



The Global Adoption of Real-Time Retail Payments Systems (RT-RPS)

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Executive summary

The purpose of this paper is to review the global real-time retail payments systems (RT-RPS) landscape, to analyse market drivers and trends, different approaches to deployment architectures, barriers to entry and the key success factors to ensure rapid adoption.

The case for real-time is increasingly apparent

The use of mobile technology for funds transfers has increased dramatically and the market wants payment services that offer speed, convenience, ubiquity, safety and value for money.

While the physical supply chain has improved, the financial supply chain, in general, has not kept pace. The seemingly straightforward process of debiting one bank account and crediting another often takes longer than the physical movement of the goods.

There are strong candidates within person-to-business (P2B), person-to-person (P2P) and business-to-business (B2B) payment segments, for real-time transactions.

Currently, growth in RT-RPS is strong, but different countries have different approaches

18 countries have responded and now have 'live' RT-RPS systems in place. Additionally, 12 countries are 'exploring/planning/building', and another 17 countries are 'exploring' through a pan-European initiative.

Most of these RT-RPS systems have common characteristics: instant clearing confirmation to support instant or near-real-time posting by the banks, full (or very near) 24/7/365 operation and a drive for a richer data standard, such as ISO 20022.

Despite strong areas of commonality, the approach for clearing and the approach for settlement varies from system to system – 'one-size does not fit all' – and these differences are expected to remain, as communities make different implementation choices.

In the future, competition between providers will emerge based on customer services

Per country RT-RPS market adoption is strongest where the regulator plays a leading role, collaborates with financial institutions, and where pricing is attractive.

The net result is that RT-RPS systems are gaining momentum. The adoption rate is as fast, if not faster, than the historical growth of RTGS systems.

It is expected that RT-RPS adoption will quickly penetrate the market, but will undergo a phase of intense competition between providers, based on end-user service differentiation.

Customer acceptance, price, standardisation, economies of scale, privacy and the ability to adapt to continuously changing security threats, such as cyber-attacks, are all crucial factors to the success of future RT-RPS infrastructures.

As cost control is key, the industry will need to work together to ensure interoperability – legacy and new models will need to co-exist both at a domestic and cross-border level.

SWIFT's role will be to provide standards, interoperability and clearing infrastructure

SWIFT has a strong track record in implementing complex and large scale market infrastructure projects, e.g. TARGET2-Securities (T2S), TARGET2 (T2), Continuous Linked Settlement (CLS), and we have recently won the mandate to build and support the infrastructure underpinning the New Payments Platform (NPP) in Australia.

SWIFT supports the industry to ensure solutions are low cost and effective – through ISO 20022 standards and market practice facilitation; through its secure and robust network; and through provision of new innovative IT solutions, such as its new distributed real-time payments clearing architecture.

Background on payments clearing and settlement

The financial industry has developed sophisticated payment market infrastructure (PMI) systems to undertake this clearing and settlement processes

All payment transactions are cleared, (the payment instruction information is validated), and then settled (the funds are transferred between accounts).

The clearing and settlement of large-value, inter-bank payments are typically undertaken by real-time gross settlement (RTGS) systems, operated by central banks, on a transaction-per-transaction basis to mitigate counterparty credit risk.

In comparison, the clearing and settlement of high-volume, low-value, retail payments are usually batched and netted to optimise the use of central bank liquidity, and processed on a deferred net settlement basis (DNS). These functions are centralised at dedicated entities, known as automated clearing houses (ACH), which are operated by central banks, or by third-party service providers.

Both RTGS and ACH systems are subject to strict oversight by regulators and are recognised¹ as systemic important payment systems (SIPS). They are categorised as such because failure would potentially endanger the operation of a whole economy.

However, today, the clear-cut line between RTGS and ACH is blurring

ACHs are moving away from single, end-of-day batch processing towards more frequent settlement cycles.

As the technology becomes cheaper and more accessible, transaction-by-transaction settlement, in central bank money, is becoming more realistic for a larger number of important retail payments.

Mobile device innovation has provided ubiquitous access to m-commerce services, anywhere, anytime, and has created a higher demand for faster, round-the-clock funds transfer for retail payments.

Rise of real-time digital payments

Over the last decade, the use of mobile technology for funds transfers has increased,

as people have become used to sending mobile payments to friends, merchants and utility providers. Consumers and businesses want payment services that offer speed, convenience², ubiquity³, safety⁴ and value for money, whether money is being transferred Person-to-Person (P2P), or Person-to-Business (P2B).

Over the same period, supply chain logistics have also improved, and the delivery of digital and physical goods has become much faster. For example, Amazon can deliver purchases within one day, and eBay offers a one-hour delivery service in some cities.

In addition, new end-user services are being created by both banks and non-bank payment service providers

These services, sometimes called 'overlay services' or 'value-added services', can span the entire purchasing experience beyond the payment itself. They enrich the basic payment data with a wider set of information to create added value. For example, the automated matching of purchase orders to invoices for businesses, or, for retail, in-store promotions that are dynamically triggered by a consumers' geographical position, their loyalty profile and their purchase history.

However, the financial supply chain has not reached the same speed for the digital delivery of funds in all countries

The seemingly straightforward process of debiting one bank account and crediting another often takes longer than the physical movement of the goods. As consumers and merchants are used to immediacy, they naturally expect digital payments to keep up at the same pace.

¹ By the Bank for International Settlement (BIS), the local regulatory authority and/or by the Committee on Payments and Market Infrastructures (CPMI).

