

# Get More From Real-Time Payments



# TABLE OF CONTENTS

---

Introduction.....	3
How to respond to real-time + open payments .....	4
Open banking, real-time payments, and the broader payments value chain.....	5
How banks can capitalize on the convergence of open banking and real-time payments .....	7
Open banking adoption in regulation-led and market-led countries.....	7
Monetizing real-time payments and open banking .....	9
Consumer benefits of real-time payments and open banking concepts .....	9
Corporate benefits of real-time payments and open banking concepts .....	9
The challenges facing banks today .....	10
Legacy revenue streams.....	10
Outdated back-office processing .....	11
Regulatory compliance.....	11
Achieving payments innovation – the banks respond.....	12
The new payments ecosystem .....	12

# INTRODUCTION

---

The payments industry is on the cusp of a new wave of change that will take advantage of new payment systems, technologies, standards, and regulation. In the process, it will create more value for users and providers of payment services. Real-time payments and open banking are two of the most prominent changes in payments and financial services and the intersection of the two will underpin new customer experiences.

While real-time payments<sup>1</sup> existed long before the concept of open banking, they were seen as exceptions to the general rule of batch-processed payments up until a few years ago. Similarly for open banking<sup>2</sup>, banks have been partnering with fintechs and even acquiring them for some time, however these acquisitions were not seen to be a paradigm shift in how banking services were provided. In this sense, open banking and real-time payments are part of a wider modernization and digitalization effort that is changing the customer relationship, the use and access to financial services in general. Internally at banks and processors, these two events should be considered as complimentary rather than as distinct developments.

The Dutch Payments Association has announced that all one-off consumer-initiated payments will be automatically moved to real-time in 2019.

Real-time payments, when combined with open banking, are also being used to promote financial inclusion and instill efficiency in payment systems in developing economies. Early electronic payment adopters are using real-time to spur competition. Developed economies like Denmark and Sweden are leading the world in per capita usage of real-time payments as cash usage dwindles. While the drivers in specific markets

depend upon local circumstances, it is becoming clear that real-time payments are becoming the new normal.

UK Faster Payments will launch Request to Pay in 2019 to improve real-time bill payment through APIs.

The most obvious use case for real-time payments may be P2P, but P2P is not the only use case, and may not even be the most prevalent. Real-time innovation is diverse. Swedes, for example, use real-time payments to buy their morning cinnamon muffins and coffee from their local café on the way to work, while the British use real-time to make one-off bill payments and many

Brazilian businesses pay their suppliers using real-time payments. It is not hard to imagine that freelancers may soon begin requesting real-time payout for work completed. In the US, The Clearing House has projected that over 50% of real-time payments volume will originate in the B2B space.

A flexible architecture will enable banks to respond to local habits and pressures, while streamlining previously manual processes such as loan applications, allowing banks to better serve previously underserved customer groups such as SMEs. Banks will increasingly use a platform-based model,

---

<sup>1</sup> Real-time is defined here as a payment that is posted to the beneficiary's account in under 30 seconds after initiation and that can be sent on a 24/7/365 basis. The UK's 'Faster Payments' is widely considered the first ubiquitous, modern real-time payment system and went live in 2008.

<sup>2</sup> Open banking is an initiative that enables third party developers to build applications and services around financial institutions by giving access to previously walled-off data.

similar to Amazon or Alibaba – providing their own products alongside those of partners as part of a larger ecosystem. In order to take full advantage of the promise of open banking and real-time payments, banks need to modernize their processing systems to handle a 24/7/365 world. And while this modernization will require changes in thinking, processes, and technology, it will reduce costs and increase revenues in the long run – despite the fact that banking in 2030 will be dramatically different.

Although real-time and open payments are becoming the new normal, we are still at the beginning of defining the use cases for industry players to improve value for their customers, create new revenue streams, and secure a return on their investment. Creating a future-proof strategy requires getting started now.

## HOW TO RESPOND TO REAL-TIME + OPEN PAYMENTS

Real-time payments and open banking are symbiotic concepts. While each concept exists on its own and carries a separate value proposition, both are part of a broader move towards digitalization, and banks are developing digital operating strategies in order to take advantage of new possibilities. This requires banks to define modernization goals holistically, creating new business models and revenue streams, building strategic partnerships with new entrants

such as fintechs, and maintain and strengthen their customer relationships.

Implementing open banking concepts will require:

1. A fundamental restructuring of how bank data is stored and retrieved
2. New strategies for how bank products and services are developed, marketed, processed, and distributed
3. Moving to 24/7/365 operations as opposed to 9-5 and batch processes

Much like making and receiving payments, customers now expect to be able to access their data anytime, anywhere. Beyond short-term modernization costs; banks also need to assess certain tradeoffs. Do the benefits of being a first mover outweigh the risks? How long can banks afford to delay planning, while waiting for best practices to develop? How should they incorporate fintech partners and their offerings into customer propositions?

