Deutsche Bank
Corporate Bank

Request to Pay through open banking

Realising the potential of PSD2 and instant payments

Request to Pay through open banking

The introduction of Europe's revised Payment Services Directive, aka PSD2, and rapid uptake of instant payments has opened the door to new and improved payment methods. Among these are request to pay solutions - fast, irrevocable, and cost-effective payments that offer considerable advantages to corporates compared to other options such as card and e-wallet payments. But how does open-banking request to pay work? How is it being used? And how might it be employed in the future? This paper looks to answer these questions and explore the benefits open-banking request to pay solutions stand to bring to a range of industries.

Foreword

As the world around them has shifted to real-time operation, corporate treasurers' pain points with costly and slow payment solutions have grown more acute. The advent of open-banking-based request to pay solutions promises to relieve their discomfort and set a milestone in innovations driven by PSD2

Over the past couple of years, a number of new solutions have emerged under the banner of "Request to Pay", promising quick, safe and standardised payments and championed by institutions such as SWIFT and EBA CLEARING. Alongside these, the implementation of Europe's second Payment Services Directive (PSD2) and the advent of open banking have given rise to another type of request to pay solution, based on open banking. Drawing on both instant payments and PSD2's provision for licensed third parties to access and service accounts held by other banks, this open-banking approach to request to pay means merchants can empower a payment service provider to instantly and irrevocably make and receive payments directly between their accounts and those of their customers.

This innovation comes at a time when businesses' patience with existing payment methods is beginning to wear thin. Consumers across the globe might have fallen in love with card payment and e-wallet solutions, but the same cannot be said for treasurers, who must contend with the strains they place on their business.

Picture the scene: a corporate company with a large online presence accepts millions of card and e-wallet payments every year. Depending on the provider of these payment services, the company is charged rates of between 1% and 3.5% in fees, amounting to millions in yearly costs. The global airline industry, for instance, paid US$8bn in transaction fees in 2017 and is expected to incur as much as US$15bn a year by 2025. Once approved, these payments can often take several days to process, holding up the final settlement of funds. To account for this delay, the corporate is forced to hold a large working capital buffer – meaning earmarked cash sits otherwise idle in the company account.

In some cases – for example due to fraud – payments via card or e-wallet simply fail to process after the goods have been dispatched, prompting the company to enter into a costly and time-consuming recovery process. In addition, corporates must undergo complex and costly reconciliation processes. In a booming market for low-value payments, where process efficiency is a top priority, these are frustrations today's treasurers are no longer prepared to endure.

For many businesses, therefore, request to pay could prove a timely and profitable intervention, while helping in process efficiency. Attracting just a small flat fee per transaction, they can help diminish costs by replacing commission-based intermediary card acquirer fees and ensuring funds are received instantly, while also ridding businesses of long processing periods and the associated risk of non-payment.

The benefits for businesses are clear, but they are not the only parties that need convincing. To realise the advantages, businesses' customers must choose to pay this way themselves. Encouraging this customer adoption of request to pay may involve devising creative incentives, such as bonus schemes, but the value of doing so is evident.

Initial forays into the solution are now well underway, promising significant benefits and sizeable cost savings. As more companies embrace devising a suitable solution and overcome the barriers, the advent of request to pay looks set to stand as a milestone in advances driven by PSD2 – and an exemplar of creative interplay between regulation and innovation.

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US$ **8**bn in transaction fess in 2017

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1.
What is request to pay?

1.1 Definition and industry initiatives

Request to pay is an umbrella term for a number of scenarios in which a payee takes the initiative to request a specific payment from the payer. The enticing feature of request to pay is that it can integrate and streamline data exchanges between the payee and payer – improving the certainty, transparency and convenience of payments for corporates, retail customers and their payment service providers (PSPs). A number of initiatives are currently under way, including plans for a standardised, pan-European infrastructure solution for PSPs run by EBA CLEARING, a standardised cross-border service through SWIFT gpi, and an open-banking solution facilitated by PSD2 and APIs.

R2P: a pan-European, standardised framework

In April 2019, EBA CLEARING published a blueprint for a pan-European request to pay solution, which defines a request to pay as follows:

> Fundamentally, a request to pay enables a payee (person, business or other account holder) to make a request for initiation by a payer (person, business or other account holder) of a payment. The main purpose of a request to pay is to:
>
> – Ensure verified payee data is provided to the payer before the payment initiation;
>
> – Provide ease of use to the payer, who has minimal data to enter for a payment;
>
> – Provide confirmation of issuance of a payment order to the payee; and
>
> – Facilitate reconciliation of the related payment both for the payee and the payer.
>
> *EBA CLEARING, A blueprint for a Pan-European Request to Pay solution*

Following the release of the blueprint, EBA CLEARING has engaged 26 banks, including Deutsche Bank, to develop a pan-European request to pay infrastructure solution under the brand "R2P", set for launch towards the end of 2020.[1]

