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FINANCIAL SERVICES

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How Payment Services Directive 2 will disrupt financial services

The EU's second payment services directive (PSD2) will have a dramatic impact on banks and payment companies. It will simplify many financial transactions, disrupt the business models of payments companies and card issuers. It will furthermore benefit consumers, giving them a range of new products and services to select.

In this paper, we will summarise why the EU is introducing PSD2 and how it will work. We then describe the most significant macro- and micro-trends that are likely to shape financial services in Europe during the next five years as a result.

A few scenes from the not-too-distant future of banking:

- An online shopper visits a merchant's website, orders various products, and completes the purchase without having to enter payment or shipping information.
- A bank customer sets up an app that will transfer all of her balance to the best savings account on the market. The app will transfer money gradually back to her current account only when she spends money on her debit card and needs to keep her balance positive.
- Shoppers at a brick-and-mortar store receive extra loyalty points when they make a purchase using a mobile app rather than a credit card.

These and many other scenes could become commonplace when the PSD2 takes effect in January 2018.

A BRIEF BACKGROUND TO PSD2

The EU's first payment services directive, PSD1, became law in 2009. It aimed to establish a single market for European payments and reduce costs by introducing competition in the payments market. A key part of the initiative was to set up payment institutions, known as payment service providers (PSPs) that offer a single payment gateway for merchants to access multiple payment methods. The directive aimed to increase pan-European competition and participation in the payments industry by nonbanks. However, it did not attract the breadth of new competitors that the EU envisioned.

PSD2: DRIVING COMPETITION WITH THE USE OF NEW TECHNOLOGIES

The EU recognised that it needed a new regulatory framework that would encompass entrants to the payments market who are enabled by new technologies. This framework would:

- Promote the use and development of new online and mobile payments.
- Better protect consumers who pay online or make cross-border transactions.

PSD2 has a broad scope and refines regulations concerning passporting (which concern the country locations of financial services institutions and their rights to trade within the EU); authorisation rules; consumer protection; and the supervision of payment institutions. This article does not attempt a comprehensive summary of specific refinements, but rather focuses on the changes within PSD2 that promote the evolution of new payment companies and payment services.

PSD2 will create three new categories of organisation: PISPs, AISPs, and ASPSPs (for definitions see box to the right). They all need regulatory permission to operate, and each will play a clearly defined role in the new payments ecosystem.

The three new types of organisation under PSD2

- **Payment Initiation Service Provider (PISP).** A PISP will initiate a payment from a payment account (held by an ASPSP) upon the request of a user, such as a shop customer who wants to pay for her purchases. The PISP would authenticate the customer's identity, confirm that she has sufficient funds, and initiate the transfer of money from the customer's account to the shop's account.
- **Account Information Service Provider (AISP).** AISPs are likely to be a range of fintech businesses offering tools that access personal transaction data and perform analysis, visualisation, and comparison services.
- **Account Servicing Payment Service Provider (ASPSP).** At the outset of PSD2, most ASPSPs will be incumbent retail banks; other business models will probably emerge.

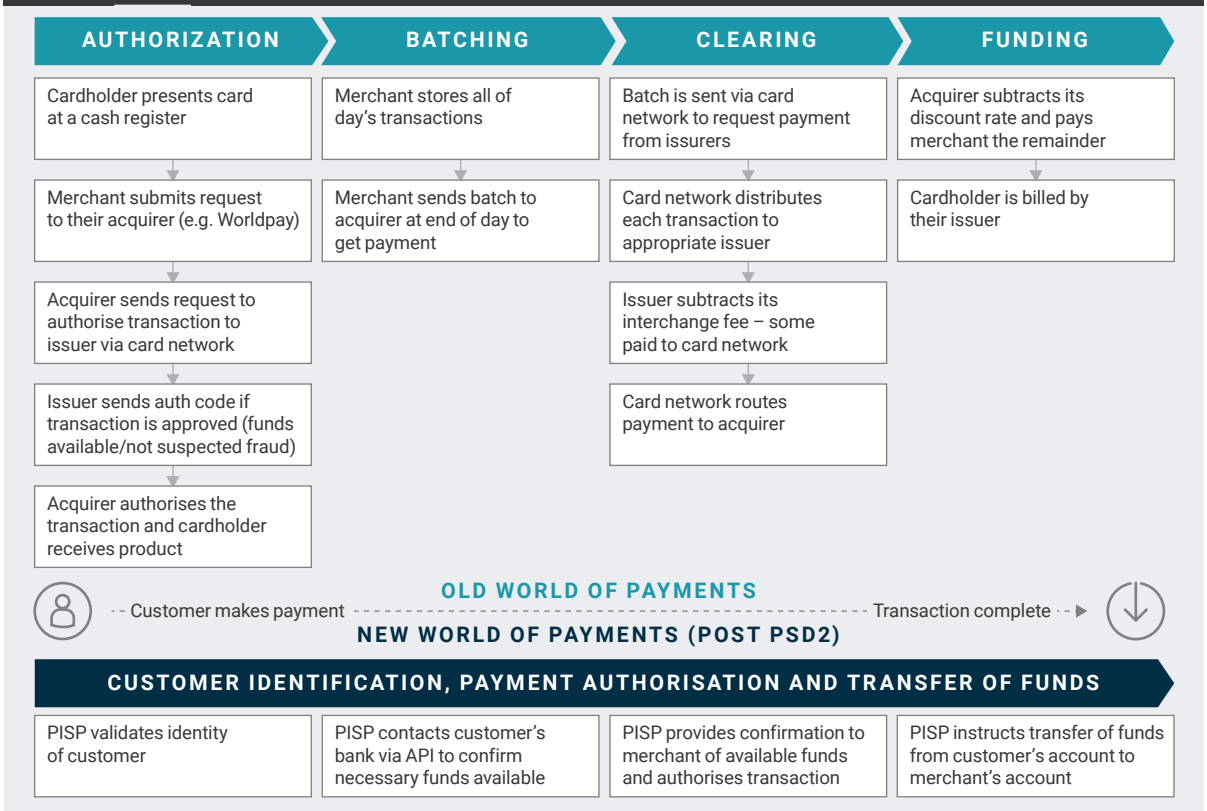
The European Banking Authority (EBA) will define the technical standards for PISPs and AISPs and set out requirements for security and privacy. The EBA will also ensure that banks treat PISP-initiated payments at the same priority as any other, rather than favour payments that generate fee income for them (figure 1).

