



ECONOMY, EMPLOYMENT AND LABOR  
SEPTEMBER 2020

## **THE DIGITAL TRANSFORMATION OF PAYMENTS: AN ECONOMIC CHALLENGE, A CITIZENS' ISSUE**



# TABLE OF CONTENTS

INTRODUCTION	4
--------------	---

PART 1 – PAYMENTS: AN ISSUE OF STRATEGIC INDEPENDENCE FOR EUROPE	19
--	----

Non-European players are often at the forefront of market developments	20
--	----

European initiatives are struggling to emerge	23
---	----

Empowering the actors of the European payments chain	24
--	----

PART 2 – PAYMENT DATA: BALANCING ECONOMIC OPPORTUNITIES WITH PRIVACY	27
--	----

A central asset to address the sector's innovation challenges	28
---	----

Towards the end of consumer anonymity?	29
--	----

Giving back control to citizens over their payment data	32
---	----

PART 3 – THIS FAST-PACED TRANSFORMATION MAKES IT URGENT TO ANTICIPATE POTENTIAL NEW DIVIDES	35
---	----

A twofold dynamic of exclusion	36
--------------------------------	----

Supporting new professional uses	38
----------------------------------	----

Making access to payment a full-fledged component of digital inclusion policies	40
---	----

CONCLUSION	44
------------	----

GLOSSARY OF THE PAYMENTS INDUSTRY	46
-----------------------------------	----

FURTHER RESOURCES	48
-------------------	----

# INTRODUCTION



## THE PAYMENTS INDUSTRY PLAYS A SPECIFIC ROLE IN OUR DAILY LIVES

The health crisis we are going through has led to the development of new habits and uses, and to the reinforcement of others that were less widespread until now but will be essential tomorrow. Although this change has been generally observed with great acuity in the digital field, it has also greatly impacted the "means of payment" sector<sup>1</sup>. The increase of the limit for contactless payments from 30 to 50 euros in France is a clear example of this transformation, as this means of payment became part of our daily actions to limit the spread of the virus<sup>2</sup>. Contactless payments were already booming before the crisis. In France, for instance, their share in local card payments doubled between 2016 and 2017 (in volume and value)<sup>3</sup>. Moreover, three days after the limit was raised to €50, France's national interbank network (*Groupement des Cartes Bancaires CB*, also known as simply "CB") reported that 3 million contactless transactions, for amounts ranging from 30 to 50 euros, had already been made<sup>4</sup>.

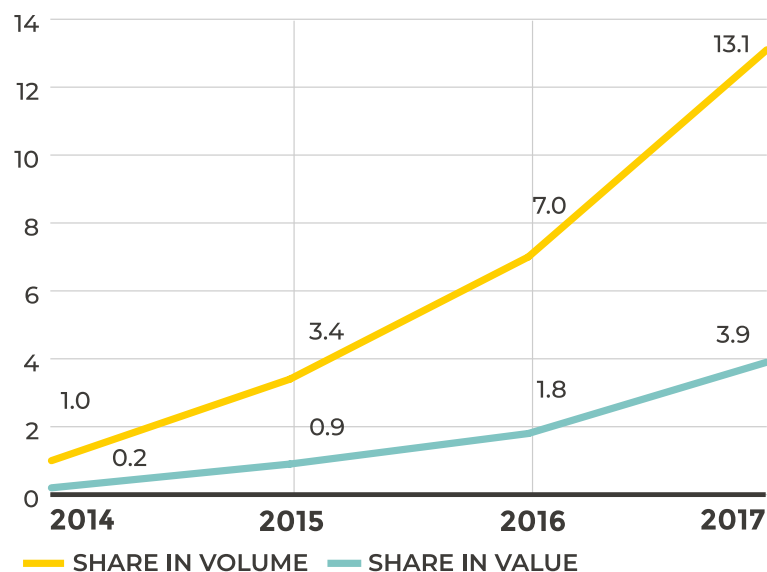
<sup>1</sup> A "means of payment" designates anything that enables a good or service to be purchased or paid for with money held in an account or in cash.

<sup>2</sup> « La France relève à son tour le paiement sans contact à 50 euros », *Les Échos*, 19 April 2020: <https://www.lesechos.fr/finance-marches/banque-assurances/la-france-releve-a-son-tour-le-paiement-sans-contact-a-50-euros-1196195>

<sup>3</sup> Banque de France, « Cartographie des moyens de paiement scripturaux. Bilan de la collecte 2018 (données 2017) » : [https://www.banque-france.fr/sites/default/files/media/2019/05/03/cmp\\_2018\\_fr\\_20190503.pdf](https://www.banque-france.fr/sites/default/files/media/2019/05/03/cmp_2018_fr_20190503.pdf)

<sup>4</sup> « Depuis le 11 mai, le sans contact c'est jusqu'à 50€ », press release from the *Groupement des Cartes Bancaires CB* and the *Conseil Consultatif du Commerce CB*, 14 May 2020: <https://www.cartes-bancaires.com/wp-content/uploads/2020/05/CP-sc-50€-CCC-VF.pdf>

**CHART 1 — EVOLUTION OF THE SHARE OF CONTACTLESS PAYMENTS IN LOCAL CARD PAYMENTS IN FRANCE BETWEEN 2014 AND 2017 (IN %)**



Source: Banque de France, investigation on the mapping of means of payment.

Means of payment stand at the crossroads of our societies' evolutions and are closely linked to various issues such as our purchasing power, the protection of our privacy, security, inclusion or even our sovereignty. As the sector undergoes a profound digital transformation, these issues have become of tremendous importance and impact the sector's relationship to trust.

Trust is an essential pillar for the means of payment ecosystem. From a consumer's point of view, it is essential to have confidence that, when making a purchase, the transaction can be carried out securely, the money is used for the desired purpose, and that personal data is protected. For merchants, it is rather a question of trusting that by accepting the transaction, they will actually be paid.

Innovative companies such as those of the fintech<sup>5</sup> sector, operate on the basis of a dual relationship of trust. On the one hand, they have to prove their reliability to other players in the ecosystem to provide new services. On the other hand, they need to have confidence in the technical infrastructure and in the regulatory framework's stability to be able to invest in innovation in a secure way, thus allowing the acceleration of the sector's transformation. For their part, public authorities have the duty to ensure that the system is not misused (e.g. money laundering).

The "Libra" project, led by Facebook, has occupied a central place in the public debate since its official launch in May 2019<sup>6</sup>, and has provoked strong reactions from a number of countries<sup>7</sup>. This currency – which falls into the category of "stablecoins"<sup>8</sup> – officially aims at making online payments and international money transfers accessible to the 1.7 billion people who do not, to date, own a bank account<sup>9</sup>. This project, coupled with other initiatives such as the "JP Morgan Coin" or UBS' "Utility Settlement Coin", has instilled fear among governments about a form of progressive "reintermediation" of payments by private actors, which would fall beyond regulators' control.

The main argument promoted by the Libra consortium is the inclusive dimension of their currency, especially for countries with low integration of banking services. But this project also illustrates the interest of major tech players for the payments industry, and in particular for the data it produces.

5 The French Ministry of the Economy and Finance defines fintech companies as follows: "Fintech, a contraction of financial technology, refers to small companies (start-ups and SMEs) that provide financial services through innovative solutions. Their fields of application are diverse: mobile payment, crowdfunding, savings management, insurance and credit, online financial advice, decision support through algorithms, etc." Original source: <https://www.economie.gouv.fr/entreprises/fintech-innovation-finance>

6 "Libra" is a consortium made up of 21 organizations (as of 25 February 2020). The full list is available here: <https://libra.org/fr-FR/association/>

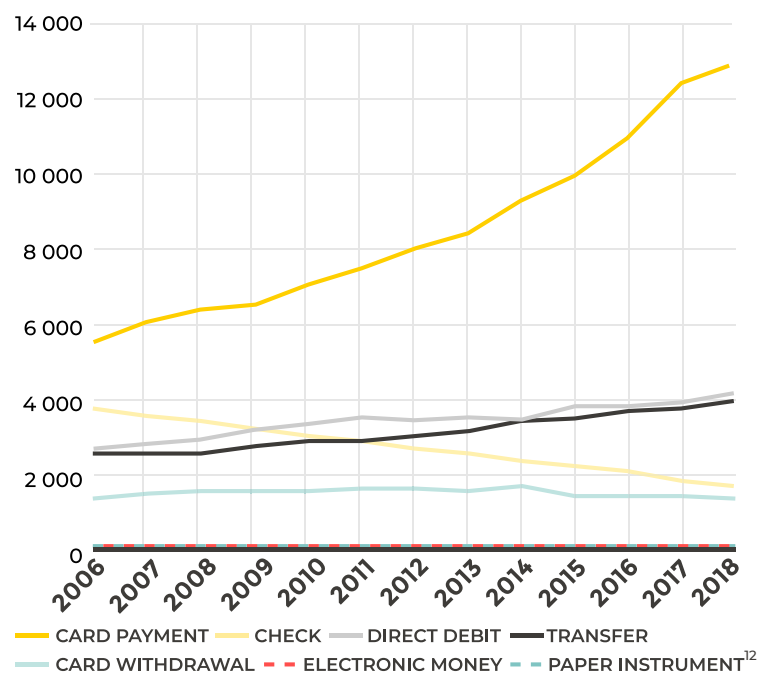
7 For France, see for instance the speech given by Minister of the Economy and Finance, Bruno Le Maire, on 13 September 2019 at the Eurofi Financial Forum: <https://www.economie.gouv.fr/files/2019-09/Discours%20de%20Bruno%20Le%20Maire%20lors%20de%20l%27Eurofi%20Financial%20Forum%202019.pdf>

8 Given their very recent development, there is no precise and commonly accepted definition of "stablecoins" yet. However, they can be understood as crypto-currencies designed to minimize price volatility, as they set prices in relation to a "stable" asset or basket of assets (e.g. paper money or exchange-traded products such as precious metals or industrial metals).

