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Trends in the Electronic Exchange of Value

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Volume Eighteen, Number Twelve • DigitalTransactions.net • December 2021

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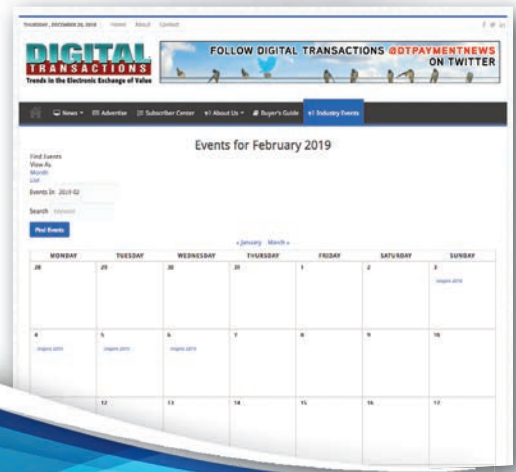
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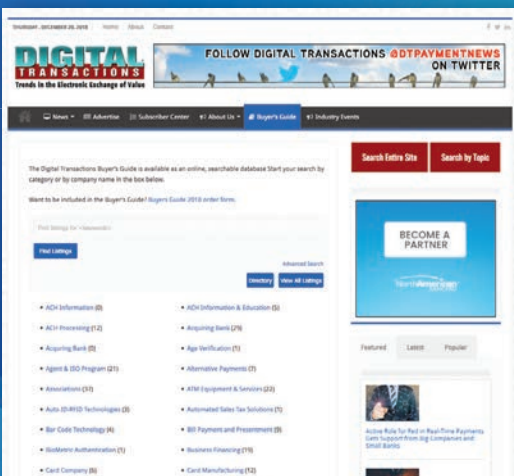


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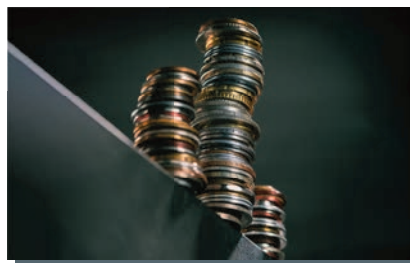
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## SEARCHING FOR STABILITY

### HAVE YOU USED BITCOIN OR SOME OTHER CRYPTOCURRENCY LATELY?

Or have you used one at all? If you did, was it worth the same at the time of the transaction as it was when you obtained it? Chances are, its value had fluctuated, maybe by a very wide margin.

Bitcoin, the largest (in terms of market cap) and best-known of the cryptos, is notorious for these big swings in value between when the coin was generated and when it was spent—or even from day to day or week to week. To take a recent example, Bitcoin recorded a value of \$64,863 at 10:30 a.m. on Nov. 13, but at 10 p.m. five days later it was logging in at \$56,016, a loss of \$8,847, or 13.6%, in a matter of five-and-a-half days. That sounds more like a share of stock than a medium of exchange.

And that's been the rub with most cryptocurrencies. Holders who want to spend their coins can't be certain hour-by-hour of the total value of their holdings, as they could be with a stack of dollars or a card backed by a stack of dollars. This is what has made holders of Bitcoin treat the digital currency more like an investment. But that wasn't the original intention for this money. It was supposed to function as a digital stand-in for folding money, able to be swiftly transmitted from a mobile wallet to any seller anywhere in the world.

What's the solution? Some have argued for stablecoins, a digital currency whose value can be linked to an existing national currency, typically the U.S. dollar. In this way, the coin enjoys all the ease and convenience of digital safekeeping and transmission but without the volatility of a Bitcoin. Since the first stablecoins appeared in 2014, the market has seen the emergence of scores of these coins, so much so that their total market cap has soared past \$140 billion.

But as our story on page 18 points out, this popularity hasn't come without problems. The federal government, concerned about how some issuers are backing their coins with loads of commercial paper and other instruments besides cold, hard cash, is looking to impose a menu of regulations to safeguard holders in case of a run. Some observers fear over-regulation, which could stifle stablecoins just as they're edging toward mainstream usage.

That would render the coins less useful as a medium of exchange, and throw the digital-transactions market back onto cards—plastic or virtual. In our opinion, that would be a shame. Let's hope the regulators can find a balance between user protection and the innovative benefits offered by stablecoins.

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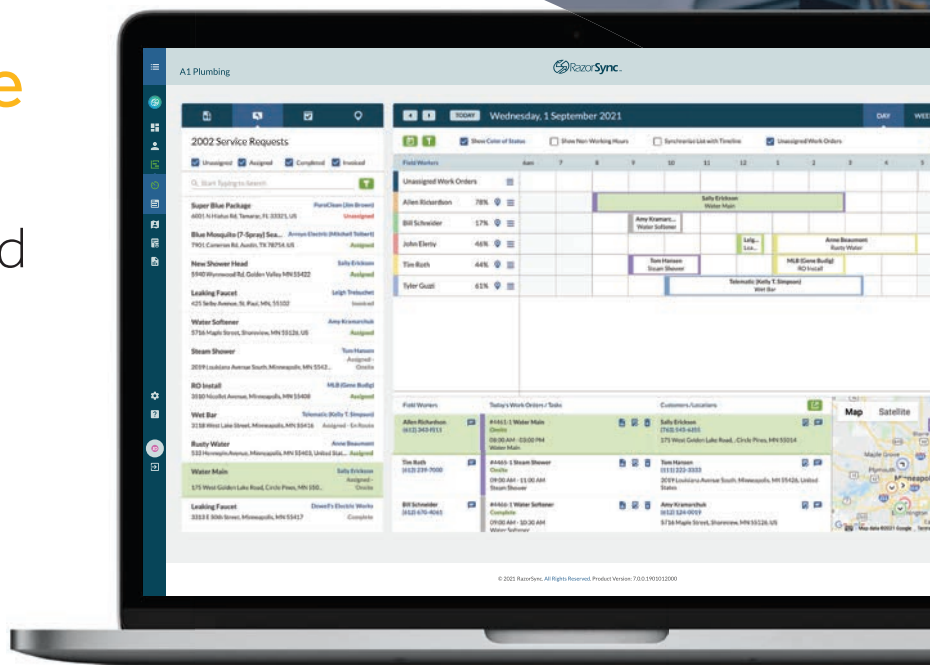
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## PAYPAL, VENMO, AMAZON, AND THE SUPER APP

PayPal Holdings Inc.'s big news in November was that U.S. users of its Venmo wallet will be able to pay with Venmo on Amazon.com Inc.'s massive marketplace and on the Amazon shopping app, starting in 2022.

The news comes as the latest development in a long effort PayPal has engaged in to bolster Venmo's ability to earn fee revenue and move beyond its base of peer-to-peer payments. "This is obviously a very significant moment in monetizing Venmo," said PayPal chief executive Dan Schulman while announcing the news during an earnings call to discuss PayPal's third-quarter results.

PayPal announced the Venmo deal with Amazon even though an exact launch date hasn't yet been fixed. "We're still working through the launch time frame," Schulman said, "We're both [PayPal and Amazon] eager to get going. Think about the market share Amazon has in the United States. This [deal] quite appreciably increases the addressable market for Pay with Venmo."

PayPal has concentrated over the past few years on finding ways for its P2P app to earn revenue. One of those initiatives, Pay with Venmo, allows users to pay merchants with funds in their account and PayPal to levy transaction fees. Venmo's payment volume grew 36% in the quarter, to \$60 billion, though PayPal does not break out volume for Pay with Venmo. Partly as a result of such efforts,

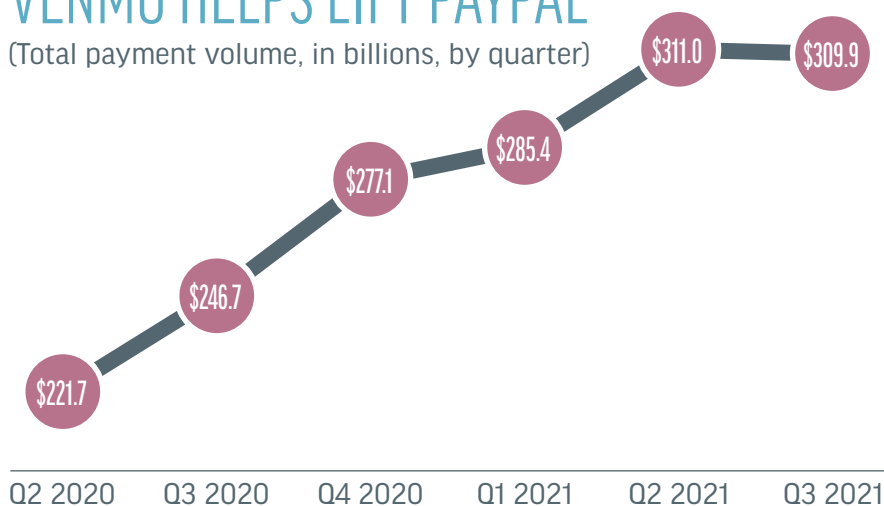
Venmo will generate \$900 million in 2021 revenue, Schulman said.

Amazon's U.S. gross merchandise volume, both directly and through third-party sellers, totaled \$92.4 billion in the third quarter, accounting for about 44% of the U.S. e-commerce market, according to estimates from Digital Commerce 360.

The Amazon deal represents the latest such marketplace agreement

### VENMO HELPS LIFT PAYPAL

(Total payment volume, in billions, by quarter)



Source: PayPal

struck by PayPal since the expiration last year of the payments company's legal agreement with its former owner, eBay Inc. PayPal separated from eBay in 2015 but agreed to process payments for the site for five years.

Separately, Schulman reported the thorough-going redesign of the PayPal app, launched this summer, is on its way to paying dividends for the company, though he didn't announce numbers. "We're focused on becoming an everyday app for consumers," he told the analysts.

The so-called super app supports an array of payments, shopping, and financial features and represents the company's first complete redesign of its app in seven years. It also enables cryptocurrency transactions, a feature Schulman called out by announcing it had led to a "15% lift in first-time users of crypto."