The R2P solution uses a four-corner model for processing payments, involving the payer, the payee, the payer's PSP and the payee's PSP (see Figure 1). The thin messaging infrastructure layer that it puts in place will allow local request to pay end-user solutions across Europe to interoperate. It will also provide PSPs with the basis for developing new pan-European services.
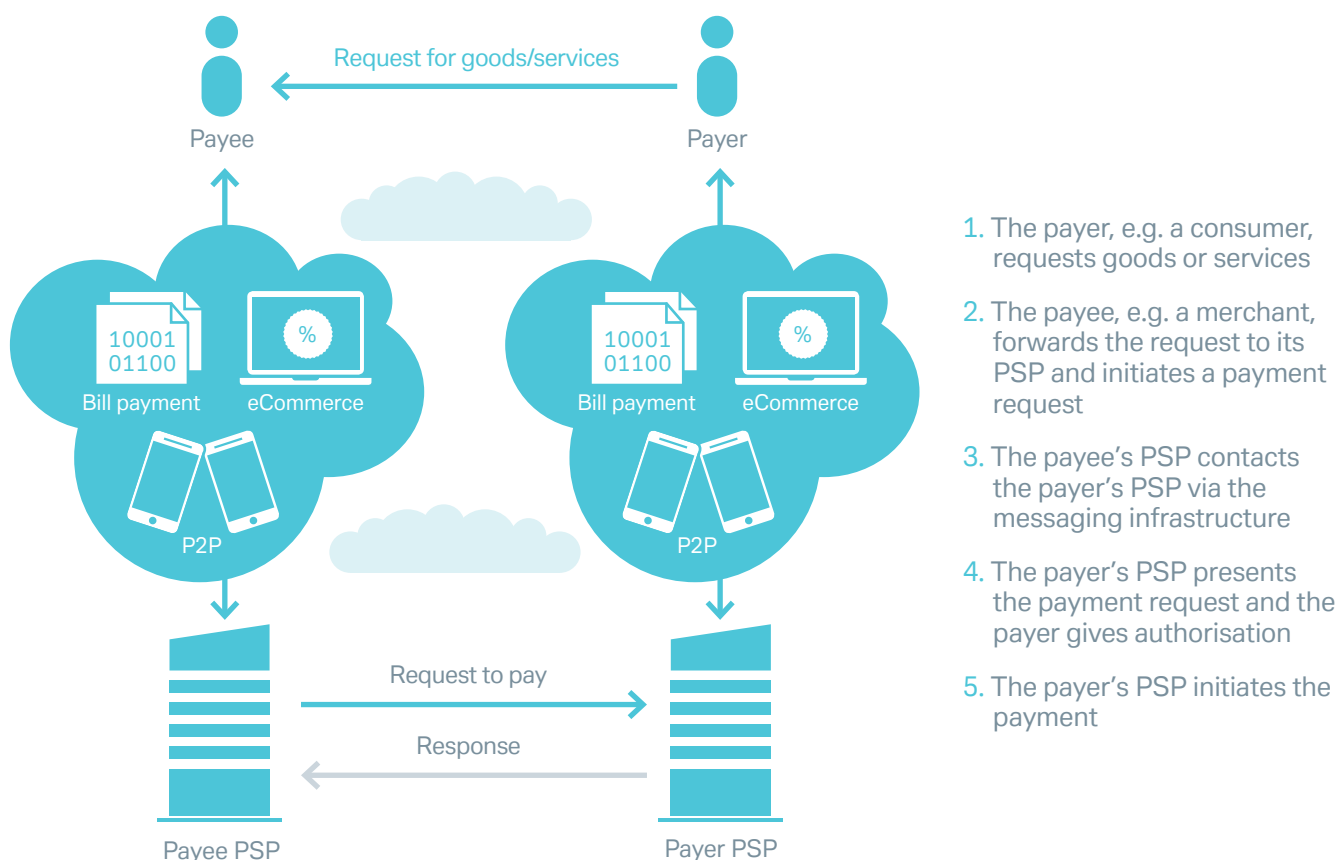
Banks are eager to pursue a pan-European centralised and managed approach for request to pay (in addition to existing local solutions and PSD2 opportunities) because:

– Responses to requests are ensured, which will allow PSPs to develop their end-user solutions with service levels that can be guaranteed;

– Each participant will only have to support one single interface and connectivity to the next party in the chain (for which it can leverage existing interfaces it has already implemented for instant payments);

– By leveraging existing interfaces and connectivity that have already been put in place for instant payments, reach can be built up quickly; and

– In case of disruptions in a specific part of the chain, the central system will manage time-out controls and timely feedback can be provided to the initiator.

Figure 1: Pan-European request to pay approach

Standardised interaction for PSPs and maximum flexibility for end-user payment solutions

Request for goods/services

Payee   Payer

Bill payment   eCommerce   Bill payment   eCommerce

P2P   P2P

Request to pay

Response

Payee PSP   Payer PSP

1. The payer, e.g. a consumer, requests goods or services

2. The payee, e.g. a merchant, forwards the request to its PSP and initiates a payment request

3. The payee's PSP contacts the payer's PSP via the messaging infrastructure

4. The payer's PSP presents the payment request and the payer gives authorisation

5. The payer's PSP initiates the payment

Source: EBA Clearing

"A request to pay infrastructure solution is the missing link that many PSPs and their customers have been waiting for. It will allow them to fully exploit the new instant payment channels and to monetise their investments. With a pan-European four-corner model approach, everyone can get connected, and it gives banks and other PSPs the flexibility to develop their own end-user products for a wide variety of use cases"

Hays Littlejohn, CEO, EBA Clearing

SWIFT gpi

SWIFT is also developing a form of request to pay to facilitate cross-border payments. At SIBOS 2019, SWIFT presented its findings from a Proof of Value pilot carried out with seven gpi member banks, three corporates and FinTech Assembly Payments, which showed that international request to pay transactions can be implemented under a SWIFT SLA – offering a secure, flexible and cost-effective payment option.[2]

Similar to R2P, the SWIFT gpi solution is based on the same four-corner structure. For processing of the payment an intermediary bank – or chain of intermediary banks – connects the buyer and seller's banks (see Figure 2).

Figure 2: The SWIFT gpi request to pay model
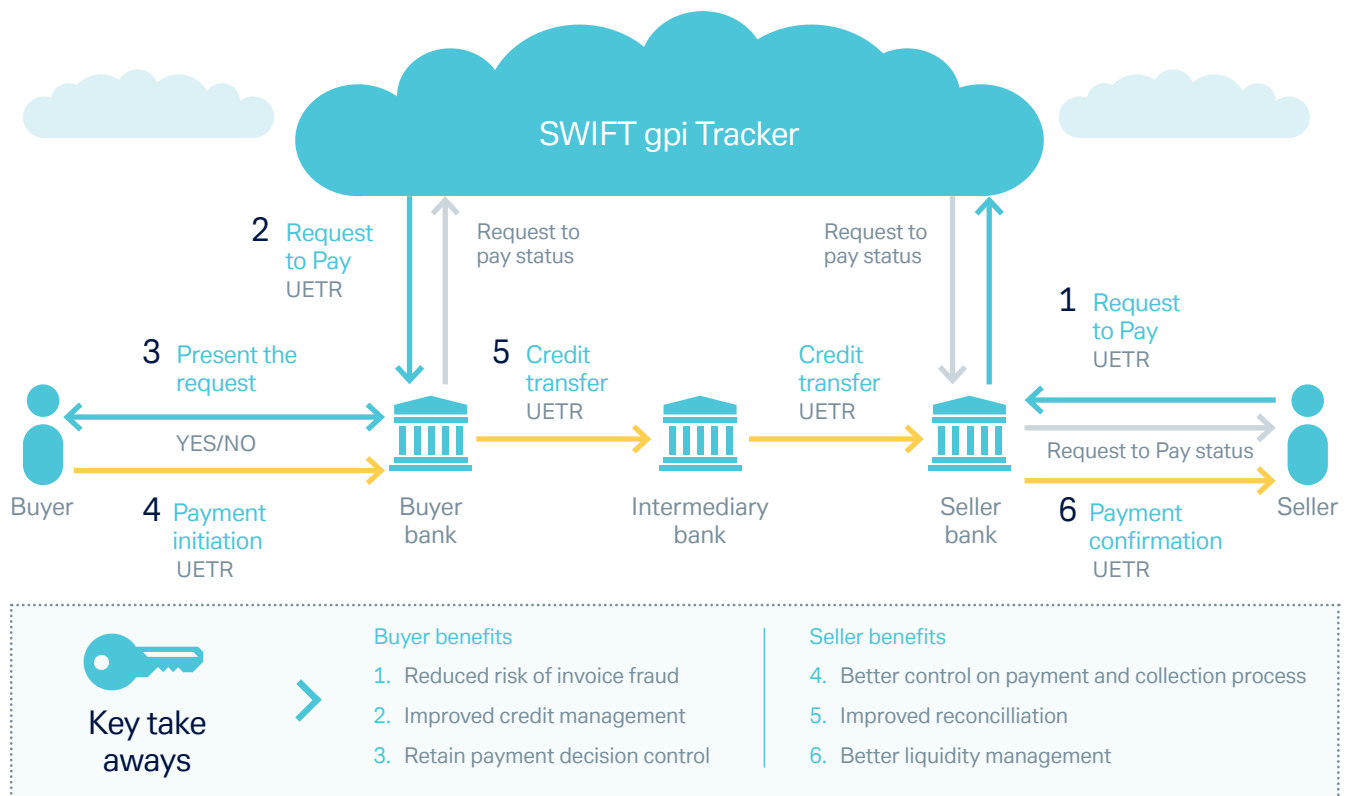
Source: SWIFT

