Critical Connections

The instrumental role of European Clearing and Settlement Mechanisms in a changing financial landscape
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Executive summary

Today, the financial services industry is experiencing unprecedented changes which are gradually shifting the dynamics of financial ecosystems, breaking up value chains, and threatening existing financial services business models. Global developments including an increasingly digitised society, evolving consumer expectations, new collaborative partnerships, advancing technologies, and new entrants are all adding to the impact, evidently reshaping the way payments are perceived, initiated, processed, cleared and settled.

Parallel to these global developments, circumstances in Europe including changing regulatory and legal frameworks, the transition to instant payments, higher demands for interoperability and reach at a pan-European level as well as an escalating competitive environment involving new industry players are all adding additional layers of complexity to its existing financial infrastructure.

These significant changes across regulatory and market dynamics are delineating the needs and expectations of consumers and merchants alike. Consequently, consumers now expect security and consolidation of finances and transactions while merchants (and other service providers) expect payment certainty and speed. With the proliferation of account-based real-time payment systems, the payment account is ideally positioned to serve both ends of the payments value chain through the delivery of security, consolidation as well as fast, final and irrevocable payments.

With PSD2 and the Access to Account requirements, it has suddenly become possible for TPPs outside the traditional financial services industry to fill the role as both PISP (Payment Initiation Service Provider) and AISP (Account Information Service Provider). These developments have become the catalyst for increased integration across the traditional boundaries of financial services, thereby opening the doors for different technology providers to enter the financial services space.

Against this backdrop, this paper argues that local clearing and settlement mechanisms (CSMs) are ideally positioned to serve the specific requirements of local European environments in terms of reach and value-added services and to facilitate the connection between local financial players – including local fintech startups – and global transaction systems, as well as the connection between global service providers and local payment networks and players.
The current state of the European payments market

Across Europe, circumstances including changing regulatory and legal frameworks, the transition to instant payments, higher demands for interoperability and reach at a pan-European level, as well as an escalating competitive environment involving new industry players, are currently adding additional layers of complexity to the existing financial infrastructure and to the way payments are essentially conducted.

The significant changes across regulatory and market dynamics have helped to delineate requirements and expectations across both ends of the payments value chain. Now, consumers expect security and a consolidated overview of their finances and transactions while merchants and other service providers expect certainty of payment and fast transactions. With the proliferation of account-based real-time payment systems, the payment account is an obvious choice as it delivers security, an overview, as well as quick, final and irrevocable payments to merchants.

Given these recent developments, it is becoming increasingly evident how local CSMs present themselves as a preferred choice for banks and PSPs, as they are ideally positioned to serve the specific requirements of local European environments in terms of reach and value-added services and to connect local players to global transaction systems as well as global service providers to local payment networks.

Standardisation and harmonisation
Both the first Payment Service Directive and the Revised Payment Services Directive – PSD2 – drive a pan-European standardisation and harmonisation agenda with the explicit aim of an internal market for financial services and the free movement of money on par with the free flow of goods and labour across all of the European Union.

An open internal market for financial services will allow for increased competition as a harmonised setup enables easier expansion and export of services across borders. At the same time, the unprecedented increase of e-commerce is blurring the frontiers across countries. These factors provide opportunities for both existing players in the financial services industry as well as for the fast-growing number of fintech companies across Europe.

However, even with increasingly standardised interfaces, the financial services industry is more than anything network-based and building up entirely new networks takes time. This is why the existing network hubs will continue to play a central role if the political visions for an internal market for financial services are to be fully realised. The local CSMs are well-established conduits to all banks in a given country, as well as to other local payment infrastructure components which are not likely to be replaced by pan-European solutions any time soon.

Prior to the advent of SEPA (the Single Euro Payments Area), EBA Clearing’s pan-European payment service – STEP2 – was the default clearing and settlement mechanism (CSM) for cross-border payments in Europe. During this time, the service attempted to grow its reach by acquiring domestic volumes. Following the implementation of SEPA standards (SEPA Credit Transfer, SEPA Direct Debit, SEPA Instant Credit Transfer) by all national community CSMs and reciprocal reach extended by these CSMs connecting to STEP2, the initial PSP vision of SEPA centralisation gradually dissolved as local CSMs could then serve local needs and offer SEPA reach through these links. Since then, STEP2 has remained the preferred cross-border CSM for non-centralised clearing and settlement arrangements and little SEPA clearing concentration has been experienced.

Despite the ability by most CSMs to serve communities at SEPA level by processing SEPA standards and providing SEPA reach, many local banks and PSPs still prefer local clearing and settlement solutions. This is explained by a number of reasons. Firstly, the majority of European payments are national transactions, with only a small amount crossing borders to other countries. This in turn, encourages local banks and PSPs to prioritise the improvement of local payment solutions at the speed of their market ahead of possible SEPA-
wide solutions. It could be argued that by retaining the governance of a local CSM, PSPs ensure a closer alignment of product delivery for specific market evolutions. Local CSMs are also well-established and acknowledged entities in their local communities due to their long-standing experience and expertise with local conditions and requirements, including their ability to meet local banking supervision requirements, and they have a long-standing reputation of security and trust in the local market place. In addition, CSMs offer some considerable advantages in terms of costs, reach, governance, flexibility, value-added features and back-office services. These reasons will probably explain why CSM consolidation is not happening within the Euro-based CSMs as the delivery of services that meet market diversity further reinforce the CSMs position in their markets. The need for efficient interoperability solutions remains a requirement to ensure the good functioning of the SEPA-wide payments ecosystem.