In the increasingly critical buy now, pay later arena, PayPal's entry, Pay in 4, has generated \$5.4 billion in payment volume since its launch late in the summer of 2020, Schulman said. "We will expand in early 2022 to allow longer-term repayment plans," he added.

For the quarter, PayPal recorded \$310 billion in payment volume (\$300 billion excluding eBay), down slightly from the second quarter but up 26% year-over-year. Active accounts reached 416 million, up 15%, including 33 million merchant accounts. Revenue was up 13%, to almost \$6.2 billion.

The transaction take rate, however, slipped to 1.81% from 2.06% a year ago. PayPal attributes the decline in this number, which measures PayPal's share of each transaction, to factors including lower eBay volumes and a larger share of payments at bigger merchants and marketplaces.

—John Stewart

# HOW THE CHIP SQUEEZE IS HELPING TAP-TO-MOBILE TECH

The continuing shortage of semiconductor chips is creating an opportunity for merchants and consumers to embrace tap-to-mobile payments, according to a study from payments processor NMI.

The survey, which polled merchants and consumers in the United States and the United Kingdom, revealed that 95% of merchants said they would consider tap-to-mobile payment technology to accept payments. NMI defines tap-to-mobile

and maintenance of the technology and more than 55% cited consumer demand. Both are significant indicators of tap-to-mobile's growing appeal.

The chip shortage, which has pushed lead times for POS terminal orders out to 26 to 30 weeks, compared to 12 weeks pre-Covid, is causing terminal prices to rise, especially on the spot market, according to payment-industry experts ("Out of the Chips," September).

"For a lot of small merchants, the cost of a terminal can be a barrier to



**'The cost of a terminal can be a barrier to entry. Eliminating that barrier can spur a lot of entrepreneurs to go this route.'**

—JEREMY GUMBLEY, CHIEF INFORMATION SECURITY OFFICER, NMI

technology as a payment solution that converts a smart phone into a point-of-sale device that allows a consumer to pay for a purchase by tapping her credit or debit card against the phone.

"With the chip shortage that is affecting production of POS terminals not expected to end any time soon, there are a lot of merchants looking at removing [POS] hardware from the [payment acceptance] equation," says Jeremy Gumbley, chief information security officer for Schaumburg, Ill.-based NMI. "Tap-to-mobile is an alternative to POS terminals because all merchants need to do to enable tap-to-mobile is download an app to their mobile device."

When asked what factors would influence their decision to adopt tap-to-mobile payments for their business, 63% of merchants cited cost

entry. Eliminating that barrier can spur a lot of entrepreneurs to go this route," Gumbley says.

Despite growing demand for tap-to-mobile, NMI's research reveals that 34% of small and medium businesses in the U.S. still don't offer contactless payment options.

In addition, the research reveals there is significant consumer demand for the technology. Indeed, 83% of consumers surveyed said they would likely use tap-to-mobile payments if it were offered by a merchant. Key reasons for using the technology are convenience (76%) and speed (73%).

Factors influencing merchants' preference for tap-to-mobile include security (53%), easy set up and installation (46%), user friendliness (38%), and good customer service (33.9%).

The ease of converting existing mobile phones into a POS terminal is expected to keep interest in tap-to-mobile solutions high, says Sam Shawki, chief executive of Magic-Cube Inc., whose i-Accept software converts off-the-shelf mobile devices into point-of-sale terminals.

“This [the chip shortage] has been an element that encourages some players to look at us more closely .... Everyone that stopped talking to us are back as they are looking at alternatives,” Shawki told *Digital Transactions* in an interview conducted in August as part of the magazine’s research for its September cover story, “Out of the Chips.” “It’s wind in our sails,” he added.

Despite merchants’ growing inclination toward tap-to-mobile technology, there are lingering reservations about the technology. According to NMI, 50% of merchants have concerns about the security of the technology, more than 35% say they don’t have the infrastructure to support the technology, and 21% don’t want to incur the cost of adding a new payment option.

—Peter Lucas

# MASTERCARD EYES A DEEPER INVOLVEMENT IN A2A TRANSFERS

Mastercard reported a strong third quarter as it builds out the foundations for a near-term future in which it sees itself playing a central role in new transaction flows involving account-to-account (A2A) transfers and digital-currency payments.

Mastercard has been laying the groundwork for A2A business for at least the past couple of years. The payments network expects to close by year’s end on its acquisition of Copenhagen-based open-banking provider Aiaa, chief executive Michael Miebach said during an October earnings call.

The deal, terms of which were not announced, represents Mastercard’s second major acquisition in open banking, following its \$825-million pickup late last year of Salt Lake City-based Finicity Corp.

Both deals involve technology that allows financial firms to verify

account balances and ownership, vital functions for transfer activity that doesn’t depend on cards. “We see [A2A] as an opportunity, a way to get volumes we’ve not historically been involved with,” Miebach said. Years before these deals, Mastercard had laid the groundwork for its nascent A2A business in Europe with its acquisitions of the software firm Vocalink and Transfast Remittance LLC, a cross-border payments specialist.

Mastercard is in a race with its rival network, Visa Inc., to build out its A2A capabilities, with Visa having agreed in June to acquire Stockholm-based open-banking network Tink AB in Europe. Earlier, Visa withdrew an offer to buy open-banking specialist Plaid Inc. after the Department of Justice objected to the deal on anti-trust grounds.

Miebach denied the race to build A2A capability will hurt his company’s core card business. “We don’t see a disintermediation risk. I see a way to form partnerships and improve our [transaction] flows,” he said. “It’s still early days.”

Other opportunities beckon for Mastercard, Miebach made clear. He cited the rapidly growing market for buy now, pay later installment lending online at the point of sale, for which Mastercard has built an application programming interface called Mastercard Installments. There will be further developments soon, he promised. “Watch this space. More to come,” he told the analysts.

## MONTHLY MERCHANT METRIC

### Growth in Same-Store Sales Year Over Year

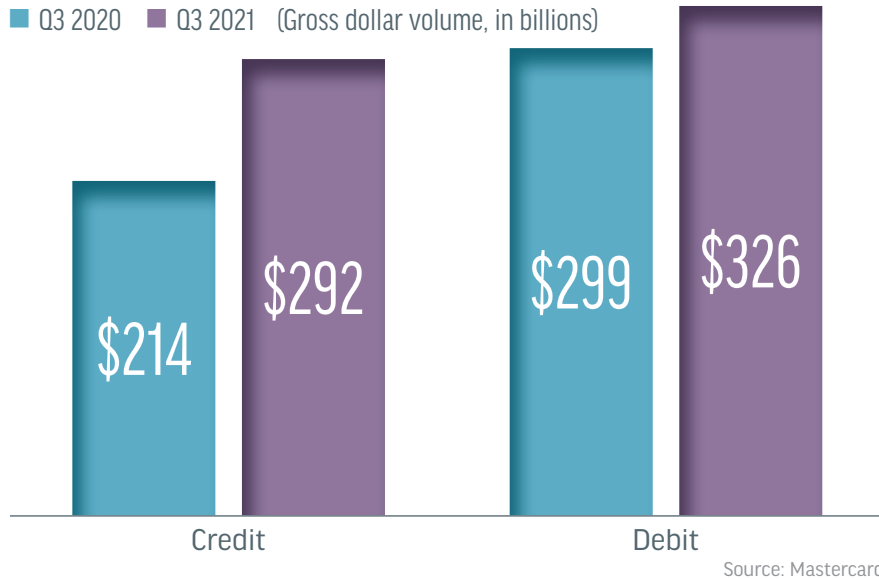
Annual volume change/growth of retained (non-attributed) accounts for given period divided by total portfolio volume from same period of the prior year.		
Q3 2020		2.61%
Q4 2020		1.54%
Q1 2021		8.73%
Q2 2021		36.29%
Q3 2021		15.39%

Note: This is sourced from The Strawhecker Group’s merchant data warehouse of over 3 million merchants in the U.S. market. The ability to understand this data is important as small and medium-size businesses (SMBs) and the payments providers that serve them are key drivers of the economy. All data are for SMB merchants defined as merchants with less than \$5 million in annual card volume.

Source: The Strawhecker Group © Copyright 2021. The Strawhecker Group. All Rights Reserved. All information as available.



# MASTERCARD'S U.S. VOLUME



Miebach also promised further development of Mastercard’s early ventures into cryptocurrency. One entry point, he said, lies in helping

users buy and sell crypto. “We see a role in facilitating that,” he said, “It’s good from a volume perspective, and there’s real opportunity.”

Longer term, he said, his company plans to support crypto transactions on central bank digital currencies, which are digital versions of the dollar and other national currencies. “When it comes to crypto as a payment tool, we will make our network able to do that when a government is ready,” he said.

For the quarter, gross dollar volume for Mastercard in the U.S. market climbed 20% to \$618 billion. That’s compared to a year-ago quarter impacted by the pandemic. Debit volume alone shot up 36% to \$292 billion. Overall volume globally totaled \$1.99 trillion, up 21%.

Revenue for the quarter came to \$4.99 billion, up 30%. Transaction processing, the biggest component of that flow, grew 27% to \$2.85 billion.

—John Stewart

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# SQUARE LOOKS TO ATTRACT BIGGER MERCHANTS

In the face of an ongoing pandemic, Square Inc. last month reported a record quarter for gross processing volume and made it plain its strategic priorities are to move upmarket to larger merchants and to expand the user base for its consumer product, Cash App.

Recent moves include Square Invoices Plus, launched in the second quarter and aimed at “larger, more complex businesses,” said Square chief executive Jack Dorsey during a call with equity analysts. But other tactics also support the thrust toward bigger sellers, including Square’s August announcement of its deal to acquire the Australia-based buy now, pay later provider Afterpay Ltd.

That \$29-billion investment, expected to close early next year, not only launches Square into the hot market for installment lending, it also brings into Square’s camp a bevy of big chains, including such names as Bed, Bath, & Beyond, Dillard’s, and Gap. “Afterpay has done very well with large retailers,” noted Dorsey during the call.