This paper focuses predominantly on a form of request to pay that uses APIs and open-banking principles to reduce transaction costs, maximise security and minimise administrative workload for companies and their PSPs.

1.2 Request to pay through open-banking channels

1.2.1 Context

Adopted in 2007, the Payment Services Directive (PSD) created a single market for credit transfers, direct debits and card payments in the European Union (EU). Since then the European economy has rapidly digitalised, with new online services vastly outpacing regulatory change. This led to a situation where new entrants into the market were not regulated at EU level, prompting the continent's updating of PSD – known as the second Payment Service Directive (PSD2) – to be adopted in January 2018.

PSD2 embraces the concept of "open banking" by looking to promote competition within the financial industry and encourage innovation from banks, tech companies and other non-bank rivals. As a result, payment solutions — often viewed as slow-moving and unexciting compared with big-ticket investment banking activities — have become one of the most innovative areas in banking.

The principle of open banking is to enable financial service providers that do not provide and maintain a given customer's bank account (known as third-party providers or TPPs), to build their own services on top of the infrastructure provided by the account-holding bank.

Under PSD2, a payment service user (PSU) can authorise its account servicing payment service provider (ASPSP) to give TPPs access to their account data, most commonly via application programming interfaces (APIs), a set of functions and procedures that enable different systems to communicate with one another (read more in Deutsche Bank's whitepaper, "Unlocking opportunities in the API economy").[3] Through APIs, for instance, TPPs can source data, such as a client's latest account balance, from the bank's system and feed it into their own platforms and services.

This capability gives rise to two new types of service provider: Account Information Service Providers (AISPs) – who aggregate a given user's account information from several banks into a single portal – and Payment Initiation Service Providers (PISPs), who initiate payments on the user's behalf. It is this PISP model that underpins the open-banking request to pay solution.

Open-banking request to pay stands alongside and complements the other developing solutions from EBA CLEARING and SWIFT gpi – offering a different network and reach. Banks provide access to customer accounts via APIs under PSD2 and TPPs can therefore offer services without having to sign up to a centralised infrastructure solution. This also opens the door to a wider range of participants such as FinTechs. Centralised solutions, on the other hand, promise quicker adoption through standards established by the underlying scheme, which will also promote the development of value-added services. Banks may leverage both approaches to maximise coverage of client needs and offer these services under the same product banner.

1.2.2 How it works

PISPs are online providers that can access a user's payment account and initiate the transfer of funds on their behalf (with the user's consent and authentication). When the customer opts to pay using a PIS-based request to pay service, it authorises the merchant's bank to check the customer's account for sufficient funds and then transfers the agreed purchase price or fee directly, in most cases via an instant payment method, such as SEPA Instant Credit Transfer (SCT Inst) in Europe or the Faster Payments Service (FPS) in the UK, to the merchant account.

Unlike the EBA CLEARING and SWIFT gpi request to pay solutions, the open-banking approach uses what is effectively a three-corner model, with a PISP facilitating a three-way interaction among just one active ASPSP (the customer's bank), along with the customer and the merchant. The merchant's bank plays no role in the request to pay process and simply receives funds once the payment has been settled.

Figure 3: The open-banking model for request to pay

4 The customer's bank initiates a payment to the merchant

2 The merchant forwards the request to the customer's bank via the PISP

3 Customer's bank requests authorisation from the customer via either the PISP (embedded), its website (redirect) or a separate device (decoupled); the customer provides the authorisation

1 The customer requests goods and services and agrees to pay via request to pay

Source: Deutsche Bank

The PISP is usually mandated by the merchant who decides about the payment options offered to its customers. As part of its service, the PISP may approach the customer to obtain missing payment details, such as the payment account, if the merchant provides incomplete data on the payment to the PISP.
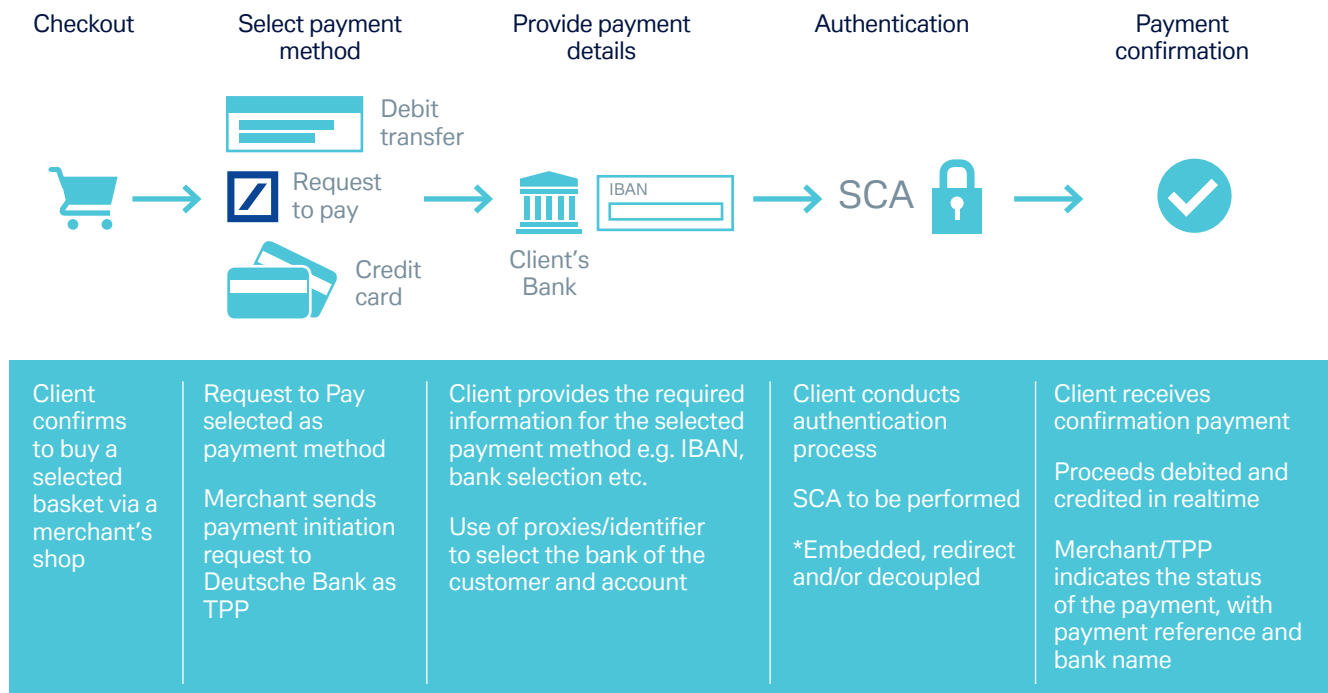
The customer journey