**Regulatory and infrastructural changes**

Responding to recent technological innovations as well as the challenges of fragmented payments markets along national borders, the full impacts of PSD2 will be unleashed September 14, 2019, when the RTS (Regulatory Technical Standards) from EBA become mandatory, thereby opening the banking infrastructure in a standardised manner.

One of the most apparent innovations of the new directive is that banks are required to provide access to payment accounts for Third-Party Providers (TPPs) as bank customers can grant access to these TPPs in exchange for new services. Consequently, this has introduced two new roles as TPPs in the payments ecosystem: Payment Initiation Service Providers (PISPs) and Account Information Service Providers (AISPs). The fact that these two roles from a PSD2 perspective are treated equally clearly underlines a more fundamental change in the payments landscape which is that payment networks are not only about moving money but about moving data – and this in an equally secure manner as monetary transactions.

PSD2 is widely acknowledged as a major catalyst of the adoption of the platform economy in financial services and as such PSD2 serves as a benchmark for regulators globally to introduce open APIs (Application Programming Interfaces). PSD2 is disruptive in a number of ways. Firstly, it imposes both operational risks and costs on banks because they are responsible for finding efficient and secure methods of connecting and communicating with TPPs. In addition – and this is maybe the most crucial point – it presents banks with the risk of losing the direct relationship with their customers and therefore of being reduced to basic infrastructure providers in the future.

**Connecting local players to global transaction systems**

Whether or not PSD2 and Open Banking represent a problem or an opportunity for the parties involved is widely discussed. Some banks are using the new directive as an exercise in minimal compliance, while others have recognised an opportunity to increase competitiveness and retain customers by entering into new mutually beneficial relationships with TPPs of all kinds.

No matter the approach, it seems that the introduction of TPPs in general – and PISPs in particular – to the European financial ecosystem is set to alter the payments initiation value chain to an extent where banks in the future will need to devote considerable time and resources to evolve their clearing and settlement services to meet new market requirements, especially those happening across borders.

From a consumer perspective, cross-border payments need to follow the development of cross-border trade, where goods and services seamlessly travel across national borders at a frequency and speed previously unseen – and to have (electronic) money moving slower than physical goods seems counter-intuitive.

CSMs are the payments world’s equivalent of the distribution hubs of the logistics industry. These entities are responsible for receiving and sending transfers and thereby connect local players to global transaction systems. In this respect, the CSMs could also serve to deliver the compliance interfaces needed by the banks in a local market. This could both be the full APIs as well as the required fail-over mechanisms for TPPs looking to integrate to banks.

It is also interesting to notice how a proposed amendment to regulation (EC) No 924/2009 aims to align the charges of cross-border payments in Euro within the EU with charges of national payments made in any national currency. The regulation, also introducing information requirements related to the currency conversion charges, will inevitably increase the cost pressure on banks with large operations in non-Euro EU countries and, consequently, the need in those countries for efficient Euro CSM infrastructures¹.

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Instant payment development and adoption

In Europe, Instant Payments (IP) is becoming the new normal when it comes to payment transactions. This de facto status is exemplified by the abundance of national instant payment initiatives and use cases currently available to both retail and corporate customers. However, there is a wide diversity of IP solutions in Europe, as many countries have developed their own domestic markets with little need for SEPA reach and with pan-European interoperability initially being a secondary concern.

Originating as a closed-loop solution for banks and payment service providers (PSPs) aimed at clients, instant payments evolved into a community interbank solution that, in some cases, would continue to develop into national IP initiation solutions – like Swish, MobilePay and Bizum – with comprehensive reach and scope. In the wake of these national-level IP solutions emerged an ecosystem of IP schemes and CSM services to support the clearing and settlement of such new payments.

In 2014, when the Single Euro Payments Area (SEPA) had been implemented across all Euro countries, the European Payments Council (EPC) started laying the foundation for a pan-European instant payments scheme. By November 2017, it launched the SEPA Instant Credit Transfer scheme (SCT Inst), enabling Payment Service Providers (PSPs) to send instant payments to all Euro countries under the same rules. One year after its launch, the number of PSPs adhering to the scheme continues to increase, with 2019 expected to see general ramp-up before achieving critical mass in 2020.

Available options and pan-European IP reach

At this point in time, a number of local IP initiation solutions – as well as corresponding IP CSMs based on the SCT Inst – have been launched in accordance with local market requirements in both Euro and non-Euro countries. Others are currently under development. Most of the solutions already launched can be classified as national IP solutions, as they have achieved a broad local market reach of more than 85 percent of bank accounts.

