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#payments

insights. opinions.

Volume 20

Coming out of the global financial crisis we have witnessed a fundamental shift in the consumer relationship with credit.

How is big data driving the convergence of payments and lending?

Digital technology, the potential of big data analytics, and the rising power of millennial buyers are driving the convergence of payment providers and lending companies – a phenomenon we're seeing for both consumer and small business borrowers.

Technology has transformed point of sale (POS) lending

POS lending is not new. These types of loans have been offered indirectly through department stores and some health practitioners – kids' braces are expensive – for years. But, as with so many aspects of life, the rise of digital technology transformed the concept, allowing merchants to offer loans at the POS. In 2008, in what was then seen as a landmark deal, PayPal's then-parent, eBay Inc., acquired Bill Me Later in a deal worth about US$900m. In the decade since, POS lending has become a consumer trend that is reshaping the entire lending paradigm and driving greater sector convergence.

Continued on page 3

Editorial

How collaboration and convergence are transforming payments

#payments began as a way for us to connect with banking clients and industry leaders. Over time it has evolved to become a two-way channel of communication – allowing us to collaborate and converge with our audience, to ensure content reflects the topics of most relevance to readers. It's this theme of collaboration and convergence that very much describes the trends transforming the payments landscape today.

We've seen a shift in the changes transforming the payments ecosystem. What began as disruption has evolved into collaboration, which is an important milestone on an industry's journey toward innovation and transformation. Disruption, in itself, is singular in dimension, and unsustainable. For nontraditional disrupters entering the payments field, creating innovative changes that are fit for the long-term can be difficult to achieve without deep sector experience.

At the same time, legacy payments institutions face a different choice amid changing conditions – transform or cease to exist. Those that embark upon transformation will find that, while they may lack some of the capabilities of those disrupting their sector, their legacy is in fact a competitive advantage against nontraditional disrupters.

Against this backdrop we see disrupters and legacy organizations joining forces. Collaborative disruption is the most effective formula to drive long-term change, by creating an entirely new model for business, generating growth, and differentiating customer experience. Collaboration creates a symbiotic relationship that benefits the entire market ecosystem, and, more importantly, consumers. As financial institutions work together with FinTechs, Big Techs and processors, their cumulative efforts create new innovative approaches that continue to evolve the payments field. At EY, we believe this collaborative mindset will define the future of payments. In this edition of the newsletter we will discuss collaboration and convergence on a variety of fronts, from the convergence of lending and payments to the rise of cryptocurrencies, and much more.

Best,

Sean Viergutz
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How is big data driving the convergence of payments and lending?

Continued from page 1

Its recent rise is due to two main factors:

- The consumer relationship with credit has changed: This is partly because of fallout from the global financial crisis but is largely due to the rise of millennials. These buyers' general distrust of credit combined with an expectation of instant fulfillment has fueled demand for installment payments and other "transparent" borrowing options.

- Retailers are under increasing competitive pressure to drive top-line growth: The rise of mega e-commerce retailers has raised the bar for the online shopping experience. To increase shopping cart conversion, merchants are increasingly incorporating a seamless POS lending option that is embedded into the overall commerce experience.

Besides Bill Me Later (which was rebranded as PayPal Credit in 2014), other POS lenders include Swedish-based Klarna, Affirm and Australia's AfterPay. Models for these companies vary but AfterPay works by taking the risk from the supplier, charging around 4% to merchants and collecting from end users who have linked a debit or credit card to the AfterPay account.

This is a space which is evolving fast. US-based Bread Finance integrates more deeply into merchant websites – well before the paywall. For example, as a consumer browses, product prices are quoted at a nominal price or at a financed monthly price, helping consumers envision different paths to purchasing.

Digital platforms broaden merchant financing options

Just as consumers have access to more financing options at purchase, payments providers are offering different financing options to merchants. Again, the rise of digital platforms and the availability of big data analytics are major drivers, and allow lenders to make faster decisions and offer cheaper alternatives to the traditional merchant cash advance (MCA) – an advance against future debit or credit flows through the merchant account.

As with POS lending to consumers, merchant acquirers are offering these lending products as a way to help customers solve a broader range of business needs – in this case, working capital financing. It also helps increase merchant lifetime values by

An integrated payments and lending experience can boost revenue for merchants, retention for processors, and profits for lenders. Consumers can win as well.

introducing additional revenue streams, which is a valuable offset to compressing spreads experienced by the acquirers over the last several years.

In one example, Square launched Square Capital in 2014 to transition its MCA product to a "flexible loan product" through a partnership with Celtic Bank, a Utah-chartered industrial bank. Swift Financial, acquired by PayPal in 2017, provides short-term receivables-based financing services to business owners.

Data analytics is a catalyst for convergence

The role of big data algorithms in these new platforms is a key catalyst for greater convergence of lending and payments. When small business lending platform, Kabbage, announced its US$250m investment from Softbank in August 2017, the ability to enhance analytic tools using new data sets (i.e. POS transaction data) was cited as one of the key drivers. More recently, Credibly, a small and medium business lender that has built its lending processes on data science and analytics, announced it is keen to expand outside its core business. Credibly would consider acquisitions that could provide a POS system having data around customers and payments.

Technology companies and alternative lenders like Kabbage tout their ability to analyze vast amounts of traditional and nontraditional data to make streamlined lending decisions: social, geographical, and behavioral data about the small business borrower is all within their platform's reach. The prospect of adding data directly tied to the timing and magnitude of cash inflows represents a tantalizing new data lake for these lenders to exploit.

How will payments and lending converge further?

So where will all of this shake out? First, on the consumer side, we believe that POS lending will become more embedded into the online shopping experience. As behavioral browsing data is increasingly tied to shopping cart data – both abandoned and closed transactions – processors can help the merchant do a better job of not just converting browsers, but creating the right financing offers to optimize credit risk and propensity to buy. And second, like the rest of the retail experience, we expect to see this type of lending migrate across the omnichannel shopping experience, particularly as the penetration of SmartPOS devices increases.

On the commercial side, payment companies with a direct merchant channel are likely to dominate this space either by using their own balance sheet or by partnering or merging with alternative lenders. Payment companies with significant bank channels are likely to lag behind for fear of competing with their bank partners. The allure of accessing entirely new data, not to mention an opportunity to lower challenging customer acquisition costs should also push alternative lenders deeper into the payments space.

Sara Elinson

Will slow payment systems put the brakes on economic growth?

In an on-demand world, customers expect payments to be made in (near) real time. Can economies with outdated systems accelerate their innovation of payments before they lose out to global giants?

Real-time payments in an on-demand world

The rise of technology has changed – and raised – customer expectations around the products they want, and exactly how these products and services should be delivered. When we can communicate via instant messaging and buy groceries with one tap, we expect payments to be immediate, or close to it. And in many countries, including the UK and Singapore, near-real-time payments are the new normal, after efforts by governments, banks and payment providers to ensure the right factors are in place to enable these systems. These countries share some common characteristics, including significant economies of scale, a dominant currency, an open economy and enabling new regulation, such as Europe's Revised Payment Service Directive (PSD2) that obliges banks to share customer data with third-party payment providers.

As our world economy becomes more globalized, countries with near-real-time payment structures will reap a strong competitive advantage. For those countries where payments systems are outdated, innovation is an economic priority – before local payment providers lose out to global payment giants such as PayPal, Apple Pay and Facebook Pay.

Figure 1: Differences and drivers for modernization of payment infrastructures

Innovation	Transparency	Efficiency	Leadership
Innovation of payments is a key driver for financial inclusion, money velocity and also the protection of the local markets or currencies.	In less efficient economies, the payments system is not always transparent in fees, settlement times or the common rules of adoption.	Cash is still widely used, as it is more efficient (e.g. processing times, costs) due to a lack of standardization and integration of the payment infrastructure.	Leadership in the payments domain is missing. There is a demand to stimulate, and regulate the payment infrastructure.