Application Programming Interfaces (APIs) enable the transfer of banking data to customers and approved third parties such as AISPs. The service improvements and innovations envisioned by PSD2 will require APIs to be implemented by banks, even though this is not explicitly mentioned in the PSD2 regulations.

Application Programming Interface (API): a brief definition

An API is simply a conduit through which data can flow between applications. APIs can be secured by means of a password (no password means no data) or may be open (anyone can access data without providing a password). Some APIs are accessible over the internet, while others are only accessible within an organisation's IT infrastructure. There is pressure from the fintech community to standardise banking APIs so that the data from different accounts is presented in the same format. Standardisation would enable greater efficiency, but financial services providers can comply with PSD2 without it.

FIGURE 1: AN ILLUSTRATION OF THE OLD WORLD AND NEW WORLD FOR PAYMENTS



Source: AlixPartners analysis.

MACRO-IMPACTS OF PSD2

The repercussions of the implementation of PSD2 will be wide-ranging. Three of the most significant are simplification, disintermediation, and insight.

Simplification. The existing process for making payments is complex, with multiple parties involved across a multi-stage, multi-fee process. PSD2 will dramatically simplify this process and reduce its associated fees. The before (top) and after (bottom) processes for customers making a payment are described above. In the post-PSD2 world, each payment will involve fewer parties. Merchants will likely prefer the new process because they will incur lower fees. They will also receive payment faster than they do under the current regime.

Disintermediation of issuers, acquirers, and card networks. The schematic above illustrates how, in transactions involving a debit card, card issuers could be cut out of the payments process. Open banking APIs will also spur the introduction of a range of bolt-on services that will, to an increasing degree, eliminate the profitable aspects of running a current account. For example, thanks to open APIs it is entirely possible that new entrants will offer FX services at lower fees than the 2% commission or more charged by retail banks on current accounts. Such entrants are already emerging, and retail banks will need to respond by introducing new or cheaper services. Disintermediation will likely also induce banks to be more transparent about their fees.

New insights, bespoke products, and robo-advice. One of the main reasons for forcing banks to open APIs is to enhance transparency in the banking market which is required by PSD2. Bank data-security requirements can make it difficult for customers to understand how they use banking products and services and shop around for an alternative provider. Open APIs will immediately address this difficulty and in the process create opportunities for customers to comparison- shop using their personal transaction data. This development could change the public's widespread apathy and inertia around the cost of financial products by making comparisons between providers straightforward and promoting novel methods of customer engagement. We see higher engagement through:

- **Robo-advice.** Companies will emerge that ingest data from one or more open APIs and then advise customers how to optimise the use of existing products. For example, a robo-advisor might suggest that a customer moves funds from a savings account to a checking account to minimise overdraft usage, or offer a new product. Monzo is a trailblazer in this space.
- **Spending and balance-tracking tools.** Real-time spending data, accessed via open banking APIs across a mobile phone network, offers numerous opportunities to track spending both in absolute terms and relative to a budget.

