed appealed. In a thinly reasoned decision, the U.S. Appeals Court for D.C. overturned Leon's ruling, asserting that under the Chevron doctrine the Fed was entitled to deference in implementing the law.

The landmark 1984 Chevron deference doctrine *de facto* let agencies make law. It was enormously consequential, being cited by courts over 18,000 times. No more. On June 28, 2024, in *Loper Bright*, the Supreme Court by a 6-3 vote reversed it. Henceforth, courts, not the administrative state, will determine what the law means.

Corner Post also held that the statute of limitations for challenging agency overreach starts when plaintiffs think they've been harmed, not when the law was passed. In tandem, *Loper Bright* and *Corner Post* bridle the administrative state.

Traynor in 2025, like Leon in 2013, looked to the statute's text to determine Congress's intent. Like Leon, Traynor ruled decisively that the Fed took enormous and unlawful license in implementing the Durbin Amendment. In a post-Chevron-doctrine world, agencies are no longer entitled to huge deference that is, in practice, lawmaking.

Traynor ruled the Fed wasn't permitted to include covered debit issuers' fixed ACS, network, and transaction monitoring costs, and fraud losses, in its interchange-fee standard.

A plain reading of the statute—rather than the Fed's tortured interpretation—says fixed costs can't be included. Traynor held transaction-monitoring costs were already provided for by the recovery of fraud-prevention costs. And nothing in the statute allowed for recouping fraud losses. Debit issuers' incremental network ACS processing costs, however, should be recoverable.

Momentously, Traynor ruled that setting a single interchange cap for debit transactions with vastly different variable ACS processing costs is unlawful. The Fed established one debit-interchange ceiling because that was easier and less costly. The law, however, doesn't concern itself

with the cost of effecting its draconian price controls.

The consequence of debit interchange caps set by the incremental issuer ACS costs of individual transactions or discrete groups of transactions is that regulated interchange revenue will plummet.

'THIN GRUEL'

In a post-Chevron-deference world, *Corner Post* is likely to be upheld. The Fed will have to establish multiple, massively reduced debit-interchange caps. This will cause a tectonic shift in payments share and economics.

In 2021, 39% of U.S. debit purchase volume was exempt from the interchange price cap. In 2024, 57% of general-purchase payment card volume was credit. Debit purchase volume subject to *de minimis* interchange price caps will migrate at an accelerated rate to debit and credit programs earning market interchange fees because they can offer cardholders superior value.

In 2024, Chase, Wells Fargo, and BofA did $485 billion, $474 billion, and $466 billion in debit purchase volume, respectively. Interchange revenue of a cent or so per debit transaction is thin gruel. It won't fund much cardholder value. Much of the retail banking giants' debit purchase volume will migrate to credit and debit issuers offering cardholders better value for their spend.

Thousands of small banks earning market debit interchange on their own lack the resources to capitalize. However, by issuing debit cards with nonbank partners like PayPal, Block, and the neobank Chime, with the resources, brands, reach, and marketing moxie to take advantage, some of them are winning share. *Corner Post*'s massive reduction in capped debit interchange fees will increase their edge and accelerate their share gains.

Debit volume moving from mammoth issuers to small ones will benefit the networks. Small issuers pay rack processing and licensing network fees, whereas the giants' fees are heavily discounted. Small issuers, moreover, rely on network brands rather than viewing them as necessary but rival.

A HUGE ADVANTAGE

There's also a bank—Capital One—with the resources, brand, reach, and marketing moxie to take more debit share because of *Corner Post*. Capital One this year acquired the Discover network in a $35-billion transaction.

The Fed held that if a debit transaction isn't "routed"—meaning passed from the debit network to a third-party issuer—it isn't subject to the Durbin Amendment's interchange price caps or routing-choice mandate. When Capital One issues Discover debit cards, it's operating as a three-party network. It doesn't route transactions; therefore, it isn't straitjacketed.

Owning its own debit networks—Discover and Pulse, which is part of Discover—Capital One reaps market interchange fees and doesn't have to offer merchants a network competitor. That's a huge advantage.

In 2024, with $68 billion in debit purchase volume, Capital One was America's 12th largest debit issuer. Its largest competitors will lose billions of dollars of debit-interchange revenue. That will boost Capital One Discover debit cards' advantage. It will vault upward in the debit card ranks at the expense of competitors fettered by interchange price controls. To compete, BofA, Chase, and Wells Fargo may have to acquire and build out their own three-party debit networks.