When checking out at an online store, a consumer is presented with a list of payment options, such as credit card, debit card, PayPal, Apple Pay, etc. Among the options is request to pay. The consumer selects this means of payment and enters a User ID, such as their international bank account number (IBAN). For ease, the customer could also select their bank from a dropdown menu, or may be able to use a proxy IBAN, such as their phone number (an option still being discussed at the regulatory level). If this is a repeat visit to a trusted merchant, their details may already be stored by the PISP (provided they gave consent), meaning they need only to accept their prepopulated account details.

Their bank will then ask them for authorisation using two-factor authentication. Once provided, the payment is initiated, and the customer receives confirmation of a successful payment within 10 seconds.

Figure 4: The open-banking request to pay model: customer journey

Checkout	Select payment method	Provide payment details	Authentication	Payment confirmation
Client confirms to buy a selected basket via a merchant's shop	Request to Pay selected as payment method Merchant sends payment initiation request to Deutsche Bank as TPP	Client provides the required information for the selected payment method e.g. IBAN, bank selection etc. Use of proxies/identifier to select the bank of the customer and account	Client conducts authentication process SCA to be performed *Embedded, redirect and/or decoupled	Client receives confirmation payment Proceeds debited and credited in realtime Merchant/TPP indicates the status of the payment, with payment reference and bank name

Source: Deutsche Bank

The process behind the scenes is also simple (see Figure 5). Upon receiving the customer's IBAN, the PISP sends the customer's account details to the customer's bank and requests a payment.

The bank then validates the customer's authentication and initiates the payment to credit the merchant's bank account. To provide the confirmation, the bank sends a status update to the PISP confirming the payment has been sent, which is then forwarded by the PISP as an update to the merchant. Once the payment is settled, the PISP can also provide a "payment received" message to the merchant. Based on this update, the merchant then confirms to the customer that the payment has been received and releases the goods or order to the customer.[4]

Two-factor authentication explained

Mandated by Europe's second Payment Services Directive (PSD2), two-factor authentication, also known as strong customer authentication (SCA), is a two-step digital verification process that confirms the identity of an online user by requesting two proofs from the following three categories:

1. *Knowledge:* something only the user knows (such as a password)

2. *Possession:* something only the user holds (such as a security token)
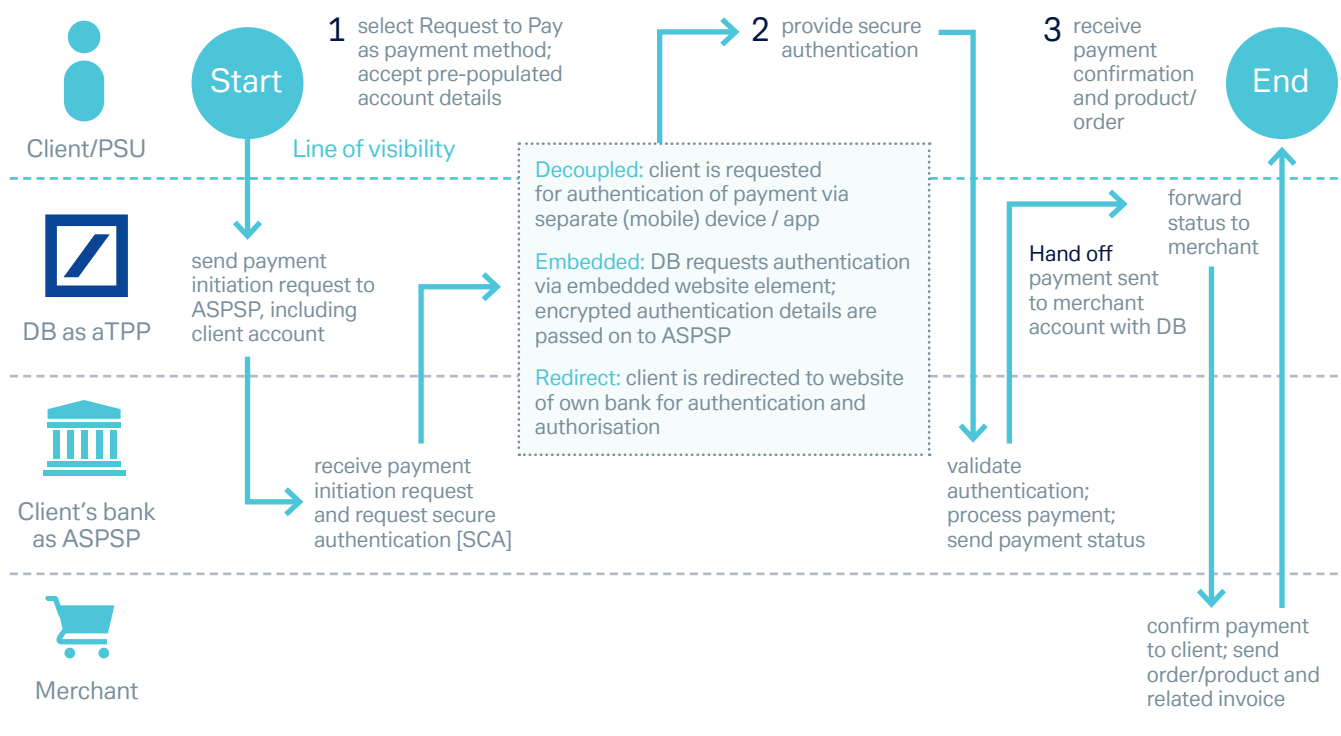
3. *Inherence:* something integral to the user (such as a fingerprint)

By providing this verification service, banks can ensure their customer's funds remain secure, and cyber fraud is limited.