Allowing outside parties to access customer data through APIs will require cultural, technological, and ecosystem changes for banks. More importantly, open banking is an opportunity for banks and processors to retain the primary customer relationship through the rapid introduction of new products and services. Inside the organization, APIs can be used to make data more freely and efficiently available and can act as a bridge to disparate internal systems. Open APIs will disrupt

## BANKING MODELS

Banks have the option to choose how they position themselves

	 FULL-SERVICE PROVIDER (TRADITIONAL)	 UTILITY (INFRASTRUCTURE)	 SUPPLIER (DESIGNED, POWERED BY)	 PLATFORM (IMMERSIVE/INTELLIGENT)
DESCRIPTION	<ul style="list-style-type: none"> <li>Business as usual</li> <li>Offering propriety products through the bank's own distribution network</li> <li>Limited-to-no-integration with third parties and new entrants</li> </ul>	<ul style="list-style-type: none"> <li>Product and distribution ownership is forfeited, FI operates as a utility</li> <li>Loss of customer-facing space and relationships</li> </ul>	<ul style="list-style-type: none"> <li>FI continues to offer proprietary products and services</li> <li>Distribution relinquished to third parties, who distribute those products and services on their own platforms</li> </ul>	<ul style="list-style-type: none"> <li>FI concentrates on the distribution of products by creating a marketplace through open APIs</li> <li>Third parties can offer their services within the FI's main platform</li> </ul>
ADVANTAGES	<ul style="list-style-type: none"> <li>No short-term costs</li> <li>More time to define long-term strategy</li> <li>Able to wait and follow best practices that others develop</li> </ul>	<ul style="list-style-type: none"> <li>Gain a new set of customers</li> <li>Ceding retail business could allow FI to focus on delivering innovative products and services</li> </ul>	<ul style="list-style-type: none"> <li>Lower modernization costs than platform response</li> <li>Still has traditional customer base</li> </ul>	<ul style="list-style-type: none"> <li>Able to better innovate via improved data use and partnerships</li> <li>New revenue streams from partners and new products</li> </ul>
DISADVANTAGES	<ul style="list-style-type: none"> <li>Risk losing customers</li> <li>Delaying transformation will make it more likely the FI turns into a utility</li> </ul>	<ul style="list-style-type: none"> <li>Lose customer relationship with traditional customer base</li> <li>Utility providers relinquish the relationship with customers to third parties</li> </ul>	<ul style="list-style-type: none"> <li>Partially reliant on partners for distribution</li> <li>Larger modernization costs than full-service or utility approaches</li> </ul>	<ul style="list-style-type: none"> <li>Extensive modernization costs</li> <li>High-risk, high-reward</li> </ul>

**Degree of digitalization** 

Figure 1 Possible responses to open banking

Source: Lipis Advisors

how banks do business, but each bank will need to decide how best to adapt to this new reality. There are 4 possible responses as depicted in Figure 1 below, although these should be considered more like points on a spectrum.

## OPEN BANKING, REAL-TIME PAYMENTS, AND THE BROADER PAYMENTS VALUE CHAIN

Real-time and open payments create opportunities to generate increased transaction volumes and new efficiencies across the payments value chain. Ultimately this will change traditional payment flows. Figure 2 below depicts a real-time and open payments example (using Europe's PSD2 environment), whereby:

1. A payee requests a payment through the payer's bank,
2. The payment is then authorized by the payer through the bank's channel,
3. Funds movement is executed in real-time to the payee (by API)
4. Finally, payment confirmation is sent to the payer and the payee (by real-time message from their banks).

This move to real-time and open payment flows holds many key implications for each participant in the payments ecosystem, opening up new opportunities as well as challenges to address.

### PAYER

Payments start with the payer. If payers do not like the payment method, they will not use it. Real-time and open payments offer payers more transparency and control over why, when, what and how they make payments across various payments scenarios. For example,

- If a consumer is requested to pay a utility bill, he will be able to check his balance and choose his preferred payment method before he makes the payment.
- An SME can schedule when to pay an invoice or could be incentivized with a discount for using a real-time payment method.
- An e-commerce buyer can see his balances across multiple accounts and wallets, and potentially across multiple bank wallets before making full payment. She could also be incentivized with loyalty or discounts for using a real-time account to account payment.

Fundamentally, all payers are safer in the knowledge that this is a payment type fully backed, endorsed and offered by their banks.

### PAYEE

As a payee, by implementing real-time payments at point-of-sale or in ecommerce transactions there is an opportunity to capture more transactions, reduce cost compared to card payments, remove the cost of cash from the business and drive customer experience and associated loyalty.