² Payer's experience must be as easy as with cash, with no need to know the payee's account number.

³ Payment shall be accessible anywhere with no need to access a branch or ATM.

⁴ Privacy and integrity of the payment must be guaranteed: this imposes strong authentication of the transactions, end users and devices.

What types of payments are suitable for real-time?

A recent study⁵ has shown that some, but not all, payment types may benefit from, or be suitable for, real-time availability and confirmation of funds transfer

Chart 1 shows the current market share and growth trend for all non-cash payments on a global basis (credit and debit cards, e/m-commerce, business invoices and salaries, etc.), and shows which of these payment types would benefit most from the RT-RPS value proposition – the immediate transfer, confirmation and ability for funds re-use, on a 24/7/365 basis.

In broad terms, the study findings show a strong or a very strong case for:

- the immediate funds availability and immediate confirmation for large-value purchases, across P2B (e.g. houses and cars) and B2B segments (e.g. one-off invoices)

- the immediate funds availability and immediate confirmation for urgent P2P money (remittance) transfers between individuals, and for B2B urgent invoice payments in order to optimise working capital
- the immediate notification for P2B e/m-commerce, with a medium case for immediate funds availability for both physical purchases (e.g. books) and digital goods (e.g. online newspapers, documents, games, music)
- the immediate notification at P2B point of sale (POS), but a weaker case for immediate funds availability

The case is weaker for immediate funds availability and confirmation for P2B bill payment, including direct debits, and for B2P salaries and pensions. This is not surprising as these payments are typically scheduled in advance, on a defined date or with a defined frequency, and the incremental value of having the payment

transacted on the predetermined date in real-time is, arguably, marginal.

For merchants, the survey also revealed that the desire for real-time is supplemented by the need for convenience (introduction of new mobile POS and new applications, for example Apple Pay), for cost effectiveness (drive towards credit transfers as alternatives to credit and debit card payments⁶), and for increased understanding of consumers' purchasing habits, to develop loyalty programs and maximise cross-selling opportunities.

The results of the survey reflect the potential use cases for real-time payments globally across all countries. The use cases may be different in specific markets, for example, POS payments are not candidates for immediate funds availability in the US where the existing payment instruments represent a convenient and well entrenched alternative.

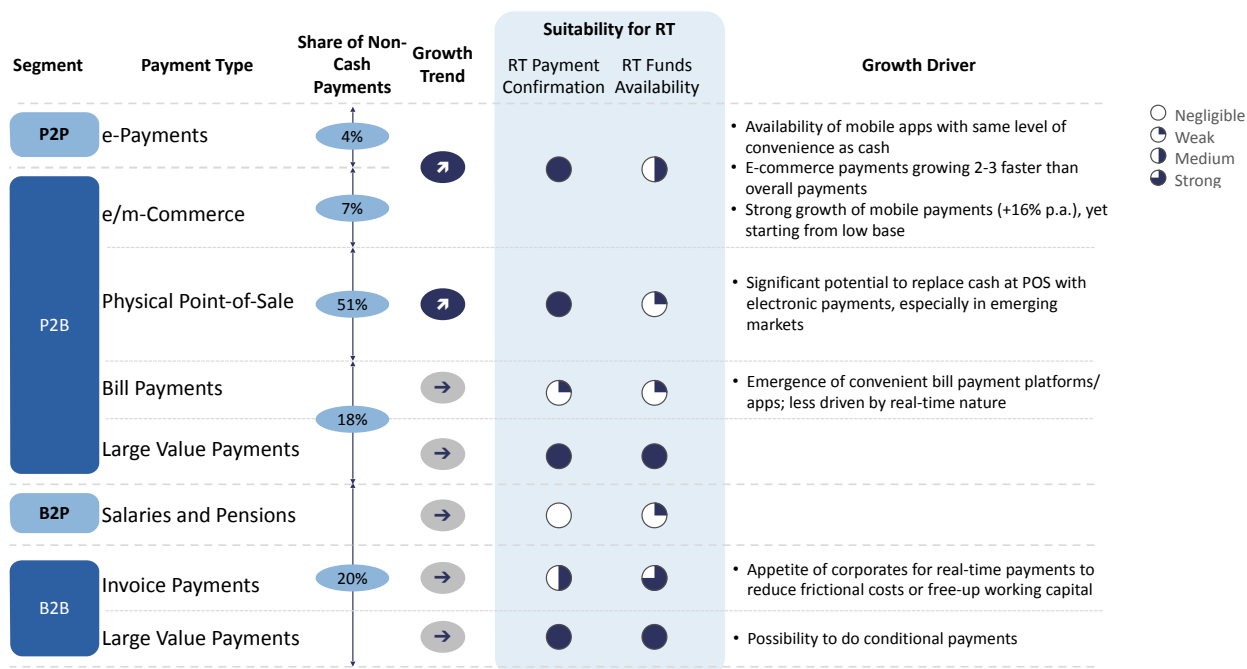


Chart 1 – Suitability for Real-Time, By Payment Types

⁵ Real-time low-value payment systems study, SWIFT and the Boston Consulting Group (2014).

⁶ Though interchange fees are lowered following regulations decisions, the card acceptance costs are always reported as a key issue.

Operational systems that can achieve real-time

The emergence of digital payments, value added services and the push for immediacy are having a knock-on effect on underlying Payment Market Infrastructures,

which were originally designed to process relatively simple payment information in bulk files, either at the end of the day or overnight.