The migration to larger sellers has been evident among Square’s existing seller base for some time. Merchants with half a million dollars or more in annual processing volume accounted for 37% of Square’s merchant volume of \$41.7 billion in the third quarter, up from 31% a year ago and from 28% in the same period in 2019.

On the consumer side of its business, Square’s other priority is growth in adoption and usage of Cash App, a digital wallet now open to teens “with

## SQUARE’S VOLUME TAKES OFF

(Gross payment volume in billions)

Q3 2020	\$31.7
Q4 2020	\$32.0
Q1 2021	\$33.1
Q2 2021	\$42.8
Q3 2021	\$45.4



Source: Square

parental approval,” Dorsey stressed while touting the new feature, Cash App for Families.

Cash App for some time has supported Bitcoin trading and stock investments. To bring commerce to the wallet, Square in September launched Cash App Pay, which uses QR codes to let users make contactless transactions in stores. It’s not Square’s first effort to launch a mobile wallet. But, with more than 40 million active users of Cash App, the company is betting this product will be its most successful. “There’s a lot of potential in having the scale we have, but we can go much higher,” noted Dorsey.

With its Bitcoin capabilities, Cash App supports another priority Dorsey has set for Square. That, he said, is “helping Bitcoin become the native

currency for the Internet.” To that end, he said, Square is also “focusing on building a hardware wallet.”

A longtime Bitcoin enthusiast, Dorsey has said on previous earnings calls that Square is focused on the biggest digital currency and is not interested in supporting others. This may not be surprising in view of the \$1.82 billion Square reported in Bitcoin revenue for the quarter, or 48% of all revenue.

For the quarter, Square reported \$3.84 billion in total revenue, up 27% year-over-year. It’s the second successive quarter Square has exceeded \$1 billion in transaction revenue alone, and represents a near doubling of that revenue since the third quarter of 2018. DT

—John Stewart

# CYBER OIL: THE UNDEFEATABLE EQUALIZER

**I'M CLOSING MY SERIES** on quantum computing and payments with an introduction of the underlying vision, pregnant with a bouquet of shining scenarios for a level playing field in cyber territory.

Quantum computers are surprisingly non-deterministic in that they are governed by probability. The lottery they play on runs on what we might call cyber oil—randomness. Much as the 20th Century ran on crude oil, this century runs on cyber oil. It took us a while to realize that crude oil is the source of plastic, asphalt, medicine ... and climate change. Similarly, one by one, we learn that cyber oil has a lot to offer for the betterment of society in general and for money and payment in particular.

Randomness is the undefeatable equalizer. How so? Bear with me for this short tale. Mr. Sophisticato and Mr. Innocento come together to play dice. One throws a single die, and the other is to guess the outcome. If the guess is correct, the thrower pays a dollar to the guesser. Then, they switch roles.

Both players bring \$1,000 to the game. After ten hours of play, Mr. Sophisticato counts \$1,020 in his pocket, and Mr. Innocento counts \$980. The next day, Mr. Sophisticato finds only \$970 in his wallet, and Mr. Innocento clocks \$1,030. So it goes, day after day. This persistent equality annoys Mr. Sophisticato,



BY **GIDEON SAMID**

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who laments that his IQ advantage over Mr. Innocento is not coming into play.

So Mr. Sophisticato contrives a scheme. He proposes to Mr. Innocento a slight change in the game. Instead of tossing one die, they will throw two. The guesser will guess the outcome, not from one to six but from two to twelve. Mr. Innocento readily agrees. But then something strange happens. While Mr. Innocento is guessing all over the place, sometimes two, sometimes three, sometimes twelve, and so on, Mr. Sophisticato invariably guesses seven.

When the sun sets, Mr. Sophisticato counts \$1,850 and Mr. Innocento, \$150. A similar gap happens the next day, and the next. Mr. Innocento is at his wit's end. How did his luck switch on him? Little does he know that math advised Mr. Sophisticato to choose seven every time. There are six dice combinations resulting in seven (1+6, 2+5, 3+4, 4+3, 5+2, 6+1) while two and twelve appear only in a single combination.

But then Mr. Innocento has a flashback. Things looked quite different when they played with one die only. He resolutely withdraws his consent

to play with two dice, and the game returns to the way it was. And so does the score.

What happened? Randomness denied Mr. Sophisticato his smarts advantage. The players could not play any better than randomness allowed, nor could they play worse than randomness dictated. Randomness cannot be defeated by mathematical wisdom.

The payment-security lesson for us is: Increase the role of randomness, and decrease the role of mathematical sophistication. A smart mathematician will be defeated by a smarter one (who is often a hacker). But a randomness shield works every time it is tried.

A caveat: Randomness delivers only if it is high grade, that is, quantum grade. Fake randomness (which is most of the randomness used for cyber security) is defeatable by smarter math.

What can be done then? Randomness affects every facet of the payment realm, from choice of cipher to network processing, data storage, origination, validation, summation, settlement, legacy payment, digital currency, Internet of Things payment, cross-border payment—down to behavioral solutions. Watch for coming columns.

The first important step is to internalize this unexpected realization that cyber space is run on cyber oil—randomness. DT

# THE PENDULUM SWINGS IN WASHINGTON

**THE REGULATORY PENDULUM** is swinging again in Washington, and while the changes might be predictable, they are not always optimal for consumers.

The Consumer Financial Protection Bureau got a new director when Rohit Chopra was confirmed by the Senate on Sept. 30, and the Biden Administration has nominated a new Comptroller of the Currency.

Additionally, Congress continues to take an active interest in the payments business. The House Financial Services Committee and its Financial Technology Task Force held hearings on a wide variety of payment products. These hearings provide clues about the attitudes and agendas for both regulators and legislators.

On Oct. 27, Chopra testified in a hearing entitled “Bringing Consumer Protection Back: A Semi-Annual Review of the Consumer Financial Protection Bureau.” The title reflects that many in Congress expect regulators to step up their scrutiny of the industry.

In the hearing, Chopra pledged to do this, citing mortgages, consumer debt, and big technology companies as three areas of early focus. He also noted that he plans to hold organizations of all kinds accountable.

“I have to tell you, one of the things that bothers me so much is when small players break the law, they get



BY BEN JACKSON

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shut down and when the large players repeatedly break the law, it feels like nothing happens,” Chopra said. “In my testimony, I submitted one of the areas that is going to be a focus for me is the issue of repeat offenders.”

But even with that focus on big companies, Congress, and with them the regulators, are not going to ignore the rest of the industry. On Nov. 2, the Task Force on Financial Technology held a hearing entitled “Buy Now, Pay More Later? Investigating Risks and Benefits of BNPL and Other Emerging Fintech Cash Flow Products.”

The hearing covered the short-term financing now being offered at the point of sale and in online check-outs by non-traditional lenders. It also looked at earned-wage-access products that provide workers with access to the money they have earned outside of traditional pay cycles.

This and the Chopra hearing make it plain that credit products are top of mind for regulators and legislators. Brian Tate, the chief executive of the Innovative Payments Association, testified on earned-wage-access products and tried to make it clear that these products are not credit in

that they provide access to money that workers have already earned.

Using both of these hearings as a guide to what is coming next, one disappointing trend is that preconceived notions seem to rule the day. Even the titles of the hearings spell out the attitudes of lawmakers. Depending on who’s talking, either regulators are the devil or industry is the devil. People in the industry and, more important, the customers themselves, know that neither is true.

Whether a financial product is good or bad often depends on the circumstances of the people using it. Too often, regulators and consumer advocates operate on the assumption that everyone has the same access to products and services (and operates on the same income level) as someone in Congress or a lawyer at a nonprofit has. While they intellectually understand that many people could not manage a \$400 emergency expense, it appears they have no visceral sense of what that means.

As with any other issue facing this country, the reality is not reflected in radical rhetoric. The industry, regulators, and even advocates need to come together to ensure that laws and regulations do not end up hurting the very people they are supposed to protect by eliminating the ability for certain products to exist. **DT**



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Trends in the Electronic Exchange of Value

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## COMING TO A STORE CHECKOUT NEAR YOU?

Real-time payments have proven value for many payment needs. Now, experts are looking at mining the potential for real time at the point of sale.

BY KEVIN WOODWARD

**THE TECHNOLOGY TO ENABLE REAL-TIME PAYMENTS** at the point of sale is available today. But many questions remain: Are consumers ready? Are merchants ready? Is the payments ecosystem ready?

The answer is, kind of. The hesitation is like that you see with any change in payments. Questions surface over whether real-time payments at the point of sale will overly disrupt the regular flow of transactions.

Plus, questions remain about demand. Is there really a market for real-time payments at the point of sale? After all, the United States, as of

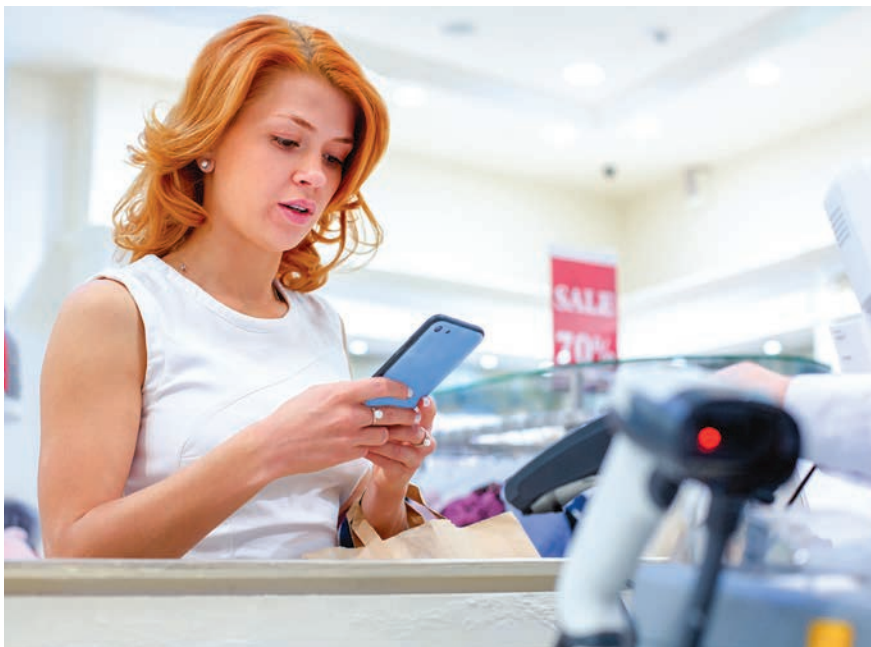
a March report from ACI Worldwide Inc., ranked ninth in real-time payments transactions with 1.2 billion. India had the most, 25.5 billion.