To solve the issuance and acceptance conundrum, an open API-enabled Request for Payment can be used that simplifies the payment process for

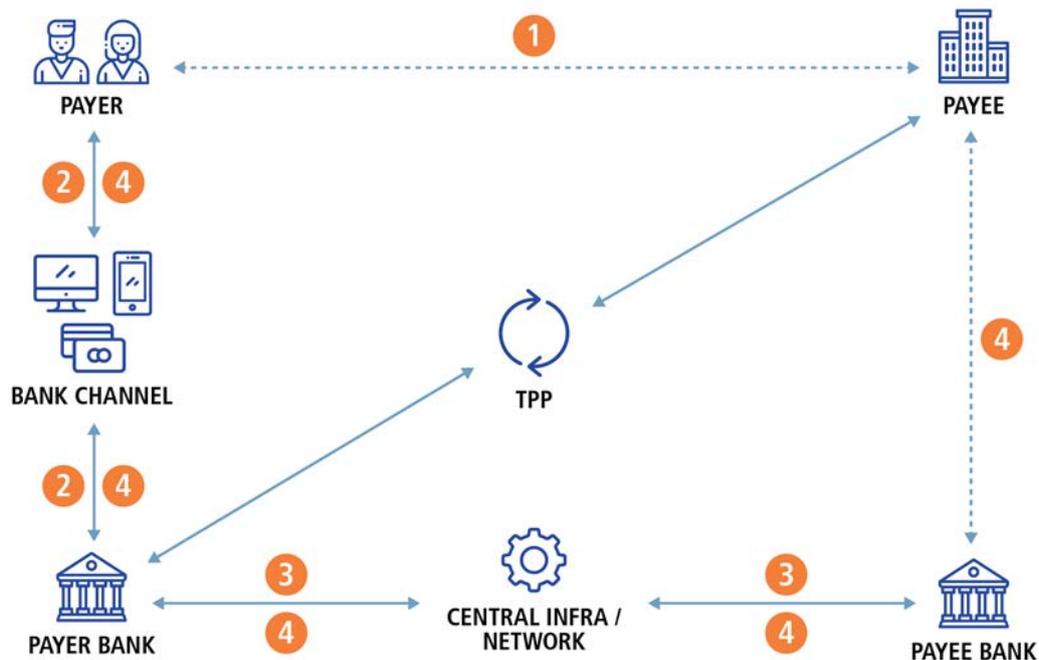


Figure 2 Evolution of the payments value chain

Source: ACI Worldwide

the payer and the reconciliation process for the payee. Businesses employ entire departments of people whose main task is to ensure that incoming payments are matched with corresponding invoices. When the payer decides to accept a Request for Payment, no reconciliation is needed on the business side because the information is already included in the initial request generated by the payee. Retailers can further augment the customer experience by combining the new real-time and open payment service with improved, mobile-based loyalty offerings, that can be tailored against customer purchase information that are also open API-enabled.

### **THIRD PARTY PROCESSORS (TPPs)**

Payment service providers that are independent of the account holding financial institution, known as third-party providers (TPPs), or merchant acquirers that offer real-time payments ahead of the competition can expect to capture new market share, as payees (merchants) look to offer the full scope of payment methods desired by their customers, across all channels in their local market. TPPs do not have to manage fluctuating interchange fees or some of the risks associated with transactions that do not have 'good funds' certainty, and they don't have to pay other associated network fees. Therefore, they can increase their margin on payments while offering more value to the customer.

TPPs can offer real-time payment acquiring and processing to smaller banks that cannot invest in their own systems, as well as Request for Payment services that can be leveraged by both banking and merchant/biller customers. These high-value services can be charged at a higher margin than traditional transaction processing, allowing payment processors to capture more of the payments value chain.

### **PAYEE BANK**

Many payee banks serving merchants/ billers are looking to become TPPs, or "Payment Initiation Service Providers – PISPs" using PSD2's definition, so that they can initiate payments at the banks that serve their customers' customers. Banks facilitating real-time payments for their corporate customers can offer premium services, such as intraday or instant settlement, to improve the merchant/ biller's liquidity position and enable them to release goods or purchase stock more quickly. And if a payee bank is already supporting multiple payment types for merchants/ billers, then another service is the ability to hold the funds from real-time payments, aggregating into a single payment and reconciliation file, thereby facilitating adoption by the merchant/biller who may need a bit more

time to be fully real-time ready. By leveraging open banking in addition, the bank can quickly inform the merchant/ biller through APIs so that their customer records can be updated instantly, independent of the movement of funds.

### **PAYER BANK**

The payer bank can retain customers and gain new ones by offering security services integrated with real-time and open payment transactions. For point of sale, ecommerce, online banking, and consumer bill payment environments, biometric or single-use codes can be used to authenticate Request for Payments. Banks can also provide the ability to select which account to use for the payments (either at the primary bank or aggregated into a single view from other providers) within the response to the Request for Payment. The bank can also offer more value by offering short term credit for payments, alongside immediate funds.