Figure 5: The open-banking request to pay process in detail

Client/PSU

Start

1 select Request to Pay as payment method; accept pre-populated account details

2 provide secure authentication

3 receive payment confirmation and product/ order

End

Line of visibility

DB as aTPP

send payment initiation request to ASPSP, including client account

Decoupled: client is requested for authentication of payment via separate (mobile) device / app

Embedded: DB requests authentication via embedded website element; encrypted authentication details are passed on to ASPSP

Redirect: client is redirected to website of own bank for authentication and authorisation

Hand off

forward status to merchant

payment sent to merchant account with DB

Client's bank as ASPSP

receive payment initiation request and request secure authentication [SCA]

validate authentication; process payment; send payment status

Merchant

confirm payment to client; send order/product and related invoice

Source: Deutsche Bank

1.2.3 Geographical reach

The potential geographical reach for an open-banking, API-based request to pay solution is considerable. In principle, the solution can be rolled out and used by anyone with a bank account and, in the short term, it can already be applied anywhere that has real-time payments and open banking infrastructure in place.

The euro zone, of course, is a prime market – underpinned by the new SCT Inst scheme and PSD2, while the UK is equally well poised, thanks to its own open banking programme and the longstanding presence of its Faster Payments Service since 2008.

Operations can also be set up with relative ease in India via the Unified Payments Interface (UPI) – the nation's real-time payment system. Although the country has no regulatory framework making open banking mandatory, the technology and the will is in place, with a number of banks, including ICICI, already opening up access to their accounts via application programming interfaces (APIs). There is also potential for this form of request to pay to take hold in North America. While several initiatives have sought to provide guidance and uniformity for open banking in the US, however, there is currently no regulatory effort similar to PSD2 – making this a longer-term endeavour.[5]

Expanding the approach further into Asia – where 50% of payments are made through e-wallets – could also prove challenging. At present, the region's large unbanked population would not be able to make use of the request to pay model, although APIs may be able to connect e-wallets in the future.

In Africa, a clear legislative framework for open banking has yet to be developed. Yet given the market is already being driven by mobile banking, Africa may offer a favourable ground for request to pay solutions, with several positive steps having already been taken. For example, Rwanda recently implemented legislation modelled on PSD2, which makes provisions for new types of payment providers – including request to pay. However, with 90-95% of Rwandans accessing financial services through a mobile banking provider, the next step is for the legislation to be expanded to include more than just traditional banks.[6]

50%
of payments in Asia are made through e-wallets

2.
Benefits

2.1 Comparison against card payments

The first and clearest application of open-banking request to pay solutions is in replacing card payments for online transactions. Although popular with many consumers, card payments create various difficulties for corporates, which request to pay can mitigate or eliminate entirely.

Reduced fees

Interchange fees are charged to merchants by card networks for processing debit or credit card payments. These fees – often between 1% and 3% per transaction – exist to cover processing costs, fraud protection and risk management.

In contrast, request to pay offers a low fixed fee per transaction, which gives considerable savings to companies that derive a significant source of their sales from e-commerce.

Certainty of payment

A payment made on a debit or credit card takes several days to process, creating a delay in the final settlement of funds. Consequently, companies that accept card payments often need to carefully manage their working capital, maintaining a buffer of cash in reserve to account for the delay. Furthermore, products might be shipped or services utilised before the funds have been received. If the customer's card is then cancelled, or the payment bounces after the goods or services have been delivered, this can create various issues (see "Reduced recovery workload" later in this section).

Request to pay, by contrast, runs using instant payment schemes and are therefore deposited into the recipient's account within 10 seconds. This means the risk of non-payment or default is largely removed, as the payment will have always been received before the product or service is provided.

Reduced risk and impact of fraud

Fraudsters can take advantage of settlement delays incurred by card payments. For instance, if a criminal books a flight using a stolen credit card, the delay of up to two days before settlement would leave him/her time to catch the flight before the owner freezes their card and the airline is notified. Once the card is frozen, payment for the completed flight will no longer reach the airline, leaving it out of pocket. So how does the airline retrieve the money it is owed? The credit card owner will be reimbursed by the credit card company, but this is not necessarily the case for the airline. Often the airline would have to rely on its own insurance, which takes weeks to pay out. For airlines, which face high fraud rates, a high volume of these delays can impact working capital.

A request to pay solution, however, requires two-factor authentication from the buyer. This means any fraudster would have to provide two of three possible forms of authentication – knowledge, possession and inherence (see box-out on two-factor authentication in Section 1.2.2) – drastically reducing the potential for a successful fraud attempt.

In addition, funds sent via request to pay arrive instantly in the merchant's account – and in the case of a fraudulent transaction, the merchant need play no role in the resolution process, as they have already been paid the money due. Instead, the consumer bank would reimburse the customer immediately, and then work alongside the request to pay provider to resolve any further issues. The result is a valuable reduction in risk from the merchant's perspective.

Optimised working capital

Long delays in processing times can create cash-flow issues for businesses. In order to avoid this, companies often hold significant working capital buffers – earmarked funds that cannot be used for the advancement of business operations.

Request to pay enables merchants to optimise their working capital. Receiving funds instantly provides companies with complete visibility and control over their cash position. For instance, companies can accurately time the disbursement of their payments to ensure purchases can always be made just in time. This reduces the carrying costs of inventory and helps to maximise working capital. Funds that would otherwise have been idle as a cash buffer can also be invested.

Improved reconciliation

The reconciliation process for treasurers can be significantly simplified by request to pay.

Where a company accepts card payments, they will receive a bulk payment from the card provider every 1–2 days. This may, for example, mean receiving €1,000 from 10 payments, with only a single reference number. Equally, when a bank transfer is received from a customer, the accompanying reference number received will often have little to do with the invoice that has been sent. For a company that processes thousands of card payments or bank transfers daily, this can complicate reconciliation, with many companies compelled to seek costly third-party help to meet this challenge.

With request to pay, merchants receive more – and more useful – information. Each transaction comes with a unique reference number that matches the number on the invoice. Furthermore, host-to-host and batch payments, as well as customisable reconciliation rules, could soon be added to the service.

Reduced recovery workload

Where a card payment or direct debit is declined, companies are forced to enter into a protracted recovery process. This includes: re-presenting the payment (for unpaid direct debits), chasing up with letters, calls and a final notice, and enlisting legal help in the form of a small claims court or debt collection agency. The time and resources involved in enacting these measures can negatively impact a company's ability to do business.

Since payments made through a request to pay solution are settled immediately, there can be no unpaid items; the payment is either executed or not. Merchants therefore stand to eliminate the recovery processes and resources attached to typical payment structures.