In the pursuit of interoperability and processing of cross-border instant payments within Europe, members of EACHA developed the EACHA Instant Payments Interoperability Framework (EIPIF). It was an evolution to the existing EACHA interoperability frameworks based on the SCT and SDD rulebooks published by the EPC, which further addressed the specific request from the European Central Bank (ECB) of delivering an interoperability framework for the SCT Inst scheme. The interoperability framework was initially published in parallel with the November 2016 release of the EPC’s scheme rulebook and was updated in 2017 to include the AS16 real-time module that enables CSMs to clear and settle instant payments through TARGET2.

At the early stages of planning and roll out there has been no sufficient case for CSMs to establish bilateral interoperability due to the relatively low demand for cross-border payments by PSPs at the time. But considering how cross-border instant payments volumes are expected to grow in the future, the requirement from local communities for full reach will eventually make the EIPIF a more attractive proposition to all relevant participants.

For SCT Inst clearing, there are two CSMs currently positioning themselves as pan-European providers, the Eurosystem’s TARGET Instant Payment Settlement (TIPS) service and EBA Clearing’s RT1. However, these providers do not propose CSM interoperability. For the individual PSPs, these market multiplicities lead to general confusion about whether to join:
The EACHA Instant Payments Interoperability Framework

To expand reach, local CSMs will either rely on a pan-European infrastructure or they can exchange cross-border payments directly with CSMs in other SEPA countries.

For banks that are not participants in the same IP-CSM, this can be accomplished with the EACHA Instant Payments Interoperability Framework (EIPIF).

Through EIPIF, banks continue to send and receive payments using their local CSM without the need for an additional technical connection to a pan-European infrastructure.

The EIPIF conforms to the key requirements set by the Eurosystem:
- No cross-membership in multiple ACHs is needed for participating banks to receive reciprocal access.
- PSPs and CSMs have a choice of models to realise settlement, with ASI6RT as the common interface to TARGET2.
- Interoperability can work with multiple settlement models (with or without the CSM as fiduciary agent) to accommodate the legal differences in EU member states.
- It can co-exist with other solutions, notably with TIPS, in order to have complete certainty of at least one pan-European solution in place.

**ECB’s Target Instant Payment System**

The ECB has positioned TIPS as an interoperability model that “aims to minimise the risk [of fragmentation in the European retail payments market] by offering a service that can help ensure that any bank account holder in Europe can be reached”². Any European CSM may act as an instructing party in TIPS to send and receive SCT Inst payments on behalf of its PSPs. By connecting banks with TARGET2 accounts and CSMs, the ECB plans for TIPS to act as a hub to enable local IP solutions to extend reach to anywhere in Europe. As many CSMs are expected to join TIPS as instructing parties, TIPS is likely to handle mostly cross-border volumes, with local CSMs acting as the conduit to and from the local clearings.

At this early stage of IP roll-out, it remains to be seen whether or within what time scale SEPA reach can be achieved. The cost recovery pricing model at the launch of the service may prove unsustainable if volumes are not realised in the short to medium term. Beyond delivering an efficient settlement system for Euro instant payments, TIPS is technically capable of settling transactions in other currencies. The Swedish Central Bank, Sveriges Riksbank, has already announced that it is conducting a consultation with the purpose of assessing the options to settle instant payments in Swedish Krona through the TIPS module, with other non-Euro central banks said to consider the same. TIPS is also in the process of developing a mobile phone number to IBAN lookup service.

**Local IP solutions demand local CSM services**

Regardless of the intentions by ECB of driving competition and efficiency in the European payments market, it could well be argued that the pricing structure, public volume projections and growing functionalities of TIPS indicate wider scope expectations for the system as well as increased competition for value-added services.

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So, for those PSPs and (mostly smaller) banks which have yet to flesh out their instant payment strategies, TIPS amounts to a highly attractive proposition. However, they should be aware that there is currently little competition in relation to connectivity to TIPS, and that the price for connectivity is high compared to the actual cost of clearing and settlement. In addition, it should be added that the Eurosystem aims to fully recuperate the costs of TIPS which means that the current pricing is only guaranteed for the first two years.

All things considered, where EACHA members are looking to create full reach, TIPS and RT1 may serve useful complementary purposes of helping to build reach across markets.

Nevertheless, operational considerations of cost, efficiency and reach have so far turned industry players in favour of local instant payment solutions. Because most payment activities are conducted on a national level, it is easier and cheaper for many smaller banks and PSPs to maintain one settlement account at their national central bank, rather than maintaining multiple settlement accounts across various systems. The gravitation towards local IP solutions made, in particular, by smaller banks and PSPs is further reinforced by regulatory and legal considerations. As local CSMs are regulated by their local central banks and, in effect, accountable to the local banking community and national stakeholders, smaller banks and PSPs tend to prefer being represented through them. In addition, banking communities are very much interested in IP-related overlay solutions tailored to match specific local preferences. Local CSMs are often better positioned to accommodate such demands than a pan-European service, as they are equipped with in-depth knowledge of the local technicalities, customs and conditions. They also routinely process the bulk of European payments (ca. 84% of European total, based on ECB statistics. See Figure 3a and 3b)

Considering these circumstances, local CSMs have two main competitive advantages.