Banks in some countries, such as Poland and South Africa, have elected to price real-time payments at a premium and have bet on a low-volume, high price strategy. In countries such as Sweden and the UK, consumers can make and receive real-time payments for free, but businesses are charged a small fee (often competitively priced with card payments) for sending and receiving real-time payments. Payer banks can integrate real-time payments into their channel offerings, as part of a fully digital experience underpinned by real-time data. The real-time balance enabled by real-time payments can be combined with the customer's full data picture from across all their financial services providers (based on permissions) to enable the bank to offer predictive balances to ease liquidity issues and move to combat the poor customer experience of failed payments or unplanned overdraft charges. In addition, the bank can offer short-term credit at tailored price points or recommend customers other financial services products for their available balance. Banks can leverage the traditional due diligence they conduct in opening accounts to gain permissions from customers to be the guardian and provider of their identity for payments authorization and authentication. Open APIs can enable customers to 'passport' their identities across different entities to support real-time payments, where the irrevocability of payments necessitates stringent prepayment fraud checks.

### **CENTRAL INFRASTRUCTURE / NETWORK**

Through this entity, real-time payment processing is offered, fostering greater efficiency than batch processing. Within seconds of submitting a payment, the payer bank receives confirmation or rejection from the payee bank via the central

infrastructure. Manual exception processing, settlement processing, and reconciliation is virtually eliminated in a real-time, API-based environment. Moreover, the rich data formats used in modern real-time payment systems enable automated requests and responses for additional information regarding the disposition of an individual payment.

---

## HOW BANKS CAN CAPITALIZE ON THE CONVERGENCE OF OPEN BANKING AND REAL-TIME PAYMENTS

Any payments modernization project requires precise consideration for a bank or processor. Payments are mission critical and upgrades cannot impede current operations. Financial services are a heavily regulated, with new data regulations such as the General Data Protection Regulation (GDPR) impacting new Open API enabled business models.

Legacy solutions are a challenge when solving for real-time and open payments. The expected volume, variety and velocity of transactions (both payments and API calls) necessitate more than a simple real-time enablement of an existing payments engine. A tactical fix such as this might be just enough to initiate and receive real-time payments today, but it does not position the organization to capitalize on the intersection of real-time and open payments. It also does not prevent legacy solutions from creating processing bottlenecks. Organizations must make a more strategic move to deliver consistent, high-quality services that differentiate them from their competitors.

A key component in a real-time and open payments solution is the capability to manage APIs and orchestrate transactions and data across your organization's environment.

Organizations need to make these changes to enable their systems to process real-time payments and the associated data and allow APIs to be used to their full potential without overloading existing systems. By creating an ecosystem, banks release customer data from internal silos, and can offer businesses and consumers customized products and services to drive increased value from each relationship. It also lays the foundation for the bank to benefit from becoming a platform for financial services.

Smaller fintechs do not have to deal with the same burdensome regulation and compliance issues as institutions with a banking license. Decision-making and service development in banks is typically more complex and less flexible than with fintechs. While

fintechs often have an attitude of "build first, fix later", banks normally take the opposite approach and attempt to perfect every service before its introduction. What's more, fintechs do not have the reputational risk that banks have, nor do they face the same regulatory burden. This allows fintechs to innovate more easily than banks. But with new solutions purpose built for payments, banks and processors can be sure of compliance with payments regulation. An API management and orchestration layer can also be used to enable rapid innovation; creation of a sandbox environment, decoupled from the customer-facing channels and insulated from payments engines and core banking, allows the organization to innovate in an equivalent environment until a Proof of Concept (POC) is completed. By leveraging modern technologies for scripting and configuration they achieve a POC more quickly and reduce the need for bespoke testing so that it can be rapidly scaled into production.

The challenge for banks is more than technology – technology is the easy part. Digital transformation and working with new players require a shift in perspective, and the acceptance that not all innovations will generate an immediate profit. Some will help retain or attract customers and ensure the profitability of other services such as lending or wealth management. But incumbents do not need to reinvent proven market ideas. With a partner-rich innovation strategy and API-enabled solution they can integrate new products and services, offer customers the option to use these, and capitalize on the increased transaction volumes and new customer data and insight to further strengthen the customer relationship.

---

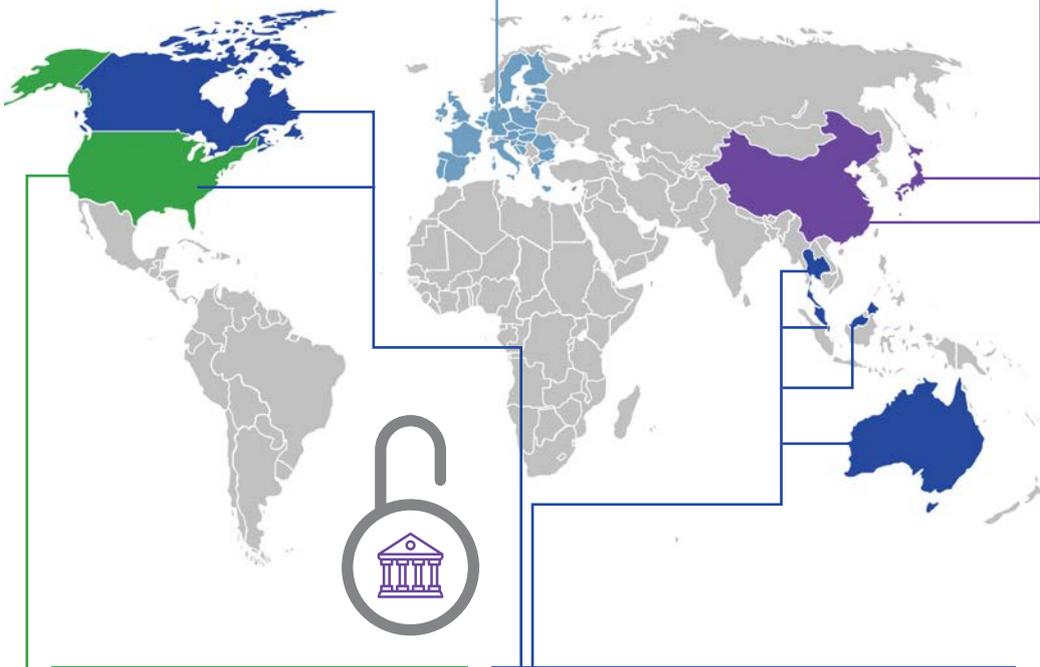
## OPEN BANKING ADOPTION IN REGULATION-LED AND MARKET-LED COUNTRIES