9 Figures taken from the Libra Association website.

Hence, beyond currency *per se*, which has always been at the heart of sovereignty issues, more recent debates have emerged, focusing on the strategic relevance of payment means. These debates have become all the more lively since the advent of "X-Pay" solutions (e.g. Google Pay, Apple Pay, Samsung Pay)<sup>10 11</sup>, which are becoming increasingly popular with users, and the rise of services such as WeChat Pay or AliPay in China.

**CHART 2 — EVOLUTION OF THE USE OF MEANS OF PAYMENT IN FRANCE SINCE 2006 (IN MILLIONS OF OPERATIONS)**



Source: Observatoire des moyens de paiements<sup>13</sup>

<sup>10</sup> "X-Pay" services are solutions allowing the dematerialization of bank cards on mobile devices (smartphones, tablets, etc.).

<sup>11</sup> In France, the first offers for dematerialized cards were launched in the summer of 2016 by Carrefour Banque and the BPCE group, which then offered the Apple Pay service to their customers. General Council for the Economy, Industry, Energy and Technology (*Conseil Général de l'Économie, de l'Industrie, de l'Énergie et des Technologies*), « Mise en œuvre d'une politique de localisation des données critiques de paiement en Europe », February 2020.

<sup>12</sup> Paper instrument refers to truncated bills of exchange, truncated promissory notes.

<sup>13</sup> France's observatory dedicated to the security of means of payment.

## A FAST-PACED DIGITAL TRANSFORMATION RESHUFFLING THE CARDS IN THE PAYMENTS LANDSCAPE

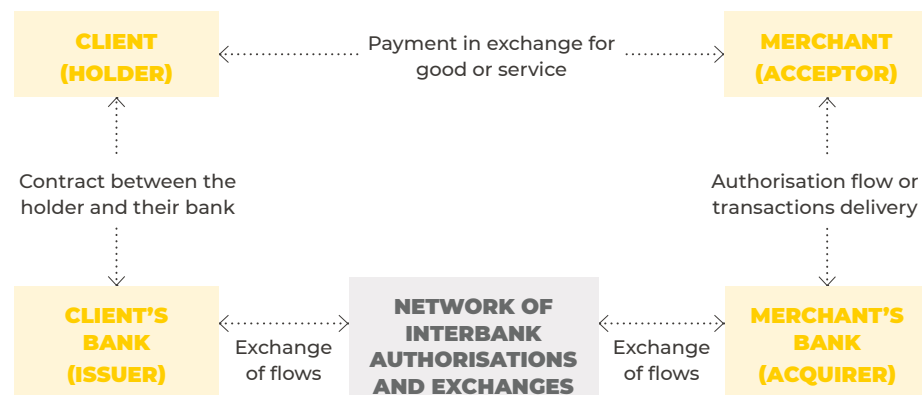
Over the past twenty years, the payments industry has been undergoing an accelerated transformation allowed by strong investments supporting its digitization. This early awareness makes it a sector that is often a pioneer, particularly in terms of security mechanisms. This dynamic has also been encouraged by new uses such as e-commerce and the widespread use of online payments. In this regard, it is worth noting that 71% of the French population ordered online in 2019<sup>14</sup>. This transformation in consumption habits has prompted the European Commission to introduce the Payment Services Directive 1 (PSD1) in order to further open up the payments market to innovations<sup>15</sup>. PSD2, which came into force in January 2018, is in line with this approach, while at the same time strengthening the security of payment methods (see box pp. 17-18).

As a result, new players have entered the sector and new services have emerged, often linked to this digital transformation. We are thus observing a transition from a value chain organised around a few traditional players to an ecosystem scattered around a myriad of new actors (see Charts 3 and 4).

<sup>14</sup> ARCEP, CGE, Agence du Numérique, « Baromètre du numérique 2019 ».

<sup>15</sup> Adopted in 2007.

**CHART 3 — THE TRADITIONAL PAYMENTS VALUE CHAIN  
(4-CORNERED DIAGRAM)<sup>16</sup>**



New market players focus on three types of commercial offers, which overlap to a large extent with the payment-related activities of traditional banking institutions:

- **Neo-banks** offer services similar to that of traditional banks but set themselves apart thanks to a new form of user experience (UX) and improved ergonomic interfaces<sup>17</sup>. In addition to pure players, several major groups – notably from the telecommunications sector – have recently entered this market by launching their own online banking services<sup>18</sup>.
- **Payment initiators** facilitate online payments and reimbursements between individuals using applications that are indirectly connected to bank accounts.
- **Information service providers** enable access to statistics about bank accounts. For instance, some applications classify expenses by category of expenditure and offer to better monitor the activities of one's bank account.

<sup>16</sup> Source: [comprendrespaiements.com](https://comprendrespaiements.com)

<sup>17</sup> Laurent Clerc, Arthur Moraglia and Sylvain Peyron, « Les néobanques vont-elles bouleverser leur secteur d'activité ? », *Revue d'économie financière*, vol. 135, no. 3, 2019, pp. 165-180.

<sup>18</sup> This is the case of the Orange Group with its "Orange Bank" subsidiary launched in 2017, and probably will soon be the case of Free, which no longer hides its ambitions in the payments industry since the end of 2019.

**CHART 4 — THE NEW PAYMENTS ECOSYSTEM**



<sup>19</sup> "An acquirer, or acquiring financial institution, is a bank that processes and settles a merchant's daily credit card transactions, and then in turn settles those transactions with the card issuer/association. Merchants must maintain such an account to receive credit for credit card transactions. Daily card transaction totals are deposited in the merchant's account after settlement and discount fees are deducted. In this way, such a financial institution acquires, or serves as the intermediary, to facilitate the credit transaction and pays the merchant, less a discount fee for the service.". Source: <https://www.creditcards.com/credit-card-news/glossary/term-acquirer/>

<sup>20</sup> Payment networks are companies connecting financial institutions (mainly banks) to transfer money when card payments are made.

<sup>21</sup> Card issuers can be banks, merchants (FNAC, etc.), restaurant voucher companies (Edenred, Up, etc.), etc.

Gateways <sup>22</sup>				
				
				
				
Non-card payments <sup>23</sup>				
				
				
				

Source: Business Insider.

<sup>22</sup> For online payments, a payment gateway is an intermediary between the consumer and the merchant site, which facilitates the payment.

<sup>23</sup> Players such as Visa and Mastercard also offer forms of payment other than cards.

In this context, traditional banks are evolving as well, offering new services such as contactless payment<sup>24</sup>. This transformation also involves the acquisition of players from the fintech sector. For instance, *Crédit Mutuel Arkéa* has acquired Leetchi, the online money pot site<sup>25</sup>, while *BNP Paribas* took over Nickel in 2017<sup>26</sup>. Some European banks have also recently joined forces to launch an instant payment service. According to a study led by the European Central Bank (ECB), this solution could account for 23% of payments made by transfer, direct debit, checks or bank cards in the eurozone by 2023<sup>27</sup>. Despite this transformation movement, banks are still finding it particularly difficult to implement the newly adopted regulatory provisions and to initiate the opening procedures provided for in them. A relevant example is the implementation of the regulatory<sup>28</sup> APIs<sup>29</sup> provided for in PSD2, which has been delayed<sup>30</sup>.

Beyond the banking industry, the entire traditional payments chain is engaged in this transformation, including the so-called schemes – or inter-bank networks (e.g. Visa, Mastercard, CB) – which are diversifying their services. In particular, Visa announced on 13 January 2020 the acquisition of US start-up company Plaid<sup>31</sup>.

As the way we use money becomes more digital, the payments industry is transforming. This renewal is being supported in the European Union by public authorities, which see it as an opportunity to reduce costs<sup>32 33</sup> in this sector and to fight certain types of fraud more efficiently (particularly in

<sup>24</sup> Such is the case of GIE Paylib Services SAS, which gathers several French banking groups: <https://www.paylib.fr>

<sup>25</sup> « Arkéa, BNP, BPCE : Chacun cherche sa Fintech », *Forbes*, 24 July 2018.

<sup>26</sup> « Compte-Nickel, l'acquisition tactique de BNP Paribas », *Les Échos*, 22 October 2017.

<sup>27</sup> « L'Europe passe au moyen de paiement instantané, alternative à Visa ou Mastercard », *Le Monde*, 30 November 2018: [https://www.lemonde.fr/economie/article/2018/11/30/l-europe-passe-au-moyen-de-paiement-instantane\\_5390658\\_3234.html](https://www.lemonde.fr/economie/article/2018/11/30/l-europe-passe-au-moyen-de-paiement-instantane_5390658_3234.html)

<sup>28</sup> Account aggregation, payment initiation and balance coverage.

<sup>29</sup> API stands for "Application programming interface". See the definition on Wikipedia: [https://en.wikipedia.org/wiki/Application\\_programming\\_interface](https://en.wikipedia.org/wiki/Application_programming_interface)

<sup>30</sup> « La laborieuse mise en œuvre de la DSP 2 », *Revue Banque*, 19 December 2019.