Some payments executives don't hesitate. "Absolutely," says Brady Harris, chief executive of Dwolla Inc., a Des Moines, Iowa-based company that specializes in application programming interfaces for digital payments. In April, Dwolla debuted an API that can connect fintechs to The Clearing House Payments Co. LLC's Real Time Payments network.

TCH's RTP service primarily enables financial institutions to offer the real-time payment service to their business clients, which can then offer it to their customers. TCH declined to discuss real-time payments at the point of sale. "We have a lot going on with RTP right now, but POS is not one of them. It is something RTP will address in the future, but not right now," a TCH spokesperson says via email.

The Federal Reserve is developing a real-time payment service called FedNow, but it is not expected to be available until 2023. The Fed did not respond to a *Digital Transactions* inquiry for this story.

"Transactions should happen as fast as the Internet moves," Harris says. "As real-time payments continue



to be more widely used by consumers of all ages and technology abilities, RTP will be essential for point-of-sale transactions.”

## ‘A LASTING TREND’

Others agree. “Absolutely,” says Erika Baumann, director of commercial banking and payments at Aite-Novarica Group, a Boston-based consulting and research firm. “For small businesses in particular, [real-time payments] can have a dramatic impact on cash flow.”

“There are so many options, PayPal, Zelle, RTP,” she says. “The issue really is how to change expectations of the POS experience. [With] online, [it] is much easier to align expectations than in a retail location, due to how we as consumers and business owners have been conditioned.”

Now, some consulting firms are measuring the potential for real time payments at the checkout counter. Deloitte published its “Real-time payments are changing the reality of payments” report that discussed the opportunity the payment method presents. Christopher Allen, Deloitte Consulting managing director and payments sector lead, says there will be point-of-sale and online opportunities for real-time payments.

“The interesting thing is that RTP capabilities advertise as being able to have other industry players participate in the ecosystem more directly,” Allen says. “I’m sure the online merchant community would love to get their money faster.” One acquirer, EVO Payments Inc., added in 2020 the Visa Direct push-payment service as a settlement option for merchants. Funds can be credited to a debit card at any time.

Real-time payments at the point of sale have the potential to speed up merchant funding, lower payment-acceptance fees compared to credit and debit cards, and increase visibility around payment status and transaction information. But can that potential be realized?

“You are seeing different markets and industries realize the potential of real-time payments,” says Harris. “The shift towards real-time payments for point-of-sale and online shopping is going to be a lasting trend that will become a standard option moving forward.”

Harris says a number of factors could affect the ability of real-time payments to have a larger role in retail payments. “Banking and government regulations are in the process of catching up to fintech solutions,” he says. “In Europe, the faster-payment movement was very much driven by

the regulators. Here in the United States, innovators are pushing the real-time payment movement, causing banks and government regulators to play catch-up.”

As a result, he adds, “As policymakers and financial institutions start to catch up with the fintech industry, retailers and even countries will feel even more comfortable utilizing faster account-to-account transactions.”

The Deloitte report also suggests that technology innovation, such as pervasive smart-phone adoption and consumer use of digital wallets, will have a large role in real-time payments adoption. New providers, merchant and consumer expectations, how regulators treat real-time payments, and increasing globalization will all have an impact on real-time payments adoption, too, the report says.

## ‘THE PARADIGM WILL SHIFT’

What will it take to get real-time payments in regular use at the point of sale?

“Merchants. They’re the ones who typically pay the cost of transactions,” says Ravneet K. Randhawa, senior manager of payments transformation at Deloitte Consulting. “They would play a significant role in driving adoption of real-time payments in the retail space.”



‘As policymakers and financial institutions start to catch up with the fintech industry, retailers and even countries will feel even more comfortable utilizing faster account-to-account transactions.’

—BRADY HARRIS, CHIEF EXECUTIVE, DWOLLA INC.



'Right now, real-time payments are thought of as beneficial for the recipient, but not as much for the payor. As real-time becomes more the norm, the paradigm will shift to be accepted as normal.'

—ERIKA BAUMANN, DIRECTOR OF COMMERCIAL BANKING AND PAYMENTS, AITE-NOVARICA GROUP



As Harris explains, the impact real-time payments at the point of sale could have on acceptance costs is substantial, “which is why you see the big-time card processors starting to invest in alternative payment methods. Real-time payment technology will be offered alongside credit cards,” he says.

“And because of how expensive credit card fees are to a business,” Harris continues, “we are seeing brands use account-to-account transactions to actually create their own customer loyalty debit card and offer rewards with the transaction savings, making account-to-account more appealing than a credit card for their customers.”

One early adopter of that logic was ZipLine, a private-label debit-payment service for convenience stores that is now owned by Professional Datasolutions Inc. While not a real-time payments variant, it does showcase the account-to-account example.

Still, Deloitte’s Allen cautions that credit cards offer benefits that real-time payments, at least at this time, do not, such as extended warranties and fraud-protection plans.

And consumers may need some coaxing, Randhawa says. “One thing to consider is that real-time payments

is like an instant debit,” she says. “The U.S. has been more of a credit-based economy. However, we did see a shift in the pandemic. It would be interesting to see how this plays out in the longer run.”

What could aid the adoption for point-of-sale transactions? “Real-time payments are slowly becoming understood and expected by the market,” Aite-Novarica’s Baumann says.

She looks at the adoption of the Check 21 legislation 17 years ago as an example of how real-time payments at the point of sale might advance. “... Everyone panicked about what it would mean to convert a check to an electronic payment, and that anxiety went away as a new norm was established,” she says.

“As [real-time development] continues and accessibility expands, it will become more prevalent at the POS,” she adds. “Right now, real-time payments are thought of as beneficial for the recipient, but not as much for the payor. As real-time becomes more the norm, the paradigm will shift to be accepted as normal.”

As Harris says, “On e-commerce sites, customers value choice and expect a variety of payment options. Why pay a fee on top of your transaction when the funds can move

from account to account at not even a quarter of the cost and with just as much reliability?” adding that Dwolla is working on how to introduce account-to-account payments with real-time speed in a retail environment. He did not share details.

## AN ‘EMBEDDED’ OPTION

Real-time payments at the point of sale may not show up in a big way in 2022, but sources for this article agree it will happen relatively soon.

“From merchants’ perspectives, they would like to get their money faster,” Deloitte’s Allen says. “The merchant side would like to be a bigger player in the payment ecosystem. Potentially, real-time payments has the ability to allow for that. From the consumer side, it will create more innovation.”

He adds, though, that “research has suggested that consumers aren’t completely unhappy with how they pay for things.”

Still, the point-of-sale future has a place for real-time payments. “It will be part of the POS experience,” Baumann says. “Online, this is selecting the payment method at checkout. At a POS terminal, it will be embedded in the options we see today like tap-to-pay or Apple Pay through a device.” DT

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## THE PRICE OF STABILITY

And you thought stablecoins were all about ‘set it and forget it.’ Some—including the government—think otherwise.

BY JOHN STEWART

**IT IS ONE OF THE IRONIES** of the payments business these days that there seems to be little that’s stable about the news surrounding stablecoins. For a concept that came on the scene a scant seven years ago to answer complaints about the wild volatility of Bitcoin, stablecoins have grown to a collective market cap of more than \$140 billion as of mid-November, according to Coinmarketcap.com.

Yet rising concerns about the potential for runs, money laundering, and terrorism financing led government officials last month to recommend Congress regulate this relatively new species of cryptocurrency.

Some observers aren’t surprised. “Stablecoins promise something they’re basically not delivering,” says James Royal, senior wealth reporter at Bankrate.com. “They promise they’re backed by cash, and they’re not.”

Still, if any cryptocurrency concept seems ripe to function as a means of exchange, it would be stablecoins. This is blockchain currency, like Bitcoin, but unlike Bitcoin its value is tied to that of a national currency, in nearly all cases, the U.S. dollar. There may be small fluctuations, but over time the price of a single stablecoin, like Tether or USDC, is supposed to zero in on \$1.

These tokens have grown fast over the past year, rising from a total market cap last fall around \$25 billion. And new entrants could supercharge that growth further. One such candidate is the Diem stablecoin, formerly known as Libra, which has yet to launch. Its backer, Facebook Inc., has already introduced a Diem digital wallet, known as Novi.

### A PERFECT BRIDGE

That vaunted price stability has attracted major payments entities that otherwise have looked askance at the dizzying runups and scary pratfalls of other cryptocurrencies. Mastercard Inc. in July said it will work with a pair of issuing banks and



several service providers to test converting crypto coins to stablecoins for direct acceptance of crypto-backed cards on its network.

Mastercard's announcement followed a similar move by Visa Inc., which late in March said its integration with San Francisco-based Anchorage Hold LLC, the first federally chartered digital-asset bank, allowed the network to process its first transaction involving direct settlement with a stablecoin, in this case, USD Coin (USDC).

"As a payments guy, I think crypto is coming on a transaction network, and stablecoins are a very important [push] behind that," says Cliff Gray, who follows cryptocurrency as a senior associate at The Strawhecker Group, an Omaha, Neb.-based payments consultancy.