Innovative payments infrastructures are those that meet users' needs now – and are flexible enough to adapt to future developments.

Roadblocks to payments innovation
How can economies with outdated infrastructure leapfrog to a more advanced payments system? Innovation can only occur when the circumstances are right. And in many markets, key challenges remain that may slow the pace of change:

- A weak financial business case:
  Payments innovation is driven by volume and economies of scale, with providers receiving a fee per transaction. Economies without the scale and volume to make this profitable for providers may need to consider alternative business models, such as fixed fees or government subsidies, before attempting payments innovation.

- Technical challenges:
  Outdated legacy systems, insufficient technical infrastructures, or capability and resource restrictions can hinder innovation.

- Users unwilling to change:
  Users will need to be ready to adopt new solutions. Creating customer willingness to change will involve tailoring solutions to suit specific cultural attitudes to payments. For example, in some countries, direct debit is a preferred payment method while, in others, people dislike "losing control" over their outgoing money.

- Leadership mandate:
  Which institution should drive payment innovation – government, banks, regulators or others? In many regions, this lack of role clarity, or a formal oversight function to enforce payment rules and regulations, is a big stumbling block to changing payments systems.

Key questions to guide payments design
Innovative payments infrastructures are those that meet users' needs now – and are flexible enough to adapt to future developments. When designing new systems, countries with outdated payments systems should consider some critical questions, including:

- What principles should guide payments innovation? Countries should set principles that address target use cases, system capabilities, governance structure, the appropriate economic model, security concerns and the existing system. These principles will vary from country to country, depending on circumstances.

- What is the most cost-effective clearing and settlement solution? The financial and knowledge investment needed to establish an effective clearing and settlement system may be beyond the capabilities of smaller economies. In these cases, a better solution may be to join a central or regional clearing and settlement hub, where the vendor offers a payment infrastructure for multiple payment rails (separately), processed in one central location. TARGET 2, which operates across Europe, is one example of this type of hubs though smaller countries could establish their own, private hub.

- Can instant payments lead to other instant functionalities? Offering (near) instant payment functions enables many new use cases for consumers and progresses the evolution towards reduced use of cash. Sweden is leading the world in progressing towards a cashless society, leveraged off the widespread adoption of real-time payments in that country. But it's worth noting that that significant effort and commitment from all stakeholders in the payments chain will be required if innovation is to be successful, and deliver the required return on investment.

- How do we balance regulation and innovation? Getting the regulatory balance right can be difficult. While it's critical that payment systems are safe and secure, an environment that is too "locked down" may restrict innovative new players from entering the market. Economies that resist new entrants are unlikely to see the innovation needed to move on from the status quo.

- Which international standards are "must haves"? Developing new payment systems that are future-proof and fit for a global economy will require careful consideration of appropriate regulatory standards, including ISO20022 and Europe's PSD2.

Modern payment structures are essential for modern economies
As customer demands change rapidly, many economies must rethink how payment infrastructures can fast-track, not slow down, their growth. Modernizing payment systems is no quick fix but those that ask the right questions when approaching change, can make the right choices around payments design and reap the rewards of a stronger economic future.

Allard Zijp

Mohamed Bouker

Jeroen van der Kroft

Bringing cryptocurrencies into the light

The potential for cryptocurrencies to increase speed and lower the cost of doing business is threatened by theft, poor security and criminal activity.

Cryptocurrencies have the potential to positively disrupt financial services by increasing the speed and reducing the cost of doing business. But coordinated international action around controls will be needed to ensure these new currencies do not enable criminal activity and tax evasion.

As the growth of cryptocurrency markets accelerate, so too does the urgent need for regulatory controls around crypto assets. Many people assume that the security of blockchain technology, the almost tamper-proof distributed ledger that underlies cryptocurrencies, ensures the security of the cryptocurrencies themselves. But crypto exchanges are regularly hacked, with the biggest hack so far taking place this January when Coincheck lost US$530m.

Meanwhile, the flood of initial coin offerings (ICOs) invites abuse, and the anonymity of cryptocurrencies means they can facilitate illegal dealing in everything from weapons to drugs to human trafficking. So while the underlying technology might be secure, cryptocurrencies themselves are not intrinsically so. And even if cryptocurrencies were secure, their ease of use supports criminal activity.

Asserting regulatory controls won't be easy. Their dramatic value fluctuations make cryptocurrencies more like commodities than currencies, argue many. Regulators are perplexed by crypto's nontraditional background and around the world we see discrepancies in views around its soundness and use.

Balancing security, transparency and innovation

Governments and industry are keen to ensure that regulation doesn't stifle innovation that could unlock the potential of crypto assets. Already we see exciting developments, for example, Kenyan startup BitPesa – a bitcoin-based remittance service that integrates with Kenya's mobile money system M-Pesa to reduce friction and fees in transactions. In trade finance, the DLT that underpins cryptocurrencies may allow for supporting documentation to be attached directly to financial transactions, reducing risk of human error or exploitation.

But the risks of cryptocurrencies must be addressed before they can live up to their potential. Many of these risks relate to crypto's anonymity. Although the path of a cryptocurrency token on the blockchain's open, decentralized distributed network is transparent for all to see, the actual ownership of that token and what it was used for is not.

This anonymity is not compatible with current laws and global regulatory trends demanding more transparency to guard against money laundering, tax avoidance and other criminal activities. If governments cannot see a transaction, they cannot identify evaded taxes.[1] Even Switzerland has had to relax privacy laws in order to transfer money in and out of the country.[2]

Anonymity also puts large financial institutions in a bind. New laws that tighten liability rules for large companies, such as banks and accounting firms, could impact financial institutions' willingness to accept or transfer crypto currencies. The EU and UK's anti-money-laundering directives and Criminal Finances Act compel financial institutions to ensure that they do not deal with any transaction related to criminal activities. Even "not confirming" that taxes have been paid on the crypto currency being transferred into a bank could be considered as facilitating criminal activity. Similarly, if the owner of a crypto asset is anonymous, financial institutions may struggle to identify illegal movements of sanctioned assets or activities of people and organizations subject to economic sanctions.

1 "The disruptors: how banks can help to track the traffickers," *The Economist and EY*, March 2018. https://betterworkingworld.ey.com/trust/the-disrupters-how-banks-can-help-to-track-the-traffickers
2 "The Swiss are saying goodbye to banking secrecy by 2018," *Sam Bitton for Kiwi report*, 6 January 2017. www.kiwireport.com/swiss-saying-goodbye-banking-secrecy-2018/

A coherent view has been slow to emerge from the global community, with regulation emerging on a country-by-country basis.

Diverse regulatory perspectives
With these risks in mind, it is easy to see how poorly regulated cryptocurrencies could have disastrous consequences, leaving consumers open to fraud risk, reducing government coffers, and even being used to fund terrorism, human trafficking and other criminal activity.

A coherent view has been slow to emerge from the global community, with regulation emerging on a country-by-country basis, without international coordination.

Interestingly, it is less democratic countries that see crypto as a more immediate threat — specifically to their own central authority over the money supply — and have been quicker to address the absence of regulation. While China was once home to the world's most active cryptocurrency exchanges, authorities banned these last year and have since moved to block access to platforms that offer exchange-like services. Chinese regulators have been at the forefront of a global push to rein in the frenzy surrounding cryptocurrencies amid concerns over excessive speculation, money laundering, tax evasion and fraud.