Maybe Congress can be persuaded to restore market pricing for all debit issuers and networks. For now, however, an already tilted debit playing field is going to become more tilted, which is what Congress stipulated. Payment volume will move to products not subject to price controls, inuring to consumers' benefit. DT


Grover

Grover: "A tilted debit playing field is going to become more tilted."

The payments market is large and fragmented.

DigitalTransactions.net gathers the most important news in one place, and shows you how it all fits together to impact your business.

Concise, clean interface is easy to navigate

Breaking news from the payments market, posted daily

Calendar of industry events

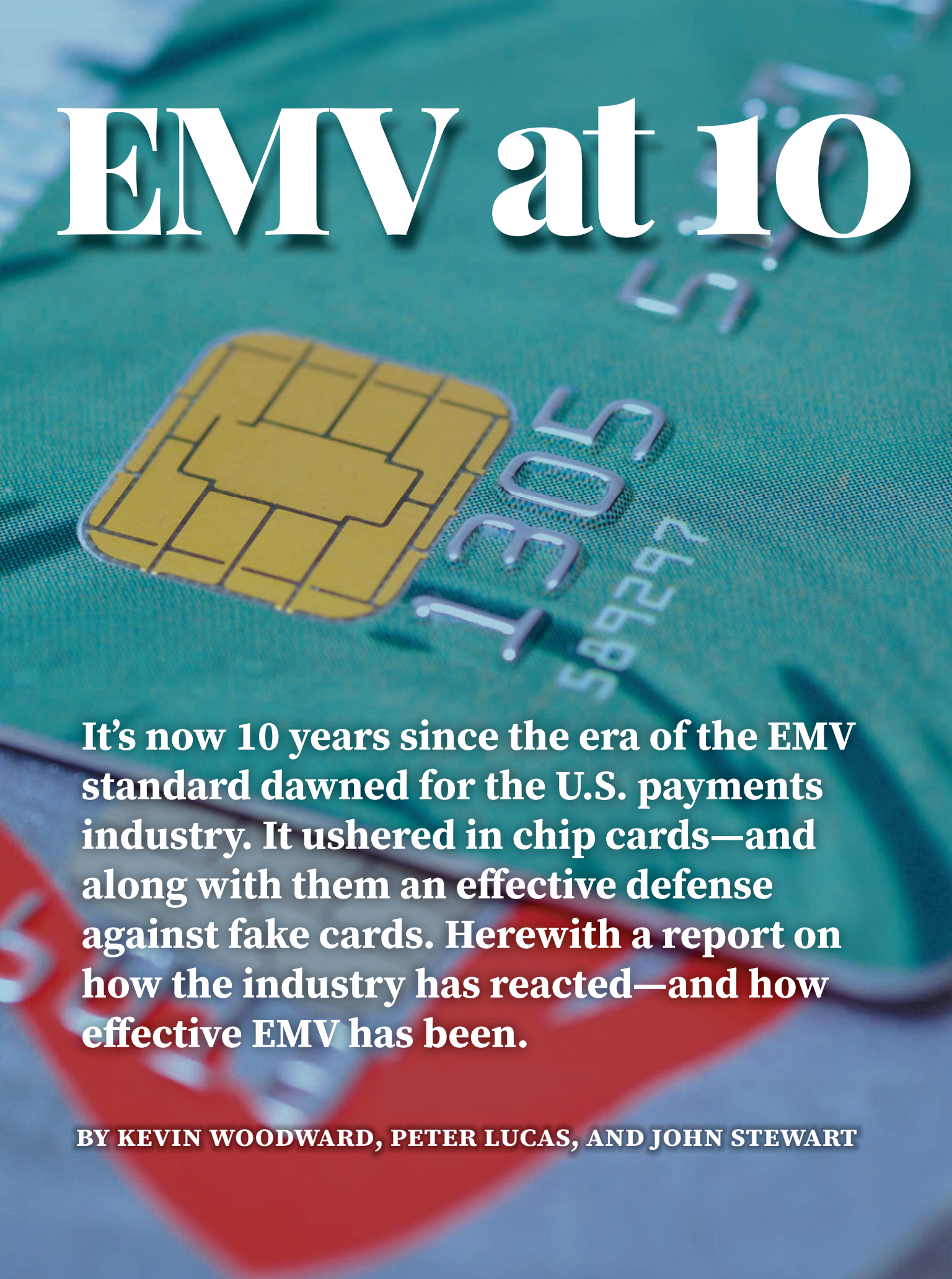
Complete current and past issues of *Digital Transactions* magazine

Detailed listings of payments market suppliers

13 years of payments news and analysis

DIGITAL TRANSACTIONS
Trends in the Electronic Exchange of Value

EMV at 10



It's now 10 years since the era of the EMV standard dawned for the U.S. payments industry. It ushered in chip cards—and along with them an effective defense against fake cards. Herewith a report on how the industry has reacted—and how effective EMV has been.