And right now, stablecoins are coming on fast. At BitPay Inc., a platform that supports crypto transactions, the USDC stablecoin accounted for 15.1% of volume in October, up from 1% a year earlier, says Bill Zielke, chief marketing officer. Much of this activity, he adds, stems from cross-border payments, where senders are looking to avoid the costs of conventional channels. "Wire transfers can be expensive and cumbersome" by comparison, he adds.

Indeed, a digital transfer at the blink of an eye and at low cost explains much of the increasing appeal of stablecoins. "We provide that perfect bridge, a seamless transition from legacy systems to fast, cheap systems," says Rachel Mayer, vice president of product at Circle Internet Financial Inc., the developer of

USDC, at \$34.4 billion the second-largest stablecoin by market cap, behind only Tether.

## 'A LOT TO UNPACK'

But some of that momentum could be sapped by a federal government that isn't so sure this branch of cryptocurrency is such a good idea. The root cause of this skepticism lies in the backing for these digital dollars.

Stablecoin developers are supposed to keep reserves in hard currency equal to the value of the coins they have minted. In at least some cases, however, they have been found to have used some cash along with commercial paper, short-term corporate debt, or other such non-cash assets.

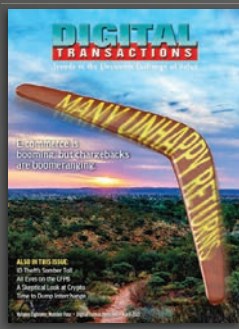
Such investments can generate income for the stablecoin sponsor,

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# TOP 10 STABLECOINS BY MARKET CAP

(As of mid-afternoon Central Time, Nov. 15)

1 Tether	\$73.9 billion
2 USD Coin	\$34.4 billion
3 Binance USD	\$12.8 billion
4 Dai	\$6.5 billion
5 TerraUSD	\$5.4 billion
6 TrueUSD	\$1.2 billion
7 Pax Dollar	\$946 million
8 Neutrino USD	\$559 million
9 Reserve Rights	\$552 million
10 Fei USD	\$424 million
<b>Total market cap for all 70 stablecoins: \$140.2 billion</b>	

Source: Coinmarketcap.com

which makes them more attractive than cash, but that kind of backing could prove problematic, to say the least, were there a run on any of these coins. “At a time of stress, those assets could be marked down, making the coins worth less than a dollar,” says Bankrate.com’s Royal. “It’s a problem generally for stablecoins.”

By contrast, non-stablecoin blockchain currencies, like Bitcoin, may have volatility problems but are generally not seen as run risks. “Bitcoin doesn’t have to have backing because it derives its value from its utility as the most widely accepted [cryptocurrency] coin,” notes Aaron McPherson, an independent fintech and payments consultant.

Fears of a general rout in stablecoins—and a resulting general markdown in value—grow steadily along with the coins’ market caps. In response, the President’s Working Group on Financial Markets, the Federal Deposit Insurance Corporation,

and the Office of the Comptroller of the Currency early last month issued sweeping recommendations to address what they called “significant and growing risks.”

These boiled down to a suggested trio of new regulations. The first one, which would mandate that issuers be insured depository institutions, captured the most notice, but the other two could be equally consequential: that custodial-wallet providers be subject to federal oversight and that issuers be subjected to limits on affiliations with commercial enterprises.

For their part, issuers are publicly promising cooperation with any new regulations, whatever their private opinions may be. “There’s a lot to unpack, and we’re hard at work working with the federal agencies,” says Circle’s Mayer.

But not all observers agree there’s a problem, let alone a need for new government fixes. “One has to worry the regulatory regime will stifle

private-sector innovation in stablecoins,” notes Eric Grover, principal at Intrepid Ventures, a Minden, Nev.-based payments consultancy.

Grover backs disclosure requirements for stablecoin sponsors but suspects some regulators may be angling for stricter rules to hobble private-sector initiatives and protect a future central bank digital currency (CBDC) tied to the dollar and likely controlled by the Federal Reserve.

Such government-backed digital currencies have been topics of discussion in a number of countries. “I worry about that,” says Grover. “This notion that the Fed is benign and fintechs are risky. That concern is wrong, but it’s clear that it’s out there.”

## ‘NO COMPARISON’

For now, sponsors are chiefly interested in developing use cases that can maximize stablecoins’ inherent advantages—a primary one having to do with enabling low-cost transfers in markets like remittances. Circle has formed ties to both Visa and Mastercard for settlement of payments in USDC at rock-bottom cost, Mayer says. “To settle \$1 million in USDC transactions, it’s orders of magnitude less than a traditional transfer,” she notes.

The same holds for such fast-growing markets as gig-economy payouts, “where, with the economics of sending \$30 to Nigeria, there’s no comparison [with stablecoins],” Mayer adds. “It’s orders of magnitude cheaper” than a card network.

It may be hard to beat costs like that, but stablecoins may first have to find some stable ground with the Feds and other skeptics before they can profitably press that advantage. **DT**



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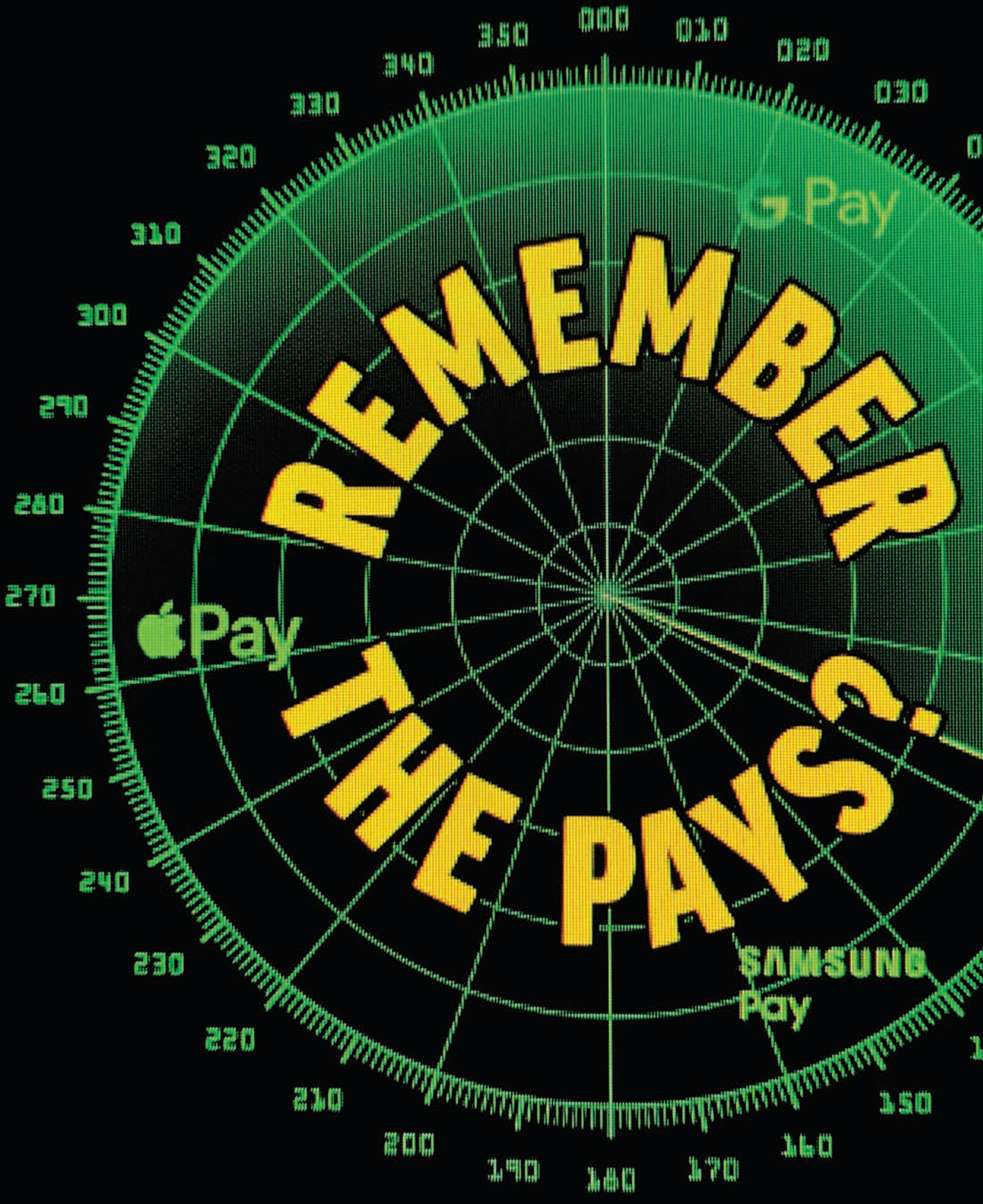
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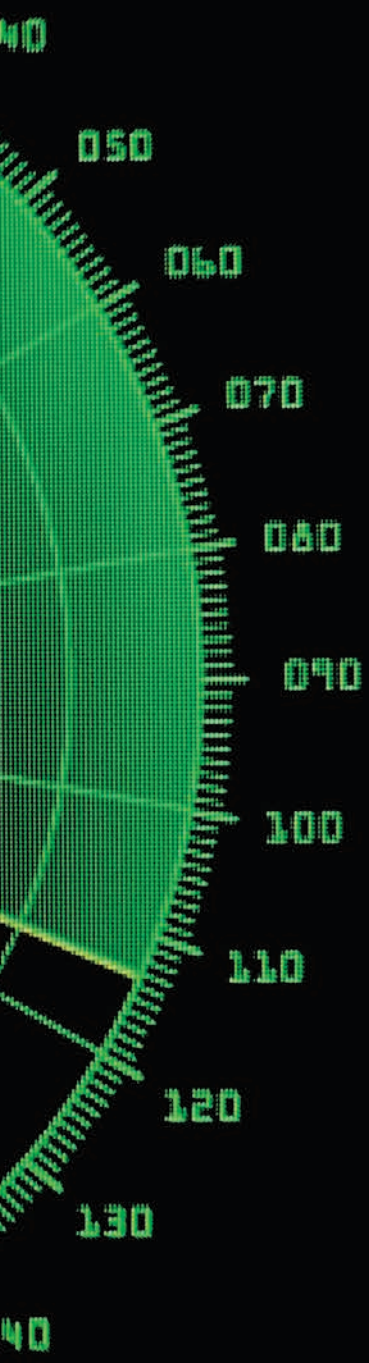


**REMEMBER  
THE PAYS?**

Apple Pay

SAMSUNG  
Pay

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# The hype around Apple Pay, Samsung Pay, and Google Pay has quieted considerably. But that doesn't mean the three big wallets are sitting still.