The tougher stance is beginning to catch on.[3] In the US, the Securities and Exchange Commission (SEC) has launched multiple probes, saying many coin issuers, their lawyers and advisors may have breached its rules. SEC Chair Jay Clayton has said he believes most digital tokens are effectively securities and should be regulated as such. However, Clayton also acknowledges that terminology and definitions in the industry are evolving, that DLT has incredible promise for the financial industry and that regulators must be flexible.

In Europe, the European Securities and Markets Authority (ESMA) stresses that ICOs are extremely risky, highly speculative investments that may fall outside the regulated sector.[4] Meanwhile, the European Supervisory Authorities (ESAs) for securities, banking and insurance and pensions said in a joint statement in February that they were "concerned" about an increasing number of people buying "highly risky" virtual currencies without being aware of the risks involved.[5] Since virtual currencies and exchanges used to trade them are not regulated under EU law, the regulators warned that cryptocurrency investors are not protected in the event of an exchange going out of business or a cyber-attack. Mark Carney, Governor of the Bank of England (BoE), has emphasized that crypto assets behave differently from other currencies but also argues that their regulation is vital.

In Spain, the tax authority has sought names and trading information on cryptocurrency buyers as part of an investigation into crypto-enabled tax evasion and money laundering.[6] Requests for trading information have been sent to 60 companies.

South Korea has introduced measures to tackle speculation in the sector, banning the use of anonymous bank accounts in cryptocurrency trading. And India's government has announced it will take measures to "eliminate" the use of cryptocurrencies in "illegitimate activities or as part of the payment system."

3 "EY research: initial coin offerings (ICOs)," *EY*, December 2017.
www.ey.com/Publication/vwLUAssets/ey-research-initial-coin-offerings-icos/$File/ey-research-initial-coin-offerings-icos.pdf
4 "Statement: ESMA alerts investors to the high risks of Initial Coin Offerings (ICOs)," *European Securities and Markets Authority*, 13 November 2017.
www.esma.europa.eu/sites/default/files/library/esma50-157-829_ico_statement_investors.pdf
5 "ESAs warn consumers of the risks of buying virtual currencies," *European Securities and Markets Authority*, 12 February 2018.
www.esma.europa.eu/press-news/esma-news/esas-warn-consumers-risks-in-buying-virtual-currencies
6 "Markets: Spain readies dragnet for crypto tax evasion," *Todd White and Macarena Munoz Montijano for Bloomberg*, 5 April 2018.
www.bloomberg.com/news/articles/2018-04-05/crypto-buyer-identities-said-to-be-sought-by-spain-tax-authority

Anonymity is not compatible with current laws and global regulatory trends demanding more transparency.

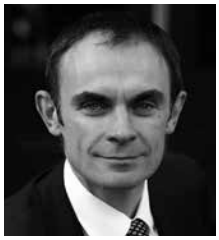
Call for a consistent global approach
Current lack of international consensus on the governance of cryptocurrencies (or crypto assets) perpetuates gaps, increases opportunities to evade regulation and is contrary to common reporting standards, the Foreign Account Tax Compliance Act (FATCA) and intergovernmental data-sharing. A consistent global approach to regulating cryptocurrencies is needed, using new methods adapted for this novel financial instrument.

In March, International Monetary Fund (IMF) Managing Director Christine Lagarde laid out some possibilities. She said the IMF was focused on encouraging countries to develop policies that ensure financial integrity and protect consumers in crypto assets in much the same manner as it has done for the traditional financial sector.[7] Lagarde also claimed the technology behind crypto assets can be used to "fight fire with fire," e.g., by using DLT to speed up information-sharing between market participants and regulators. This could be used to create registries of standard, verified customer information and help fight cross-border tax evasion. Another possible – though more radical – way to bring cryptocurrencies into the light would be for a country to create a central bank digital currency (CBDC).[8] This is essentially today's currency in digital form. On the plus side, a CBDC would be far superior to alternative digital currencies (ADCs) such as bitcoin. ADCs do not function well as a store of value: prices are too volatile, defenses against hacking are too weak and their backing is nonexistent. By contrast, central bank money is the quintessential store of value. The DLT is the current key competitive advantage ADCs have, and it's something central banks can and will acquire. Research from EY and Cambridge University shows that 63% of central banks and 69% of other public sector institutions (OPSIs) are experimenting with DLT protocols.[9]

But, for now the cons of a CBDC outweigh the pros. A freely available CBDC poses significant technology, security, privacy and legal challenges and would create a discrepancy between "fiat" and "non-fiat" digital currencies. Most consumers would be drawn to the former, pushing non-fiat digital currencies further into the experimental fringes where criminal activity could persist.

Collaborative effort can unlock crypto potential
Cryptocurrencies (and the underlying DLT) have enormous potential to positively disrupt financial services by increasing the speed and lowering the cost of doing business. But we must first ensure that appropriate controls are put in place to ensure against cryptocurrencies becoming enablers of criminal activity and tax evasion. Bringing cryptocurrencies into the light will require a collaborative effort by international bodies, individual governments and the financial services industry to implement a coherent, consistent set of controls.

Colin Pickard



Hamish Thomas

This article is also available on FS Insights, the EY financial services thought leadership hub. For more thought leadership from across financial services, visit fsinsights.ey.com

7 "IMFBlog: addressing the dark side of the crypto world," *Christine Lagarde for the International Monetary Fund*, 13 March 2018. https://blogs.imf.org/2018/03/13/addressing-the-dark-side-of-the-crypto-world/
8 "Banks are only as special as central banks make them," *Tom F Huertas for FS Insights*, January 2018. https://fsinsights.ey.com/sectors/Cross-sector/banks-special-central-banks.html
9 "Global Blockchain Benchmarking Study 2017", *Cambridge University, Visa and EY*, September 2017. https://fsinsights.ey.com/big-issues/Digital-and-connectivity/Global-blockchain-benchmarking-study-2017.html

How can payment providers become truly omni-channel?

Developing a sustainable and commercially successful omni-channel operating model requires payment providers to think beyond a sales-centric approach. Those that can combine their products and services, customer management system and high performing payments platform, can create a compelling omni-channel offering that meets the demands of today's merchants.

The term "omni-channel" originates from the retail industry, where merchants strive to present a consistent offering of their products and services, with harmonized pricing and terms of conditions (T&C). In supporting merchants to achieve this goal, payments providers must offer a consistent customer experience across different distribution channels, while also supporting the merchant's own requirements for a true omni-channel service offering.

Technology advances have enabled payments providers to provide this omni-channel offering, with integrated digitally-enabled products and services laying the groundwork for the emergence of a true omni-channel product portfolio, where network and terminals, POS payments, online payments, merchant acquiring, dynamic currency conversion (DCC), etc. work seamlessly together. A true omni-channel approach gives payments providers the ability to combine products into solutions that meet the needs, and complement these with additional value-added services (VAS) that, if priced consistently, gives companies a new competitive advantage.

But offering a true omni-channel experience to merchants is difficult for most payments providers, particularly because large retailers have specific requirements regarding retail customer experience, payment methods, shop and backend integration, value-added services and reporting. Overcoming these challenges requires payment providers to develop a series of strategies to consider how to consistently meet merchant's requirements for an omni-channel offering at every stage of their customer relationship.

Sales and lead generation

As the first touchpoint for merchant clients, the payment provider's omni-channel sales function needs to be able to consistently quote prices and T&C for all available products and features. This may be achieved through product bundles (i. e. solutions) for specific verticals or completely orthogonal features and feature sets. A useful example may be to consider the situation of buying a car – you may not always be able to add a sunroof (think convertible) but it is always possible to add GPS navigation.