- **Bespoke products.** There are multiple ways to tailor a current account to the needs of a customer, such as preferential overdraft, credit interest rates, adjustments to thresholds for applying fees, or discounts on FX transactions. As transaction data files expose a customer's spending history, a wide range of customer engagement and retention strategies may emerge that make certain accounts particularly appealing to individual customers. Established banks with extensive legacy IT infrastructures may have difficulty developing these strategic innovations for customer engagement, which will pose much less of a challenge to new, digital-native entrants.

At a glance: Monzo

Established in 2015, Monzo has grown rapidly, with roughly 120,000 active customers as of April 2017. Monzo aspires to be a pure digital bank offering a range of budget management and visualisation tools via mobile devices. It does not plan to open branches or offer cheque books. Monzo's longer-term ambition is to be "the marketplace bank for everyone in the world" by connecting customers to a range of options for borrowing and depositing money. In essence, it wants to become the customer's eyes and ears in the financial services marketplace, enabling customers to find the best deals available.

MICRO-IMPACTS OF PSD2

Here we will provide summaries and discussion around some of the significant micro- trends likely to emerge from PSD2, which include:

Biometrics and other forms of identification. A core feature of credit and debit cards is that they identify customers by means of chips and PINs. PISPs will be able to identify customers using a range of other means, such as biometrics (probably in combination with a mobile app). PISPs will also be able to embed a payment mechanism in a web browser, enabling an online user to log-in securely at the start of a shopping session and pay for goods immediately, rather than check out and enter card details periodically.

Comparison methodologies. Alternative providers will be able to offer product comparisons by reconstructing a customer's transaction history. Based on transactions, they can consider behavioral traits such as spending habits to offer products best suited for the customer--perhaps with targeted introductory deals and cash-back offers.

Currently, comparison methodologies are a new concept that has not been widely discussed in the market. As comparison methodologies based on transaction data become widespread and the output increases in significance, the industry will very likely need to establish standards for different comparison engines using the same set of data to avoid confusion.

Merchants incentivising use of new payment methods. Merchants have long tried to minimise the fees levied by their acquirer, known as the Merchant Service Charge (MSC). The European Commission adopted the Interchange Fee Regulation, in force since December 2015, with the goal of capping the interchange fees that are an important component of MSCs. Interchange fees are now capped at 0.3% (for credit cards) and 0.2% (for debit cards), which represent a significant fall from previous levels in the UK, at least for credit cards.

The arrival of PISPs will disrupt the current system, under which both card issuers and banks charge fees. PISPs' simplified business model and desire to win market share will probably translate to even lower fees for merchants.

PSD2 also bans surcharging when merchants levy an additional fee when customers use certain payment methods, such as payment cards. The ban on surcharging applies to online and in-store consumer credit and debit cards. The European Commission estimates the ban will apply to approximately 95% of card payments in Europe.

It will not be easy, however, for PISPs to change entrenched customer payment behaviours. Consumers are largely unaware of the costs associated with card transactions, and because payment cards are so commonplace and apparently so straightforward, consumers do not consider them a problem that needs solving. Moreover, because virtually no retailers offer differential pricing for card and cash purchases, consumers have no incentive to use anything less convenient than a payment card.

To change entrenched customer behaviour PISPs will need to offer incentives. Merchants will probably help force this change as a means of reducing MSCs.

Modular banking. APIs emerging from PDS2 regulations enable banks to set themselves up in a far more modular way than today's banks, which in most cases own and control the entire banking infrastructure, from branches and apps to core banking platforms. The supporting points and illustration below highlight four models that APIs may enable:

1 **Fully modular banks.** Unicredit's Buddy Bank relies entirely on third-party-owned infrastructure. Its primary user interface is a mobile app, and its modular infrastructure makes migrating to other countries a relatively straightforward process. In other words, with apps and other services, the bank can present itself in markedly different ways to different user groups and across regions, with limited additional investment.