While competition is a strong driver of the move to real-time payments and open banking, regulation also plays a crucial role in many markets. In countries lacking an open banking mandate there are steep challenges in creating interoperability for open APIs. Bank transformation should not just address the gateway issue, but rather look at the end-to-end value-chain of payments and core banking systems.

Open banking is not a case of "if you build it, they will come," so banks need to educate their consumer and business customers about the opportunities they have with new financial products and services being offered to them.

In the European Union, the revised Payment Services Directive (PSD2) mandated that account-holding institutions open up consumer data to approved account information service providers (AISPs) and payment initiation service providers (PISPs). This mandate represents an ideological shift where the customer is now considered to be the owner of their data, not the bank that stores it. Services already available in that market include examples such as Barclays, which has partnered with TrueLayer to open up its customer data to fintechs who would then provide Barclays customers with new products and services. BBVA, a Spanish bank, has an open API allowing fintechs to offer products and services via the BBVA platform. N26, a mobile-only bank from Germany, uses APIs to allow brokers and lenders to connect directly with N26 customers via the N26 mobile phone application. This allows users to apply for loans straight from their mobile application and get a quote in less than five minutes.

In Japan, for example, the government expects more than 80 Japanese banks to begin releasing APIs by 2020 in order to facilitate partnerships with innovative fintechs – despite the lack of any governmental decree. In China, mobile applications like WeChatPay and AliPay have turned into platforms allowing users to send real-time payments, order food with integrated payment functionality, and split bills all from the same application.



Wells Fargo and Chase, for example, are partnering with fintechs such as Mint, Xero, and Fincity to offer their consumers products and services that would otherwise not be available, such as account aggregation. Part of the reasoning behind this move is to fight off potential competitors by offering a better product, but another is the realization that partnering with fintechs can end up helping the bank more than it hurts by taking away customers. Using fintechs' ability to innovate and 'fail fast', US banks are hoping to use open banking as a source of new revenue and a means to increase their competitiveness.

In the absence of regulation, many governments, including the Australian, Canadian, and Singaporean governments, have recently announced the creation of fintech sandboxes to facilitate innovation in the hope that new services will be developed. In Asia, governments like Malaysia and Thailand have increased efforts to reach those previously underserved by banks, and so are trying to drive financial inclusion. In developing economies, modernization efforts have generally been geared at tackling policy issues such as financial inclusion, utilizing mobile phone technology and broader trends of digitalization – even outside the direct remit of government regulation. This is in contrast to advanced economies like the US and Canada where open banking has been more about serving customers better by offering easier integration and lowering costs.

Figure 3 Open banking developments around the world

Source: Lipis Advisors

# MONETIZING REAL-TIME PAYMENTS AND OPEN BANKING

Real-time payments and open banking add value for businesses in a variety of ways, and they have even more potential to help banks grow revenue and attract new customers when combined.

## CONSUMER BENEFITS OF REAL-TIME PAYMENTS AND OPEN BANKING CONCEPTS

The convergence of real-time payments and open banking holds promise for consumers – and the banks that serve them – in multiple ways. One of the most obvious includes the creation of new types of payment by combining related financial services. The Swedish fintech Klarna works as an online acquirer for merchants and offers consumers micro-finance and short-term loans to make purchases. Banks could also provide similar services via real-time payment systems and real-time algorithms to judge consumer credit worthiness and offer short-term loans in combination with services such as the UK's Pay by Bank app, Sweden's Swish, India's UPI, or Alipay in China. The

**In a fully digitalized, open banking future, consumers will be able to use their phones to schedule future payments, pay for everyday items both online and at the POS, and split bills with ease. For example, imagine an office worker that forgot their lunch at home and does not have time to go to the store before the working lunch meeting. This person can order a salad and breadsticks to be delivered to their office for the 1pm meeting and make the payment from their phone without taking out their credit card. After lunch, they can schedule a delivery of groceries to coincide with their arrival home after leaving the office and use request-to-pay functionality to ask their partner for his or her share of the rent coming up.**

customer's own bank can offer a superior service by understanding the full financial picture of the individual, and exhibiting responsible lending, further building their brand loyalty with the customer.