Figure 2: The omni-channel operating model

	1. Contracts	2. Billing & Reporting	3. Check-out Experience
Scope	▸ One contract per merchant ▸ One contact person (AM, KAM) ▸ One service telephone number	▸ One statement per merchant billing all contracted components ▸ Cross-channel and cross-product reporting	▸ Cross-channel checkout functionality for merchant end customers ▸ Cross-channel fraud and chargeback handling
Pre-conditions	▸ Unified product portfolio ▸ Common pricing scheme ▸ Uniform terms and conditions ▸ Cross-channel distribution ▸ Cross-channel sales management with measuring and performance indicator system	▸ Implementation of all contract components in the billing system ▸ Harmonized billing cycles ▸ Harmonized reporting system	▸ Trace transactions across all channels ▸ Storing and exploiting the customer (payer) information ▸ Provide the aggregated information to the merchant (online, POS)
Costs and synergies	▸ CRM integration (if necessary, also intermediate solutions) ▸ Integrated key figure system for sales ▸ Legal costs for contract harmonization ▸ Training Sales and Service	▸ Integrated Billing System (Merchant Billing) ▸ Unified billing events ▸ Common output management ▸ Integration of key figure systems and control instruments	▸ Integration processing systems (including fraud) ▸ Integration of business processes ▸ Integration in cash register systems and shopping carts

Becoming omni-channel is critical if payments providers are to stay competitive in a tight market.

Contracts and data

When the leads are ready to mature into contracts, merchants typically expect to be have just one contract that combines the selected features from the different solution spaces, i. e. POS terminal rent, online payment gateway, cards acceptance, acquiring, reporting, and value-added solutions. They expect:

- Low effort on their side to manage the contracts, e.g. to monitor, track, and manage contract periods, automatic renewal, reference accounts etc.
- Single touch point for service requests and complaints and a high first-call resolution rate

Implementing these requirements efficiently requires the omni-channel payments provider to first analyze the various interaction points with the merchant and the various information (both static and dynamic) that are typically spread throughout the company. They will need to harmonize these structures and processes to create a single-point of truth for merchant and payments data. This "golden source" must be available both internally and externally to ensure consistent views across the data. In other words, the service agent on the phone must see the exact same reference data and transaction data as the merchant in the online merchant portal.

Billing and reporting

Payment providers will need to create a single monthly statement for the merchant that includes all billable items, line item costs, further information such as extra costs and hold-backs, and the total sum due. Doing this will require identifying the companywide billing events to be harmonized and ensuring these feed into one consolidated billing system. Again, it's critical that products and pricing are consistent and that the information from CRM and sales system is harmonized with billing to ensure any rebates or sales-related pricing adjustments are made.

On the other hand, reporting is very specific to the customer segment. Most large retailers do their own data analysis so are satisfied with a structured data set with information on transactions, status, payment information, chargebacks, etc. The challenge here is to collect the various transaction data across all payment methods and channels and create that single data pool per merchant.

Small-to medium retailers hand typically have no dedicated reporting framework available. Successfully meeting the needs of these clients will require omni-channel providers to offer capable analysis tools in the merchant portal that enables merchants to "slice-and-dice" their data to gain useful insights.

Check-out experience

These foundations help the omni-channel payments provider support merchants provide consistent check-out experiences for retail customers. For example, a customer who buys goods online and receives rebate vouchers will want to use those if he or she walks into a bricks and mortar store. This may sound simple but usually these vouchers are qualified by analyzing the underlying payments data (online or store) so this will need to be harmonized across all channels to ensure that, at checkout, the eligibility and amount of the voucher can be verified. And if this customer then decides to return part of this purchase, either online or instore, this reverse payments transaction must be handled seamlessly as well.

The challenge in all this is that it requires the omni-channel payments provider to set up internal processes independently from payments channels and payment methods. This is difficult considering that the various payment schemes have different processes, rules and regulations for chargeback or retrieval processes, e. g. the number of chargebacks that are allowed for specific types of merchants (MCC). Omni-channel payment providers may want to invest in a workflow management system that reduces the manual effort required and helps back office staff operate the different processes in a unified way.

Set up as a stand-alone service offering, a flexible data analysis framework can also generate additional revenue for the payments provider. Merchants (even those that aren't current clients of the omni-channel provider) can upload third-party data into the system and use the "slice-and-dice" functionality to analyze their data. As well as being useful to the merchant, this functionality gives the omni-channel provider new insights into the markets.

Becoming omni-channel is investing in the future

Becoming truly omni-channel will require payments provides to radically reinvent their operating models. They will need to harmonize products and services, integrate data models and data sources, re-model internal processes and educate their staff. This requires a huge investment and, in the world of shrinking margins and increasing competition from start-ups, even big international players may find this difficult to achieve (especially considering share-holder pressure). But becoming omni-channel is critical if payments providers are to stay competitive in a tight market.

Alexander Christoph

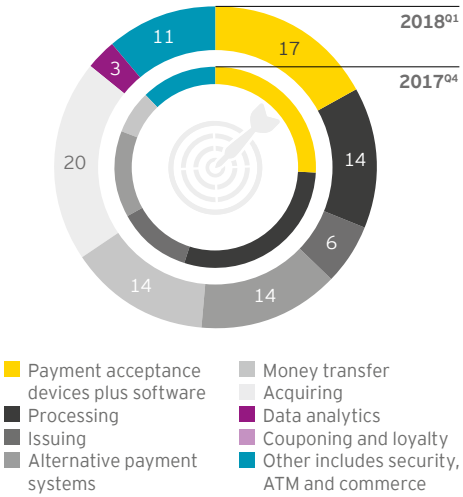
M&A roundup

The first quarter of 2018 saw a reduction in payments-related deal activity as the number of disclosed transactions decreased from 42 in Q4 2017 to 35 deals. Total transaction value also fell from US$9.7b to US$5.3b, representing one of the slowest quarters in terms of value since Q2 2017.

The acquisition of a majority stake in Trustly, a Swedish provider of bank-to-bank payment solution, by Nordic Capital stood out with a post-deal valuation of approximately US$870m[10], reflecting the continued importance of alternative payment methods (APMs).

Strategic players are still pursuing product-led acquisitions to enhance their existing product portfolio, eg. to build more integrated (true) omni-channel propositions. Q1 2018 also saw ING's acquisition of a 75% stake in Dutch-based payment service provider Payvision Group, at an implied enterprise value of around US$440m. Payvision Group is an omni-channel payment service provider specializing in cross-border e-commerce transaction (one of the highest growing sector e-commerce segments).[11]

Figure 3: Targets by segment (in percentage)



Sources: EY analysis, Capital IQ, Mergerstat M&A Database, company websites.

M&A activity and deal characteristics

A total of 35 M&A transactions were announced in the first quarter of 2018, continuing the slowdown of deal activity since the peak of Q3 2017. The financial terms of nine transactions were disclosed in the first quarter of the year, amounting to a total value of US$5.3b. This was similar to that of Q1 2017 (US$5.5b), suggesting that there is no material weakening of investment appetite in payments deals.

Deal value this quarter was driven primarily by a few large transactions: Silver Lake and P2 Capital Partners' c.US$3b investment into Blackhawk Network Holdings, Nordic Capital's majority stake investment into Trustly at an implied enterprise value of c.US$866m and ING's acquisition of a 75% stake in Payvision Group at an implied enterprise value of cUS$440m. These three deals accounted for about 80% of total transaction value this quarter.[12]

Established in 2008, Trustly is one of Europe's major providers of bank-to-bank payment solutions. With an implied enterprise value of c.US$866m, this transaction highlights the growing importance of APMs. According to WorldPay research, APMs in the EMEA region are expected to account for 70% of all online transactions by 2021, an increase from 60% in 2016 and surpassing both credit and debit cards[13]. The use of bank transfers is expected to grow by three percentage points from 2016 to 2021 to 22%. This shift is driven by consumers' demand for convenience and the instantaneous nature of bank transfers. Also regulatory changes such as PSD2 across Europe and Open Banking in the UK specifically will further open access to bank accounts to third parties and drive increased innovation in bank-to-bank payments in the region.