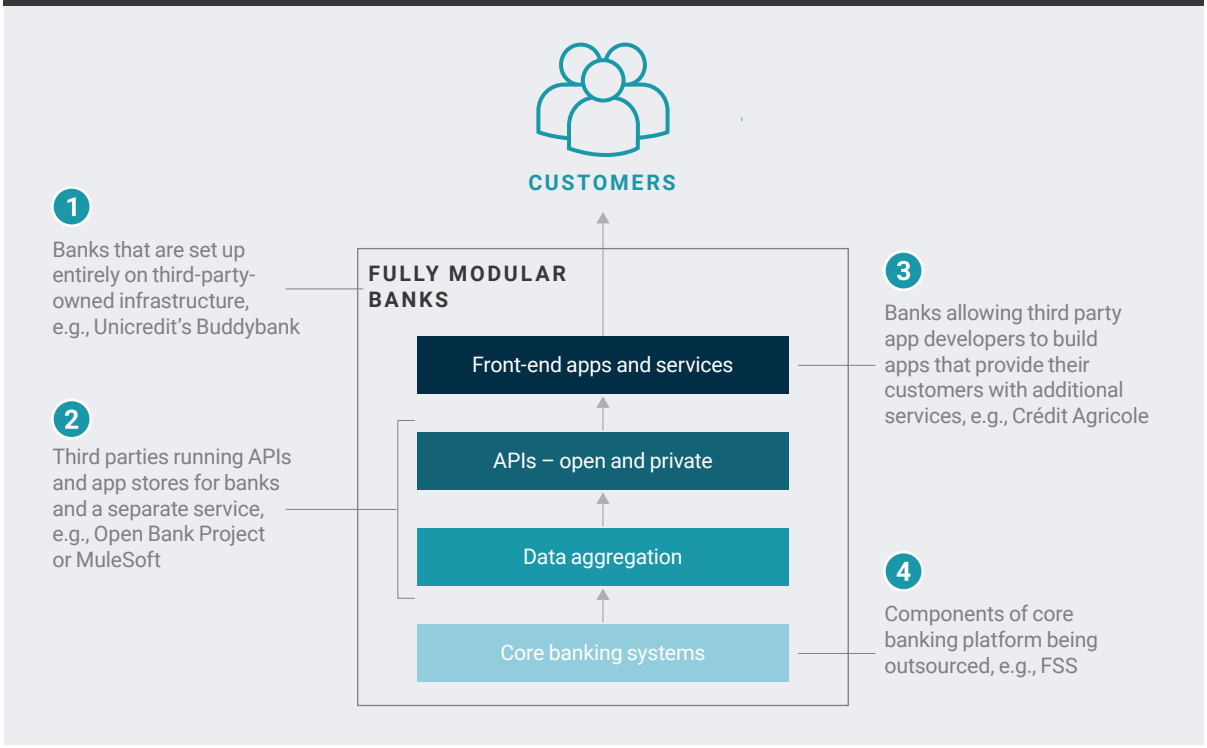
2 **Banks using third parties for aggregation and APIs.** Some banks, while not fully modular, will use one or more third parties to connect to their core banking systems and run their aggregation and APIs for them. This shortcut, which makes data available via APIs, potentially saves cost and reduces risk. The Open Bank Project and MuleSoft are both active in this space.

3 **Banks that offer third-party apps for personal financial management (PFM).** Once banking APIs are opened up, numerous third-party PFM apps will emerge. Some banks are accelerating this process by allowing third parties to develop apps to access customer account data (with the relevant permissions). Crédit Agricole is a pioneer of this model; its website features an area where its customers can download third-party apps.

4 **Banks that outsource core banking services.** Delivering core banking services through modular platforms is in some ways the logical extension of outsourcing. It differs from classic outsourcing in that multiple banks can deliver services simultaneously via the same modular platform. This model will present banks with various regulatory and security issues to manage, but this model will likely become increasingly common.

Analysis of customer transaction data. Until now, data has been locked away in bank infrastructure, unavailable for analysis either at the individual account level or in bulk. APIs will open multiple avenues to transaction data analysis. For example, APIs enable enhanced credit risk scoring. Credit risk scores have traditionally relied on the historical repayment behaviour of customers.By analysing historic transaction files that yield implicit and explicit clues about a customer's financial health, banks and credit information providers can produce much more accurate risk scores.

FIGURE 2: FOUR MODELS THAT APIS MAY ENABLE



Source: AlixPartners analysis.

For example, consider the use of bank statement data that describes specific purchases. From that data, a bank can reach conclusions about how much a given customer spends on luxuries and how much on essentials. Analysis of the times and locations of expenditures can also indicate whether a shopper is an impulse buyer. Banks can also employ various metrics, such as the rate of decrease in balance following a salary payment, to gain a vivid picture of their customers. A very rapid decline may indicate a customer who defers bill payments until immediately after payday. Many similar metrics can be tracked over time to gauge the relative and absolute financial health of a customer and augment traditional credit scoring.

Banking transaction data delivered from an API can provide other insights about customer behaviour. The raw data delivered from an API will become far more valuable if augmented with wider data, such as Standard Industry Code (SIC) and geo-location information, about the meanings of each transaction. The implications of much of this information are far from obvious, but the value of insights gained from a large set of transaction data will be significant and motivate the third-party innovations that regulators are seeking.

LOOKING AHEAD

PSD2 will have a dramatic impact on Europe's banks and the fintech industry. Financial services providers need to be prepared for the changes that PSD2 will usher in. Opportunities for those who are ready will be abundant, but disruption to established markets will be significant. PSD2 could spark one of the greatest changes to the financial services market since the birth of the web. **A**

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