To satisfy 'immediacy', the underlying payment systems would have to provide:

- instant and irrevocable debiting of payers' accounts and crediting of payees' accounts
- immediate confirmation to both parties that the funds have been transferred, and can be re-used immediately
- service availability on a 24/7/365 basis

Although real-time payment services may differ in some aspects (for example the type of instrument, or the authorisation mechanism), they aim to offer the same thing: a real-time funds transfer service to end consumers and businesses, so that the beneficiaries can re-use the funds immediately.

To achieve real-time between banks, there are two settlement architecture options: closed systems and RT-RPS systems.

Closed systems

The first option is to settle the payment on a 'book-to-book' basis. This can be either through 'on-us' payments within a bank, or in a closed system such as PayPal, Alibaba, or BlueCash.

Closed systems are efficient, but they do not always offer ubiquity as both the payer and payee must both be users of the same closed system. As volumes and payment values grow, the systemic risk increases, and these closed systems may need to comply with SIPS⁷ regulatory requirements, which may increase costs and impact the original business model. In addition, the isolated pools of liquidity that are created in a closed system do not necessarily benefit the payer and payee.

RT-RPS systems

The second option is to implement a real-time retail payment system (RT-RPS).

In RT-RPS, payments may be settled payment-by-payment in an RTGS, in central bank money, to mitigate credit risk.

Alternatively, banks may undertake real-time funds transfer by debiting and crediting the accounts, and then reserve sufficient liquidity to cover the credit risk taken between the posting and the actual deferred net settlement.

These two settlement methods rely on existing clearing and settlement market infrastructures that are already compliant with the systemic risk mitigation recommendations issued by CPMI⁸.

This paper will focus on RT-RPS systems, and will analyse the suitability of payment types for real-time, and the subsequent business and operational approaches for clearing and settlement.

⁷ Systemic important payment systems (SIPS)

⁸ Committee on Payments and Market Infrastructures (CPMI)

The RT-RPS system landscape

To date, there are currently 18 countries 'live' with RT-RPS systems, 12 countries that are 'exploring / planning / building', and an additional block of 17 countries that are 'exploring' through a pan-Eurozone initiative, see Chart 2.

Notably, several of these countries are considering how best to implement real-time payments, but have yet to publish the way forward.

Over the last 12 months, the U.S. Federal Reserve Bank⁹, the European Payments Council (EPC)¹⁰ and the European Banking Association (EBA)¹¹ have all issued formal papers on the subject of real-time payments, each of which has created considerable interest within their respective communities.

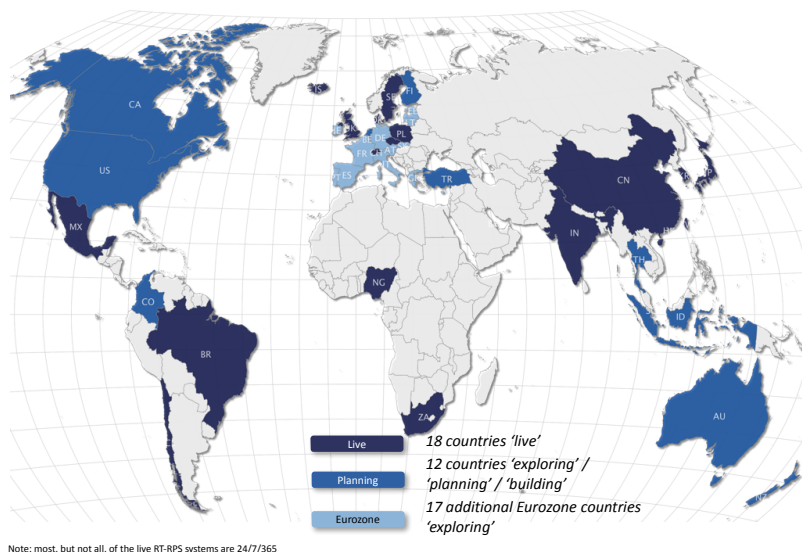


Chart 2 – RT-RPS Market Landscape

Common characteristics across RT-RPS systems

Across the landscape of operational and planned RT-RPS systems, there are a number of common characteristics.

Instant funds posting and payment confirmation

Typically, RT-RPS systems provide irrevocability, support real-time posting and re-use of funds, as well as the immediate payment confirmation to both the payer and the payee. Some participants of RT-RPS systems post funds on a beneficiary's account after successful clearing, while others post after settlement.

Round-the-clock operations

Typically, RT-RPS operate on a full (or very near) 24/7/365 basis, although not all schemes clear payments in real-time, and settlement timing also varies.

Richer data standard - ISO 20022

All of the RT-RPS systems that have been implemented recently, or are being planned, such as Brazil, Poland, Sweden, Singapore, Denmark, Australia and Japan, use ISO 20022 message standards, which have become de facto in this space. Other countries, for example South Africa, Switzerland and China, are planning to adopt ISO 20022.

ISO 20022 is seen as a way to improve payments efficiency, to create a common, level playing field. ISO 20022 messages are structured in such a way that the messages can carry more data fields, can carry 'richer' information with the payment such as remittances, and can also support non-Latin characters, important for Asian markets.

⁹ Strategies for improving the U.S. Payment System, Federal Reserve System, January 26, 2015 and the Federal Reserve Financial Services, Payment System Improvement – Public Consultation Paper, The Federal Reserve Banks, 10 September 2013, page 5.