10 Source: Capita IQ, EY analysis.
11 Source: Capita IQ, EY analysis.
12 Source: Capita IQ, EY analysis.
13 Source: Worldpay, EY analysis.

Figure 4: M&A market development

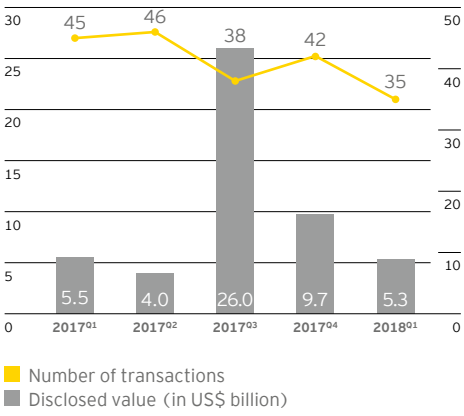


Figure 5: Median enterprise value multiples

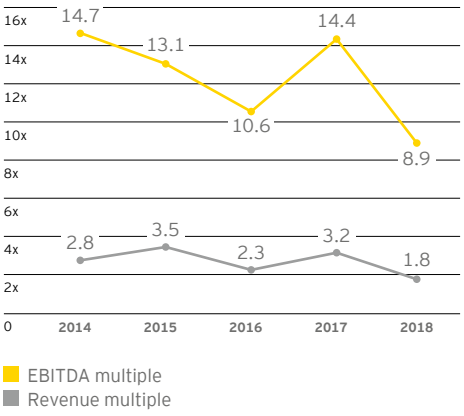
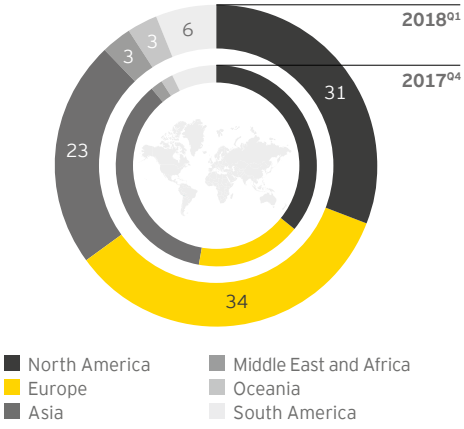


Figure 6: Targets by region (in percentage)



Transaction activity has slowed since Q4 2017 but is expected to increase steadily throughout 2018 as ongoing changes in payments regulation continue to encourage innovation

Another major deal of Q1 was ING's acquisition of a 75% stake in Payvision Group, a Dutch-based omni-channel payment service provider with a focus on mid-market e-commerce merchants and cross-border e-commerce activity. Payvision also provides merchants with value-added analytics capabilities to help them drive sales and reduce inefficiencies. The transaction featured an implied enterprise value of c.US$440m and an EV/EBITDA multiple of 78x based on the Group's 2016 EBITDA.[14] This transaction reflects how strategic buyers are still looking to pursue product-led acquisitions, in particular where existing portfolios can be enhanced. The acquisition will allow ING's business customers to accept payments through a broad range of methods (more than 80 payment methods across 150 currencies) and provide the end consumer with a seamless shopping experience.[15]

Transactions in the first quarter were heavily geared towards strategic buyers, with notable names such as Ingenico Group, ING, MasterCard and Visa all announcing transactions of strategic importance. Ingenico's US$120m acquisition of New Zealand-based payments service provider Paymark[16] represents continued geographic diversification and expansion into the Asia-Pacific market. The combination of its terminal assets with Paymark's as well as with Bambora's existing merchant acquisition capability, will enable Ingenico to provide an end-to-end proposition for omni-channel merchants. MasterCard's acquisition of Oltio, a mobile banking and payment solution provider in South Africa, is another example of a product and capability-led acquisition, also featuring geography expansion, in particular into emerging markets.[17] Visa's acquisition of Fraedom Holdings, a travel and expense management solution provider that also offers payments services with operations in the UK, the US, Australia, New Zealand, China and Canada, will allow Visa to offer a comprehensive range of business solutions to its corporate clients, ultimately allowing Visa to own the merchant relationship with its large B2B client base.

The median EBITDA multiple for all deals year-to-date decreased from 14.4x in 2017[18] to 8.9x in 2018 year-to-date. The median revenue multiple for the same period also decreased from 3.2x to 1.8x.[19] Despite the decline of valuation multiples based on disclosed transactions, investors are still expected to continue to pursue and pay premiums for attractive payments opportunities throughout the rest of 2018, including in areas such as product and capability enhancement, in particular sector specialist capabilities in industries such business software solutions. Geographic diversification – predominantly into emerging markets such as China and India, where e-payments adoption such as the use of e-wallets is expected to show very strong growth – is also expected to continue.

In Q1 2018, 34% of targets were based in Europe, followed by 31% in North America and 23% in Asia. Of the four largest deals during this quarter, two took place in Europe, one in the US and one in Asia, in contrast to the fourth quarter of 2017 which was dominated by transactions in North America and Asia. Opportunities in emerging markets are expected to increasingly attract cross-border buyers, driving further M&A activities across the globe throughout 2018.

Andreas Habersetzer

Dawei Wang

14 Source: Capital IQ, EY analysis.
15 Source: GlobeNewswire, Company website, EY analysis.
16 Source: Company website, EY analysis.
17 Source: Capita IQ, EY analysis.
18 Includes all deals in 2017.
19 Transaction multiples are based on implied enterprise value, EBITDA and revenue data sourced primarily from Capital IQ.

VC roundup

Funding activity
The first quarter of 2018 saw 54 companies raise just over US$1b in funding, all of which was equity funding. Investment activity in the VC space has remained stable since Q4 2017, both in terms of number of deals (56 in Q4 2017) and deal value (US$1.2b in Q4 2017)[20]. Most funding activities concentrated on early stage and seed investments.

Q4 2017 activity was diversified in terms of payment segments but with a strong focus on mobile and e-commerce driven solutions. In Q1 2018, this trend continued, with overall investment funding widely spread across a number of segments,[20] but with a particular focus on platform providers who operate in multiple segments and provide comprehensive end-to-end payment services, as well as other merchant services to businesses.

When considered in geographic terms, the number of transactions remained in line with the previous quarter. But by transaction value, South America accounted for c.20% of the total, the highest this region has attracted over the past year.[20]

Investment trends
Overall, Q1 2018 saw a wide range of investment interest across different payment segments with two prominent themes:[20]

1) Integrated platform providers with payments and other bundled product offerings for both businesses and consumers

2) Sector-specific payment propositions

An integrated payments platform allows users to carry out activities and tasks in addition to traditional payments acceptance or collection. The payments capabilities offered through the platform usually form the foundation of the offering, as it enables the capture and generation of user data (both payments details and spending behaviour) to allow the provision of other services (e.g. Wechat). The use cases are vast across both consumer and businesses.