BY KEVIN WOODWARD, PETER LUCAS, AND JOHN STEWART

In October 2015, the big four card networks made it official, implementing a technique called a "liability shift" to nudge U.S. processors and merchants to adopt the EMV standard for card security. It would be one if the most momentous technology overhauls ever undertaken by American Express, Discover, Mastercard, and Visa—not to mention processors and merchants.

The shift imposed the liability for fraud on the party that hadn't adopted EMV technology. Preparing for it in 2015, U.S. card issuers, merchants, and ATM operators spent an estimated $10.5 billion on compliance, with the bulk of that expense falling on merchants in the form of new point-of-sale technology. Chip reading at the point of sale was now in; deciphering mag stripes was out.

There was nothing particularly new about chip card technology. Cartes Bancaire in France launched the first chip card in 1986, but adoption lagged. What was new a decade ago was a subtle penalty, a sort of knuckle sandwich wrapped in diplomatic language and backed by the Big Four: if a merchant did not adopt EMV—the technology that enables chip card transactions—that recalcitrance would require the non-conforming party to bear the cost of any fraud. That got things going.

EMV, or Europay, Mastercard, and Visa, has taken off over the course of the past decade. Last year, a bit more than 93% of all U.S. card-present transactions were processed via that embedded chip, according to EMVCo, the developer of EMV specifications (chart). That's 2.7 percentage points behind the world. But the world is farther ahead on adoption, at nearly 72% of cards, four points more than the U.S.

That liability shift is working its magic—just not at the fast clip some would prefer. Merchants, issuers, and acquirers will observe with a great deal of interest how long it takes for the U.S. card-payments market to catch up with the rest of the world.

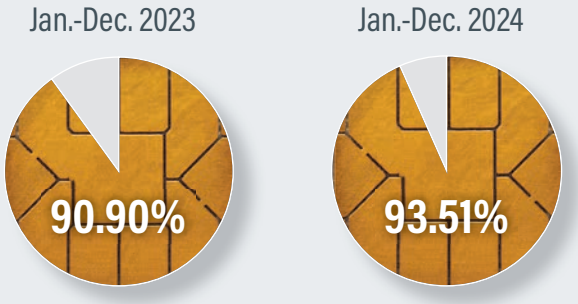
Following are reports on the progress of EMV from the viewpoint of three crucial constituencies—acquirers, merchants, and issuers. How will they view the technology a decade from now? That's anybody's guess, but nobody will complain about a decade's worth of savings on fraud losses.

123RF/payphoto

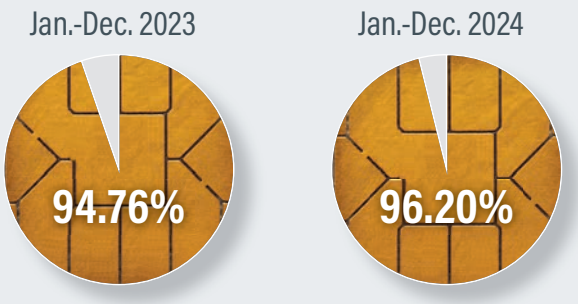
THE U.S. ISN'T FAR BEHIND ON EMV TRANSACTIONS...

(Percentage of card-present transactions that are EMV-chip)

United States



Worldwide



...BUT LAGS BEHIND ON CARDS

(Number of EMV cards and percentage of total cards)

	2022	2023	2024
Global Cards	12.78	13.72	14.73
Global Adoption	69.25%	70.40%	71.98%
U.S. EMV Cards	1.43	1.49	1.58
U.S. Adoption	65.02%	66.38%	67.91%

Source: EMVCo, based on data from American Express, Discover, JCB, Mastercard, UnionPay, and Visa, as reported by member institutions.

EMV's Impact: Acquiring

Ten years on since the U.S. payment card market migrated to the EMV chip standard via a liability shift, it might be difficult to recall the migration's impact on acquirers. EMV chip transactions in the United States now account for 93.51% of card-present transactions, according to EMVCo, the EMV standards body.

Not only did they need to help educate merchants about why they needed new point-of-sale terminals, their sales agents required training on the new chip card technology and how it was different from a mag-stripe-only transaction. They also needed to ensure any devices that would accept EMV-compatible cards were certified, a lengthy and sometimes costly process.