One is the fact that local CSMs are capable of providing full reach in all local environments. Although cross-border instant payments currently receive secondary treatment in many communities and among PSPs, volumes are expected to grow in the future, meaning that local environments will begin to require a full reach. Through interoperability models like EIPIF, local CSMs are best positioned to meet such requirements.

In addition to ensuring maximum reach in local environments, CSMs offer additional value features as part of their clearing and settlement services, including fraud mitigation and liquidity projection tools, time duration of end-to-end processing, R-message matching, duplication of checks, handling of local specificities like different maximum amounts, and managing of differences in ISO formats to address specific local market needs to name a few.
The transformation of the global financial landscape

The global financial services landscape is currently experiencing tectonic changes that are impacting existing financial services business models, infrastructures, and value chains. Trends including an increasingly digitised society, technology advancements, evolving consumer expectations, new collaborative partnerships, and new players entering the market are all adding to the impact, evidently redefining the way payments are perceived, initiated, processed, cleared and settled.

Like most other digital services, payments are becoming increasingly globalised and European banks, PSPs and – most importantly – European consumers look for inspiration and adjust their expectations based on what is available anywhere in the world. Currently (and likely to continue in the foreseeable future), the development of financial services in China could set the standards and expectations for financial services globally, including in Europe.

The growth of digital, e-wallet and e-commerce payments

In many areas of the world, cash is becoming increasingly obsolete as digital payments and e-wallet payments gain in popularity. Although the shift towards a cashless economy is, of course, transpiring at different tempos around the world, the trend seems imminent and is currently most evident in regions like Scandinavia (in Sweden, only 15% of payments involve cash³) and countries like China where digital payments have become the go-to method for consumers, led by near-ubiquitous payment applications Alipay (Alipay is owned by Ant Financial, an affiliate of Alibaba Group Holding) and Tenpay (Tenpay is owned by Tencent Holdings Limited) and the immense popularity of the QR code as a payments facilitator.

According to Capgemini’s World Payment Report 2018, global digital payments volumes are expected to increase by an average of 12.7 percent through to 2021, with developing markets, led by Asia, expected to grow at 21.6 percent compound annual growth rate (CAGR). The same report estimates that e-wallet payments volumes amounted to 41.8 billion transactions in 2016, with China alone accounting for 16.3 billion transactions. Around 71% of the total transactional volume were conducted via payment apps offered by big tech corporations to their customers.

At the same time, cross-border payments are poised for strong growth. According to a 2018 report by Mckinsey and SWIFT, today there are 0.7 annual cross-border payments per capita on average globally – up from 0.5 in 2014⁴. The growth of the industry is driven largely by retail remittances, global e-commerce (which according to a report by Type and Industry is expected to grow at a CAGR of 13.1% over the forecast period 2018-2025⁵), the growing role of SMEs in international business, and large corporates.

These global trends all affect the European payments landscape. The movement towards an increasingly cashless society is a global trend and very much driven by some European countries (the Nordics in particular but also the UK, the Netherlands and others), while the Chinese tech giants’ payment solutions directly affect merchants in Europe as the increasing number of Chinese tourists prefer to pay (and seek special offers) using their preferred solutions for payments when travelling. At the same time, European consumers are becoming increasingly aware of the level of sophistication and convenience of the global tech giants’ payment solutions, which further increase their expectations towards their local providers of payments and commerce solutions.

We have yet to see the big tech companies becoming banks in their own right, but most of them are clearly looking to become the preferred interface for different types of financial services and transactions. As these players are global by nature, commerce becomes increasingly internationalised, and the demand for fast, convenient and efficient cross-border payments increases.

The exploration of new technology
With global cross-border payments projections indicating a buoyant market, the current cross-border payments model is unlikely to match future demands. Seeing that no ubiquitous global standard is currently available, most cross-border payments rely on an intricate web of corresponding banks for clearing and settlement, which makes them both inefficient and costly.

To address these challenges of cross-border payments, banks and fintechs alike are looking at a number of different new technology alternatives to meet modern customer requirements related to speed, cost, and efficiency. Such alternatives include various interoperability models, card scheme initiatives, SWIFT’s global payments innovation (gpi), and solutions by fintech companies like Ripple, BTL, and Wyre based on distributed ledger technology (DLT).

Regardless of which payment technologies might prevail, all share a common need for access to all relevant players and entities in the payments ecosystem. Similar to more traditional infrastructure development, companies looking to improve public transportation rarely consider building completely new roads or tracks, but rather optimise the use of the existing ones. Innovative integration and alternative use of existing transaction infrastructure drives trends like Open Banking.

The advancement of Open Banking and APIs
During the last couple of years, open banking has been used as a collective term to describe the major shift in retail banking which has occurred in financial markets all over the world. In short, it can be described as a trend amongst banks to open up and share account data with Third-Party Providers (TPPs) through open APIs in an effort to better accommodate an increasingly tech-savvy, digitally native and data-conscious customer base who demand tailored services in return for sharing their data.