Figure 7: VC deal

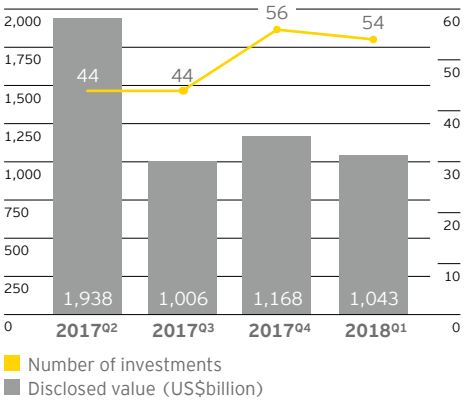


Figure 8: Investment by region (in percentage)

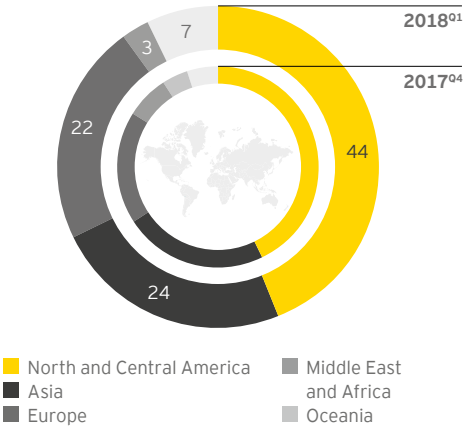
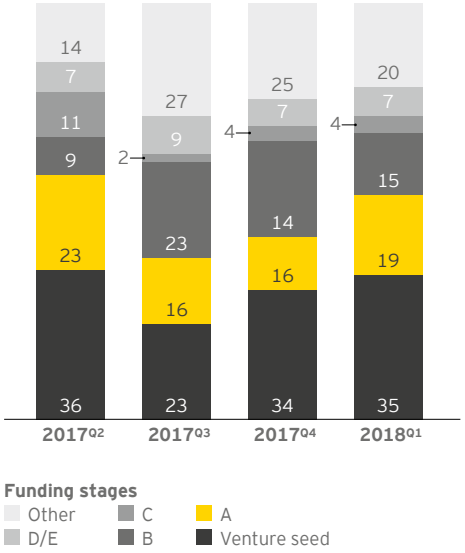


Figure 9: Deals by funding stage (in percentage)



20 Sources: EY analysis, Crunchbase

Buoyant VC investment activity in Q1 2018 was driven by investors' growing interest in end-to-end payment platforms and niche sector/demographic payment providers.

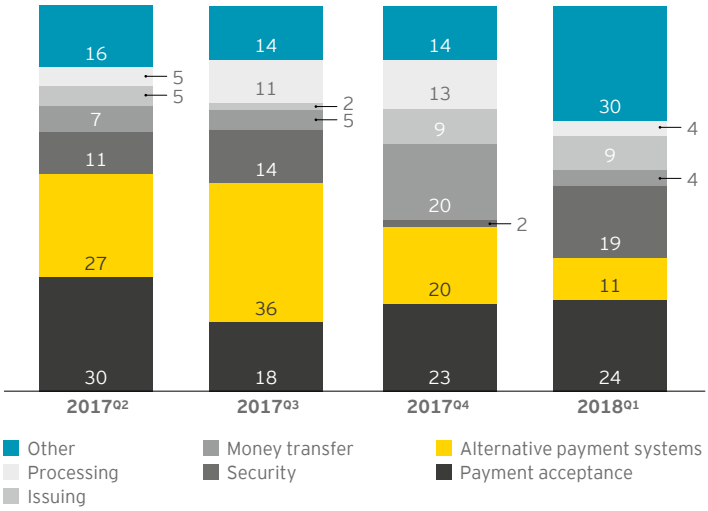
For example, consumer and personal finance providers are able to better target consumers with more appropriate products based on individual spending habits, while consumers can access multiple product offerings from one single platform. For businesses, an integrated payments solution can provide management with better visibility through merchant transaction data, and allow them to react and pre-empt challenges accordingly.[21]

It is not surprising that integrated payments platforms are becoming more popular amongst consumers and businesses, as users are increasingly looking for one-stop-shop solutions to meet their personal and business financing needs. In this quarter, we saw Visa lead the venture funding round of Lydia[21] with a total investment of US$16m. Lydia is a French-based mobile app that allows consumers to monitor multiple bank accounts, make payments to businesses and make transfers to peers through a single portal. The company was launched in 2013 and already has more than a million users, with more than 2,000 new users signing up daily. The investment into Dubai-based The Mint Corporation (accumulated US$100m in funding to date), which provides payments and financing solutions for consumers, and investments into US based WealthIntel, which provides payments, financing and social commerce solutions, also reflect investor appetite to invest into integrated payments platform globally.

Another notable trend in the VC investment landscape is the increasing interest in specialist providers, including sector specialists in areas such as property, education, and demographics, that cater to the unbanked or individuals with no credit history. There are still significant opportunities within niche sectors and demographics where there is ample unmet merchant and consumer demands. Sectors such as housing, education and healthcare, where multiple parties are involved in the payment ecosystem and where payment flows span multiple channels, naturally generate inefficiency for merchants, with a limited number of providers currently in the market which can fully accommodate those needs. In Q1 2018, YapStone, a payment platform for large and complex industries (eg. holiday rent payment and storage rent payment) attracted US$71m in funding from Premji Invest and has raised c.US$190m in overall funding to date. In terms of a niche demographic play, Petal Card, which issues credit cards to people who do not have a credit history (eg. international students and migrants) received US$13m in series A funding from Valar ventures in Q1 2018.

Throughout 2018 we can expect more investments underpinned by these themes, in particular with regards to integrated payments platform. It is expected that their importance will magnify as the world becomes more connected through physical devices and virtual infrastructures.

Figure 10: Investment sectors



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21 Sources: EY analysis, Crunchbase.

M&A

	Date announced	Target company	Market	Target company industry	Buyer(s)	Market	Enterprise Value (US$m)	Stake (%)
1	4 Jan. 2018	Government Payment Services, Inc.	US	Engages in processing electronic payments of credit and debit cards on behalf of consumers for government entities in the United States	Securus Technologies, Inc.	US	Not disclosed	100
2	9 Jan. 2018	KG Inicis Co., Ltd.	South Korea	Operates in the electronic payment gateway market in South Korea	Not disclosed	Not disclosed	563.7	4
3	10 Jan. 2018	PayMaxx Pro, LLC	US	Develops payment processing solutions	M&A Ventures, LLC	US	Not disclosed	100
4	16 Jan. 2018	Blackhawk Network Holdings, Inc.	US	Provides a range of prepaid gift, telecom, and debit cards in physical and electronic forms; and related prepaid products and payment services in the United States and internationally	Silver Lake; P2 Capital Partners, LLC; P2 Capital Master Fund I, LP; Silver Lake Partners V	US	3019.2	95
5	17 Jan. 2018	Paymark Limited	New Zealand	Provides electronic payment transaction processing services	Ingenico Group – GCS	France	120.4	100
6	17 Jan. 2018	iKaaz Software Private Ltd.	India	Provides mobile payment platform that enable enterprises, business correspondents, and merchants to extend cashless transactions to their customers	GrabTaxi Holdings Pte Ltd	Singapore	Not disclosed	100
7	18 Jan. 2018	China UnionPay Co., Ltd.	China	Operates a bankcard association in China. It operates an inter-bank transaction settlement system and also offers terminal maintenance, card-issuing data processing, bankcards and terminals testing, Internet security certification, and bankcard points	Not disclosed	Not disclosed	Not disclosed	Not disclosed
8	18 Jan. 2018	mPAY24 GmbH	Austria	Provides an online-payment platform for e-commerce and m-commerce	Heidelberger Payment GmbH	Germany	Not disclosed	100
9	18 Jan. 2018	OnPlan Holdings, LLC	US	Operates in the banking industry	Flywire	US	Not disclosed	100
10	18 Jan. 2018	Stelo S.A.	Brazil	Offers e-commerce payment processing services	Alianca Pagamentos e Participacoes Ltda	Brazil	38.9	70
11	29 Jan. 2018	Payvision B.V.	Netherlands	Provides e-commerce payments processing solutions	ING Groep N.V.	Netherlands	444.4	75
12	30 Jan. 2018	Final, Inc.	US	Provides a physical card and a mobile application that protects the users account from fraud, theft, breaches, and card cancellation	The Goldman Sachs Group, Inc.	US	Not disclosed	100
13	30 Jan. 2018	Protinus Infotech Pvt. Ltd.	India	Offers secure payment solutions for merchants and businesses	The Mobile Wallet Pvt. Ltd.	India	Not disclosed	100
14	31 Jan. 2018	MyBucks S.A.	Luxem-bourg	A financial technology company, provides various financial products and services to the low and middle-income customers	Apeiron Investment Group Ltd; Infinitum Limited	Malta	Not disclosed	7
15	5 Feb. 2018	BestPay	Brazil	Provides payment processing services for merchants	Grupo Garantia	Brazil	Not disclosed	100
16	6 Feb. 2018	Restaurant Manager and POSitouch and Future POS	US	Restaurant Manager LLC develops POS software for foodservice industry. Restaurant Data Concepts, Inc., doing business as POSitouch, develops, supports, and markets POS software and hardware systems for the hospitality industry. Future POS, Inc. develops POS software for the restaurant and hospitality markets	Shift4 Payments	US	Not disclosed	100