¹⁰ EPC Newsletter (Issue 25): The future of payments – scenario building at the digital age. The Future of Payments: European Commission Invited Exchange of Views at its Conference on Emerging Challenges in Retail Finance and Consumer Policy, January 2015.

¹¹ Next Generation Alternative Retail Payments: Infrastructure requirements, EBA Working Group, 15th December 2014.

Differences in clearing and settlement across RT-RPS systems

Despite strong areas of commonality across RT-RPS systems, the *approach for clearing* (i.e. the validation of all the payment instruction details between payer's and payee's banks), the *approach for posting* (i.e. the debiting and crediting of payer's and payee's accounts) and the *approach for settlement* (i.e. the irrevocable debit and crediting of funds between bank accounts) varies from system to system.

Three approaches prevail, as shown in Chart 3, each with their own characteristics: hub, RTGS-based, and distributed-clearing.

Hub approach

In the hub approach, a third-party organisation runs a central application as a hub to handle the clearing between the participants (i.e. the banks), and manage the downstream settlement with the central bank's RTGS.

After the hub participants have pre-funded their accounts or pledged the necessary collateral, the hub undertakes clearing in real-time and updates the participants' ledger accounts, also in real-time. These accounts keep track of the liquidity position of the different participants, and ensure that participants remain within the boundaries of the pre-funded liquidity or collateral deposit.

Subsequently, the hub instigates settlement by sending a settlement instruction to the RTGS, where the actual movement of funds between the bank accounts takes place, in central bank money. Most systems will have 1 to 6 fixed settlement cycles per day, and some (e.g. U.K. Faster Payments) can initiate a settlement cycle ad hoc, based on predefined multi- or bilateral exposure thresholds.

The hub approach is used by most existing systems (e.g. U.K., Sweden, Poland, Singapore and India).

RTGS-based approach

In this approach, the RTGS effectively supports both the clearing, and undertakes the final settlement of the retail transaction.

RTGS systems do not have the capability to validate payment instruction details with the counterparty, but, as RTGS payments are final, failure to pay would result in a return payment to the originator.

In this way, the RTGS both settles the transaction with finality, and also passes on all instruction details to the beneficiary bank for subsequent clearing.

This approach has been adopted by Mexico.

Distributed-clearing approach

Here, the validation and confirmation of the payment instruction are undertaken on a peer-to-peer basis, between both banks, before initiating downstream settlement at the central bank.

Clearing is carried out on a 24/7/365 basis, in real-time. Subsequently, the payer bank instigates settlement by sending a settlement instruction to the central bank. The instruction is processed by a real-time settlement application where the actual movement of funds between the bank accounts takes place, in central bank money, on 24/7/365 basis.

In this process, the beneficiary bank may agree to post the funds to the beneficiary's account after clearing, or after settlement.

This approach is being adopted by the New Payments Platform (NPP) in Australia, where the RTGS, the Reserve Bank Information & Transfer System (RITS), will be enriched with a Fast Settlement Service (FSS) operating 24/7/365. The FSS complements the traditional RTGS and will provide irrevocable and settlement finality.

¹² Pan-European instant payments in euro: definition, vision and way forward, European Central Bank, 12 November 2014, ERPB/2014/017.

¹³ Strategies for improving the U.S. Payment System, Federal Reserve System, January 26, 2015.

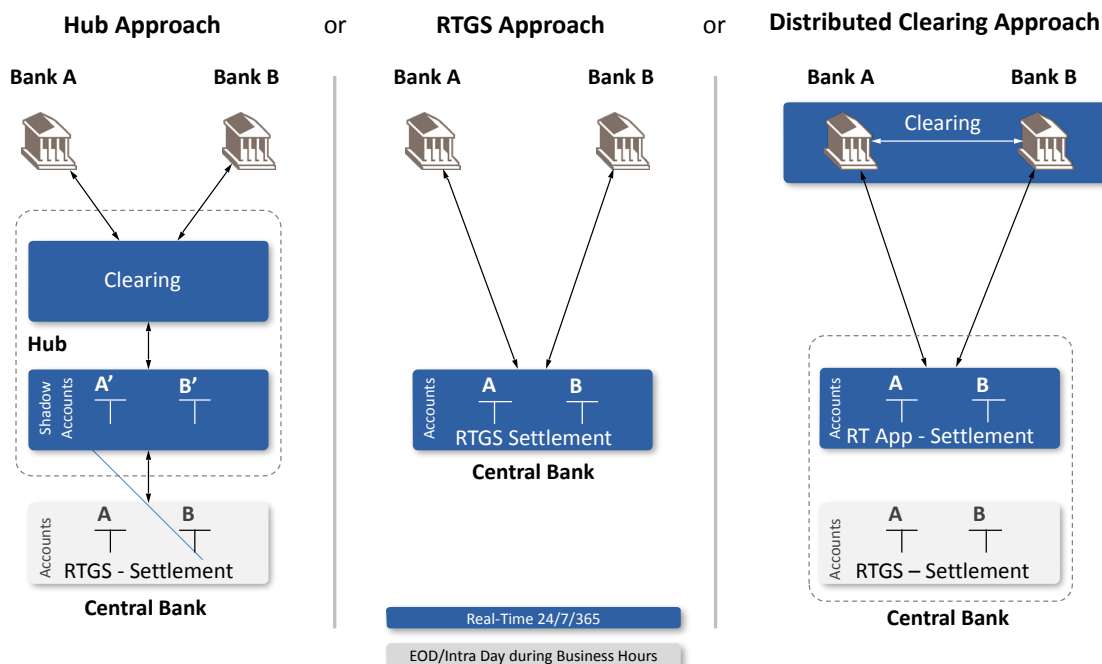


Chart 3 – RT-RPS Clearing and Settlement Approaches

The diversity in approaches to clearing and settlement is expected to remain, as communities may adopt different risk profiles and implementation choices. Within a single currency zone, individual financial communities may adopt different approaches which will need to co-exist and interoperate. For example, the European Central Bank has recommended at least one pan-European RT-RPS, but has not excluded multiple RT-RPS to encourage competition and drive costs down¹². In addition, the Federal Reserve Bank has identified four possible approaches to support real-time payments to meet the needs of individual groups of stakeholders¹³.