Open banking, or the open API economy, is the product of a great many societal and financial trends happening all at once, most of them described elsewhere in this paper. The rapid developments in the area have, to a large extent, been supported by progressive regulatory approaches which have been leading the way and setting the pace. In Europe, PSD2 is a prime example of a regulatory directive that infuses infrastructure innovation and competition into the industry.

With 90% of bankers in a 2017 Accenture Consulting survey expecting open banking to boost organic growth by up to 10%, many banks are considering open banking an opportunity to improve innovation and up their competitive game in an increasingly saturated financial market where new entrants are coming in fast and big technology giants are looming in the periphery.

By collaborating with third-party fintechs, which have entered the financial market and are specialised in creating tailored niche products and value-added services in a digitised economy, banks can hope to improve the customer experience and retain the customer relationship. One of the banks’ most valuable resources is their wealth of customer data, which they can use to enhance products and services and thus appeal to a new demanding generation of financial consumers.

Many banks feared that Open Banking would lead to increased disintermediation, but more and more banks have gradually embraced the development and consider it a crucial strategic choice which strengthens rather than weakens their relevance as players in the financial services value chain. For banks to embrace and exploit the opportunities of Open Banking, collaborating with trusted partners like the European CSMs is an obvious choice. This collaboration comes with efficient infrastructure, pan-European reach and – perhaps most importantly – with clearly defined roles and responsibilities, meaning that the banks do not fear that the CSMs, in general, are looking to challenge the banks’ relationship with their end-customers.

6. Accenture Open Banking Pulse Survey 2017
The evolution of consumer expectations

Driven by technological advancements as well as increased internet and mobile phone availability, digital and e-wallet payments are poised for growth in the coming years. Following in the footsteps of this trend are changing consumer expectations. Just like with every other aspect of today’s digital and real-time-oriented consumer economy, which is increasingly defined by big information technology corporations, banking and payment services are now expected to be convenient, fast and frictionless. As already mentioned, consumers across the globe no longer just look to their immediate neighbours when assessing the quality of the financial services that they are offered by their local financial services suppliers, but instead look across the globe to see what is technically possible. For example, this means that Chinese or American innovations come into demand in Europe soon after launch.

Unsurprisingly, these expectations resonate strongly amongst younger financial consumers where there is a clear demand for new and improved banking services which are mobile-friendly and mirror the criteria related to the ‘Now economy’. These demographics are also particularly receptive to banking services provided by non-traditional financial services companies.

Responding to these circumstances, the financial sector is currently developing new payment solutions which aim to fulfill the demands by consumers for increased convenience, speed and more seamless integration. Consequently, initiatives including wearable devices and mobile biometric payments have started to alter the front-end experience. While Artificial Intelligence (AI) and Robotics Process Automation (RPA) are being applied more broadly to back-end processes to help reduce costs, increase transaction processing speed, and minimise risks and errors.

All in all, these complementary tendencies of evolving expectations and advancing technologies are putting pressure on all players in the financial services market, both technology providers, banks, integrators and regulators. They are all trying to keep up with development and expectations without jeopardising trust, which remains the most important aspect of financial services of any kind.

The development of financial service offerings by big technology corporations

Open banking and its adjacent trends are also inviting technology corporations like Google, Amazon, Facebook, and Apple (GAFA) and Baidu, Alibaba, and Tencent (BAT) to restructure their business models to accommodate this new financial environment.

Today, many of these corporations already provide cashless and cardless ‘one-click’ payment solutions for consumers online and at the point-of-sale (e.g. Apple Pay, Google Pay, Amazon Pay, Alipay, WeChatPay). Moreover, they are expanding their service portfolio to include an increasing amount of services (like lending, wealth management, and insurance) once considered exclusive to the traditional financial sector. As such, Amazon now operates services like Amazon Cash and Amazon Lending; Alibaba offers fund management through Yu’e Bao (“Leftover Treasure”); and Tencent is invested in insurance services like Weimin Insurance Agency, Zhong An Insurance, Aviva, and Hetai.

These lifestyle-driven technology corporations are not intruding on banking territory to steal customer accounts, which would only expose them to heavy amounts of regulation and compliance. Rather, they are looking to collect and analyse as much data as possible about their customers so that they can further personalise the customer experience and provide new and improved (financial) services as part of a holistic customer engagement strategy.

However, it is reasonable to assume a situation in which big technology corporations would eventually want to join settlement systems to offer consumers faster and cheaper payments. In fact, such a scenario is already playing out in the UK where fintech corporation TransferWise – as part of the Bank of England’s mission to improve innovation and competition – has been the first non-bank payment service provider to gain access to the country’s Faster Payment scheme through a new settlement account policy directive.