<sup>31</sup> Visa, "Visa To Acquire Plaid", 3 January 2020: <https://usa.visa.com/about-visa/newsroom/press-releases.releaseId.16856.html>

<sup>32</sup> "This Harvard Economist Is Trying to Kill Cash", *Bloomberg*, 7 September 2016

<sup>33</sup> "The benefits of a cashless society", *World Economic Forum*, 7 January 2020.

relation to checks). This adds up to the already deployed measures aiming at accompanying uses and industrial innovation in the payments industry. Although a "cashless" society seems to be emerging, the use of cash, which is culturally well-established in Europe, must be addressed.

## THE EUROPEAN PAYMENTS MARKET REMAINS TOO FRAGMENTED

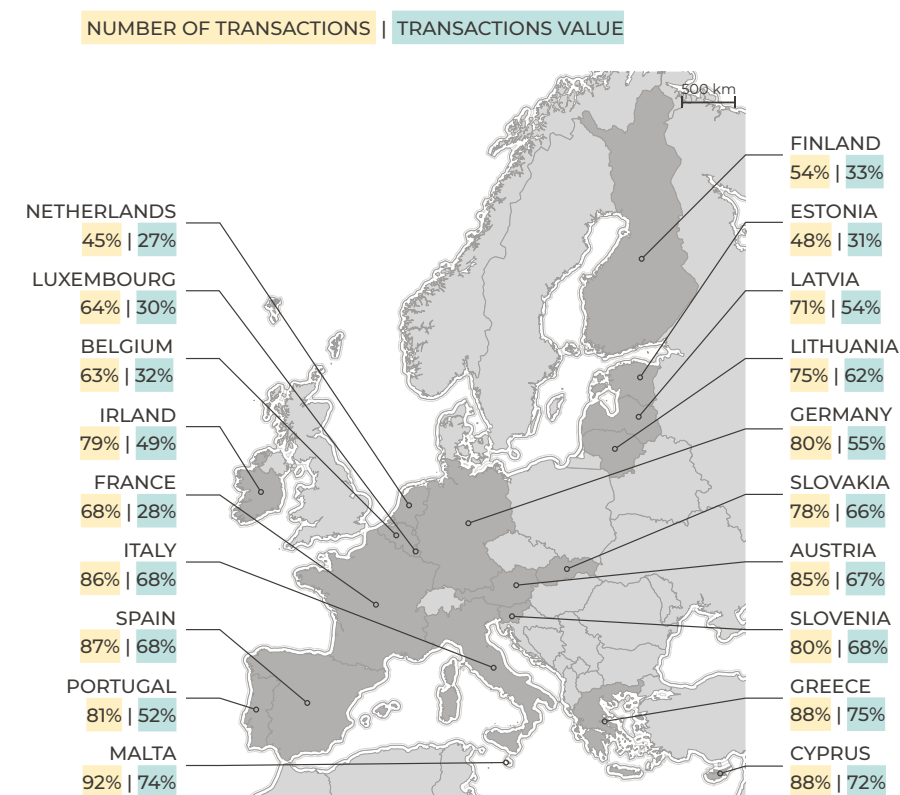
At the European level, a study<sup>34</sup> has shown that 79% of all transactions are still made with cash for 54% of transactions' total value. As the authors of the study state, *"despite numerous articles claiming a cashless society is imminent, it appears that the use of cash at [the point-of-sale] is still robust in most euro area countries"*. From a macroeconomic perspective, even if trends in innovation and uses are moving towards this direction, the cashless society will not be immediate in Europe. Researcher David Bounie rather speaks of *"a 20-30-year horizon"*<sup>35</sup>.

However, behind this general observation, the characteristics of uses are specific to each of the Member States' banking culture. Sweden is often taken as an example. Like other Scandinavian countries<sup>36</sup>, Sweden's ecosystem is particularly conducive to the development of digital payment services. But the Swedish position on payment means is also the result of a long-lasting historical shift<sup>37</sup>. It is indeed because of a series of burglaries in Swedish banks that the latter started considering the suppression of cash.

Statistics on payment instruments at the European level gives us a much

more fragmented picture. Spanish private individuals carry out 87% of their point-of-sale transactions in cash, whereas only 54% of Finns do so. In the case of France, the share of cash transactions is 68% for 28% of transactions' total value<sup>38</sup>. David Bounie indicates that the French figures can notably be explained by a historic cash hoarding<sup>39</sup> <sup>40</sup> habit.

**CHART 5 — SHARE OF CASH TRANSACTIONS MADE BY INDIVIDUALS AT POINTS-OF-SALE IN EUROPE (PER COUNTRY)**



Sources: ECB, Deutsche Bundesbank and De Nederlandsche Bank

<sup>34</sup> Henk Esselink, Lola Hernández, "The use of cash by households in the euro area", European Central Bank, *Occasional Paper Series*, n°201, November 2017.

<sup>35</sup> Interview conducted by telephone with David Bounie on 13 February 2020.

<sup>36</sup> In this regard, see the example of digitization in Denmark. Renaissance Numérique, "Denmark: A digital will", October 2019: <https://www.renaissancenumerique.org/publications/denmark-a-digital-will>

<sup>37</sup> Arvidsson, Niklas, "The Story of Cash and the Route Toward a Cashless Society: The Case of Sweden", *Building a Cashless Society: The Swedish Route to the Future of Cash Payments*, edited by Niklas Arvidsson, 27-39. SpringerBriefs in Economics. Cham: Springer International Publishing, 2019.

<sup>38</sup> Henk Esselink, Lola Hernández, "The use of cash by households in the euro area", European Central Bank, *Occasional Paper Series*, No 201, November 2017. An update of this study is underway at the European level and is expected to be published in 2020. This new version will make it possible to highlight changes in individuals' uses.

<sup>39</sup> In other words, "keeping money under the mattress."

<sup>40</sup> Interview conducted by telephone with David Bounie on 13 February 2020.



Furthermore, while Sweden continues to digitize its means of payment – for example, with its digital currency project (*e-krona*) – the Swedish government has recently taken steps to ensure that cash remains accessible to the most vulnerable parts of the population. A law introducing *"the obligation for credit institutions to provide cash services"* came into force at the beginning of 2020. This law aims, among other things, at allowing every citizen to withdraw cash within a 25-kilometer radius. Cash and electronic payments therefore no longer appear as two exclusive payment methods, but as complementary tools to ensure that no one is left behind.

*"Electronic payment has a lot of advantages, but you have to be able to use cash as well. The elderly, disabled people, people who have just arrived in Sweden, should be able to pay cash."*

— Per Bolund, Swedish Minister of Financial Markets and Consumer Affairs<sup>41</sup>

Consequently, this fragmentation of the European payments market makes it complex to develop an industrial strategy capable of competing on the international scene.

## THE EUROPEAN REGULATORY FRAMEWORK APPLICABLE TO THE MEANS OF PAYMENT SECTOR

Because of its sensitivity (e.g. with regard to bank data), the payments industry is a very mature sector in terms of legal framework. In this regard, prior to the entry into force of Directive 2007/64/EC dealing with payment services (PSD1), only banks had the right to carry out financial transactions. PSD1 and PSD2 were successively designed to provide a framework for new uses, stimulate competition, foster innovation within the sector and encourage the creation of a European payments zone. This new legal framework, coupled with technological developments (e-commerce, mobile payments) has lowered barriers to entry and led to the emergence of new players and new solutions (Lydia, Paylib in France, iDeal in the Netherlands, Paydirekt in Germany, Payconiq in Belgium, Swish or Klarna in Sweden, Big Tech companies, etc.).

In the recitals of PSD1, the European legislator considers that it is essential *"that all internal frontiers in the Community be dismantled so as to enable the free movement of goods, persons, services and capital"*, which requires the proper functioning of the single market for payment services, and notes that *"at present, however, the lack of harmonisation in this area hinders the operation"* of this market (Recital 1), since it is *"fragmented into 27 national legal systems"* (Recital 2).

In order to contribute to the emergence of this single market, the European legislator has created a new legal category: that of "payment institutions" (Articles 5 and 10 of PSD1). This new category allows players other than credit institutions (such as banks) to carry out a payment service activity (for example, a telephone operator can now offer payment services). However, it is still not possible for these new actors to offer credit or a check book through this channel.

PSD1 also introduces consumer protection arrangements and aims

to stimulate the creation of a unique European payments area, the Single Euro Payments Area (SEPA)<sup>42</sup>.

PSD2, which recently entered into force, is a continuation of PSD1, addressing the rapid changes in the sector. It is based on four pillars:

- the supervision of new players, in particular payment initiation service providers and bank account information providers;
- the reinforcement of security standards, notably through "Strong Customer Authentication";
- the strengthening of the power of supervisory authorities;
- and the tightening of the conditions for obtaining approvals.

Moreover, in order to encourage innovation, it makes it mandatory to open up banking data to other players in the sector through the implementation of APIs.

In addition to these directives, two other European texts complete the existing regulatory framework applicable to the means of payment ecosystem. The first one is the Interchange Fee Regulation (IFR)<sup>43</sup> introduced in 2015, which caps certain fees applicable to electronic transactions, making the European Union one of the regions with the lowest costs for electronic payments. This point was addressed in particular in a recent study commissioned by the Belgian Ministry of the Economy, which highlights a steep fall in the cost of payments since the implementation of the IFR. Stakeholders in the payments sector are also particularly mobilized in the fight against fraud via the implementation of the Anti-Money Laundering Directives, the latest one dating from 2018. Those directives aim at combating money laundering and the financing of terrorist activities.