Each market requires close collaboration between regulators and the industry for the design, implementation and operations of the RT-RPS system to ensure adoption. Furthermore, where multiple solutions co-exist in a given currency market or region, then interoperability between these systems will be key to guarantee ubiquity.

The market will ultimately decide what functions and services should be central, core and collaborative versus functions and services that should be competitive.

Key drivers that influence RT-RPS adoption

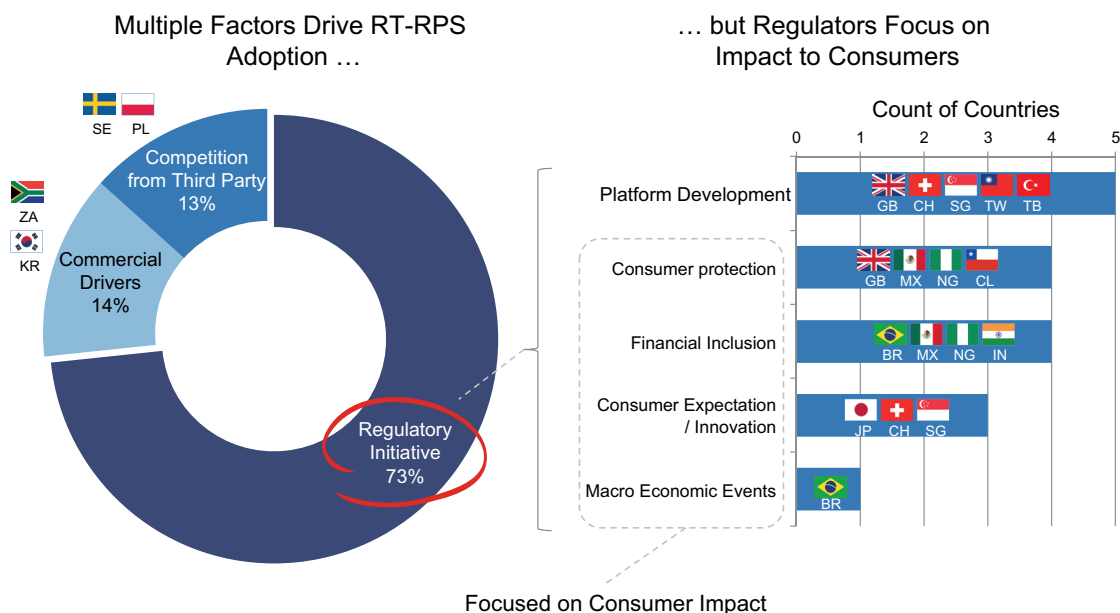


Chart 4 – Drivers that Influence RT-RPS Adoption

Based on market analysis reports¹⁴ and a series of in-depth interviews¹⁵, there are a number of factors that impact the speed and success of market adoption of RT-RPS systems, as shown in Chart 4.

The results show that the primary driver (73%) for RT-RPS adoption is the impact of regulatory reform.

Regulators seek payment services that offer greater end-user protection¹⁶, transparency, and reduced credit risk for consumers and businesses. They seek to extend basic payment services to the unbanked, or underbanked, to improve financial inclusion, e.g. India and Nigeria, to foster innovation and competition in the payment services sector, e.g. Japan and the UK, to reduce the use of physical cash¹⁷ and to counter macro-economic events, such as loss of confidence in the local currency¹⁸ in Brazil.

Regulators believe that faster payments will accelerate economic growth – if a business is paid in real-time, it will be able to speed up its cash conversion cycle, generate necessary working capital, and reduce its need for expensive short-term financing. In addition, modernising a country's payment system may attract foreign investments, which in turn, drives economic growth. Reducing the use of cash instils a formal economy, where governments can benefit from related taxes.

The Federal Reserve Bank stated¹⁹ that a near-real-time payment capability may ultimately be a beneficial improvement to the payment system that supports economic activity in the United States and maintains the US dollar as the currency of choice for global trade.

The secondary driver (27%) for RT-RPS adoption is the impact of the banks' commercial needs - both in responding to customers' expectations, or responding to competitive threats from new entrants.

For example, in Sweden, the popularity of mobile payments is the main driver for the BIR real-time payment system, which has a payment overlay service called Swish, run by the six largest Swedish banks. Whereas in Poland, the local bank-owned market infrastructure developed the KIR's Elixir Express to respond to a strong third party competitor, BlueCash²⁰.

¹⁴ Lipis Advisors, Global Payment Systems Analysis, Final report: Volume I - Comparative Analysis, May 2014, Volume 2- Country Profiles, March 2014.

¹⁵ Interviews in the UK, Mexico and Poland market in partnership with Boston Consulting Group (2014).