**BY PETER LUCAS**

When the so-called Pay wallets—Apple Pay, Samsung Pay, and Google Pay—launched in 2014, 2015 and 2018, respectively, they did so to great fanfare. At the time, the expectation was that these mobile wallets could potentially make traditional card-based payments obsolete.

Mobile wallets were considered groundbreaking payment technology because they gave consumers tap-and-go payment capability through their smart phones, which greatly reduced friction at the point-of-sale. That convenience, along with the weight and consumer awareness of the Apple, Samsung, and Google brands, made the ceiling for the Pays seem unlimited.

In the intervening years, much of the marketing hype around the Pays has died down and consumer adoption has been sluggish.

In 2016, for example, adoption among consumers eligible to use a Pay wallet, i.e., consumers with an

iPhone or Android phone, was 27%, according to payment consultancy Auriemma Group Inc. Fast forward to late 2021, and that figure jumps to 44%; respectable growth, but still less than half of eligible users.

Another indicator of the Pays' struggles to gain traction is the low percentage of consumers linking a credit card to one of them. That figure held flat at 15% in 2016 and 2017, then dropped to 14% in 2018, according to Phoenix Marketing International, which tracks the wallets.

In 2019, that percentage jumped to 18%, and then to 26% in 2020, when the Covid-19 pandemic accelerated consumer adoption of contactless payments. Nevertheless, indications are that growth is flattening again, with 27% of consumers having a credit card linked to one of the Pay wallets through the first half of the year.

Even Apple Pay, the largest of the Pays with 43.9 million users, according

to research firm Insider Intelligence, has followed a similar trend line when it comes to consumers linking a card. From 2016 to 2018, that percentage of consumers held steady at 10%, then climbed to 12% in 2019. In 2020, the figure jumped to 16%, then leveled off at 17% during the first half of 2021, according to Phoenix Marketing.

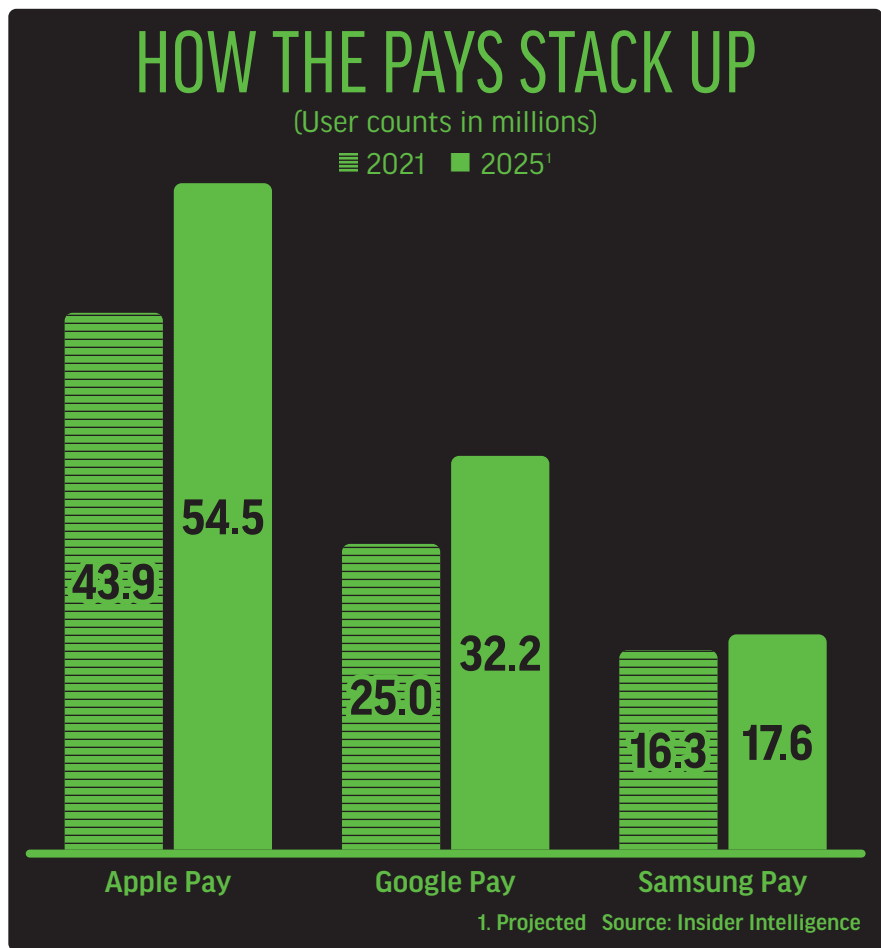
Again, the figures, while respectable, are not world beaters, payments experts say. If nothing else, they are an indication the Pays have not accomplished what they and many observers expected terms of adoption and usage.

“A lot of mistakes were made by the Pays when they launched, including a stretched adoption curve [and] technical and acceptance problems. And when they didn’t spark like initially thought, the marketing fervor around them ceased and there was no real backup plan [to reignite them],” says Leon Majors, senior vice president, payments systems practice, at Phoenix Marketing.

### ‘FULLY INTEGRATED’

That’s on the negative side of the ledger. While the wallets may not have met their initial lofty expectations for adoption, payment experts say they remain a force to be reckoned with. They cite two primary reasons.

First, the Pays are extremely popular among Millennials and Gen Zers, which consider it easier to pay with a mobile wallet than with a physical card. Indeed, more than 36% of the population of the United States, ages 14 and up, have made at least one mobile proximity transaction in the last six months, according to Insider Intelligence. By 2025, that figure is projected to rise to 43.7%.



“Millennials and Gen Zers make up 68% of mobile proximity payments, and their use of the technology is great news for the future [of the Pay wallets],” says Jaime Toplin, a senior research analyst for Insider Intelligence.

The second reason is that Pay users have shown a preference for using their wallets online, as opposed to in-store. That’s encouraging, as e-commerce sales have rocketed since the Covid-19 pandemic hit and show no signs of a slowdown nearly two years into the health crisis.

A big reason for why the Pays are getting used more for online purchases is that “in a lot of cases these wallets are fully integrated in the user journeys for respective app stores,

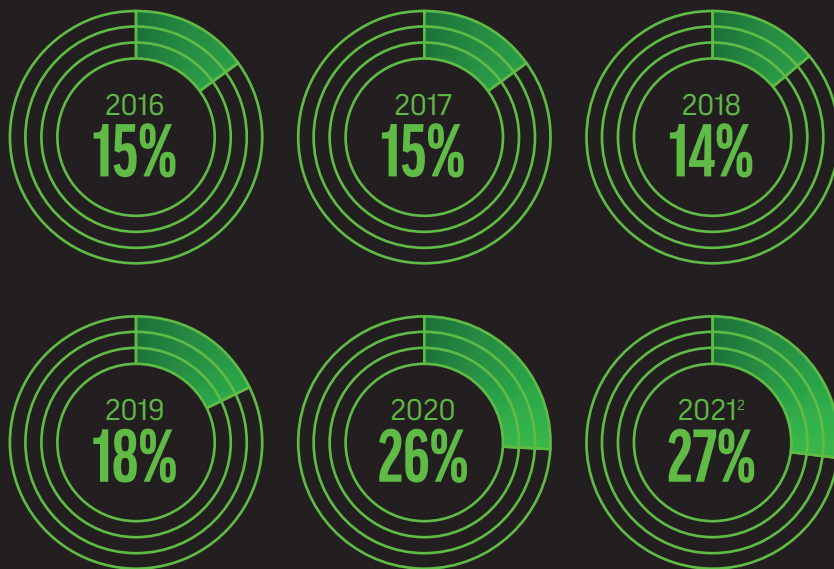
or they are integrated as one-click checkout options in-app, which makes them more convenient than other methods,” says Nick Maynard, head of research for Juniper Research.

To be sure, the Pays still face many challenges when it comes to broadening consumer adoption beyond online usage and their popularity among Millennials and Gen Zers. If the Pays are to become truly ubiquitous, especially outside their core audience, they will need to find ways to attract new users and increase daily usage, payments experts say.

“With the exception of Millennials and Gen Zers, a large percentage of consumers don’t see the value of migrating to a mobile wallet, especially with contactless cards more

# IT'S PROGRESS— BUT IS IT ENOUGH?

(Percentage of cardholders linking  
a credit card to a Pays<sup>1</sup> wallet)



1. Apple Pay, Google Pay, Samsung Pay 2. Through first half 2021 Source: Phoenix Marketing

widely available,” says Thad Peterson, strategic advisor, retail banking and payments at Boston-based consultancy Aite-Novarica Group.

## ‘A HOLISTIC APPROACH’

The Pays are on that case. To attract new users, Apple Pay and Google Pay have focused on adding non-payment adjacent features to raise awareness of their respective wallets among consumers.

Apple Pay, for example has positioned itself as a place where users can digitally store identification cards, such as driver’s licenses and vaccination, loyalty, and membership cards, even boarding passes.

“It’s a move that creates a gateway to using the wallet for people that

don’t necessarily think of using it for payment,” says Jaelyn Holmes, director of research at the Auriemma Group. “People have shown they like that feature, and if they have a good experience with it, it helps hook users.”

Google Pay has taken a different approach, focusing on helping users manage their finances and spending through the wallet, as opposed to using it strictly as a payment vehicle. That revamp began in late 2020 when Google Pay parent Alphabet Inc. announced plans to add new features intended to increase daily usage.