With more than four years to prep—Visa announced its EMV intention in August 2011 and Mastercard did so in January 2012, with Discover and American Express announcing that same year—acquirers had a lot of work ahead of them.

Has all that work paid off? Generally, yes. EMV chip transactions in the United States now account for 93.51% of all card-present transactions, according to EMVCo, the EMV standards body. EMV's chief anti-fraud effort was to reduce counterfeit card-present transactions.

"At this point, EMV is the standard," says Dustin Magaziner, chief executive and founder of PayBright, a Raleigh, N.C.-based payments provider. "It is almost hard to remember the days where EMV wasn't the norm in card-present environments. At this point, most folks at PayBright don't even know or remember the pre-EMV days." His recall of the migration is that it was a "mess."

Certification, for example, was rife with delays, complex testing processes, and mixed availability for POS terminals. *Digital Transactions* reported in September 2015 that the process was moving along as expected, with one exception—POS systems. The myriad configurations made testing time-consuming. Software came from one company, hardware from another, and payment processing from third. It wasn't too much an issue for merchants at either end of the size continuum; the mid-market bore the brunt of the headaches.

As reported then, certification for a POS terminal might have taken three to four weeks. But, with the push to meet the Oct. 15, 2015, liability-shift deadline,

POS systems were taking four to six months. In 2016, Visa and Mastercard launched programs to streamline the testing process.

The U.S. transition to EMV was not mandated, but merchants that opted not to participate would then take on the liability for fraudulent card-present transactions, something most players likely feared could cost more than new POS terminals.

It was complicated, too, because of the disparate elements of the transition, says Ian Holmes, director and global lead for enterprise fraud solutions at SAS, a data and artificial intelligence technologist.

"Merchants also had to weigh the cost of upgrading to EMV against the liability shift, which made them responsible for fraud losses if they processed a chip card without EMV technology," Holmes says.

"The lack of uniformity in technology and processes throughout the transition also added friction," Holmes continues. "Some cards required PIN, some required signature, and some allowed 'no [cardholder verification method] for low-value transactions. Merchants had to support multiple methods, and the resulting customer confusion only served to slow adoption at point of sale."

Merchants also had to contend with high-pressure sales pitches sometimes and limited terminal availability at other times, Magaziner says.

"The migration was a mess 10 years ago," he says. "Processors and sales reps scared merchants into making a change, processors couldn't get terminals, merchants were being overcharged, and leased terminals at exorbitant prices for the 'EMV mandate required to be compliant under Visa's rules.' There were a lot of sales gimmicks at the time and created a Wild, Wild West environment for a few years."

Even with these issues, the migration progressed. Acquirers and their merchants adapted. EMV acceptance got a big boost during the Covid pandemic when consumers realized their new chip cards also contained an antenna so they could tap the card at a payment terminal. The choice to re-terminalize many merchant locations with both contact and contactless acceptance finally paid off.

"Overall, impacts of the migration has been positive, though not without challenges. Despite banks' earnest efforts, educating the public largely fell to merchants, who otherwise risked losing sales when customers encountered new and unfamiliar technology and processes," Holmes says.

Contactless in particular stood out for PayBright, Magaziner says. "Similar to EMV being a big change 10 years ago, we've seen a marked increase in tap-to-pay over the last few years."

EMV helped make it so mobile wallets could be more easily adapted to the point of sale. Apple Pay, Google Pay, and Samsung Pay all launched as the liability shift got under way. "By enabling card payments through phones, EMV helped drive the adoption of digital payments and, in turn, demand for more robust fraud-detection solutions capable of keeping pace with the speed and complexity of real-time payments," Holmes says.

—Kevin Woodward

EMV's Impact: Merchants

At first, stores were slow to adopt EMV-capable devices, some experts say, because they were unsure the technology would do much for them, making it hard to recover the cost. And merchants have kept a wary eye on the machinations of the payments industry for many years, raising objections to a range of impositions from banks and processors—not least, the interchange fees they must pay for card acceptance.

"In the beginning, there was an outcry over the cost" of EMV-capable devices, recalls Eric Grover, principal at the consultancy Intrepid Ventures. Now, he says, "I don't think you hear much out of them these days. Now, it's part of the landscape."

What turned merchants around on EMV? Some say it has much to do with the improvements EMV and services related to EMV devices have brought to the in-store payment process. For example, by some estimates, some 65% of EMV cards are now dual-interface, supporting both contact and contactless payments.

"One of the biggest things EMV has enabled is ease of use and far less friction," notes Cliff Gray, principal at Gray Consulting Ventures, a payments advisory. Adding contactless capability has only magnified this effect, he notes. "How many of us tap our phones? What could be easier?" he asks, pointing to the role EMV has played in popular contactless features such as Apple Pay.