Should this tendency expand to include the big technology corporations as well, they would surely look to build reach to their entire customer base, both regional and global. As such, the clearing and settlement system would need to evolve from an interbank model to a model consisting of both bank and non-bank channels. In such a scenario, CSMs would be ideally positioned to meet the requirements of those big technology corporations regarding market reach and local knowledge.

Radical changes to the European financial landscape, most notably the regulatory push administered by the PSD2 framework, have opened the market to a variety of external disruptive forces. According to Accenture Research analysis, nearly 1400 new players have emerged on the European financial services scene since 2005 and captured on average between 6-7% of banking and payment revenues

This influx of new competition is gradually shifting the dynamics of the financial ecosystem, breaking up value chains, and threatening established banking models. With new entrants, come new business and partnership opportunities for Europe’s CSMs as well as new inspiration to alternative business models and solutions for the existing payments industry.

Big cloud-based technology corporations
One of the most talked about movements in modern finance at the moment is the one being made by big cloud-based technology corporations into retail banking. Driven by favourable regulatory circumstances as well as an urgency to extract additional consumer data points that will help them expand and innovate their platform environments, these corporations are seen as a great threat to the financial establishment and the larger ecosystem that underpins it.

This is largely due to the fact that these cloud-based, lifestyle-driven platforms feed themselves on an extensive ecosystem of services, with financial services being just a small part of their total turnover. As such, they are able to deliver far more flexible pricing structures than for instance banks, sometimes even running on a cost-recovery basis or with deficits. Moreover, they are in the privileged position of being able to cherry-pick the most profitable financial services without the need to comply with the same degree of regulation as the established financial services industry.

Amazon, Facebook and Apple are all devoting some or considerable resources to growing their financial services offerings. Through agreements with card schemes or individual banks at a national level, they all have payments solutions with pan-European reach available to their European consumers. Most recently, Google Payment Lithuania UAB was granted an electronic money institution license (e-money license) by the Lithuanian central bank, authorising it to issue and redeem electronic money, handle digital wallets, and provide payment and other financial services across the European Union. Facebook obtained its e-money license in Ireland in December 2016. In early 2017, it launched a new payment service in collaboration with TransferWise which allows users to send and receive money internationally (US, UK, Canada, Australia, and Europe) through the Facebook Messenger application.

Amazon Payments Europe holds an e-money license in Luxembourg. Although most of its products and services are primarily available to customers in the UK, the company is still ahead of the competition when it comes to offering a wider range of financial products and services. With services like Amazon Cash, Amazon Lending, Amazon Gift cards, and Amazon Current Account, the corporation is doing exactly what incumbents are worried about: reshaping core components of a bank to fit the specific needs of their customer base. In line with this development, a recent survey by Bain & Company of 6,000 respondents suggests that 65% of Amazon Prime subscribers would be prepared to open a bank account with the e-commerce corporation.

In addition to GAFA, PayPal is also deeply invested in the European financial services market, currently offering online payments that leverage the pan-European SEPA credit transfer and SEPA direct debit schemes.

10. Google Payment Lithuania UAB is part of Google’s parent company, Alphabet Inc.
Ant Financial and Tencent expand into Europe

In China, online payments are in a league of their own. As such, digital payments and e/m-wallets are rapidly replacing cash as the preferred method of payment, to a great extent leapfrogging payments with credit and debit cards14. In 2017, the country had a total of 527 million mobile payment users as well as a domestic mobile payments market which generated USD 15.4 trillion worth of payment transactions15.

The payment applications Alipay and Tenpay processed around 95% of those transactions.

In light of the explosive popularity of mobile payment solutions in China, the country’s regulators have recently imposed tighter regulations on third-party payment service providers, including Alipay and Tenpay. In an effort to prevent cases of money laundering, fraud and other irregularities, the PSPs are now required to route their transactions through a new national clearing house, Wanglian, while transactional limits on Chinese consumers’ scan-and-go QR code payments (based on security measures and user credentials) have been set at 500 yuan (USD 75), 1,000 yuan (USD 150), or 5,000 yuan (USD 750). However, these new limitations only apply to Chinese retailers and stores, which means that European stores can still offer their (Chinese) customers QR code payments for big-ticket items.

Following in the footsteps of Chinese international tourists – who spent around USD 258 billion, or almost one fifth of the world’s international tourist spending in 201716 – Alipay and Tenpay are currently expanding their acceptance outside of China by partnering with foreign banks, payment service providers and businesses, initially to serve Chinese tourist abroad but presumably with the intention of transitioning to serve foreign customers as well. In 2017, around 5.6 million trips were made from China to Western Europe, while the European Commission and the European Travel Commission labelled 2018 the EU-China Tourism Year to promote destinations and improve on tourism experiences17.

In 2018, Ant Financial announced that it had signed deals with more than 100 European banks and 40 digital wallets and expected merchants in 20 European countries to accept Alipay transactions by March 201918. As a part of the global rollout plan, Norwegian Vipps and Finnish ePassi have recently adopted Alipay’s QR code standard, enabling users to scan QR codes from the Alipay scheme and merchant partners to accept QR code payments from both domestic customers, neighbouring visitors as well as Chinese tourists19. Already holding an e-money license issued by the UK’s Financial Conduct Authority, Alipay was most recently granted an e-money license in Luxembourg, enabling it to operate across borders in the event of a hard Brexit20. Furthermore, Ant Financial is currently in advanced discussions to purchase the UK currency transfer service WorldFirst for around USD 700 million21.