The plan calls for Google Pay users to have the ability to pay for, and split, purchases between users, see past transactions, and find offers

and loyalty information, all of which can be organized around conversations with other users, former Google general manager and vice president Caesar Sengupta said in a blog post at the time. In April, Sengupta left Google after nearly 15 years to pursue entrepreneurial opportunities.

Despite Sengupta’s departure, Google has remained on track for introducing new enhancements to Google Pay. “This spring we introduced new features which help users find the latest grocery deals, quickly search their spending by category or business, and a way to send money to friends and family abroad in India and Singapore, thanks to an integration with Wise and Western Union,” says Josh Woodward, Google Pay’s senior director of product management.

More enhancements are planned for the coming year. Starting in 2022, Google Pay users will reportedly be able to access Groupon deals through their wallet.

“There’s a need for a new, mobile money experience for people who have grown up in a mobile-first environment, where everything from hailing a cab to opening a bank account can be done with simple taps on a mobile device ... so with the new Google Pay app, we took a holistic approach to money by allowing [users] to manage all [their] finances in one place,” Woodward says.

One aspect of the Google Pay revamp that won’t come to fruition is the wallet’s plans to offer bank accounts through its Plex service. Google announced in October it was abandoning that initiative. The plan had called for Google Pay users to have access to their checking and savings accounts, and eventually a debit card, as well as set savings goals.



‘Moving into banking services is a value-add that will get people to try the Pays when payments alone are not enough to attract them.’

—JACLYN HOLMES, DIRECTOR OF RESEARCH, THE AURIEMMA GROUP

In a prepared statement, Alphabet said that, while there was demand for simple, seamless, and secure digital payments for online and in-store transactions, the company was “updating its approach to focus primarily on delivering digital enablement for banks and other financial services providers rather than us serving as the provider of these services.

“We strongly believe that this is the best way for Google to help consumers gain better access to financial services and to help the financial services ecosystem connect more deeply with their customers in a digital environment.”

Some payment experts view the move as an indication Google Pay is struggling to bring to market the kinds of financial tools that can expand its user base that Apple Pay and Samsung Pay have deployed with their users.

“It is a sign that Google is struggling to expand Google Pay in the same way that Apple has expanded Apple Pay with Apple Card, which is not highly positive in a competitive context,” Maynard says.

## ‘A VALUE ADD’

Apple Inc., on the other hand, has closely tied the Apple Card, which

debuted in 2019, to its wallet. Apple Pay users can apply for the card in wallet and, upon approval, receive a virtual card for use online and in-store wherever Apple Pay is accepted. A physical version of the card is also available.

One of the card’s perks is that Apple Pay users can search transaction data and see payment summaries through their wallet. “Offering a digital version of the card that enables Apple Pay users to see all their transaction data is a smart strategy, and like most Apple products, the virtual card provides a clean user experience,” says Auriemma’s Group’s Holmes.

Samsung Pay, which is the smallest of the Pay wallets with 16.3 million users, according to Insider Intelligence, in 2020 debuted Samsung Money by SoFi. Samsung Money is a mobile-first money-management app that brings a cash-management account, an accompanying Mastercard debit card, and a string of other benefits to Samsung Pay users.

“Moving into banking services is a value-add that will get people to try the Pays when payments alone are not enough to attract them,” Holmes says.

One potential misstep Samsung may have made with its wallet is eliminating, as of year-end 2020, the opportunity for Samsung Pay users

to earn reward points for purchases when using their wallet. Samsung Pay users enrolled in Samsung’s rewards programs can still earn points when purchasing products at Samsung.com, the Galaxy Store, the Shop app, or other Samsung services and applications, just not when using their Pay wallet.

But it’s still not clear what impact the move has had on usage of Samsung Pay in general, payments experts say.

## GET MORE AGGRESSIVE

Looking ahead, if the Pays are to increase adoption and daily usage, observers say they need to get more aggressive when it comes to offering consumer incentives.

Such efforts could include working with merchants to create offers targeted to individual wallet users, providing more spending insights, and integrating more payment options, such as buy now pay later. Offering more loyalty applications could also be a winner, observers say.

“The advantage of the Pays is they can bring online capabilities to the point-of-sale, [along with] real-time rewards, and transaction data,” says Greg Weed, director of Card Performance for Phoenix Marketing. “That’s what wallet users find appealing.”

## THE DIGITAL FINANCIAL SERVICES PLAYBOOK

Advanced technologies and open banking have rewritten the rules for success in payments and other crucial financial services. Here's how to compete—and win.

BY **BK KALRA**

BK Kalra is global business leader for banking and capital markets at Genpact Ltd., New York, N.Y.

**YES, THE FUTURE OF FINANCIAL SERVICES IS DIGITAL.** But so is the present. Increasingly, traditional institutions, fintechs, and service providers are coming together like a set of digital building blocks to form entirely new creations. Together, they're designing new platforms that fulfill the needs of distinct customer segments. And they're delivering profits while simultaneously serving a broader purpose.

For example, Daylight is the first and only digital bank in the United States specifically designed for and by the LGBT+ community. Meanwhile,

three traditional companies—Visa, MetaBank N.A, and Marqeta (the modern global card issuing platform)—back Daylight and its prepaid debit card.

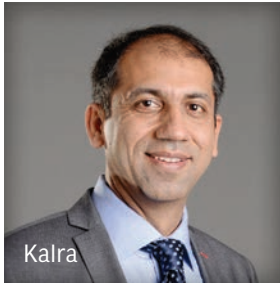
Likewise, U.S. fintech Esusu is designed to support immigrant and minority groups by using the power of data to bridge the racial wealth gap. Esusu uses its platform to record and report on-time rental payments to the largest, most established credit bureaus—Experian, TransUnion, and Equifax—on behalf of landlords to boost credit scores for tenants to help them get on the property ladder.

Even Walmart has created a fintech business unit. Earlier this year, the mega-retailer partnered with fintech investment firm Ribbit Capital to “develop and offer modern, innovative, and affordable financial solutions.” This might mean low to no account minimums or overdraft fees for the company's customer base of low- to middle-income consumers, some of whom don't own a regular bank account.

But which of these collaborations between neobanks and traditional players will succeed? Which will fail? And why?

Here's the thing: these are new businesses that require brand-new business models in an entirely new industry: digital financial services.





# Market participants can't afford to take a wait-and-see approach. That leads innovators to miss out on market opportunity.

So, there's no playbook, but a new one is being written.

Entering, and thriving in, this ecosystem is also harder and more complex than you may think. Many firms, including fintechs, techfins, retailers, cryptocurrency platforms, and traditional banks, that launch new digital financial services businesses often suffer from 'Benjamin Button' syndrome: the businesses are born new, but have legacy and outdated approaches built into their thinking.

At the same time, market participants can't afford to take a wait-and-see approach. That leads innovators to miss out on market opportunity. It also dooms traditional banks to suffer death by the thousand cuts that neo-financials, digital banks, and others will inflict by stealing bits and pieces of their market, customer base, and brand value.

## THE NEW PLAYBOOK

Fortunately, there are some proven tips that can help you build and deliver a digital financial-services masterpiece:

### 1. Start with strategy and resist the temptation to jump ahead

Before you do anything else, you'll need an overarching strategy. That means everything from corporate and brand strategy to employee and customer-experience strategy to technology and operations strategy.

First, consider who you will serve, what you will offer, how you will differentiate yourself, and, perhaps most important, what you won't do. Next, determine what experience you want your customers to have. Then, decide how you are going to set up your employees to deliver that experience. This will establish your culture.

Firms that deliver digital financial services will need to balance a workforce comprised of banking subject-matter experts as well as digital natives, in combination with extensive automation, to create the operating rhythm necessary to power a new generation of digital-banking experiences that scale. Finally, how does your brand complement and deliver on your strategies?

You'll need to do a complete service blueprint of the offering or offerings you want to create and map it to the strategies. And, you'll need to define your target operating model around the strategies and blueprint.

### 2. Deliver personalized, contextual, proactive solutions in real-time

All customers start their financial journeys at a different point. In the same way that GPS systems—like Google Maps and Waze—help travelers by anticipating roadblocks and providing turn-by-turn navigation information, customers of financial solutions now also want guidance on the path to financial betterment. This is a

concept that Genpact's recent report, "Banking in the Age of Instinct," refers to as "optimized reality" and calls out for additional investment.

Digital financial-services providers will need to use data and analytics to derive insights throughout the customer experience. For example, by optimizing the onboarding process as the customer enters information or by using predictive insights to help customers identify the right product mix for their needs.

This requires more than a great digital interface. It takes a lot of back-office construction or reconstruction. If you don't automate the back office, you can digitize the front-end experience as much as you want, but the customer will still encounter long lead times. Data storage and hygiene are particularly important to get right early on as they enable fast and efficient scaling.

Meanwhile, technology stacks that limit access to data could be very detrimental to your ability to deliver personalized, contextual, proactive solutions in real time. Don't continue to build on bad data. The truth is that exceptional financial experiences are enabled by seamlessly connecting people, processes, and technology across an entire organization.

### 3. Develop a challenger mindset

The speed at which competitors are introducing new solutions to assist

consumers and small businesses in meeting their financial goals is breakneck. In fact, although the term may sound like an oxymoron, we are already seeing what one might refer to as “legacy fintechs.” Case in point? Paypal. The payments giant is now concerned about buy-now-pay-later companies that didn’t even exist a year ago.

We see it across industries: Incumbents asleep at the wheel until new entrants shake and wake the inattentive giant. Look at retail, for example. After a decades-long ascent, Amazon recently dethroned Walmart as the largest retailer outside of China.

When it comes to digital financial services, don’t let perfect be the enemy of good. It’s better to make a good decision quickly and iterate afterwards than to overanalyze in search of a “perfect” answer. Future competition may come from anywhere and everywhere. So don’t wait for a crisis. It’s important to keep the fire and never become complacent.