Some merchant niches have seen further improvement. Take restaurants, for example, where pay-at-table has become practically a required process "so the waiter

doesn't run away with the card," jokes Gray. And customers are unruffled. "Most consumers know they're fully protected," says Grover. "I don't think there's much inhibition."

Now, say some observers, EMV is poised to accompany tokenization, the technology that masks sensitive card information with data that's useless if intercepted by thieves. "The golden rule around [all] this is, don't have any gold in your fort," says Gray. "That's what a token does, and EMV will happily ride with it."

—John Stewart

EMV's Impact: Consumers

When the card networks implemented the EMV liability shift in 2015, consumers had no idea how it would improve the checkout experience over the next decade. Not only did the liability shift force merchants to install EMV terminals that reduced the risk of fraud, it laid the foundation for tap-to-pay technology to become mainstream.

At the same time, the shift raised the level of trust between consumers, on the one hand, and merchants that rolled out EMV terminals, on the other. That's because it sent a signal the merchant was serious about protecting customers from fraud committed using stolen and counterfeit cards, payments experts say.

"The EMV liability shift encouraged merchants and issuers to invest in their card payments technology, from enhanced terminals to chip-enabled cards, which resulted in less fraud at the point of sale and provided the consumer with added confidence to use their debit and credit cards over cash," says John Winstel, head of optimization product for the processor Worldpay, which is being acquired by Global Payments Inc. in a

123RF/shangarey

Digital Transactions News

We deliver the payments industry news to your email inbox daily!

Digital Transactions News is packed with news and information from the $123.4 billion transaction industry:

- Two original stories every issue
- Trending stories, so you know what our subscribers are reading
- Links to Digital Transactions magazine
- Calendar of events
- PLUS! "In Other News" The most complete listing of announcements from the payments community

Subscribe today at Bolandhill.omeda.com/dtr/
or email publisher Bob Jenisch at
Bob@digitaltransactions.net

123RF/obradovs

deal expected to close early next year. "It also added a level of trust with merchants who had upgraded their terminals to EMV to provide a safe and secure checkout experience."

Reducing fraud, especially in the United States, was a key initiative for the card networks in 2015, as fraud was migrating to the country from other regions of the world where EMV cards and terminals were commonplace.

"As EMV rolled out in other parts of the world, fraud in those regions began to shift to the United States, which was slower to adopt EMV technology," says Christina Hulka, executive director of the Secure Technology Alliance. "When it comes to fraud, criminals look for the weakest link, and the U.S. was the weakest link in the system at the time."

As more and more merchants began to install EMV terminals, they embarked on education efforts, along with issuers, to prompt consumers to dip their cards in the terminals. "The networks made efforts to educate consumers, but merchants had the biggest incentive to be sure their customers were using the technology," says Thad Peterson, a strategic advisor for Datos Insights.

Another benefit from the liability shift for consumers was that it forced financial institutions to accelerate their issuance of chip cards, which meant U.S. cardholders would be able to use their cards when travelling abroad. By that time, many merchants outside the U.S. no longer supported magnetic-stripe card readers. "That was an issue for U.S. consumers," says Hulka, who was a Visa Inc. executive in 2015. "For interoperability to truly work, the entire payments system has to support it."

As the migration of card fraud to the U.S. reached a tipping point in 2012, the card networks not only realized they needed to create incentives that would induce adoption of EMV technology, but that doing so could also resolve the interoperability issues U.S. cardholders faced when traveling abroad, Hulka adds.

Another benefit to consumers from EMV is that it helped lay the foundation for tap-to-pay and digital-

wallet technology, which speeds checkout at the physical point-of-sale.

"The liability shift forced merchants to upgrade their hardware to maintain compliance, and these new terminals also came equipped with near-field communication technology, enabling contactless tap-to-pay capabilities, opening a new door for payment acceptance," says Winstel.

Tap-to-pay technology took off during the Covid-19 pandemic as consumers were looking for payment options that did not involve touching a terminal. At the same time, issuers started embedding NFC technology in their cards to enable tap-to-pay capabilities. The confluence of the two trends created a perfect storm where tap-to-pay exploded in the U.S. during the pandemic and made the technology mainstream.

"The foundation for contactless adoption was already there, but the pandemic triggered mass deployment of contactless cards and terminals and mobile wallets," Hulka says. "The liability shift has spurred a lot of innovation [at the point-of-sale] that builds off chip technology, whether it be on a card or a device."