Reduced liability for chargebacks

Request to pay can also help protect businesses against chargebacks. Chargebacks can be used to dispute a card transaction and secure a refund for a purchase. Often, they are used to reclaim money when a company goes into administration, if the payment was fraudulent, or if the item is of poor quality or undelivered. They differ from refunds in one fundamental way: the consumer requests that the banks retrieve the funds rather than asking the merchant. When the bank approves the cardholder's request, the funds will be removed directly from the merchant's account and returned to the consumer.

With request to pay, the merchant's liability is reduced, as the irrevocable nature of the payment means customers cannot request a chargeback. This also means that in the case of a fraudulent payment or an item being lost in transit, the financial burden no longer necessarily falls to the merchant.

Instant refunds

Traditional refunding methods are often slow, with refunds to a debit or credit card usually taking a week to process. In several countries and some industries, including insurance and travel, there remains a reliance on paper cheques to provide refunds, making the process even slower. Often the initial payment reference is not linked to the refund, which complicates reconciliation efforts.

By contrast, where a payment made via a request to pay solution needs to be refunded it can be instantly credited to the recipient's account. The information necessary to initiate the refund is derived from the initial payment, meaning customers do not need to type in their account details for a second time. The unique transaction ID attributed to the initial payment even links through to the refund, providing end-to-end reconciliation. There are plans for batch instructions to also be included in the service.

Figure 6: Card payments vs open-banking request to pay

Process	Card payments	Request to Pay
Authentication	Customers provide card details (online) or physical card and PIN (in store). Since 14 September 2019, in principle, PSD2 mandates the introduction of two-factor authentication for all payment methods	Customers provide two-factor authentication
Payment confirmation	No payment confirmation is given	Payment confirmation is given within seconds
Fees	Card acquirers charge between 1% and 3% commission on each transaction	Each transaction incurs a small fixed fee from the PISP
Reconciliation	Card payments are typically batched by the card acquirer and repaid in bulk with a single reference number	Each transaction has a unique reference code matching the merchant's invoice or booking reference
Disputes	If a payment is disputed, the business is involved in the resolution process	Following payment confirmation, the ASPSP dispute process means merchants are not involved in the resolution process
Refunds	Refunds take a number of days to process	Refunds can be made in real time
Chargeback	Credit cards often come with long chargeback periods, which allow payments to be revoked up to 120 days after confirmation.	Request to Pay are irrevocable and instant, meaning there can be no chargeback or rejection period.

Source: Deutsche Bank

2.2 Comparison against e-wallets

E-wallet solutions are an alternative payment method that can be used in store and online. The popularity of these solutions is growing rapidly; particularly in China, where giants Alipay and WeChat Pay contributed to US$15.5trn worth of mobile payments in 2017.[7]

There are two types of e-wallet:

1. The leather wrapper

   Popular in developed economies, the leather wrapper acts as a direct replacement for the cards in a wallet, enabling users to initiate payments online or at the point of sale directly from their mobiles.

2. Stored value

   Stored value e-wallets act as a repository for funds, rather than a proxy for payment – effectively working as a substitute bank account. This model is particularly popular in countries with high unbanked populations, such as China and Kenya.

Reduced fees

Every payment made through an e-wallet charges merchants a between 2% and 3.5% in commission. For merchants that derive a significant source of their sales from e-commerce, these fees amount to millions in costs each year.

By contrast, request to pay offers a low fixed fee per transaction, meaning significant savings for merchants.

Optimised working capital

E-wallets can only transfer funds to other e-wallets. As such, when a customer pays using their e-wallet, the payment is transferred to the merchant's e-wallet and often takes a day to arrive. Following this, transferring funds from the e-wallet into a bank account takes a further two to three days to process. As a result of the delay in processing times (of up to four days in total), merchants often have to maintain hefty working capital buffers in order to avoid cash-flow issues.

By ensuring that funds are received instantly, request to pay gives merchants full visibility and control over their cash-flows to improve transparency and eliminate the need for working capital buffers.

Improved reconciliation

Payments made to a merchant's e-wallet each have unique reference numbers. Unfortunately, reconciliation takes place in the merchant's bank account, and not the e-wallet. Should, for example, 100 payments totalling €1,000 be transferred to the merchant's bank account, the unique references do not carry over. Instead, the money arrives in the account as a single, bulk payment. This payment has its own reference number, generated by the e-wallet provider, which cannot be matched to any of the expected payments into the account and so complicates the reconciliation process.

In contrast, a payment made using an request to pay solution comes with a unique reference number that matches the number on the invoice and makes it easy to reconcile with expected incomings.

Reduced liability for chargebacks

When a customer requests a chargeback on an e-wallet purchase, the money is withdrawn from the retailer's account. The retailer then has a period of eight weeks to prove to the e-wallet provider that the customer's claim for a chargeback is unfounded. To account for this, the retailer has to keep a large working capital buffer, which could otherwise be spent on developing the business.

Crucially, request to pay payments are irrevocable, meaning that any chargeback liability is removed.

2.3 Comparison against direct debits

Open-banking request to pay solutions can also be used in a complementary way by organisations that regularly experience rejections when collecting via direct debit.

Certainty of payment

Where a direct debit is made without consent, the customer is entitled to a refund up to 13 months following the debit date. Even in cases where the customer has signed a direct debit mandate, a refund can still be requested up to 58 days after the payment date; something that often occurs when the exact amount is not specified at the time of authorisation. These long delays to the finality of payment are a particular pain point for merchants.

The irrevocable nature of request to pay, however, offers a solution to this delay. Once the payment has arrived in a merchant's account, the customer cannot request a refund and consequently the payment is made final within seconds, rather than weeks.

No delay for chasing rejections

Direct debit agreements allow third parties to transfer money from a person's bank account on agreed dates – typically in order to pay bills. Often, for technical, financial or requested reasons a direct debit can be declined, starting a rejection period that must elapse before the company can chase the payment.

Request to pay can be used as an alternative here. Payments are either authorised or rejected immediately, so companies avoid the delay incurred by direct debit rejection processes.

Optimising working capital

As with standard card payments, direct debit payments take one to two days to be credited to the merchant account, enabling businesses to benefit from quicker availability of funds through request to pay.

Reduced liability for chargebacks

As with standard card payments, collection via direct debit leaves merchants liable to chargebacks. Switching collections to a request to pay process would eliminate this liability.

Enhanced security and fraud protection

Direct debits can be set up with only a customer's account details and signature, making them relatively vulnerable to fraud. The two-factor authentication of request to pay represents a more robust procedure for verifying credentials and reduces the merchant's fraud risk.

58 days
Amount of time a payer has to request a refund on a direct debit, even if they have signed a mandate

Cost savings

Although the cost for direct debit payments is low compared to standard card payments, the flat fee incurred can still be almost three times higher than that of request to pay solutions and means there are also cost savings to be realised by merchants making the switch.[8]

2.4 Industry use cases

While open-banking request to pay promises clear advantages to a wide range of industries, certain sectors are particularly well positioned to benefit.