¹⁶ Reduction of the float typically for D+3 systems, but also for D and D+1 systems, where real-time is also expected by customers.

¹⁷ Reduce the use of cash to counter money laundering.

¹⁸ The combination of hyperinflation and payment delays increased the loss of confidence in the local currency – real-time payments help beneficiaries to re-use the money immediately and limit the impact of price increases.

¹⁹ Federal Reserve Financial Services, Payment System Improvement – Public Consultation Paper, The Federal Reserve Banks, 10 September 2013, page 5.

²⁰ Blue Cash holds private accounts in all the banks in Poland to offer universality. This caused a concern about the systemic risk among the banking community.

Building an RT-RPS business case

Whilst banks acknowledge that regulators and governments will continue to drive the implementation of RT-RPS systems over the next 5-10 years, they also argue²¹, from their perspective, that the financial business case is still unclear.

Three factors are commonly cited.

One-off investment costs and ongoing costs

Real-time projects require relatively high levels of investment. One-off costs cover the development (or modification) of the central RT-RPS system; the banks' internal IT infrastructures; and the banks' core operations processes. Ongoing costs cover the investment needed for the daily operations, annual maintenance and support of these systems.

The changes can be sizable. Historically, retail bank processing has been dominated by the overnight batch, while a real-time service, demands continuous processing, with 24/7 uptime, without

interruption²². This has a knock-on effect on the associated operational and risk management processes, which must manage higher transaction volumes with richer and more complex data, whilst ensuring adequate AML and fraud detection, and customer support. Over a seven-year period, the total investment plus ongoing costs for the UK Faster Payment Service (FPS) is estimated at 800 million GBP²³.

Cost of fragmented landscape

If multiple RT-RPS solutions, with different operational and network requirements, co-exist in a given currency market or region²⁴, then banks may need to join several RT-RPS systems to respond to their customers' needs. This requirement to comply with a fragmented landscape will result in additional expense, unless true business, legal and technical system interoperability has been achieved.

Uncertain revenue potential

In most cases, retail consumers do not expect to be charged a premium for real-time payments. Business-to-business transactions typically can be monetised, but this may inhibit wide adoption.

In its report on migrating existing legacy instrument to faster payments²⁵, the Federal Reserve Bank estimated implementation costs would be in the range of USD 0.9 to 1.8 billion and that per-transaction costs would reduce from USD 0.47 to USD 0.27. The net result is that the overall business case would be neutral or negative.

Other strategic factors

To counterbalance the lack of a clear financial business case, there are a number of strategic factors to consider.

Customer expectation

The number one argument remains the obligation of the banking community and other payment players to address the expectations of a new generation of consumers. These customers expect their funds to move at least as fast as their mail and their goods.

Disintermediation threat from new entrants

Banks recognise that they risk being disintermediated - losing account relationships, losing revenue from selling in-depth consumer analytics to marketers and ultimately losing business to competitive new entrants, for example in the digital person-to-person space.

Emergence of new products and services

On a more positive note, the Federal Reserve Bank report stresses the importance of new and unanticipated products and services that will emerge, introducing cost savings and efficiencies for their customers, which are not easy to estimate.

²¹ In the United States, the Federal Reserve consultation paper noted "many commenters" were not convinced of the business case for an RT-RPS.

²² Batch systems are regularly switched-off for maintenance / updating.

²³ "Costs and benefits of building faster payment systems: the UK experience and implications for the United States", by Federal Reserve Bank of Boston.

²⁴ ECB recommends at least one but do not exclude many RT-RPS emerging to foster competition.

²⁵ Strategies for improving the U.S. Payment System, Federal Reserve System, January 26, 2015 and the Federal Reserve Financial Services, Payment System Improvement – Public Consultation Paper, The Federal Reserve Banks, 10 September 2013.