"The liability shift provided an incentive on both sides to implement the technology, issuers putting chips on cards and merchants purchasing EMV capable terminals," Peterson says. "The result was the rapid near-elimination of counterfeit card fraud, which was the objective of EMV." DT

–Peter Lucas

HOW FINTECHS CAN REWRITE INDEPENDENT WORKER PAYOUTS

The independent workforce is huge—but grossly underserved when it's time to get paid. That's creating an equally big opportunity for fintechs.

BY **ARON ALEXANDER**

Aron Alexander is chief executive and founder at Runa Network Ltd.

123RF/iftikharalam

MORE THAN 60 MILLION Americans now work independently—as freelancers, gig workers, consultants, and contractors. By 2028, they're expected to make up the majority of the U.S. workforce. Independent workers no longer represent a niche market. They represent the future of work on a massive scale.

This shift has real implications for financial services, particularly for fintech companies rethinking how products are built, priced, and delivered. Runa research shows that independent workers are grossly underserved when it comes to their payouts and disbursements, leaving the door wide open for first movers and innovators to capture this customer segment.

Unlike traditional banking customers who interact with their financial institutions a few times a month to pay bills or check balances, independent workers are deeply transactional. They receive and move money frequently between platforms, clients, and accounts–potentially making payout requests from multiple platforms each week, transferring funds almost daily, and constantly weighing payout options.

Independent workers are particularly dependent on fast and reliable payouts, and make frequent decisions about their business relationships based on financial-service quality. Runa research shows that slow, unpredictable payouts are a top pain point among independent workers, and nearly three in four will quit or rethink their job over poor payout experiences.

Fortunately, fintechs are uniquely positioned to alleviate these common challenges via nimble, revenue-generating solutions.

CONDITIONS ARE CHANGING

Serving this segment at scale wasn't feasible until recently. Indeed, real-

time payment infrastructure has matured to the point that instant, high-frequency payouts are no longer technically difficult or cost-prohibitive—even across borders.

But despite these advances, many financial institutions remain anchored to systems optimized for longer payroll cycles and recurring billing—not for handling unpredictable, frequent, fragmented income flows. Platforms employing independent workers often need payout capabilities that fall outside what traditional providers offer.

There's also a disconnect on the business side. Companies are looking for ways to keep independent contributors engaged and productive. Whether it's a direct sales platform trying to retain global distributors or a survey company aiming for faster respondent incentives, better payment experiences are increasingly viewed as a competitive advantage, not a cost center.

This landscape is creating a sizeable opening.

The level and speed of activity independent workers expect from their payouts opens opportunities fintechs are primed to accommodate and generate revenue from. Here are some scenarios illustrating this point:

- **Helping business partners become employers of choice.** As organizations increasingly need better payout tools to deliver better experiences for independent workers, they are turning to fintechs. When fintechs enable those positive experiences, businesses are better positioned to attract and retain higher-quality talent, as workers that find a platform that offers flexible, fast, and reliable payouts are more likely to stick with it. Fintechs that enable businesses to keep and engage top talent economically will become valuable long-term partners. They can also use their own solutions to also become employers of choice–offering in-demand, tailored payout options to top tech talent that can help their businesses grow.

- **Access to new revenue streams and cross-selling opportunities.** Independent workers demonstrate a willingness to pay premium prices for superior payout experiences that enable prompt, consistent access to their funds–regularly choosing instant payouts despite higher fees. They value speed and reliability enough to pay for it, creating pricing power that some traditional financial services can't achieve. Fintechs can also use rich behavioral data from these initial payout events as gateways to deeper financial engagement, fee-based services, and new sources of revenue that increase customer lifetime value. This could mean offering tools for tax optimization, expense tracking, cash-flow monitoring, or insurance that seamlessly syncs with payouts processes.

- **Expanding network potential.** Runa's research shows that, in addition to popular payout methods like digital wallets and bank transfers, gift cards are also among independent workers' top choices. Fintechs can connect with retailers to help their business partners offer branded gift cards as payout options to everyone's benefit. Independent workers get paid how they want, businesses keep their employees happy, and merchants engage customers in unexpected ways. And of course, fintechs that facilitate these arrangements can take a cut from orchestrating the end-to-end transaction.

- **First-mover advantage.** Financial services tailored to the independent worker economy are still nascent, and many businesses rely on fragmented and outdated payout systems


Alexander

Alexander: "The independent worker economy is already reshaping how money moves and how financial relationships are formed. That momentum isn't slowing down."

in need of modernization. Traditional banks are usually slower to adapt, and most existing platforms treat payouts as an afterthought. But fintechs are inherently nimble and can use it to their advantage—edging out incumbent solutions before the market becomes saturated by establishing status as go-to payout-solution providers.