Besides actual payment services, the convergence of real-time payments and open banking also creates new opportunities for banks to offer consumers new products and services in the areas of investment and

financial management. For example, open banking means customers can permit banks to access their account information at multiple banks. This means banks can more easily recommend offerings suited to customers, and offer the best possible packages based on a complete customer picture: an improved interest rate on a mortgage, a personal loan based on purchasing habits and income, investments to take advantage of excess cash, or more convenient everyday payments.

By allowing their data to be shared with a platform, consumers give banks the ability to connect to the platform and receive the data via API rather than relying on paper forms and manual data input. The convenience of filling out digital applications from anywhere enhances the customer experience. Responding to the consumer with a loan offer can be cut down from a matter of days to mere minutes. Consumers get convenience and speed of response which encourages them to consider new financial services suppliers, while banks can reduce costs through automation and ensure a first touch with more new prospects.

## CORPORATE BENEFITS OF REAL-TIME PAYMENTS AND OPEN BANKING CONCEPTS

One of the biggest inefficiencies for corporate customers is in accounts receivable and payable departments, where the reconciliation process of incoming payments to outstanding invoices remains highly manual. This, combined with the fact that many corporates have multiple accounts spread across various banks, countries, and currencies, can make payment reconciliation a painstaking process. Automated reconciliation has so far been a challenge because the onus has been on the corporate to achieve this through internal systems, but API-enabled systems and an orchestration layer can solve this, by producing information in formats that map to existing systems at the corporate end, as well as accepting instructions from the corporate in any format before translating them into payments messaging. With a two-sided messaging model, banks can accept a data-rich message, extract and convert the relevant information for their various internal systems, distribute simpler messages to internal systems, accept the

**A worker in the accounts receivable department of a law firm can attach a unique quick-response (QR) code to e-invoices, allowing the law firm's clients to simply scan the QR code and make the payment. The accounts receivable ledger is automatically updated, and this newfound liquidity can be used to make other payments, such as bill payments for the firm.**

responses and convert them back to a data-rich format, or translate them into another simple message for further processing. This same data formatting process via APIs can be applied to accept batch files from corporates and turn them into individual real-time payments for customer disbursements, ensuring an improved customer experience for the end customer without changing the corporate's business processes and flows.

The ability to send real-time "Request For Payment" both allows for easy reconciliation and a direct debit-like payment functionality that allows the paying party to remain in control of the timing of the payment. This improves the end customer experience and removes cost associated with 'bounced' payments for the corporate. Larger corporations can free staff to focus on more important activities, small- and medium-sized enterprises (SMEs) can manage these costs by using scalable, automated services offered by banks.

Improved liquidity management enables corporates to reduce inventory, modernize supply chains, and unlock working capital to conduct business more efficiently. APIs can be used to create a complete and accurate liquidity picture, which is complemented by real-time payments that allow customers to quickly act on liquidity insight. Even for batch or otherwise "slower" payments, customers can see where their payments are in the process and make business decisions based on the predicted clearing and settlement of the payment.

By having better visibility, corporates can take advantage of tailored services, such as 'micro business loans', that match information on incoming and outgoing payments outstanding invoices or seasonal sales trends, and potential charges for corporate customers for late payments. They can also proactively address liquidity gaps through bridging loans, giving customers better control over banking costs and improving the customer experience.

Using data analysis to identify supply chains and trade corridors gives banks the opportunity to customize products to corporate customers or to connect customers to selected partners that may be able to serve them better. One good example of this is factoring. SEB and the Swedish fintech Capcito use APIs to connect with each other to offer financing to corporate customers based on outstanding invoices.

Small-and-medium-sized-enterprises (SMEs) are often underserved in the corporate banking world due to the high costs associated with serving these clients because, up to now, data collation and analysis was a highly manual process for them. This benefits the SMEs via improved access to services and helps banks by giving them access to new sources of revenue.

Real-time payments and open banking mean banks drive the customer experience and improved loyalty in a scalable and efficient fashion.

---

## THE CHALLENGES FACING BANKS TODAY

Managing this much change in a short period of time will be challenging. The migration of payments away from legacy payment streams and the modernization of back office processes are challenges banks must overcome. Experienced business and technology partners can help by bringing lessons from successful (and unsuccessful) initiatives.