Comparing the speed and success of RT-RPS adoption

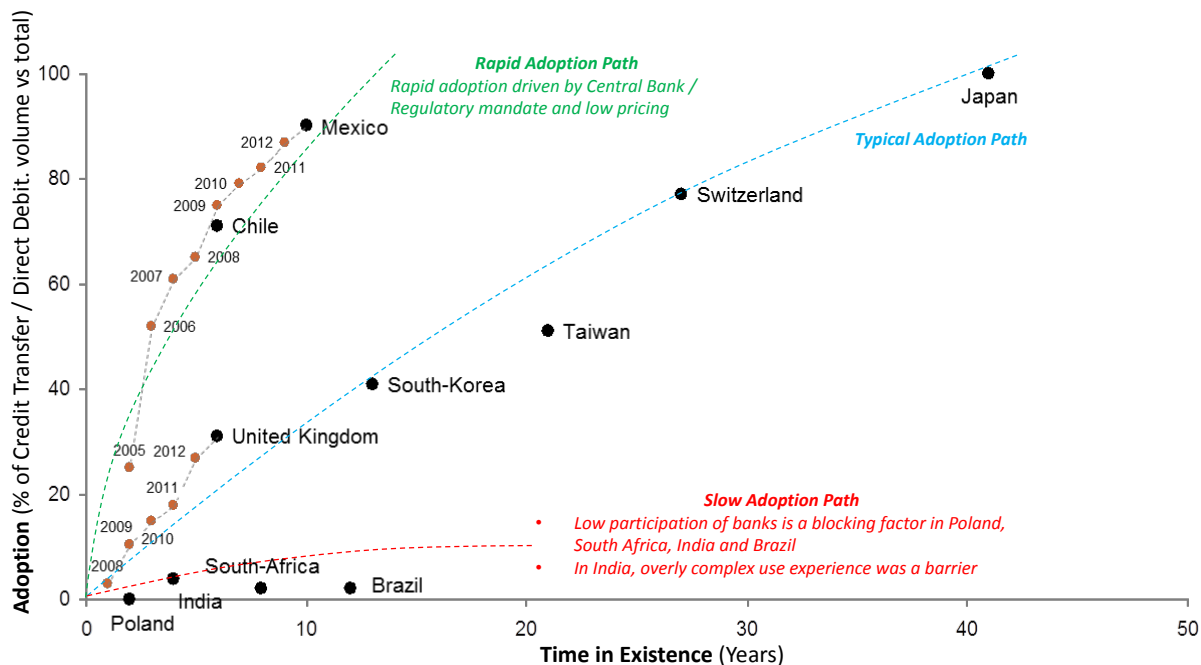


Chart 5 – RT-RPS Adoption Rates, by Country

In the market, the net result of all of these factors is that RT-RPS systems are gaining momentum. However, the speed and success of adoption, varies significantly from country to country.

Chart 5 shows adoption rates, measured as the percentage of retail payment transactions displaced from traditional credit transfers / direct debits to RT-RPS, since the year of launch of these systems²⁶.

At a high level, the adoption paths fall into three categories.

Typical adoption path

This represents the bulk of the systems typically launched more than a decade ago. Here, the regulator played an active role in leading the RT-RPS initiative, but

the adoption is slower than in newer RT-RPS systems that have benefitted from relatively newer technology evolution and/or lower price.

Slow adoption path

This path is typical of countries where the regulator did not play a prominent role and/or the banking community showed little appetite in adopting RT-RPS. For example, in Poland, a new commercial entrant (BlueCash) benefited from first-mover advantage over the new RT-RPS (KIR Elixir Express²⁷) as the banks were primarily focused on their SEPA²⁸ migration. In South Africa²⁹ and Brazil³⁰, low participation of banks was the key issue, and in India, the complexity of the IMPS service was a key barrier.

Rapid adoption path

Here, the regulator plays a leading role in the RT-RPS initiative, adopts new technology and encourages the market to migrate through attractive pricing or incentives. For example, in its mission to reduce the use of cash, the central bank in Mexico directly advertised the use of its RT-RPS system, SPEI (Sistema de Pagos Electronicos Interbancarios), to the general public.

In general, RT-RPS adoption is rapid where the regulator encourages adoption, where the entire banking community commits to the initiative, and where the end customer sees value or can leverage new tools.

²⁶ Calculated as volume through Real-Time retail payments over total volume of similar transactions (e.g. Credit Transfers or Direct Debits).

²⁷ Only 16% of the banks participate in KIR Express Elixir in 2014.

²⁸ Single Euro Payments Area.

²⁹ Only 27% of the banks participate in RTC system in South Africa.

³⁰ In Brazil, banks are reluctant to use the new SITRAF service because of the loss of float.

Adoption parallels with RTGS systems

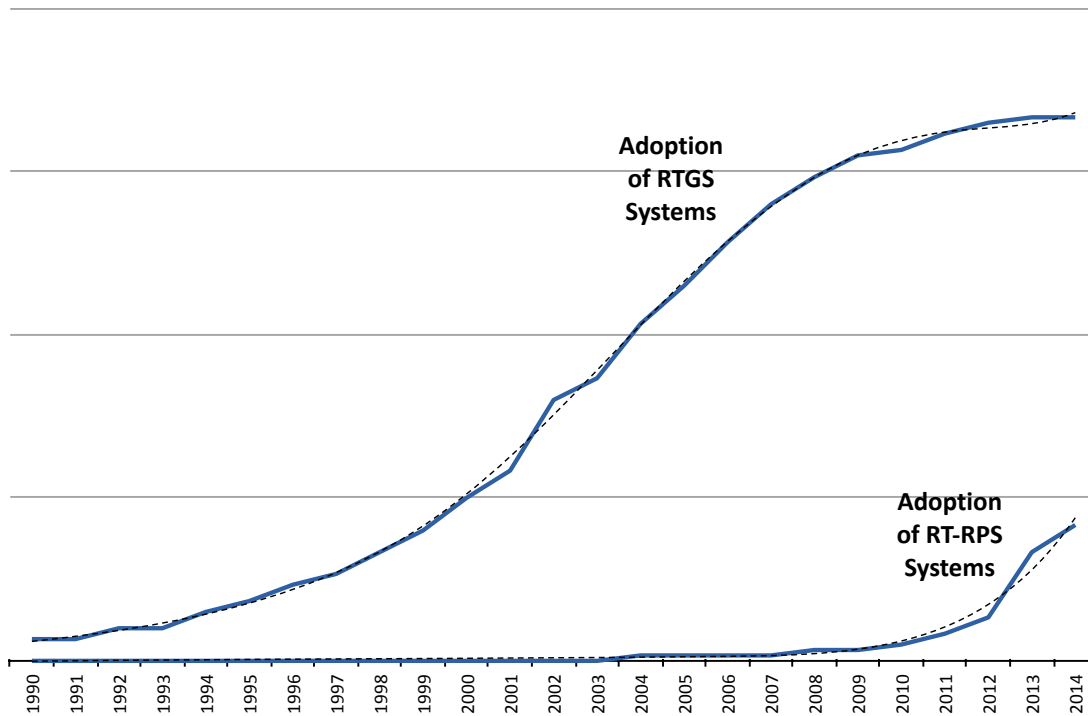


Chart 6 – Historical Adoption Rates of RTGS and RT-RPS

With 18 RT-RPS systems fully operational, and many others exploring, planning or building, the market is in its growth phase

The rate of adoption of RT-RPS is as fast, if not faster, than the historical adoption of other payment Market Infrastructures, see Chart 6, and analysts expect new RT-RPS will quickly penetrate the mass market³¹.