#### 4. Engage—at the right time—to drive loyalty

Loyalty is being redefined. In the past, institutions used share of wallet as a primary measure of loyalty, based on how many financial accounts a customer or business maintained with their firm. Today, loyalty is less about accounts and more about interactions, activities, and engagement.

The more engagement you have with consumers, the more likely they are to use your solution. Again, take PayPal as an example. Much of what the payment giant is doing—

from bringing on crypto to incorporating messaging into its new “super app”—is designed to drive engagement with its platform. PayPal

representatives have said that consumers who buy, hold, and sell cryptocurrency on the platform in the United States log on at twice their previous rate. With increased user engagement, the company expects to see a bump in average revenue per active account.

The role of technology in driving loyalty cannot be overstated. After all, a significant portion of today’s interactions take place in digital channels. In addition, the ability to anticipate needs so you can engage with the customer to deliver against those needs at the right time—not too early and not too late—is critical. And 360-degree customer data and real-time analytics is what will enable you to do this.

#### 5. Partner for success

When it comes to creating a digital financial-services masterpiece, you can’t get there by yourself. You can’t build it by yourself. You can’t rebuild it by yourself. Instead, it requires a connected ecosystem of partners.

Firms that deliver these services will need to break down internal silos and embrace external partnerships, potentially even with competitors. They’ll need to partner with many specialists to ensure optimization of services, uptime, access, and more, via an open-banking platform infrastructure that allows them to plug in new partners as needed. And they’ll need to share data, intellectual property, skills, and more for a seamless user experience that benefits their customers.

Customer behaviors have forever changed and will continue to move away from traditional banking-business models. Other industries have shown that customers are now breaking their experiences into smaller “best value or experience” components, rather than always choosing traditional large brands that operate in traditional ways.

In banking, as in other industries, whoever fills that void will win. And whoever ignores the void will fall into it. The time to start is now. **DT**

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## WHY EUROPE IS SCARY

PSD2 won't solve fraud completely. Here's why—and what U.S. online merchants should do.

BY GALIT SHANI-MICHEL

Galit Shani-Michel is vice president of payments at Forster Inc., New York, N.Y.



**IN THE UNITED STATES, E-COMMERCE HAS SURGED** due to the maturity of companies' digital platforms, innovative payment models, and the ongoing impact of the pandemic. U.S. e-commerce sales are expected to reach \$933.3 billion in 2021, representing 17.9% year-over-year growth and 15.3% of total retail sales.

However, online retail fraud losses are expected to top \$20 billion globally in 2021, an increase of 18% over 2020.

Payment Services Directive 2 (PSD2), a European regulation, is designed to reduce online fraud by improving buyer authentication. While PSD2 primarily affects countries in the European Economic Area (EEA), it also governs any U.S. company that has European customers, is expanding into Europe, or has entities in Europe.

The regulation has already come into force in most of the EEA, with the United Kingdom pushing enforcement to March 14, 2022. Many U.S. retailers will be impacted and will need to ensure their European businesses are PSD2-compliant.

### A CLOSER LOOK

Let's take a closer look at how PSD2 impacts U.S. e-commerce firms and how it could damage these retailers if they don't fully understand the impact of this regulation.

On the surface, PSD2 looks like a boon to U.S. retailers. The regulation introduces an obligation for strong customer authentication (SCA) to make online payments more secure. When SCA is applied, liability for fraud passes from the merchant to the card issuer, decreasing losses. But is this completely true?

Fraudsters are constantly evolving their strategies. For example, they can spoof mobile-phone numbers and provide one-time passwords, appearing legitimate to identity-verification systems. If issuers approve these transactions, they'll issue chargebacks against merchants.

As a result, merchants will still need to shoulder some fraud costs, may be required to enter chargeback-monitoring programs, and could experience lower approval rates from banks if they develop poor risk reputations.

So PSD2 and SCA can strengthen user authentication, but they are not fraud-prevention programs. And U.S. retailers governed by PSD2 may experience other challenges.

To become PSD2-compliant, merchants must build additional identity-authentication measures into their checkout flow. Most are implementing a process called 3D Secure (3DS), a protocol that enhances security by creating a data connection for authentication. As a result, digital

# WHY HAVING ACCESS TO THE RIGHT DEVELOPER PORTAL IS MORE IMPORTANT THAN EVER!

By Brandy Hadden

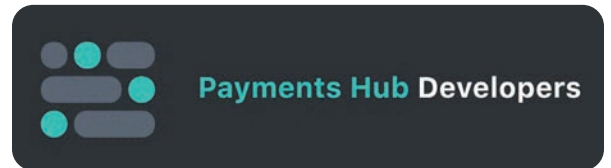
In today's fast-paced and ever-changing payments landscape, it is increasingly vital that merchant services providers offer ISVs, VARs, and small to mid-sized business owners instant access to the tools and technologies they need to keep pace with their competitors, as well as evolving consumer preferences. One way to do that is to continually invest in secure, online developer portals that Integrated Partners can access at any time, from anywhere.

When considering which payments technology company to partner with, you'd do well to choose one who is committed to providing ISVs and VARs with a robust developer portal that can help you grow your portfolio. After all, having access to one will allow you to add something of critical importance to your integration:

Simplification.

That's because the right developer portal can serve as a free, one-stop destination to view product information, easily access SDKs and APIs, and connect directly with technical sales and engineering teams, and so much more. Your developer portal should serve as your integration guide — one that allows you to streamline your integration process while giving you access to the features you want.

- A modern and intuitive UI/UX featuring simplified navigation and a dark theme.
- A developer-friendly 3-pane viewer for API specs and downloadable SDKs. (That way you can view sample requests and responses directly in the portal.)
- Featured use cases and an interactive integration selector that simplifies complicated integration environments, allowing you or your merchants to see which solutions are best suited for their business.
- A simplified lead flow to send potential customers directly to a dedicated technical sales engineering team.
- Quick and easy self-service registration so you can get up and running as quickly as possible.



- Some products allow you to leverage a live sandbox to send API requests and receive live responses. In addition, you can ask technical questions, report bugs, and request API credentials through a contact form.

Indeed, having access to a feature-rich and user-friendly developer portal is a necessity whether you specialize in card-present solutions, card-not-present solutions, or both. Think of your developer portal as your go-to resource for:

- **Merchant enrollment APIs** – Provide merchant enrollment on your website into a secure payments ecosystem.
- **Merchant reporting APIs** – Offer features like simplified customer, employee, inventory, and chargeback management.
- **APIs** to support both semi-integrated and fully integrated payment solutions.
- **Pay-at-the-table solutions** – Integrate certified terminals into your software for in-person payments with mobile SDKs.
- **Ecommerce plugins** – process payments quickly in your store.

Having access to a developer portal also allows you to leverage plugins and tools so you can “try before you buy” ensuring you’ll always find the right product fit. Then, once you finalize your pricing, it will simply be a matter of completing your payments integration and going live!

Whether you're a payments developer looking to integrate payments into your app or point of sale, or you have existing customers looking for payments, having access to a feature-rich developer portal that simplifies the integration process is key.

For more information about how North American Bancard can help support you and your merchants through innovations like our brand-new Developer Portal, visit [Developer.PaymentsHub.com](https://Developer.PaymentsHub.com) to create your free account or contact us at [Developers@PaymentsHub.com](mailto:Developers@PaymentsHub.com).

merchants, payment networks, and financial institutions can confirm or reject a user's identity and share intelligence about a transaction.

## PROCESS FRICTION

However, 3DS can add steps for consumers. For example, 3DS may appear as a pop-up window asking consumers for an additional piece of information, and thus may not seem legitimate. Or 3DS authentication can take the form of a one-time passcode via text message that consumers must input.

If all goes well, these transactions are verified and completed. Merchants are then protected from fraud, including chargebacks for these transactions. However, in addition to potential fraud techniques that escape detection, merchants are experiencing added process friction that can result in transaction failure. In our work with global merchants, we've noticed that:

▶ **Cart abandonments are increasing.** E-commerce cart abandonment is already a major issue, with more than two in three consumers (69.57%) failing to complete transactions. These numbers are

growing. Our research has found that 8% of willing buyers in the UK and 24% in France will abandon carts at the point of purchase due to the 3DS challenge.

▶ **3DS failure rates are growing.** If users are unable to complete the 3DS challenge by providing the required information, the transaction will fail. Issuers may also fail these transactions if they perceive that they create undue risk. As a result, Forter has witnessed 3DS failure rates ranging from a low of 7% in France to a high of 18% in both Germany and Italy.

PSD2 is here to stay, and affected merchants must comply. However, there are ways to ensure compliance by creating less friction for the end user—while protecting your online business. Here are three strategies you can use right now to limit cart abandonment, 3DS failures, and declining authorization rates:

**1. Take advantage of low-value transaction exemptions.** Merchants with transactions under €30 are eligible for exemptions. However, multiple orders from the same card without authentication will require SCA, limiting this exemption's usefulness.

**2. Conduct low-risk transactions.** Payment-service providers (PSPs) may exempt transactions from SCA if they meet regulatory determinations of being low-risk. To meet this requirement, merchants must pre-screen transactions for fraud, send PSPs clean transaction traffic, and maintain good standing—a difficult, and ongoing, undertaking.

**3. Use delegated authentication.** Merchants will soon be able to delegate consumer authentication to a third party if the third party is using the latest version of 3DS. These third parties then determine when exemptions are possible and which authentication methods to use in real time, while absorbing financial liability for any fraudulent transactions they approve.

## THE OPTIONS

U.S. merchants should be concerned about what PSD2 will do to their business and whether they'll be able to evaluate the full impact of lost business, given that transactions cross payment networks. Their options are: adopt 3DS and hope for the best; add transaction screening; or simply delegate authority and responsibility to a third party.

Still, given that e-commerce is growing faster than ever, the best option for most businesses could be to partner with expert solution providers. That way, the business can focus on customer experience while a solution provider handles back-end compliance and processing.

Taking action now removes the risk of business disruption for businesses that are growing their global business and want to sell profitably in Europe. **DT**

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