---

<sup>42</sup> See the presentation of SEPA on Wikipedia: [https://en.wikipedia.org/wiki/Single\\_Euro\\_Payments\\_Area](https://en.wikipedia.org/wiki/Single_Euro_Payments_Area)

<sup>43</sup> Belgian Price Observatory for the Belgian Ministry of the Economy, "Le fonctionnement du marché des paiements électroniques en Belgique", May 2019: <https://economie.fgov.be/fr/publications/le-fonctionnement-du-marche>

# PART 1

## PAYMENTS: AN ISSUE OF STRATEGIC INDEPENDENCE FOR EUROPE



*"Payments are no longer considered a mere appendage of commerce. They have become a strategic issue, a real subject of European economic sovereignty. They now attract players beyond the banking sector, with the arrival of new entrants from the fintech sector but also, and above all, major global players from the digital economy. The world of payments is now restless".*

— Eric Ducoulombier, Head of Unit at the Directorate General for Financial Stability and Capital Markets (DG FISMA), European Commission<sup>44</sup>

## NON-EUROPEAN PLAYERS ARE OFTEN AT THE FOREFRONT OF MARKET DEVELOPMENTS

When we talk about payment means, one of the first instruments that comes to mind is the credit card. It is the preferred method of payment of French consumers, who have used it in 53% of scriptural payments<sup>45</sup> for a total amount of nearly 568 billion euros in 2018. In addition, card withdrawals accounted for 1,439 million transactions in 2018, totaling just over 136 billion euros<sup>46</sup>.

The two main players in the global market for bank card networks – or schemes – are American: Visa and Mastercard<sup>47</sup>. These two companies account for almost 80% of card transactions in the European Union<sup>48</sup>, despite

---

44 Interview conducted by telephone with Eric Ducoulombier on 9 January 2020.

45 All non-cash means of payment (coins and banknotes).

46 Observatoire de la sécurité des moyens de paiements, Annual Report, 2018.

47 As reported in an op-ed published on the website of French newspaper *Le Figaro*, European banks sold Visa Europe to Visa Incorporation in November 2015. Prior to this sale, Visa Europe was owned by a consortium of European banks: <https://www.lefigaro.fr/vox/economie/2015/11/06/31007-20151106ARTFIG00352-derriere-le-rachat-de-visa-europe-par-visa-inc-la-bataille-mondiale-pour-le-controle-des-donnees.php>

48 "ECB chief says instant payments could break Visa/Mastercard duopoly", *Finextra*, 8 February 2019.

the presence of national interbank networks that play a major role in domestic transactions in several Member States<sup>49</sup>. For example, France's national interbank network (*Groupe des Cartes Bancaires*, also known as simply "CB") manages the vast majority of domestic transactions in France (with nearly 71 million cards in circulation and 493.5 billion euros in transactions managed in 2019<sup>50</sup>). However, these domestic networks have suffered from a lack of interoperability since the mid-1980s and are struggling to reach the international or even the European level. Member States without a domestic interbank network tend to rely more often on international networks.

Often at the forefront in terms of innovation and uses, the major schemes have gradually imposed their standards for cross-border interbank connections and security within international standardization bodies<sup>51</sup>. They now encourage contactless and mobile payment methods, while their European counterparts are more timid in doing so. The European Union, as a federating entity, thus seems to have failed – until now – to anticipate market developments and the tools currently used for payments. One of the consequences of this has been a lack of investment in the sector.

The risk for European companies is that they will lose the race altogether<sup>52</sup>. Although it has often been pointed out, the fragmentation of the European payments market remains a struggle to be overcome, even though the capacity for innovation is there and efficient national networks exist in many Member States.

This transformation of uses is also largely driven by digital players who occupy an ever-greater place in our daily lives, such as Uber or Amazon. They

---

49 According to the French General Council for Economy, Industry, Energy and Technologies, there are about a dozen in Europe. Conseil Général de l'Économie, de l'Industrie, de l'Énergie et des Technologies, « Mise en œuvre d'une politique de localisation des données critiques de paiement en Europe », February 2020.

50 Data from the CB Observatory: <https://observatoirecb.cartes-bancaires.com>

51 EMVCo (<https://www.emvco.com/about/overview/>) and PCI SSC (<https://www.pcisecurity-standards.org>) in particular.

52 Torre, Dominique, and Qing Xu, « La Chine aux avant-postes de la digitalisation des paiements », *Revue d'économie financière*, vol. 135, no. 3, 2019, pp. 99-114.

act as vectors for the rapid dissemination of new payment uses, which ultimately benefit non-European companies. The development of mobile payment services (Apple Pay, Google Pay, Samsung Pay, AliPay, WeChat Pay), crypto-currencies (Libra) and instant payment solutions (e.g. Tencent's investments in Lydia and Qonto<sup>53</sup>) foreshadows a future market loss for European players facing American and Asian competition. One of the challenges for Europe will result in its ability to compete with the level of investment of these players.

*"When we talk about Apple Pay, it is obvious that all players don't have the same investment capacities. Banks can buy fintech companies, but the digital giants could buy the banks. Apple's quarterly profit (Q4 2019) is higher than the combined annual profit of all French banks."*

— Hervé Alexandre, Director of the Fintech/Digital Finance Chair of the Paris-Dauphine Foundation<sup>54</sup>

## EUROPEAN INITIATIVES ARE STRUGGLING TO EMERGE

On the European side, the response has been organizing for about ten years, but not without any difficulty. Several projects have been deployed to try to develop European solutions on the card market and offer an alternative to the major American and Chinese interbank networks (Visa, Mastercard, UnionPay, AliPay, WeChat Pay). This was the objective of the "Monnet" project<sup>55</sup>. Launched in 2010, it consisted in the creation of a single European card payment system to replace domestic systems. The banks involved in the project discussed with the European Commission the possibility to maintain a certain level of multilateral interchange fees to ensure the viability of the project. The Commission, through its Directorate General for Competition, refused and the banks abandoned the project as a result<sup>56</sup>. This failure highlights the complexity of the European banking market, particularly in relation to the investments required to deploy this type of operations.

These reflections are now being extended through "PEPS-I<sup>57</sup>", which was launched at the end of 2019 and which has, since then, been renamed "EPI<sup>58</sup>". Although little information is currently circulating publicly on this project for a European scheme operating in real time, the European Central Bank has already expressed its support<sup>59</sup>. Public authorities, like the General Economic Council (*Conseil Général de l'Économie*) in France, see this project as an opportunity to create a brand that would not only impose itself in Europe, but would also gradually gain a foothold in the international market

---

55 France was particularly involved in this project, which was chaired by Georges Pauget.

56 « Le projet européen de carte de paiement Monnet est abandonné », *Les Échos*, 24 April 2012: <https://www.lesechos.fr/2012/04/le-projet-europeen-de-carte-de-paiement-monnet-est-abandonne-355713>

57 PEPS-I stands for "Pan European Payment System Initiative". A resolutely political initiative supported by some twenty European banks.

58 EPI stands for "European Payment Initiative".

59 « L'Europe règlera en 2020 la question du financement des nouvelles infrastructures de paiement », Jean-Michel Chanavas, Mercatel, *Redbridge*, 22 January 2020.

---

53 « Le chinois Tencent poursuit son incursion dans la Fintech française », *Les Échos*, 21 January 2020.

54 Interview conducted with Hervé Alexandre on 31 January 2020.

and within international standardization bodies<sup>60</sup>. However, the project is still in its early stages and, given the investment necessary to roll out this type of infrastructure, it must also meet the interest of consumers and traders.

From a European point of view, it seems more necessary than ever not to miss the opportunity to embrace the most recent innovations made possible by regulatory changes such as open banking and instant transfers. In this respect, the deployment, since the end of 2018, of the Target Instant Payment Settlement (TIPS), initiated by the European Central Bank with 2,000 partner banks in the eurozone, appears like an opportunity not to be missed to design a more advanced common strategy.

## EMPOWERING THE ACTORS OF THE EUROPEAN PAYMENTS CHAIN

In addition to these initiatives, several avenues for reflection exist and could enable European payment players to make the most of their opportunities. The first one would be to deepen the existing collaboration between the payment chain's players, and in particular between e-commerce companies and new payment services institutions. It would improve user experience by providing services which are as close as possible to consumers' habits and preferences. Moreover, with the introduction of PSD2 and strong authentication, the challenge is to offer tools that guarantee a balance between design (user experience) and security, which requires significant investments from these players. In this respect, the work carried out by entities such as the French National Cashless Payments Committee (*Comité national des paiements scripturaux* or NCPC)<sup>61</sup> and the French Observatory for the

Security of Means of Payment (*Observatoire de la sécurité des moyens de paiement* or OSMP)<sup>62</sup> supported by the Central Bank of France (*Banque de France*), as well as within dialogue bodies set up at the European level by the Commission and the European Central Bank, deserves to be further developed. In this process, a particular attention should be given to the issue of strategic economic independence. The added value of such consultative bodies lies in the fact that they bring together all the links in the chain, right down to the consumer.

In order to accelerate innovation, notably in the field of fintech, a number of players also seem to welcome the idea of "regulatory sandboxes", such as the one initiated by the British Financial Conduct Authority (FCA)<sup>63</sup> in 2018. Consideration could thus be given to deploying a regulatory sandbox at the European level, to allow the payments industry's players to innovate at the right scale (in a "European by design" logic<sup>64</sup>).