	Date announced	Target company	Market	Target company industry	Buyer(s)	Market	Enterprise Value (US$m)	Stake (%)
17	7 Feb. 2018	Transferzero Money Transfer Entidad De Pago, S.A.	Spain	Develops an online money transfer platform	BitPesa Ltd.	Kenya	Not disclosed	100
18	7 Feb. 2018	PRESEND Nordic AB	Sweden	Manages prepaid card program for shopping malls in the Nordic-Baltic region	EML Payments Limited	Australia	Not disclosed	100
19	8 Feb. 2018	Integrity Payment Systems, LLC	US	Provides financial transaction processing services	Payroc LLC	US	Not disclosed	100
20	8 Feb. 2018	MOL Global, Inc.	Malaysia	Operates a payments platform that facilitates online and mobile commerce for consumers through a network of payment channels in Malaysia and internationally	ZV-Midas Pte. Ltd.	Singapore	99.9	15
21	9 Feb. 2018	Fraedom Holdings Limited	UK	Develops travel and expense management solutions	Visa Inc.	US	195.7	100
22	20 Feb. 2018	CreditCall Limited	UK	Provides credit card payment processing services and online payment systems to companies in Europe, North and South America, South Africa, the Asia-Pacific, and internationally	Network Merchants, LLC	US	Not disclosed	100
23	20 Feb. 2018	IRN Payment Systems	US	Offers online payment processing solutions	Shift4 Payments	US	Not disclosed	100
24	21 Feb. 2018	Eurogiro A/S	Denmark	Provides cross-border remittance and payment solutions related to retail and wholesale financial services in Denmark and internationally	Inpay A/S	Denmark	Not disclosed	100
25	22 Feb. 2018	Cortex MCP, Inc.	US	Engages in developing an IP-protected mobile payment and wallet platform with a focus on secure payment methodology, and ID/credential storage and verification	Uphold, Inc.	US	Not disclosed	100
26	5 Mar. 2018	Paylane	Poland	Provides online payment processing services	Centrum Rozliczen Elektronicznych Polskie ePlatnosci S.A.	Poland	Not disclosed	100
27	5 Mar. 2018	Duales Inc	Canada	Offers financial remittance and electronic fund transfer services	CUV Ventures Corp.	Canada	1.0	10
28	6 Mar. 2018	Oltio (Pty) Ltd	South Africa	Develops and provides mobile banking and payment solutions	MasterCard Africa, Inc.	South Africa	Not disclosed	100
29	7 Mar. 2018	Togetherwork Holdings, LLC	US	Develops group management software and payments solutions	GI Partners, LLC; GI Partners Fund V LP	US	Not disclosed	100
30	12 Mar. 2018	PT Walletku Indompet Indonesia	Indonesia	Develops a payment wallet	TNG (Asia) Limited	Hong Kong SAR	Not disclosed	Not disclosed
31	12 Mar. 2018	Kayou Payment Services Co., Ltd.	China	Provides electronic fund transfer services through its fixed-line telephone-based payment system	Nanjing Mingpeng Information Technology Co., Ltd.	China	Not disclosed	100
32	13 Mar. 2018	Qiwi plc	Cyprus	Operates electronic online payment systems primarily in the Russian Federation, Kazakhstan, Moldova, Belarus, Romania, the United Arab Emirates, and internationally	Melqart Asset Management (Uk) Ltd	United Kingdom	Not disclosed	5

M&A

	Date announced	Target company	Market	Target company industry	Buyer(s)	Market	Enterprise Value (US$m)	Stake (%)
33	14 Mar. 2018	Trustly Group AB	Sweden	Provides online banking payment and processing solutions in Europe	Nordic Capital; Nordic Capital Fund IX	Sweden	865.9	Not disclosed
34	14 Mar. 2018	Infinypool Online Payment Solutions India Private Limited	India	Develops a group payment social app that helps users to plan and pool/collect money for purchases or others such requirements	Wibmo Inc.	US	Not disclosed	100
35	26 Mar. 2018	Small World Financial Services Group Limited	UK	Provides customer service and market-specific payment solutions to consumers and businesses worldwide	Equistone Partners Europe	United Kingdom	Not disclosed	Not disclosed

VC

	Date announced	Target	Market	Round	Financial volume (US$m)	Total funding (US$m)	Lead investor	Market segment	Description
1	8 Jan. 2018	Previse	UK	N/D	1.1	3.7	Scottish Enterprise	Data analytics	Develops and offers a proprietary artificial intelligence (AI) solution that supports instant payments between corporate and SMEs
2	9 Jan. 2018	Alkami Technology	US	D	70.0	173.4	General Atlantic	Other	Develops and delivers digital banking solutions for credit unions and banks which includes wires and payments
3	9 Jan. 2018	Finexio	US	A	4.0	5.0	James R Heistand	Processing	Operates a B2B electronic payment network that links payment rails to automate commercial payments
4	10 Jan. 2018	Petal Card. Inc.	US	A	13.0	16.6	Valar Ventures	Issuing	Issues credit cards to people who either lack a traditional credit history, or are students, and immigrants
5	11 Jan. 2018	The Mint Corporation	Canada	N/D	3.0	100.7		Other	Provides vertically integrated payment solutions primarily in the United Arab Emirates
6	12 Jan. 2018	WealthIntel Inc.	US	N/D		6.4		Other	Develops payment vertical for use in finance, banking, e-commerce, and m-commerce sector
7	12 Jan. 2018	Toetag	India	Venture	1.3	2.3	Tropical Star Limited	Payment acceptance devices and software	Provides mobile application software to make offline payments
8	15 Jan. 2018	RazorPay Software	India	B	20.0	31.5	Tiger Global Management	Payment acceptance devices and software	Operates an online payment gateway that allows Indian businesses to collect payments online through credit cards, debit cards, net banking, and wallets
9	18 Jan. 2018	Varo Money	US	B	45.0	73.4	The Rise Fund	Other	Provides mobile banking business that helps customers cover their expenses, pay their bills to disrupt traditional banking
10	18 Jan. 2018	Ledger	France	B	75.0	85.1		Alternative payment systems	Provides bitcoin security hardware and software wallet products
11	18 Jan. 2018	Nethone	Poland	N/D	6.0	6.0		Security	Creates AI-based anti-fraud and business intelligence solutions
12	18 Jan. 2018	NetPay	UK	Debt	1.4	1.4	OakNorth Bank	Processing	Offers a range of online processing, payment terminal and merchant services
13	23 Jan. 2018	SheerID	US	B	18.0	32.1	Centana Growth Partners	Security	Provides an enterprise verification platform that provides instant verification while minimizing friction and mitigating fraud
14	24 Jan. 2018	Appetize	US	B	20.0	40.0	Shamrock Capital Advisors	Payment acceptance devices and software	Provides POS solutions
15	25 Jan. 2018	StoreHub	Malaysia	A	5.1	6.1		Payment acceptance devices and software	Develops POS systems for retailers
16	25 Jan. 2018	CreditStacks	US	Seed	4.0	4.0	500 Startups	Issuing	Offers premium credit cards for prime customers who lack US credit history
17	25 Jan. 2018	Tender Armor	US	A	Undisclosed			Security	Design and develops fraud prevention payments technology
18	30 Jan. 2018	Moneyonmobile	India	N/D	7.6	16.0		Other	Provides a mobile payment platform that facilitates financial transactions in India