PSPs

For payment service providers (PSPs), the business case for request to pay is clear. In an increasingly digital ecosystem, it allows PSPs to offer their client a new option as part of a broad product range that can help tackle certain pain points. Specifically, open-banking request to pay solutions enable clients to reduce interchange fees, cut their workloads and ensure certainty of payment before delivering goods or services.

Exploring the business case with Buckaroo

Buckaroo is a Netherlands-based PSP that offers over 40 payment methods and works for more than 5,000 (eCommerce) businesses – offering payment, subscription and credit management solutions. One of Buckaroo's clients, a Dutch supermarket, recently began operating in Germany. Since supermarkets operate in the fast-moving consumer goods sector, where margins are relatively low and profits depend on volumes, additional costs associated with card or e-wallet payment methods represent an unwelcome dent in profitability. However, by using a request to pay solution, which incurs a much smaller flat fee, the client would be able to move into the new market while keeping margins at acceptable levels.

Buckaroo also notes that its clients are increasingly keen to keep their businesses as streamlined and digital as possible. As such, the prospect of eliminating long chargeback periods – and their accompanying administrative costs – makes request to pay a highly attractive option.

Buckaroo also works with merchants that provide mobile top-up cards. Once purchased, the customer does not want to wait two days to receive their top-up code and start using their phone. Yet, with current bank transfer solutions, this is the time it often takes for the merchant to receive confirmation of the funds. As a result, solutions such as request to pay that can provide instant confirmation that funds have been received are in demand from this kind of vendor.

> "Buckaroo is always looking for solutions that can support their merchants in a cost- and process-efficient way. Customer-to-business request to pay solutions are a prime example – and can be implemented at impressive speeds with the right partner."
>
> *Jelle Hoes, CTO, Buckaroo*

Retail companies

Accepting card payments can be costly for retailers that rely heavily on e-commerce sales. For every card payment, retailers pay an interchange fee – usually between 1% and 3% per transaction. Factor in the sheer volumes involved (retailers in the UK alone received £227.7bn in card payments in 2017),[9] and the costs quickly mount. Furthermore,

£227bn

in card payments to UK retailers in 2017

reconciling a high volume of card payments can be difficult for retailers when high volumes of payments are received in one batch – with one reference number – from their card network. The delay in card payments also requires these companies to maintain sizeable working capital buffers.

These are challenges that request to pay can help overcome. The low flat fee will significantly reduce costs for retailers, while funds sent via request to pay are also credited immediately to the retailer's account and eliminate delays that require a cash buffer. Each payment also comes with a unique transaction reference number, which considerably improves the efficiency of reconciliation.

Over the near term these benefits could expand beyond the confines of the internet, with a point-of-service (POS) solution likely representing the next step.

Airlines

For airlines, interchange card fees of between 1% and 3.5% per transaction, combined with the high cost of fraud, amounts to millions in yearly costs. In fact, the global airline industry incurred US$8bn in fraud and transaction fee costs in 2017 – a figure that is expected to rise to US$15bn by 2025.[10]

Request to pay could help to overcome these challenges. By transferring funds via SCT Inst directly from the customer's account to the airline's, payments can be processed for just a small flat fee, rather than a percentage commission, while request to pay's enhanced fraud protection, enabled by two-factor authentication, also stands to reduce airline costs. What's more, since the payments is processed immediately, funds can be received in near-real time, generating significant working capital and liquidity benefits.

For customers, the adoption of request to pay would provide greater choice, a smoother and less complex payments process and ultimately more convenience when paying for airline travel. One example of the enhanced convenience is the potential for instant refunds. Currently, if a customer has bought a ticket for a flight they can no longer take, they would contact customer service and have to wait several days for the refund to reach the customer's account. If, however, the ticket was purchased using request to pay, the customer would be able to receive a refund in real time.

FinTechs

Financial technology companies, aka FinTechs could also benefit from the adoption of request to pay. For example, Uber, the app-based taxi company, spends around US$1.5bn on credit card fees each year. As a service-based industry it is also subject to high fraud rates, requiring Uber to maintain large units for handling unsuccessful payments and a robust large working capital buffer. In addition, when it comes to funding, fintech start-ups often have problems with their cash flow. In such cases, waiting up to three days for a payment to clear can prove detrimental.

Request to pay can remove this delay, eliminate interchange fees and reduce the need for cash buffers.

Insurance

Although insurance collection is typically settled via direct debit, a large number of payments are still collected through two other payment methods: physical cheques and bank transfers. Both of these are complex and costly for insurance companies to handle. Meanwhile, insurance pay-outs are often managed via cheques, which delays the reimbursement of funds and frustrates customers.

By using request to pay, insurers could collect in a more cost-effective and efficient manner and provide customers with a pay-out the moment the claim is approved, to their resultant competitive advantage. For example, where a taxi driver is unable to fix their vehicle until
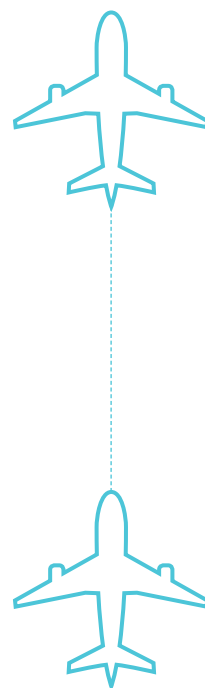
the insurer responds to their claim, a company that pays out via cheque or bank transfer will leave them immobile for several days. Conversely, a company that pays out using request to pay enables them to have the vehicle repaired or replaced immediately and minimises the time the driver is off the road and unable to work.

Request to pay also creates the possibility of offering "just in time" insurance. Some insurers do not initiate the policy until the payment has been confirmed. So when a customer books a holiday at the last minute and wants to buy travel insurance with their credit card, for example, this model could leave them without insurance for the first few days of their holiday. Paying via request to pay, however, enables insurance cover to start within seconds from the initiation of the payment.

Utilities

Utility companies have several pain points when it comes to their collections. These companies' business models are based on providing services on credit, sending an invoice and expecting the customer to pay promptly. Collections are typically made via direct debit and when the payment is rejected (typically due to insufficient funds), the utility must wait five days before representing the direct debit. The delay has a damaging impact on working capital.

Request to pay offers a more satisfactory alternative, with payments confirmed or rejected immediately so that invoices can be fulfilled or followed up immediately. That said, adoption will pose challenges, since two-factor authentication is required for each request to pay transaction to make it less convenient than direct debit for consumers. Migrating clients to this solution will need time and incentives, although the benefits for businesses are significant. Future planned features of request to pay may be able to help in this respect, with standing orders, mobile/app support and pay later initiatives all improving the experience for customers.