However, the resort to such regulatory schemes in the payments industry seems to be a matter of debate. In France, the Prudential Supervision and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* or ACPR), referencing a report published by the UN in March 2018, notes in this regard: *"Those are devices for testing and supporting new financial services or business models, exercised under real conditions; they are subject to special supervision and oversight. However, the report stresses that they are never necessary nor sufficient to promote financial inclusion; in particular, they are described as complex to implement and costly to sustain in terms of resources. Experience shows that most of the regulatory issues emerging in these sandboxes can be resolved without the need for a testing environment [...]. This is essentially the position of the ACPR [...]"*<sup>65</sup>.

---

62 See the presentation of the OSMP on the Banque de France website: <https://www.banque-france.fr/en/financial-stability/observatory-security-payment-means>

63 « La FCA rallie onze régulateurs à son idée de "bac à sable" mondial pour la fintech », *L'Agefi*, 8 August 2018: <https://www.agefi.fr/fintech/actualites/quotidien/20180808/fca-rallie-onze-regulateurs-a-idee-bac-a-sable-253655>

64 Interview conducted with Annabelle Richard on 28 January 2020.

65 « Une Sandbox réglementaire – bac à sable réglementaire – pour quoi faire? », *Revue de l'ACPR*, March 2019.

60 Conseil Général de l'Économie, de l'Industrie, de l'Énergie et des Technologies, « Mise en œuvre d'une politique de localisation des données critiques de paiement en Europe », February 2020.

61 See the presentation of the NCPC on the Banque de France website: <https://www.banque-france.fr/en/financial-stability/national-cashless-payments-committee>

A number of European companies have managed to play their cards right in a changing and highly competitive payments market. Adyen<sup>66</sup> is a good example of a company that has managed to expand beyond its borders. Founded in 2006 in the Netherlands, Adyen *"enables companies to accept payments from a single system"* and works with many players in the digital economy such as Uber, Netflix and Spotify. The company has become increasingly successful, leading to its initial public offering in 2018, during which its value doubled.

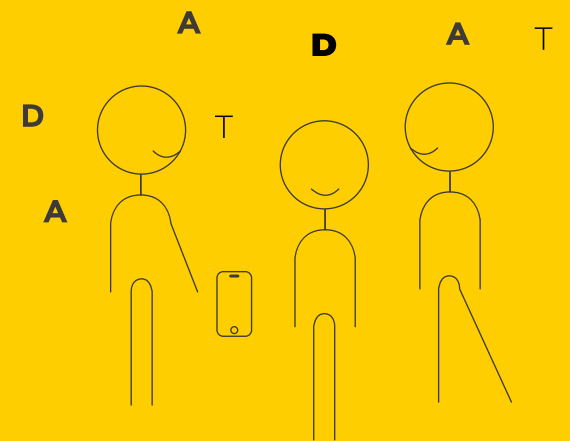
There is a real risk that payment players on the Old Continent will be left behind. The opening of data allowed by PSD2 is real and the standardization of APIs is well underway despite its delay. Numerous European fintech companies have also emerged, but not all of them are experiencing the international success of start-up company Adyen (see box). PSD2 could thus result in an open innovation initiative, which traditional banks and schemes will recover through their buyouts. If these players are European, this could be a way forward for Europe. If not, the European Union will have failed to pursue its transformation. Europe must assert its path while respecting its values, first and foremost the protection of privacy and the inclusion of its citizens.

# PART 2

## PAYMENT DATA: BALANCING ECONOMIC OPPORTUNITIES WITH PRIVACY



T  
A  
D  
A



# A CENTRAL ASSET TO ADDRESS THE SECTOR'S INNOVATION CHALLENGES

Due to the diversity of payment circuits and of the players involved, payment data cover a wide variety of categories and statuses, which are more or less sensitive.

Historically, banks and interbank networks have been the main structures with the ability to collect and process payment data. The emergence of fintech players since the late 1990s<sup>67</sup> and more recently the arrival of Big Tech companies, as well as regulatory changes, have put an end to this situation, which could lead to a loss of comparative advantage for these players, in particular banks<sup>68</sup>.

When discussing the use of data in the payments sector, two possibilities for valuation emerge: artificial intelligence and the development of new data-based services. According to a recent study published by the consulting firm Capgemini, *"artificial intelligence could generate \$512 billion in revenues for financial services companies worldwide by 2020"*<sup>69</sup>. Data allows the use and further development of techniques already existing in the sector. It fosters the development of new services as well. This is for example the case for credit risk assessment, an area in which the use of new data enables the improvement of the algorithms deployed<sup>70</sup>. Fintech companies such as Linxo or Bankin' use data to provide reliable budget analysis and prediction.

---

67 Laurent Clerc, Arthur Moraglia, and Sylvain Peyron, « Les néobanques vont-elles bouleverser leur secteur d'activité ? », *Revue d'économie financière*, Vol. 135, no. 3, 2019, pp. 165-180.

68 Metge, P. (2015), « Le big data et la banque », *Revue d'économie financière*, 118(2), 93-101. doi:10.3917/ecofi.118.0093.

69 « Intelligence artificielle : les banques françaises tâtonnent encore », *La Tribune*, 21 September 2018.

70 Christophe Hurlin and Christophe Pérignon, « Machine learning et nouvelles sources de données pour le scoring de crédit », *Revue d'économie financière*, vol. 135, no. 3, 2019, pp. 21-50. The authors state that *"this 'datadiversity' is enabled by new customer practices, the digitization of customer relations or the accessibility to new sources of information (social networks). The innovative character is assessed here in relation to the customer data usually used in scoring models such as payment histories, income, etc."*

They provide their clients with automatic overdraft management services, overdraft salary advances or overdraft forecasting.

The attractiveness of data for the industry explains the implementation of open banking<sup>71</sup> in Europe under PSD2. For the European Commission, the aim is to foster innovation by opening up new markets for fintech firms. For consumer protection purposes, however, European open banking is limited to payment account data only and does not concern the rest of banking data – unlike in other regions of the world such as Australia.

In addition to fintech companies, players from the digital economy are also aggregating an ever-increasing amount of data that could be used as a lever for the transformation of the payments sector. Data has become an essential asset for the development of new services in the banking, financial and insurance sectors. But payment data is also valuable for other sectors of the economy, as it reveals online and offline consumption patterns. The value of this data thus goes far beyond the payment activity in itself. In this context, consumer payment data is becoming a windfall that many non-EU players are trying to appropriate<sup>72</sup>, often with a greater capacity for innovation than European players. We are moving towards a hyperconnection of services based on the exploitation of payment data, gradually encroaching on the anonymity of transactions.

## TOWARDS THE END OF CONSUMER ANONYMITY?

The opportunities and negative effects of electronic payments have been widely discussed since the switch from paper money to bank cards. Although they offer the possibility to reduce fraud or facilitate control over

---

71 Open banking consists in opening up banks' information systems and data sharing to third parties in order to stimulate competition and the creation of new services.

72 « Derrière le rachat de Visa Europe par Visa Inc, la bataille mondiale pour le contrôle des données », *Le Figaro*, 6 November 2015.



the informal economy, they also induce the risk of taking a further step towards a surveillance society<sup>73</sup> and introducing new cybersecurity risks. As Catherine M. Downey (1996) rightly pointed out, *"the use of digital cash over the Internet creates the challenge of balancing privacy concerns with the government's legitimate security interests."*<sup>74</sup>.

The revelations about the National Security Agency (NSA) spying on American citizens have demonstrated the fragility of the moral and regulatory boundaries around the protection of privacy. In this specific case, the U.S. agency used, among other things, payment data to supposedly combat terrorism<sup>75</sup>. For its part, the Swedish experience has shown the risks of online payments fraud, with an increase of reported cases<sup>76</sup>. Finally, a more recent example is linked to the health crisis we are going through. In addition to video surveillance, the South Korean government has carried out a massive tracking of bank cards and mobile phones data to identify individuals to be tested in priority in an effort to manage the pandemic. South Korea has the highest proportion of online payments in the world. By tracking these transactions, it was possible for authorities to follow users' movements<sup>77</sup>.

These risks linked to a possible end of privacy are well integrated by some consumers: *"In Sweden, for the time being, the only shops where consumers are reluctant to use their bank cards are the 'Systembolaget', those state-owned shops which are the only ones allowed to sell alcohol and where shameful drinkers do not want to leave any trace of payment"*<sup>78</sup>. One of the advantages of cash therefore lies in its ability to preserve anonymity.

*"With the end of cash, paying anonymously will probably soon become impossible... With the development of electronic means of payment, consumers who want to remain inconspicuous are reduced to multiplying bank accounts, using PayPal or prepaid cards – in short, to compartmentalizing their transactions. This end of anonymity, in the name of the fight against fraud or money laundering, still raises questions. It should probably be preserved, for example for small transaction amounts. The technique already exists: it is possible to use "blind" electronic signatures, which do not leave any trace."*<sup>79</sup>

With the introduction of electronic money and the gradual disappearance of cash, it appears relevant to collectively question the anonymity regime that we wish to preserve. This is the thrust of the discussions initiated by the Central Bank of France on the creation of a central bank digital currency. As its governor points out, *"a parallel reflection will necessarily have to be undertaken to define the possibilities of anonymity when this central bank digital currency (CBDC) circulates 'from person to person'"*. For example, consideration could be given to setting up *"thresholds on the amounts of anonymous transactions, as is already done in France for payments in electronic money or cash"*<sup>80</sup>. Maintaining access to an offer that preserves anonymity is indeed a public service mission. It is also one of the conditions for the adoption of digital money: why else would bank customers use it rather than electronic cards?

73 Reistad, D. L. (1967), *The coming cashless society*. *Business Horizons*, 10(3), 23–32. doi:10.1016/0007-6813(67)90080-8.