These aren't hypothetical scenarios. They're already in market. And they work.

A SHIFT THAT TOUCHES EVERYONE

Gig and freelance segments are already impacting financial services. As more people split their time between salaried jobs and side work, demand grows for financial tools that can handle both. And as businesses adjust to more dynamic labor models, their expectations for financial partners are evolving.

Fintechs can meet and exceed these expectations by adapting to support payout flexibility, real-time funds movement, and integration with sleek new platforms—not just legacy payroll systems. This also means understanding the end user well enough to build products that reflect their actual financial behavior, not just their classification as "1099" or "W2."

The rails that move money today weren't built for cross-border payments at a massive scale. Most fintechs understand that what works in the United States isn't necessarily going to be the same overseas—but their clients often do not. Those that can help clients leverage and navigate tech-enabled universal payout options on a worldwide scale offer considerable added value.

The independent worker economy is already reshaping how money moves and how financial relationships are formed. That momentum isn't slowing down. Every time an independent employee chooses one platform over another based on how they're paid, it reinforces the need for more specialized, responsive financial services.

There's a clear opportunity here for fintechs willing to adapt their models, build around new behaviors, and rethink what financial engagement looks like for a fast-growing segment of the workforce. DT

THE HIDDEN RISKS IN BNPL

Buy now, pay later is gaining in popularity—but that fast uptake may cause headaches down the road.

BY **JOHN GORDON**

John Gordon is chief executive of ValidiFi.

FICO'S ANNOUNCEMENT earlier this summer that buy now, pay later (BNPL) loans will soon affect credit scores for millions of Americans signals the credit industry's scramble to catch up with BNPL reality.

Yet as partnerships like DoorDash and Klarna expand "eat now, pay later" services into everyday essentials, a critical question emerges: will traditional credit scoring, even enhanced for BNPL, capture the real-time financial stress that these services often mask?

As consumers increasingly turn to BNPL for everyday essentials like groceries and food delivery, it becomes more important to monitor real-time bank-account activity. Unlike static credit reports, bank-account intelligence has uncovered concerning trends. Many consumers appear to be reaching the limits of their available credit and utilizing BNPL as an additional financial tool—potentially creating a delayed financial impact that isn't immediately apparent.

While BNPL services report high customer satisfaction rates for their ease of use, data analysis suggests the real financial impact may not be felt until repayment requires more financial juggling from already stretched consumers. This creates a "financial cliff" that consumers approach gradually but may face suddenly when multiple payment obligations come due simultaneously.

While FICO's new scoring model promises to help consumers who, as FICO says, "pay back their BNPL loans in a timely way," it doesn't address the fundamental timing gap in credit assessment.

Current FICO scores remain elevated at an average of 715 following pandemic-era stimulus measures, and even the enhanced model will still be backward-looking. Bank-account data, however, reveal financial stress in real time—often 90 days before it impacts any credit score.

MULTIPLE OBLIGATIONS

This expansion of BNPL beyond retail is accelerating rapidly. Beyond food delivery, we're now seeing "care now, pay later" options proliferating in health care, allowing patients to finance everything from routine medical procedures to emergency care. While this addresses a genuine need for health-care affordability, it also potentially compounds financial vulnerability for consumers who are already juggling multiple payment obligations.

While FICO's enhanced scoring model represents progress, it inherently suffers the same limitation as traditional credit assessment: it measures past performance rather than current financial capacity. When consumers begin juggling multiple

BNPL obligations across retail, food delivery, and health care (an activity also known as loan stacking), the cumulative impact may not surface in credit scores until consumers are already in distress.

Bank-account intelligence reveals these patterns as they develop, not months later. Indeed, bank-account analysis reveals subtle warning signs that traditional credit checks typically miss.

Transaction patterns showing frequent small loans across multiple BNPL services can indicate financial strain before it impacts credit scores. Similarly, increasing overreliance on BNPL for essentials rather than discretionary purchases often precedes more serious financial difficulties.

The expansion of BNPL into food delivery and health care marks a notable shift in behavior. When consumers begin financing immediate everyday needs like meals and medical care, it signals a potential breakdown in personal financial management. Our analysis shows that when consumers begin using credit instruments for everyday essentials, this often correlates with a rise in financial instability within the following 90-day period. This highlights an early warning sign of deeper financial distress.

For consumers, the convenience of splitting a $35 takeout order into four payments might seem practical in the moment, but without visibility into their broader financial situation, they may be unknowingly setting themselves up for future payment challenges. The ease of approval and frictionless user experience can mask the cumulative impact of multiple small payment obligations across retail, food, and health-care platforms.