However, as history reveals, the path to successful innovation can be full of pitfalls. The RT-RPS market can be expected to undergo a 'shake-out' phase where differentiated end-user offerings will start to emerge and intense competition between providers will be the norm.

Customer acceptance, standardisation, economies of scale, privacy and the ability to adapt to continuously changing security threats, such as cyber-attacks, will all be crucial factors to the success, or failure, of RT-RPS infrastructures as they evolve.

In addition, as the cost for the industry is a key barrier for adoption, the industry will need to work together to ensure interoperability - legacy and new models will need to co-exist both at a domestic and cross-border level.

³¹ Fundtech, Immediate Payments – Innovation is Knocking, September 2013.

How SWIFT can help

SWIFT is a bank-owned, cooperative, with extensive experience in industry-wide MI initiatives, such as SEPA, T2, T2S, SADC, JASDEC, DTCC, CPA, CLS, SGX, ASX, EBA STEP2, EBA EURO1/STEP1, etc. These market infrastructures use SWIFT to reduce the overall industry costs and sustain the competitiveness of its members.

Specifically for RT-RPS, SWIFT is supporting the community in a number of ways.

Distributed real-time payments clearing

SWIFT is currently developing infrastructure components for the New Payments Platform (NPP), the new Australian infrastructure for real-time payments.

Clearing is distributed, between debtor and creditor banks, and also triggers immediate settlement in a central settlement engine built by the Reserve Bank of Australia (RBA). The scope includes a 24/7 network, switch components and a proxy addressing database, which allows payments based on personal identifiers such as mobile phone numbers or email addresses.

Customers will be able to leverage their existing SWIFT infrastructure to access the NPP solution.

The NPP service is scheduled to go live in 2017, and the underlying technology has the potential to be re-deployed in other markets.

ISO 20022 standard and market practice

As a standards-setting organisation, SWIFT has been closely involved in ISO 20022 from its inception. SWIFT has two roles:

Registration Authority / Content Contributor

SWIFT is the ISO 20022 registration authority and the major content contributor to the ISO 20022 message portfolio. SWIFT participates in all relevant ISO 20022 Standards Groups, and participates in the maintenance process of ISO 20022 message sets, including those designed for SEPA.

Market Practice Facilitation

Market practice defines how the standard is used and SWIFT is a trusted facilitator and harmoniser of global market practice for ISO 20022. SWIFT has acquired invaluable market practice expertise by working closely with Payments Market Practice Group (PMPG), and numerous regional and local market practice groups, including the European Payments Council (EPC) for the definition of SEPA rulebooks and implementation guidelines.

Single window connectivity

SWIFT operates the only world-wide, secure, reliable, value-added network designed specifically to carry financial messaging, including ISO 20022:

Single window

With a global reach across 10,800+ financial institutions, 200+ countries and 230+ Market Infrastructures, SWIFT offers a single connectivity window to a wide range of counterparts. This reduces complexity and risk compared to using multiple proprietary networks.

SWIFTNet Messaging Features

Delivering value-added functions including automatic validation of the message against the ISO 20022 standard, access control, strong authentication, encryption and non-repudiation (where message delivery cannot be disputed).

Shared services delivery and support

SWIFT has developed shared services in areas that support the community, e.g. payment routing reference data, address resolution, Know your Customer (KYC) registry, sanctions screening/testing, reference data, and Market Infrastructure Resilience Service (MIRS).

Conclusion

The emergence of innovative real-time payment services is having a transformational impact on the underlying payment systems. Real-time is a growing trend, but the market is still in flux as different models are emerging to deliver necessary functionality such as low latency, 24/7/365 operations and clearing and settlement.

Different countries have implemented RT-RPS systems in different ways, ranging from adapting current legacy infrastructures up to building brand new systems. As the cost for the industry is a key barrier for adoption, interoperability and efficiency gains are critical success factors for both financial institutions and regulators for rolling out a RT-RPS system.

One thing is certain – it will be important for the industry to work together and to come up with ways to make this work. Legacy and new models will need to co-exist both at a domestic and cross-border level, and, for banks, interoperability will be essential.

As a bank-owned cooperative, SWIFT's mission has always been to deliver cost-efficient and robust services that support its members' business. Over the years we have also shown a solid track record in facilitating dialogue and building consensus in the banking community in order to agree market practices, achieve standardisation and reduce the costs for our members without compromising on service security and reliability.

SWIFT is happy to share our insights on real-time payments system trends with the industry.

Comments and feedback are welcome – please send to market.infrastructures@swift.com.

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SWIFT is a member-owned cooperative that provides the communications platform, products and services to connect more than 10,800 institutions in more than 200 countries. SWIFT enables its users to exchange automated, standardised financial information securely and reliably, thereby lowering costs, reducing operational risk and eliminating operational inefficiencies. SWIFT also brings the financial community together to work collaboratively to shape market practice, define standards and debate issues of mutual interest.

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