74 Downey, Catherine (1996), "The High Price of a Cashless Society: Exchanging Privacy Rights for Digital Cash", *Marshall J. Computer & Info. L.* 303.

75 "Big Brother Is Watching You Swipe: The NSA's Credit Card Data Grab", *Time*, 11 June 2013.

76 Sajter, Domagoj, "Privacy, Identity, and the Perils of the Cashless Society", *Culture, Society, Identity - European Realities*, 2013, ISBN:978-953-69-31-57-6.

77 "Coronavirus: South Korea's success in controlling disease is due to its acceptance of surveillance", *The Conversation*, 19 March 2020: <https://theconversation.com/coronavirus-south-koreas-success-in-controlling-disease-is-due-to-its-acceptance-of-surveillance-134068>

78 *Le Temps*, op. cit.

79 « Payer de façon anonyme ne sera bientôt plus possible! », *Capital*, 12 December 2019.

80 François Villeroy de Galhau, « Monnaie digitale de banque centrale et paiements innovants ». Speech given on the occasion of the ACPR Days, 4 December 2019: [https://www.banque-france.fr/sites/default/files/medias/documents/2019.12.04\\_conference\\_acpr\\_v5.pdf](https://www.banque-france.fr/sites/default/files/medias/documents/2019.12.04_conference_acpr_v5.pdf)



## THE LEGAL FRAMEWORK APPLICABLE TO PERSONAL PAYMENT DATA

Certain categories of payment data have been considered on several occasions as personal data by the French Data Protection Authority (*Commission nationale de l'informatique et des libertés* or CNIL)<sup>81</sup>. Based on the General Data Protection Regulation (GDPR), the CNIL has issued deliberation No. 2018-303 of 6 September 2018 dealing with payment cards for the remote sale of goods or the provision of services. Amended in February 2019<sup>82</sup>, it specifies the conditions of service under which the processing of banking data is legitimate, the duration of the processing and the procedures for obtaining consent. On this last point, the CNIL underlines that it is necessary to collect consent in a specific manner and not only via general terms and conditions of sale, for example via a dedicated form.

However, it should be noted that personal payment data do not fall within the scope of "sensitive data" which are subject to a specific regime under Article 9 of the GDPR.

## GIVING BACK CONTROL TO CITIZENS OVER THEIR PAYMENT DATA

The European General Data Protection Regulation (GDPR) introduces new rights for consumers, such as the right to access their personal data (Article 15) and the right to have their data rectified (Article 16) or deleted. Even though the GDPR specifies a number of rules concern-

ing how to obtain users' consent in the collection and processing of their data, in the field of payments, the overlap of this text with PSD2 leads to difficulties of interpretation. This is particularly the case concerning new uses deriving from PSD2, such as open banking applied to payment accounts, with regard to the collection of explicit consent prior to the execution of a payment service<sup>83</sup>.

Underlying this issue, the question of the interpretation by the banks of what does and does not fall within the scope of the datasets subject to opening via APIs remains unanswered. Annabelle Richard, a partner in the law firm Pinsent Masons, emphasizes that *"using a directive rather than a European regulation as a tool leads to national flexibility in the choice of implementation of its provisions. As a result, it seems to us that the obligations to share data with third party providers are not sufficiently regulated and that we therefore see a significant delay in the implementation of APIs by banks"*<sup>84</sup>.

One of the avenues of reflection that emerged after the entry into force of the GDPR – and which is far from being exclusive to the payments sector – is the opportunity to develop sector-specific versions of the regulation. One could thus imagine a "Payments-GDPR", a "Health-GDPR", etc. precisely to reduce the margins of interpretation – and therefore of uncertainty – with the other regulatory texts that govern each sector. However, such a hypothesis raises many other questions (regulatory maze, risk of inconsistencies, etc.) which are at the heart of the reflections on the GDPR's application since 2016. In this respect, and following the example of the compliance packages developed by the CNIL in France<sup>85</sup>, sector-specific guidelines by the European Data Protection Board (EDPB) would be welcome.

At the heart of this matter is the idea of restoring consumers' role within this chain. Are they in control of their personal data? Can they choose the

81 CNIL, « Pack de conformité Assurance », July 2014: [https://www.cnil.fr/sites/default/files/typo/document/PACK\\_ASSURANCE\\_complet.pdf](https://www.cnil.fr/sites/default/files/typo/document/PACK_ASSURANCE_complet.pdf)

82 CNIL, « Le paiement à distance par carte bancaire », 28 February 2019: <https://www.cnil.fr/fr/le-paiement-distance-par-carte-bancaire>

83 Alain Bensoussan, « Articulation de la PSD2 et du RGPD, le CEPD publie sa position », 31 July 2018.

84 Interview conducted with Annabelle Richard on 28 January 2020.

85 See the presentation of those sector-specific compliance packs on the CNIL's website: <https://www.cnil.fr/fr/packs-de-conformite>

services for which they consent to share it? Is the purpose for which their data is being processed always explicit? The question of what information is made available to the consumer by the other players of the chain (banks, schemes, fintech companies, public authorities, etc.) is central to these reflections. Still, although it is addressed by the regulatory framework, this information remains imperfect. Beyond this knowledge issue, consumers' control over their personal data must also involve the strengthening of their actual capacity to consent or not to any intervention by a third party on their data. In the short run, while the players in the sector are gradually integrating the GDPR and PSD2, opening the way for a new regulatory text is not an option. A compliance package could provide the necessary flexibility for this alignment. In this context, it would also be appropriate to consider the tools available to consumers to ensure that they retain tangible control over their personal data<sup>86 87</sup>.

Nevertheless, Europe should not view consumer protection solely through the prism of data protection. Although Member States generally have the final say on e-inclusion policies, the European Union must make it an integral part of its strategy on payments.

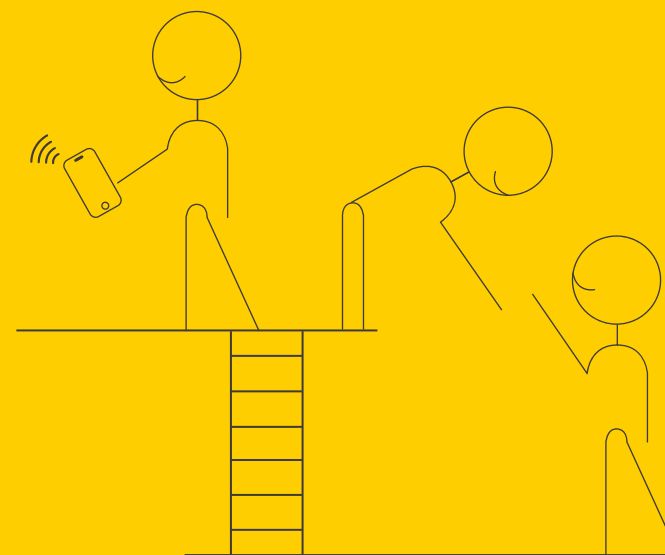
---

86 See in this respect the reference to data management interfaces and to "self data" in "Identité Numérique : Passer à une logique citoyenne" (Renaissance Numérique, January 2019, pp.38-39): [https://www.renaissancenumerique.org/system/attach\\_files/files/000/000/188/original/RN\\_Note\\_Identit%C3%A9\\_Num%C3%A9rique\\_janvier2019.pdf?1548405748](https://www.renaissancenumerique.org/system/attach_files/files/000/000/188/original/RN_Note_Identit%C3%A9_Num%C3%A9rique_janvier2019.pdf?1548405748)

87 See also the reference to the "MyData" movement in "A European strategy for data", Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 19 February 2020.

# **PART 3**

## **THIS FAST-PACED TRANSFORMATION MAKES IT URGENT TO ANTICIPATE POTENTIAL NEW DIVIDES**



## A TWOFOLD DYNAMIC OF EXCLUSION

In the payments sector, the question of inclusion is raised in different terms throughout the world and within Europe<sup>88</sup>. Although France ranks first among the Organisation for Economic Cooperation and Development (OECD) countries in terms of banking inclusion (very few French people do not own a bank account), 3.3 million French bank customers were in a situation of financial fragility<sup>89</sup> at the end of 2018<sup>90</sup>. The fight against banking exclusion – including through the "right to an account"<sup>91</sup> – has been considered a priority issue by French public authorities since the 1980s. In this respect, a law passed in 2013<sup>92</sup> has strengthened existing measures. It notably introduced a ceiling on intervention commissions, the commercialisation of an offer tailored to the needs of financially fragile customers (*Offre d'accompagnement de la clientèle en situation de fragilité financière* or OCF), banks' signature of a charter on banking inclusion and the prevention of over-indebtedness, and the creation of an Observatory for Banking Inclusion, under the aegis of the Central Bank.

Given the high integration rate of banking services in France, the political priority is gradually shifting towards supporting vulnerable groups. However,

er, the efforts made do not seem to be sufficient in view of the challenge that inclusion represents. *La Banque Postale* is the only bank in the country to have been entrusted with a public service mission to provide accessible banking services to people in precarious banking situations<sup>93</sup>. Yet, this free pre-banking offer limits the use of payments.

In parallel, the development of paid services accessible at the local level, such as Nickel Accounts, raises questions about the cost of these services<sup>94</sup>. Consumers must have a clear understanding of what such neo-banks offer.