For lenders and service providers, having a comprehensive financial perspective enables more informed decisions that better serve both their business interests and their customers. By incorporating bank-account intelligence into the assessment process, they can identify which consumers are using BNPL responsibly versus those who may be overextending themselves across multiple services.

DECISIVE ADVANTAGE

An upcoming fraud-monitoring rule from NACHA will likely enhance scrutiny of payment methods, including those used with BNPL services. This evolution of regulatory oversight reflects the growing integration of these payment options into everyday transactions. Organizations that implement more comprehensive assessment methods will be better positioned for these regulatory changes.

As the credit-scoring industry adapts to BNPL's reality, forward-thinking lenders recognize that even enhanced credit scores won't eliminate the need for real-time financial intelligence. The proliferation of BNPL across retail, food delivery, and health care creates complex debt webs that traditional scoring struggles to capture in real time.

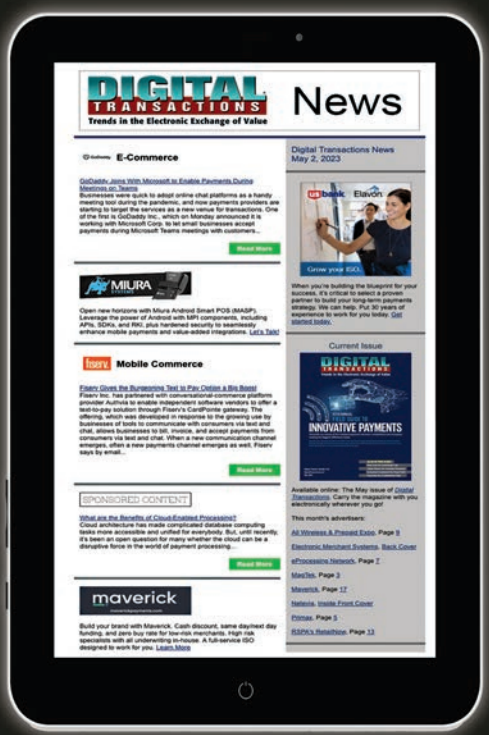
Organizations that combine traditional credit assessment with comprehensive bank-account intelligence will gain a decisive advantage in this evolving landscape. They'll identify financial stress before it cascades into defaults, make more informed lending decisions, and ultimately help consumers navigate the convenience of BNPL without falling off the hidden financial cliff that results from overextension across multiple platforms.

As BNPL services continue to proliferate across every aspect of consumer spending, the financial-services industry must evolve how we assess creditworthiness. As consumers using BNPL services face repayment obligations that can affect their overall financial capacity, looking beyond traditional credit scores to include bank-account and payment intelligence can provide critical context for more informed lending decisions and, ultimately, better financial outcomes for consumers.

Organizations that leverage comprehensive bank-account intelligence will gain a competitive advantage by making better-informed decisions while helping consumers avoid the hidden financial cliff that can result from overreliance on multiple credit instruments. DT

Digital Transactions News

We deliver the **payments industry news** to your email inbox daily!



- We have been delivering the payments industry news to your email inbox every day for 20 years
- Digital Transactions News is packed with news and information from the 164.3 billion transactions industry
- Two original stories every issue
- Trending stories, so you know what the industry is reading
- Links to Digital Transactions monthly magazine
- Calendar of events
- Plus "In other News" The most complete listing of announcements from the payment community

Subscribe today at **bolandhill.omeda.com/dtr/**
or email **Bob Jenisch** at **Bob@digitaltransactions.net**

MAGTEK®
SECURITY FROM THE INSIDE

Fast Transactions. Secure Data.

DynaFlex II SCR for Restaurants and ISVs.

Give your guests the speed they want and your business the security it needs, with faster development time.

DynaFlex II SCR
Deliver tap, dip, swipe, and scan acceptance.

Images are simulations of what is possible. Please contact a representative to see how we can help bring your ideas into reality.

Connect with customers on their terms by accepting a wide variety of payment methods; offering tokenization solutions, and cloud services - all through a single, secure platform.

With AES-256 encryption, DUKPT key management, and Magensa Gateway L3 certification, your data remains protected from the point of capture. ISVs enjoy simplified integration and lower development costs with Magensa Cloud Services, resulting in faster time-to-market and easier app maintenance, empowering your app to achieve more with less effort.

SCAN THE QR CODE

Learn more about our restaurant payment solutions.

562-546-6400 | sales@magtek.com | www.magtek.com