3.

Driving customer adoption

Open-banking request to pay solutions offer clear benefits to businesses, but one challenge remains – how do companies encourage customers to adopt the new payment solution?

Build market awareness

Lack of familiarity with request to pay is perhaps the greatest barrier to adoption, although this varies from country to country. Across much of Europe, especially in the Netherlands, the e-commerce market is already dominated by bank transfer solutions, which are only a step away from request to pay from the customer perspective. For instance, in 2017, 60% of e-commerce sales in the Netherlands were completed via a bank transfer, while just 16% were completed via a card payment.[11] In Germany, meanwhile, Girocard, the nation's domestic debit card, is not yet e-commerce enabled, leaving bank transfers as the de facto method of online payment. These markets should be more amenable to request to pay, given that it represents a similar, value-added service.

> "The beauty of request to pay is that there is no need to go through the time-consuming process of applying for, and signing up to, a new payment service. Instead, a request to pay solution can be immediately used by anyone who has a bank account"
>
> *Jelle Hoes, CTO, Buckaroo*

Potentially more challenging are countries with high card penetration, such as the UK, France and Sweden. In 2018, for example, 53% of UK purchases are made by debit or credit cards, while bank transfers represent just 3%.[12]

In all cases, driving awareness of the solution and its benefits will be central to shifting customer habits.

Maximise ease of use

The ease of traditional payment services is a second barrier. Online purchases can currently be completed through the frictionless "one click" model; where payment details, entered previously by the user, are stored and re-used to make a payment in a single click. Since 14 September 2019, in principle, PSD2 mandates the introduction of two-factor authentication for all payment methods.

Replicate card benefits

People's affection for card payments is not born solely of convenience. In addition, credit cards offer various advantages that request to pay may be unable to immediately match. Most fundamentally, credit cards allow customers to purchase goods on credit – a service

not yet widely offered by request to pay. Many cards also offer lucrative reward schemes with heightened payments insurance.

In addition, credit cards can be used as guarantees. Reservations at a hotel, for instance, often require a one-night deposit, or credit card guarantee, which allows the hotel to charge for no-shows or unforeseen costs. Where customers provide their credit card, no charge is initially taken, but for those unable to do so the room often has to be fully paid for in advance.

In the longer term, it is likely that many of these card benefits can be replicated in a request to pay scheme. Credit facilities, as well as future dated payments, pay later initiatives, and standing orders are in the pipeline. In addition, ring-fencing funds in an account could be a way for deposits to be made available on an request to pay scheme. The funds would not be taken from the account but merely held in place until the deposit is either released or taken.

4.

Pushing on

As with any innovative solution, open-banking request to pay will take time to mature and gather widespread adoption. Yet the business case for it is strong. The big numbers attached to costs savings are always likely to grab the headlines, but the benefits in other areas such as working capital, reconciliation and security are equally valuable.

As word begins to spread, and businesses begin adopting and promoting the solution among their customers, the underlying mechanics will continue to develop. The solution is currently live for transactions in euros, but support for transactions in sterling and Swiss Francs is likely to arrive by 2020, with more regions and currencies to follow.

Likewise, the number of channels will expand as well, with support for request to pay at the point of sale for in-store retail payments a likely next step. In time, there is even scope to incorporate FX services into the solution and extend request to pay to reach recipients' e-wallets.

Proxy services linking bank details to other user credentials such as mobile phone numbers and email addresses are another potential development. This promises to simplify the experience for customers and help pave the way for wider adoption.

The open-banking request to pay journey is just beginning, but already the benefits for business are clear. For progressive companies with a high volume of card-based payments, it might just be the necessary incentive for taking their payments processes to the next level.

5.
Glossary of terms

AISP:	Account Information Service Providers are financial service providers licensed to gain access to a bank customer's account details.
API:	Application Programming Interfaces are a set of function and procedures that enable compatible instructions to be sent between one software platform and another – for example, between a customer's bank and a merchant's bank during an online payment.
ASPSP:	Account Servicing Payment Service Providers provide and maintain payment accounts for consumers.
E-wallet:	E-wallets are a form of payment method designed for online transactions using a computer or smartphone (see leather wrapper and stored value)
Leather wrapper:	Leather wrappers act as a direct replacement for the cards in a wallet, enabling users to initiate payments at points of sale directly from their mobiles.
Open banking:	A concept whereby bank clients and their accounts are connected to the services of a network of third-party financial service providers through the use of APIs.
PISP:	Payment Initiation Service Providers are financial service providers licensed to initiate payments directly from a bank customer's account to a merchant account (and vice versa), using APIs.
PSD:	The Payment Services Directive is an EU directive implemented in 2007, creating a single market for credit transfers, direct debits, and card payments.
PSD2:	The second Payment Services Directive is an EU directive implemented in 2018 that compels banks to provide third-party financial service providers with access to their clients' accounts when authorised via two-factor authentication.
PSU:	A Payment Service User is any entity – a company or individual, for example, that makes or receives payments.
SCT Inst:	SEPA Instant Credit Transfers enable consumers and businesses to send instant payments, credited to the beneficiary account within 10 seconds.
Stored value:	Stored value e-wallets act as a repository for funds – effectively functioning as a substitute bank account.
TPP:	Third-Party Providers are financial service providers licensed to access the accounts of bank clients under PSD2 and open banking in order to offer supplementary services.
Two-factor authentication:	Two-factor authentication, also known as multi-factor authentication and strong customer authentication, is a new standard of security, mandated by PSD2 in Europe, used to verify the identity of users trying to gain access to an online account. After a user enters their account information, they are asked to present further evidence of their identity under two of the following three categories: something the account holder knows (knowledge), something they have (possession) and something they are (inherence). Since 14 September 2019, in principle, PSD2 mandates the introduction of two-factor authentication for all payment methods
UPI:	The Unified Payments Interface is an API-driven real-time payment system in India.

1 See https://bit.ly/2pl3cg0 at https://www.ebaclearing.eu/

2 See https://bit.ly/2ovfQJh, at www.ctmfile.com

3 See, https://bit.ly/2JWRbVX, at www.cib.db.com

4 See, https://bit.ly/2JWRbVX, at www.cib.db.com

5 See, https://pwc.to/2YiKeCF, at www.pwc.com

6 See, https://bit.ly/2GvmrcG, www.hoganlovells.com

7 See, https://on.ft.com/2mlRLQx, at www.ft.com

8 See, https://bit.ly/2JWRbVX, at www.cib.db.com

9 See https://bit.ly/2CGMA8A, at www.brc.org.uk

10 See: https://on.ft.com/2W4DDfp at https://www.ft.com

11 See https://bit.ly/32dxqjy, at www.jpmorgan.com

12 See https://bit.ly/32eZB1r, at www.jpmorgan.com

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