Alongside financial fragility, a new form of exclusion is gradually emerging in the field of payment methods, linked to their digital transformation: either by reinforcing the difficulties of people who are already financially weakened, or by excluding new audiences who are struggling with digital solutions. 13 million people in France are partially excluded from the digitization, i.e. according to the definition of the country's Digital Society Mission (*Mission Société Numérique*), they use the Internet very rarely or not at all, and feel they have difficulties using it<sup>95</sup>. As researcher Valérie Peugeot notes, digital inclusion is at the intersection of a whole set of inequalities: *"the unconnected [or the poorly connected], who have become a minority, are also those who are the victims of social, cultural and economic marginalization"*<sup>96</sup>. It is however important to clearly identify the challenges of e-inclusion and the audiences and uses involved behind the issue of payments. In her study focusing on working classes in rural areas and the Internet, Dominique Pasquier shows that, whereas these populations do not find administrative interfaces user-friendly, banking applications seem to

---

88 Asli Demirgüç-Kunt, Leora Klapper, Dorothe Singer, Saniya Ansar, Jake Hess, "The Global Findex Database. Measuring Financial Inclusion and the Fintech Revolution", Banque Mondiale: <https://globalfindex.worldbank.org>

89 The French Ministry of the Economy and Finance states on its website: *"The institution holding the account may itself judge a customer's financial fragility on the basis of irregularities on their account and payment incidents that have occurred for three consecutive months. A person is also considered to be in a situation of financial fragility if:*

- they have been registered in the Banque de France's Central Check Register (FCC) for more than three consecutive months because of an unpaid check or if their bank card has been taken away by their bank;*
- they have been declared eligible for the over-indebtedness procedure."*

Source: <https://www.economie.gouv.fr/particuliers/offre-bancaire-fragilite-financiere>

90 Observatoire de l'inclusion bancaire, Annual Report, 2018.

91 See on the website of La Banque Postale, « Le Droit au compte et le service bancaire de base »: <https://www.labanquepostale.fr/particulier/solutions-citoyennes/banque-pour-tous/service-bancaire-base.html>

92 Law 2013-672 of 26 July 2013 on the separation and regulation of banking activities.

---

93 See the presentation of the mission on the website of La Banque Postale: <https://www.labanquepostale.com/legroupe/banque-et-citoyenne/engagement-citoyen/rubrique-rse/engagements-envers-ses-clients.html>

94 Interview conducted with Olivier Gayraud, a lawyer specialized in payment solutions working for the association *Consommation Logement et Cadre de Vie*, on 13 December 2019.

95 See on the website of the *Mission Société Numérique*: <https://societenumerique.gouv.fr/13-millions-de-francais-en-difficulte-avec-le-numerique/>

96 Conseil National du Numérique, "Citoyens d'une société numérique", report to the Delegate Minister in charge of SMEs, innovation and the digital economy, October 2013: [https://cnnumerique.fr/files/2018-02/CNNum\\_rapport\\_inclusion\\_oct2013-sans-annexe.pdf](https://cnnumerique.fr/files/2018-02/CNNum_rapport_inclusion_oct2013-sans-annexe.pdf)

have become commonplace<sup>97</sup>. It is therefore essential to integrate the issue of the means of payment into digital mediation approaches, following the example of the support being offered for administrative procedures. Private initiatives such as WeTechCare, run by the Emmaüs Connect association, are particularly interesting in that they work hand in hand with the payment chain's stakeholders (e.g. their partnership with *La Banque Postale*) to support the most vulnerable groups<sup>98</sup>.

It should be noted that the end of anonymity brought about by the digital transformation could also constitute another form of exclusion for those who are particularly concerned about preserving their privacy, as they would then no longer have any means at their disposal to make payments<sup>99</sup>.

Lastly, beyond these issues of literacy and access to digital technology, it is necessary to question European citizens' level of mastery with regard to banking and financial matters. Of course, the aim is not for all of us to become tomorrow's financial experts or data scientists, but navigating this transformation requires a minimum of knowledge and not only in the digital field, all the more so at a time when personalized decision-making tools are being deployed to help individuals. Working towards the extension of this knowledge would make it possible to resolve, to a certain extent, the information asymmetry between the players in the payments chain.

## SUPPORTING NEW PROFESSIONAL USES

In addition to consumers, many craftspersons, shopkeepers, VSEs and SMEs are insufficiently prepared for changes in electronic payment practices. A large number of businesses, particularly small, local ones, are already expe-

riencing difficulties in providing their customers with card and/or contactless payment methods. There is therefore an urgent need to rethink the way in which these users – just like private individuals – could gradually seize the opportunities offered by the latest innovations and adapt to their customers' uses. It should be noted that the current health crisis seems to have been an accelerator in this area.

*"There is no method of payment that is completely substitutable for cash. Checks are less and less accepted, and bank cards are not always accepted. Certainly, there are instant payment applications, but this requires access to and mastery of digital technology."*

— Olivier Gayraud, Lawyer specialized in payment solutions at *Association Consommation Logement et Cadre de Vie*<sup>100 101</sup>

At the same time, offers proposed to VSEs and SMEs by neo-banks, and more generally the majority of solutions deployed by fintech companies, would deserve to be further developed. Indeed, while individuals can now enjoy a wide choice of online banking and payment solutions, companies currently can choose between a very limited number of professional offers, which include few services.

Generally speaking, these difficulties are linked to the lack of digital knowledge of these players<sup>102</sup> and call not only for support in these new uses, but also show the necessity to give them the keys to better grasp the issues at stake (cybersecurity, data protection, etc.).

97 Pasquier D. (2018), *L'internet des familles modestes. Enquête dans la France rurale*, Paris, Presses des Mines, coll. « Sciences sociales », 220 pp.

98 See the WeTechCare website: <https://wetechcare.org>

99 Interview conducted by telephone with David Bounie on 13 February 2020.

100 An association defending consumer rights with regard to housing and their "living environments".

101 Interview conducted with Olivier Gayraud on 13 December 2019.

102 To learn more, see Renaissance Numérique, "Cybersécurité : Vers la responsabilisation de l'ensemble de la chaîne de production", January 2019: <https://www.renaissancenumerique.org/publications/cybersecurite-vers-la-responsabilisation-de-l-ensemble-de-la-chaîne-de-production>

# MAKING ACCESS TO PAYMENT A FULL-FLEDGED COMPONENT OF DIGITAL INCLUSION POLICIES

Because of their essential nature, new uses and habits in terms of payment methods must be the subject of a full-fledged mediation effort: the opposite of a hurried transformation. As Christina Tallberg, President of the Swedish National Pensioners' Organization, points out while referring to the Swedish case, *"we have about one million people who are not comfortable with computers, iPads or iPhones for banking operations [...] We are not against the digital transformation, but we think it is going a bit too fast"*<sup>103</sup>. To face this challenge, the association has set up training courses on online payments.

Specifically, it seems necessary to better understand citizens' practices and aspirations in terms of online payments. In particular, this issue should be integrated into the systems used to monitor digital uses, following the example of the French "Digital Barometer" carried out by the Research Centre for the Study and Observation of Living Conditions (*Centre de recherche pour l'étude et l'observation des conditions de vie* or CREDOC) and managed by the Regulatory Authority for Electronic Communications, Posts and Press Distribution (*Autorité de régulation des communications électroniques, des postes et de la distribution de la presse* or ARCEP), the General Economic Council (*Conseil général de l'économie*) and the Digital Society Mission (*Mission Société Numérique*)<sup>104</sup>. An increased focus on this issue as part of the Digital Economy and Society Index (DESI) could also support the European Union's strategy<sup>105</sup>.

Moreover, in France, the National Network of Digital Mediation (*Réseau National de la Médiation Numérique*)<sup>106</sup> structures the sector's players and manages a fund dedicated to digital mediation. The resources from this fund are provided by public and private actors in order to propose actions, for example around the digital transformation of companies to favor employment. It could be relevant, in this context, to finance digital mediation actions around new payment uses, for VSEs, SMEs and consumers.

The issue of territorial network coverage takes a whole new sense in this context. The observed decrease in the use of cash undoubtedly leads to a general movement of closure of ATMs. But what should the obligations of territorial coverage be when it comes to electronic payments? To answer this question, it is necessary to roll out a national strategy, replicated at the local level, which would guarantee means of payment offered by public authorities. This guarantee must also include measures to accompany the use of these new solutions in physical locations, following the example of "France Services" houses (*maisons France Services*)<sup>107</sup>.

---

103 "Sweden's Push to Get Rid of Cash Has Some Saying, 'Not So Fast'", *The New York Times*, 21 November 2018.

104 See the presentation of the "Digital Barometer" on the ARCEP's website: <https://www.arcep.fr/cartes-et-donnees/nos-publications-chiffrees/numerique/le-barometre-du-numerique.html>

105 See the presentation of the DESI on the European Commission's website: <https://ec.europa.eu/digital-single-market/en/desi>

---

106 For more information, see the website of the digital mediation network in France: <http://www.mediation-numerique.fr/index.html>

107 See the presentation of the *France Services* network on the website of the Ministry for Territorial Cohesion and Relations with Local and Regional Authorities: <https://www.cohesion-territoires.gouv.fr/france-services>

## INTERVIEW WITH ARMI TAIPALE, HEAD OF THE CAPITAL MARKETS SUPERVISION DEPARTMENT AT FINANSSIVALVONTA (THE FINNISH FINANCIAL MARKETS AUTHORITY)\*

### What are the main challenges related to the digital transformation of the means of payment sector in Finland?

In Finland, the use of cash has been declining for decades, while the use of new means of payment (by phone, instant payment, etc.) has increased. Finns are very familiar with these methods. You can find statistics on this subject via the following link: <https://www.suomenpankki.fi/en/Statistics/payments-statistics/>

The Payment Accounts Directive applies within the European Union and thus also in Finland. According to this directive, every natural (not legal) person is entitled to a bank account at a bank within the EU. In Finland, it is mandatory for salaries to be credited into bank accounts, therefore our society highly relies on banks. You cannot run a business in Finland without a bank account. This right to a bank account is subject to certain restrictions related, for example, to the fight against money laundering. In our case, every individual also has the right to access certain basic means of payment in addition to his or her account, such as a payment card or online banking.