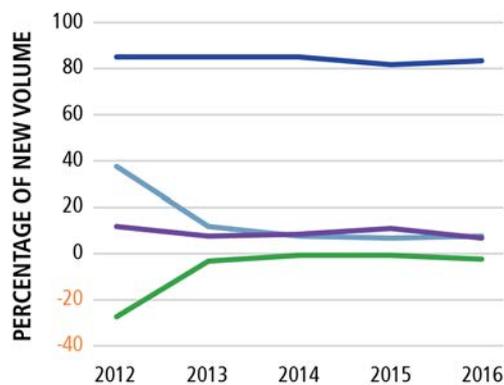
---

### LEGACY REVENUE STREAMS

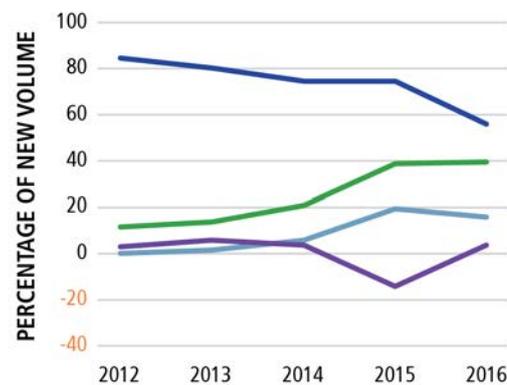
Legacy payment products have been affected very differently to the introduction of real-time payments in different countries, in turn implying that bank revenues have also undergone changes. Figure 4 below depicts the portion of new non-cash payment volume captured by each payment instrument. In the UK, for example, real-time payments affected batch credit transfer volumes, but had little-to-no effect on batch direct debits or card volumes. In Sweden, on the other hand, the introduction of real-time payments had a noticeable effect on cards, but not on batch credit transfers or direct debits. This is because the two real-time payment systems had different primary use cases: in the UK, Faster Payments were intended to support one-off consumer payments (such as bill payments) or B2B supplier payments. In Sweden, on the other hand, the success of the mobile payments application Swish led to real-time payments being used for P2P and C2B mPOS payments. Regardless of the trends at national level, banks will have to model the effects of new payment types on the payments made by their customers. Real-time payments can have significant impact on cash and check transaction volumes because they create electronic micropayments that did not previously exist.

Besides retail payments and cards, many banks have expressed fears that real-time payments could cannibalize revenue from wire payments, especially if transaction value limits increase as they have in the UK. Banks need to take a hard look at their payments-based revenue and begin to model out how this will likely shift in an environment where

**CARDS STILL CAPTURING ALMOST ALL "NEW" TRANSACTIONS**



**CARDS CAPTURING FEWER "NEW" TRANSACTIONS SINCE RT WENT LIVE**



● Real-time payments ● Credit transfers ● Direct debits ● Cards

**Figure 4** Percentage of 'new' non-cash payment volumes captured in the UK and Sweden, by payment type, 2012-2016  
Source: Lipis Advisors analysis

real-time is the new normal. There is little evidence to think that introducing real-time payments will present a reduction in revenues, and in fact should help drive down usage of cash and checks, two of the costliest payment types for the bank.

available customer data. Open banking and real-time payments cross organizational boundaries between retail, corporate, and transaction banking, and will force separate departments in a bank to cooperate to define a digital payment strategy.

**OUTDATED BACK-OFFICE PROCESSING**

Updating legacy systems to cope with 24/7/365 real-time poses a challenge because the back office is the foundation of banking architecture. Stand-in requirements can help alleviate the problem with batch-oriented systems, but they are a temporary solution that does not solve the underlying problem that real-time message-based payments are ill-suited

for file- and batch-based processing. This means that these banks of all sizes and technology strategies need to have a concrete modernization plan that they can then discuss with their technology providers or outsourcers before

Breaking down siloed information and allowing for real-time analysis of customer data will allow banks to offer new products and services, strengthening their relationship with current customers and accessing previously untapped revenue sources.

making any concrete decisions. This may be one of incremental improvements rather than rip-and-replace, but any changes must be against a strategic plan to avoid the creation of further technical debt.

Adding to the problem, many bank processes are currently siloed off from one another, preventing banks from streamlining processes and prevents them from taking advantage of the full range of

**REGULATORY COMPLIANCE**

For many banks compliance with Know-Your-Customer (KYC), Anti-Money Laundering (AML), and Counter-Terrorism Financing (CTF) sanctions often involve manual steps that prevent straight through processing, which drives up the cost and reduces the speed of payments. APIs could allow for two-way communication with sanctions lists, allowing for always up-to-date automated screening. Furthermore, anti-fraud measures can also be shared among consortium banks, allowing mule accounts to be identified more efficiently.

New services around regulatory compliance are also being built for bank consumption. New offerings with KYC checks via smartphone video functionality make opening a bank account much more convenient for consumers while also being both faster and cheaper for banks. Similar services could also be used for fraud, AML, and CTF screening, whereby a centralized data processor collects data from multiple banks and advises them on how to handle a specific transaction with little manual intervention.

In much the same way that government-issued identification, such as drivers' licenses for domestic use or passports for international use, act as paper-based identity verification, banks' own KYC checks could act as digital verification of identities. Reducing internal siloes and enabling easier and

more secure data management via APIs is also enabling collaborative products that would have been unthinkable until recently. In Belgium, the four largest banks have teamed up to develop a platform that allows them to share KYC information for corporate customers digitally. The platform gives corporate customers increased control over their data while improving efficiencies in KYC processing for banks. It also helps banks meet challenges related to regulatory compliance, an area that European banks in particular have struggled with in light of the introduction of new regulations such as the second Payment Services Directive (PSD2) and General Data Protection Regulation (GDPR).