Tencent began exploring payment opportunities across Europe in 2015. In early 2017, the corporation opened an office in London to initiate talks with major European luxury and fashion brands to accept WeChat Pay at point of sale. Since then, Tencent had signed agreements with a number of large European financial institutions, e.g. the German payment company Wirecard (which had already made an agreement with Alipay at the time), the French bank BNP Paribas, and more recently Italian payment company Digital Retex in collaboration with DOCOMO Digital22.

14. The rapid transition from cash to digital and mobile payments in China can partly be attributed to the low penetration of cards and card payment point of sale terminals, the eagerness of tech-savvy Chinese consumers to adopt new technology and to entrust much of their online activity to large technology corporations, as well as the popularity of the QR code as a mobile payment facilitator.
16. Data provided by the World Tourism Organization.
Baidu, the preferred search engine in China, is also expanding its platform to include finance and banking services. Currently not available in Europe, Baidu’s Financial Services Group (Baidu FSG) operates Baidu Wallet, the online credit service Baidu Umoney, and a wealth management platform.

**Fintech companies and merchants**

While banks have been struggling with lower margins, inflexible legacy systems, and tightening risk and regulatory compliance requirements, the financial services market has experienced an influx of new players from across industries.

In Europe, a variety of financial technology (fintech) companies have emerged to fill gaps unattended by banks. Primarily, they are focused on niche areas of the financial services value chain, both front-end and back-end, where factors like convenience, speed and cost are easily improved. Those typically include areas like lending, wealth management, cross-border payments, and payment acquisition. However, from the first wave of fintechs emerging on the European financial market, a second wave of fintechs has appeared, which are more focused on the customer experience and interfaces through mobile devices.

But fintechs are not the only ones seizing an opportunity. With PSD2 and the Access to Account requirements, it has suddenly become possible for TPPs outside the traditional financial services industry – e.g. telecom operators, transport companies, public authorities, and merchants – to fill the role as both PISP (Payment Initiation Service Provider) and AISP (Account Information Service Provider). As such, local and pan-European merchants, which are already engaged in strong and ongoing relationships with their customers, could easily benefit from introducing themselves as PISPs and AISPs to their customers as part of a commerce process. From the merchants’ perspective, becoming (or using) a PISP to facilitate account-based payments can potentially reduce or even remove merchant service charges and interchange fees as well as increase liquidity through fast or instant clearing and settlement. Instant (push) payments also reduce fraud risks for e-commerce merchants as there will be no liability on the merchants’ side once the authorising bank has approved the transaction applying strong customer authentication – SCA – as required in PSD2. As an AISP, merchants can offer bespoke customer profiling on much more comprehensive data sets and potentially develop and deliver better offers to the consumers.

**The European regulatory reactions**

In the wake of a changing digital landscape, advancing technologies and progressive regulation, fintechs were long expected to outperform the incumbent financial institutions, based on the understanding that fintechs would be better suited in many ways to meet the requirements of modern-day digital consumers. However, the reality has turned out quite differently.

According to findings of the 2017 World Economic Forum report, fintechs have no doubt changed the way payments are perceived, processed and consumed, but they have largely failed to disrupt the competitive landscape in the extent initially anticipated, primarily due to challenges of scale and customer adoption. Rather, a new cooperative understanding has emerged between the incumbent financial institutions and the fintechs, where the financial institutions are leveraging the innovative qualities of the fintechs, while the fintechs are leveraging the financial institutions’ large customer bases, deep pockets and extensive insight into the financial industry.

As a result, the sense of urgency and threat has shifted from local and international fintech companies to focus more on the threat from big technology corporations entering the financial services sphere. In Europe, there is increased attention from regulators and stakeholders directed at this issue. In a speech by Yves Mersch,
Member of the Executive Board of the European Central Bank (ECB), given at the European Institute of Financial Regulations (EIFR) in 2018, Mersch highlighted the fact that the current infrastructure is not yet properly leveraged by European providers to offer pan-European services. Instead, he argues, it is exploited by big technology corporations to offer innovative, consumer-friendly solutions to their customers.

**The era of the Platform Economy**

In the last decade, the digital platform has transformed the way we live, work, travel, and transact. The great success of the digital platform and the platform economy as a whole can be explained in part by the simple business model it assumes as a connector between elements of supply and demand. It can also be explained by its inherent traits, including its ability to leverage economies of scale, the network effect, and data analytics to continuously improve its products and services. In addition, all successful digital platforms share a common trait of not building every component themselves, but rather to integrate with existing systems to leverage their functionality and reach.

With the digital economy expected to account for 25 percent of the world’s entire economy by 2020, digital platform business models are ideally positioned to benefit from this development. Already, the top 15 public platform corporations account for USD 2.6 trillion in market capitalisation globally23.