	Date announced	Target	Market	Round	Financial volume (US$m)	Total funding (US$m)	Lead investor	Market segment	Description
19	30 Jan. 2018	Spenddesk	France	A	9.9	11.0	Index Ventures	Issuing	Generates corporate cards for employees and to manage expenses as a team
20	30 Jan. 2018	SpherePay	Singapore	Venture	10.0	30.0	Titanium Value	Payment acceptance devices and software	Owns and operates a payment gateway mobile application
21	31 Jan. 2018	Drop	Canada	A	21.0	7.8	New Enterprise Associates	Couponing and loyalty	Enables the consumer to earn rewards by spending with the debit and credit cards they link to the app
22	31 Jan. 2018	Ebanx	Brazil	Venture	30.0	26.4	FTV Capital	Acquiring	Offers an end-to-end payment solution across the entire e-commerce transaction flow
23	5 Feb. 2018	MyBucks S.A.	Luxem-bourg	N/D	14.3	1.4		Other	Offers savings accounts, mobile transactions, transaction cards, and other financial solutions
24	12 Feb. 2018	Dwolla	US	Venture	12.0	8.6	Foundry Group	Money transfer	Operate software platform that communicates user instructions for funds transfers to banks
25	12 Feb. 2018	YapStone	US	C	71.0		PremjiInvest	Other	Provides online and mobile payment solutions
26	13 Feb. 2018	Tipalti	US	C	30.0	5.2	Zeev Ventures	Other	Provides cloud pay-outs management automation platforms
27	13 Feb. 2018	Payfone	US	F	23.0	215.0	Institutional Investor	Security	Provides mobile and digital identity authentication solutions
28	14 Feb. 2018	Moneyonmobile	India	N/D	5.0	2.0	S7 Group	Other	Provides a mobile payment platform that facilitates financial transactions in India
29	14 Feb. 2018	Payworks	Germany	B	14.5	2.3	Visa	Payment acceptance devices and software	Provides POS payment gateway technology
30	15 Feb. 2018	Lydia	France	Venture	16.1	396.4	CNP Assurances	Alternative payment systems	Mobile payment app in France to pay a friend, shops and online purchase
31	21 Feb. 2018	Greenlight Financial Technology	US	A	16.0	12.0	TTV Capital	Issuing	Offers smart debit card for kids that parents manage from their phones
32	22 Feb. 2018	Team Labs	US	Seed	4.0	0.5	Crosscut Ventures	Issuing	Designs and develops software solutions for B2B payments
33	22 Feb. 2018	RecargaPay	Brazil	B	22.0	8.0		Alternative payment systems	A mobile payment platform and wallet for Brazil with over 10 million wallets
34	26 Feb. 2018	TransferGalaxy	Sweden	Venture	3.7	28.2	Alfvén & Didrikson	Money transfer	Provides cash-free mobile money transfer service
35	27 Feb. 2018	Current	US	A	1.0	0.7	Fifth Third Capital	Payment acceptance devices and software	Provides debit cards to young adults
36	1 Mar. 2018	Nu Pagamanetos	Brazil	E	150.0	2.7	DST Global	Other	Provides issuance, administration, transfer, and payment services related to post-paid payment instruments
37	7 Mar. 2018	RateX	Singapore	Venture	2.3	1.0	Insignia Ventures Partners	Other	Provide shoppers with the lowest exchange rate at no transaction fee for overseas purchases through e-commerce platforms
38	9 Mar. 2018	ClassWallet	US	Venture	0.7	4.0	Florida Funders	Other	Offer streamlines manual, time-intensive tasks of collecting receipts, reconciling invoices, and making vendor and reimbursement payments by digitizing and automating those processes

	Date announced	Target	Market	Round	Financial volume (US$m)	Total funding (US$m)	Lead investor	Market segment	Description
39	9 Mar. 2018	PayGreen (Watt Is It SAS)	France	Venture	1.2	5.3		Payment acceptance devices + Software	Offers online payment solution for processing transactions
40	12 Mar. 2018	BioCatch	Israel	B	30.0	270.0	Maverick Ventures Israel	Security	Offers a range of behavioral authentication and threat detection solutions for web and mobile applications
41	13 Mar. 2018	Pine Labs	India	E	82.0	62.5	Actis	Payment acceptance devices + Software	Offers retail POS solutions that simplify payment acceptance The ecosystem includes DCC, wallet, gift card, loyalty and etc
42	14 Mar. 2018	AccessPay	UK	Venture	1.4	187.7	NPIF Maven Equity Finance	Payment acceptance devices + Software	Offers cloud-based payment and cash management solutions
43	14 Mar. 2018	Shenzhen Zhongying Weirong Technology Co., Ltd.	China	Venture	23.8	252.3	BlueFocus Communication Group Co	Security	Intelligent terminal software for financial sector providing anti-fraud and security service
44	15 Mar. 2018	Jewel Paymentech	Singapore	A	Undisclosed	1.9	GMO Payment Gateway, Inc.	Security	Provide research and develop intelligent risk technologies for the banking and electronic payments industry
45	19 Mar. 2018	Paypermint Pvt. Ltd.	India	Venture	2.7	54.5	R. S. Software (India) Limited	Payment acceptance devices + Software	Offers cloud-based payment platform for online businesses
46	20 Mar. 2018	Paymerang	US	Venture	26.0	24.7	Aldrich Capital Partners	Alternative payment systems	Provide flexible, agnostic technology solution to facilitate electronic supplier payments for businesses
47	21 Mar. 2018	Averon	US	A	5.0	227.2	Avalon Ventures	Security	Develops Direct Autonomous Authentication (DAA), a secure mobile identity standard
48	21 Mar. 2018	Sift Science	US	D	53.0	26.6	Stripes Group	Security	Applies insights from a global network of data to detect payment fraud
49	22 Mar. 2018	Euro Asia Pay Holdings	Canada	N/D	3.1	22.0		Alternative payment systems	Provides mobile payment processing services
50	22 Mar. 2018	Ebriza Software	Romania	Venture	0.4	8.3	BT Investments S.R.L.	Payment acceptance devices + Software	Offers cloud-based POS software designed for the hospitality industry, business industry services, and retail trade
51	23 Mar. 2018	Soluciones Móviles	Peru	Seed	0.5	23.0	AVP Seed Fund 1	Payment acceptance devices + Software	Provides payment solution to receive payments with credit, debit, and prepaid cards
52	23 Mar. 2018	Shanghai Yinjia Financial Services Group	China	N/D	31.6	0.1	Suzhou Tianma Specialty Chemicals Co	Alternative payment systems	Provides payment wallet for personal financial services, such as real-time transfer, face-to-face payment, and balance inquiry
53	27 Mar. 2018	Midigator	US	Venture	30.0	7.3	LLR Partners	Security	Provides real-time merchant account monitoring and fights chargebacks to win your revenue back
54	28 Mar. 2018	CardUp	Singapore	Seed	1.7	1.1	Sequoia Capital	Other	Provides and online payment platform that enables its users to obtain rewards by utilizing their credit cards for payments

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