The GDPR has established the principle that the data belongs to the customer, and the guardian of that data must only allow its use as specified by the customer. Therefore, if payments players are to capitalize on the real-time and open payments opportunity, they must consider permissions management. This will not only ensure compliance but can be considered a value-added service for customers, who want to feel confident that their data is well protected by an institution accustomed to high-value information. This also encompasses vetting third party partners as part of an integrated or platform offering. Within the contexts of real-time payments and open banking, consumers and businesses alike will expect banks to have a robust framework in place for commercial and technical security. This will require new paradigms for security.

## ACHIEVING PAYMENTS INNOVATION – THE BANKS RESPOND

Banks have been responding to challenges presented by open banking and real-time payments in various ways: some, such as SEB, have begun investing in relationships with fintechs while others, such as JPMorgan Chase, are opening up and becoming platforms where fintechs can offer their products and services to the bank's clients.

For any solution to be future-proofed, banks need to create a long-term vision for how their institution will respond to current and future challenges. This vision needs to include discussion on the bank's strategy to deal with open banking. For example, will the bank become a platform where other institutions will offer their products and services alongside the bank's or will the bank act as enabler of other institutions, providing the services that require a banking license? There is no

**In order to navigate these changes successfully, banks need to first define and outline an overarching strategy and accept a set of premises:**

- **24/7/365 is the new normal**

Businesses and consumers expect banking to keep up with the rest of their lives. Banks need to prepare for this transition.

- **Transformation is necessary, the question is when it will take place and what shape it will take**

Not all banks offer the same products and services and not all banks will respond to an open banking and real-time payments-enabled world in the same way. Uniting internal data, preparing to accept and send external data, and automating key processes all need to be done, but how and when are up to each bank.

- **Culture and outlook need to change along with back-office processes**

Open banking and real-time payments will force banks to change the way they think about external partnerships and collaboration. Banks will need to seek out partnerships with innovative fintechs and technology partners and be more flexible to make collaboration work. While there may be short-term pain, the possibilities and advantages easily outweigh any downsides.

right or wrong answer – each bank needs to define its own strategic goals – but each bank does need to consider its options.

## THE NEW PAYMENTS ECOSYSTEM

The massive decrease in the cost of computing power and the widespread availability of devices able to process information has led to an unprecedented level of connectivity. For the first time, algorithms can be created to read and analyze bank account information and combine this data with other information from disparate sources. Moreover, real-time payments allow for the movement of money in a matter of seconds regardless of the time or date of application.

Consumer and business expectations have evolved and when end user demands change, existing players have to innovate in order to meet these demands. The maintenance and reporting of real-time balances is essential to allow customers to benefit from real-time payments and open banking. The technology to meet these needs is available today. By using a flexible payments hub, combined with a modern orchestration layer, messaging standards, and API-based interfaces, banks will improve their positions for the future. Customers want banks to provide these services and banks will add value and increase their share of the value chain if they can meet them.

The new payments ecosystem views open banking and real-time payments as two sides of the same coin: they are part of a larger transformation of how banking is conducted today. While banks have a checklist of to-dos, the list of opportunities is even longer.



## LEARN MORE

The pace of change with real-time payments is fast, and things are only going one way. How do you plan to keep up? Learn more in our eBook, **Keeping Pace with Innovation in Real-Time Payments**.

## ABOUT ACI WORLDWIDE

ACI Worldwide powers digital payments for more than 6,000 organizations around the world. More than 1,000 of the largest financial institutions and intermediaries, as well as thousands of global merchants, rely on ACI to execute \$14 trillion each day in payments and securities. In addition, myriad organizations utilize our electronic bill presentment and payment services. Through our comprehensive suite of software solutions delivered on customers' premises, through the public cloud or through ACI's private cloud, we provide real-time, immediate payments capabilities and enable the industry's most complete omni-channel payments experience. To learn more about ACI, please visit [www.aciworldwide.com](http://www.aciworldwide.com). You can also find us on Twitter @ACI\_Worldwide.

## ABOUT LIPIS ADVISORS

Lipis Advisors is a leading strategy consultancy specializing in the payment sector. Lipis Advisors staff are experts on payment systems, services, and strategy, as well as the underlying technologies that support payment infrastructures. Lipis Advisors advises on all forms of payments, including ACH payments, real-time payments, card payments, cheques, mobile payments, online payments, and RTGS/wire payments. To learn more about Lipis Advisors, please visit [www.lipisadvisors.com](http://www.lipisadvisors.com)

---

## AUTHORS

**Dr. Leo Lipis** is chief executive and founder of Lipis Advisors.

**R. Andrew Gómez** is a research manager at Lipis Advisors.