Already mastering the platform economy, the big technology corporations consider integration via APIs to be second nature. Their main objective is to connect to the highest number of integration points as it has the potential to strengthen the position of their platform (following the logic that more integrations and more services relying on these integrations will inevitably lead to a more entrenched platform).

Supporting this tactic is the fact that payments are one of the most frequent types of digital interaction around, which is why the big technology corporations have been so eager to include it in their platform ecosystems. It is one of the most effective ways for them to generate valuable customer data, which they can then use to enhance their existing services and create new ones in line with customer needs and desires.

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Conclusion

Looking to address the challenges and possibilities of local CSMs in Europe, this paper has examined how corresponding global and regional financial developments – including Open Banking, evolving consumer expectations, the transition to instant payments, and regulatory requirements under PSD2 – have gradually disrupted the dynamics of the financial ecosystem in Europe and opened up the existing financial infrastructure to a large number of emerging players from across industries.

With local European banks and PSP gravitating towards local IP solutions, the paper argues that local CSMs are ideally positioned to serve the specific needs of such players through two main competitive advantages:

1. The ability to provide full reach in local environments. With cross-border volumes expected to grow in the future, local environments will eventually come to require a full reach. Through interoperability models like EIPIF, local CSMs are ideally positioned to meet such requirements.

2. The offering of additional value features as part of their clearing and settlement services, including fraud mitigation and liquidity projection tools, duration of end-to-end processing, R-message matching, duplication of checks, handling of local specificities like different maximum amounts, and managing of differences in ISO formats to address specific local market needs.

The paper also argues that local CSMs are ideally positioned to facilitate the connection between local financial players - including local fintech startups - and global transaction systems as well as the connection between global service providers and local payment networks and players.

Aiming to grow their integration points as part of a larger platform ambition, big cloud-based technology corporations like Google, Amazon, Facebook, and Apple (GAFA) and Baidu, Alibaba, and Tencent (BAT) are all vigorously expanding their payments and financial services offerings globally and in Europe to capture the valuable customer data needed to further enhance their products and services.

The platform economy has more than anything proven the value of ‘the long tail’ rather than the traditional benefit of scale models with ‘one size fits all’. Consumers are increasingly demanding tailored services, but with seamless interoperability and wide reach. The combination of the CSMs’ local reach and expertise, common standards and interfaces and the development and data analytics capabilities of the big tech companies, seems to be a winning formula for the future of payments.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>ACH</td>
<td>Automated Clearing House</td>
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<td>AISP</td>
<td>Account Information Service Provider</td>
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<tr>
<td>ASPSP</td>
<td>Account Servicing Payment Service Provider</td>
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<tr>
<td>CSM</td>
<td>Clearing and Settlement Mechanism</td>
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<td>EBA</td>
<td>European Banking Authority or European Banking Association</td>
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<td>EC</td>
<td>European Commission</td>
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<td>ECB</td>
<td>European Central Bank</td>
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<td>EPIF</td>
<td>EACHA Instant Payment Interoperability Framework</td>
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<td>PISP</td>
<td>Payment Initiation Service Provider</td>
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<tr>
<td>PSD + PSD2</td>
<td>Payment Service Directive + Second Payment Service Directive</td>
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<td>PSP</td>
<td>Payment Service Provider</td>
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<td>RT1</td>
<td>Real-Time 1</td>
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<td>SCT + SCT Inst</td>
<td>SEPA Credit Transfer + SEPA Instant Credit Transfer</td>
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<td>SDD</td>
<td>SEPA Direct Debit</td>
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<td>SEPA</td>
<td>Single Euro Payment Area</td>
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<td>STEP</td>
<td>Straight-Through Euro Payment</td>
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<td>TARGET2</td>
<td>Trans-European Automated Real-time Gross Settlement Express</td>
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<td>TIPS</td>
<td>TARGET Instant Payment System</td>
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<td>TPP</td>
<td>Third-Party Provider</td>
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About EACHA

Its membership, currently comprising 27 institutions, gathers twice a year to discuss European developments in retail payments. The philosophy of EACHA is that healthy competition also means teamwork. This is why EACHA believes firmly in developing a common vision for the future, and favoring harmonious implementation of European policies and schemes, including interoperability based on open standards.

EACHA aims to:
- be a forum enabling its members to share information
- advance the views of its members on issues of general interest
- resolve specific issues by, for instance, developing common guidelines for the clearing and settlement of SEPA payments

For more information, see www.eacha.org

About Norfico

Established in 2015, Norfico is the first fintech consulting house in the Nordics to combine advisory services across strategy, communication, and technology. This unique combination allows us to serve our clients broadly across the value chain and increase the value delivered. Norfico’s clients include banks, technology providers, government institutions, public authorities, and startups.

Norfico provides advisory services throughout research, design, development and launch phases of new products and services. We analyse and assess the potential of fintech services and companies including payment and digitisation services and offer tactical assistance during launch, with a key focus on strategic and tactical communication.

For more information, see www.norfico.net