However, the biggest challenge concerns people who are unable to use those new means of payment, for diverse reasons such as age, language, disabilities, etc. The proportion of these people is rather small, but in Finland we also consider it important to protect the rights of these people. Many financial institutions have, for example, improved their websites to take account of visually impaired customers.

### What do you think about the arrival of big digital companies in the banking and payments industry?

Since the entry into force of the Payment Services Directive (PSD2), banks must, in some cases, open their customers' data to third parties. This has changed banks' traditional business model, as their "most valuable asset", i.e. their customers' information, is now also accessible to competitors. It takes time before customers switch from banks to other services providers. Banks are under pressure to develop new business models.

Big Tech companies could play a role in the development of new means of payment. So far, these attempts have been rather limited. It is important, from a customer protection point of view, that traditional and new players be on an equal footing. This means that we also need legislation which protects customers' rights (e.g. protection of customer funds, capital requirements, anti-money laundering rules).

### Is there any reflection on cryptocurrencies in Finland?

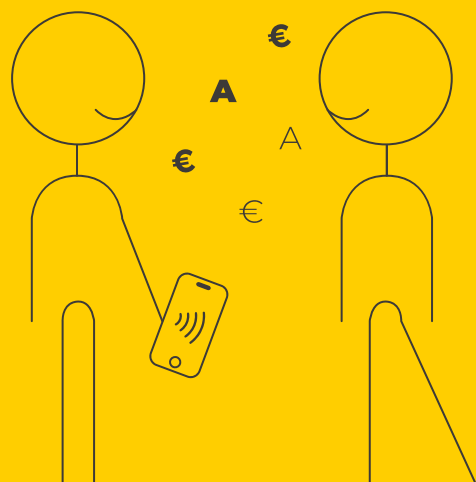
In Finland, we have a lot of cryptocurrency providers and there is a specific legislation for this type of players. However, there is no official Finnish cryptocurrency. As we are part of the eurozone, decisions at central bank level are taken by the European Central Bank, and our national central bank takes part in this work.

### What are the main challenges, in terms of inclusion, for the payments sector in Finland?

I think that the main challenges relate to the different categories of customers and their ability to use services as described above. Since almost everyone in Finland owns a bank account, the challenges are mainly related to user interfaces.

*\*Interview conducted on 1 April 2020. Armi Taipale is speaking on her own behalf. Her words are not binding on Finanssivalvonta.*

# CONCLUSION



Electronic payments have undergone major developments in recent years, driven by the rise of new technologies such as contactless solutions, mobile phones and e-commerce. These technological developments, coupled with regulatory evolutions at the EU level, have led to the emergence of many players. As a result, European citizens now have access to a growing number of solutions at one of the lowest costs in the world.

Within this movement, the European Union must find its way without falling behind competitors again in future markets. However, its payments industry suffers from fragmentation and a consequent lack of investment. While it is too early to take stock of PSD2, the opening up of data alone will not be able to bring about the emergence of European players capable of competing with the American and Chinese actors in the market, despite some European success stories. In this respect, we can regret that the European Commission does not pay more attention to this industry in its Data Strategy, which highlights strategic areas for Europe in this field<sup>108</sup>.

Furthermore, this openness raises another issue, that of the protection of European citizens' privacy. While regulatory texts overlap or are applied differently within Member States, there is a need to clarify existing rules on privacy in Europe's payment sector. The digitization of means of payment leads to a loss of anonymity. Given this trend, it is all the more important for citizens to remain in control of their data.

Nevertheless, a "cashless" society will not emerge overnight in the European Union. It is therefore necessary to ensure that the introduction of new means of payment does not immediately lead to giving up "traditional" payment options, as the Swedish experience shows. If we want to avoid digital exclusion from being backed up by banking exclusion, the issue of payments must be put at the heart of our e-inclusion policy.

---

108 "A European strategy for data", Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 19 February 2020.



# GLOSSARY OF THE PAYMENTS INDUSTRY

## 1. Application programming interface (API)

A computing interface which allows applications to communicate with each other and exchange services or data. It is a set of functions that facilitate, via a programming language, access to the services of an application.

## 2. Regulatory sandbox

Device for testing and supporting innovations carried out in real conditions and subject to special supervision and monitoring by regulatory authorities.

## 3. Cryptocurrency (or "virtual currency")

A monetary instrument which can be exchanged electronically and does not exist physically. Instead of a single authority or organisation, a network of computers using complex mathematical formulas creates and tracks the cryptocurrency.

## 4. Fintech

Fintech, a contraction of the terms "financial technology", refers to small companies (start-up companies and SMEs) which provide financial services through innovative solutions. Their fields of application are varied: mobile payment, crowdfunding, savings management, insurance and credit, online financial advice, decision support through algorithms, etc.<sup>109</sup>

## 5. Banking inclusion

Banking inclusion is part of the process of inclusion in the economic and social life. It enables a natural person to have sustainable access to (and to use) banking products and services adapted to their non-professional needs.

## 6. Payment initiator

Payment initiation is a service which enables a natural or legal person to order the execution of payment transactions (e.g. credit transfers) from an interface (website and/or mobile application) which is not necessarily that of the bank where the individual's account(s) is (are) held.

## 7. Open banking

Open banking is based on the opening up of banks' information systems and the sharing of their customers' data with third parties. APIs (application programming interfaces) are at the heart of this model.

## 8. Account information service provider

An account information service provider aggregates bank accounts and enables a payment service user (natural or legal person) to gather information on balances and transactions on several or all of their accounts on a single interface (website and/or mobile application). The aim is to enable people with several bank accounts to have an overview of their financial situation at any time and thus to manage their finances as well as possible<sup>110</sup>.

## 9. Interbank network (or "scheme")

Private economic grouping that brings together financial institutions with the aim of ensuring the interoperability of banks with regard to payment cards (e.g. Visa, Mastercard, CB, etc.).

## 10. Token

Pseudonym intended to replace a sensitive payment data. The expression is also used to designate a digital asset issued and exchangeable on a blockchain<sup>111</sup>.

## 11. X-Pay

X-Pay solutions allow the dematerialization of bank cards on mobile terminals (smartphones, tablets, etc.).

---

<sup>109</sup> Source: French Ministry of the Economy and Finance: <https://www.economie.gouv.fr/entreprises/fintech-innovation-finance>

---

<sup>110</sup> «Qu'est-ce qu'un initiateur de paiement et un agrégateur de comptes bancaires», Assurance Banque Épargne Info Service, 6 February 2018: <https://www.abe-infoservice.fr/evenement/quest-ce-quun-initiateur-de-paiement-et-un-agregateur-de-comptes-bancaires>

<sup>111</sup> French General Council for the Economy, Industry, Energy and Technologies (*Conseil Général de l'Économie, de l'Industrie, de l'Énergie et des Technologies*), « Mise en œuvre d'une politique de localisation des données critiques de paiement en Europe », February 2020.



# FURTHER RESOURCES

- Arvidsson, N. (2019), "The Story of Cash and the Route Toward a Cashless Society: The Case of Sweden". In: *Building a Cashless Society*. SpringerBriefs in Economics. Springer, Cham.
- Clerc, L., Moraglia, A., and Peyron, S., «Les néobanques vont-elles bouleverser leur secteur d'activité?», *Revue d'économie financière*, vol. 135, no. 3, 2019, pp. 165-180.
- Downey, C. (1996), "The High Price of a Cashless Society: Exchanging Privacy Rights for Digital Cash", 14J. Marshall J. Computer & Info. L. 303.
- Esselink, H. and Hernández, L., "The use of cash by households in the euro area", Banque centrale européenne, *Occasional Paper Series*, n°201, November 2017.
- Hurlin, C. and Pérignon, C., «Machine learning et nouvelles sources de données pour le scoring de credit», *Revue d'économie financière*, vol. 135, no. 3, 2019, pp. 21-50.
- Guyomart, J.-C., «De l'État-souverain à la souveraineté subsidiaire des monnaies locales complémentaires», *Revue Française de Socio-Économie*, vol. 12, no. 2, 2013, pp. 51-68.
- Metge, P. (2015), «Le big data et la banque», *Revue d'économie financière*, 118(2), 93-101. doi:10.3917/ecofi.118.0093.
- Reistad, D. L. (1967), *The coming cashless society*. Business Horizons, 10(3), 23–32.
- Sajter, D., "Privacy, Identity, and the Perils of the Cashless Society" (March 20, 2013). *Culture, Society, Identity - European Realities*, 2013, ISBN:978-953-69-31-57-6.
- Torre, D., and Qing Xu, «La Chine aux avant-postes de la digitalisation des paiements», *Revue d'économie financière*, vol. 135, no. 3, 2019, pp. 99-114.

# ACKNOWLEDGEMENTS

The think tank Renaissance Numérique organized a debate on 3 December 2019 in Paris, in partnership with Mastercard and the French Federation of e-commerce and distant selling (*Fédération du e-commerce et de la vente à distance*), called "Payments in a digital world: challenges of an evolving ecosystem" («*Les paiements à l'heure numérique: quels enjeux pour cet écosystème en mutation*»). We would like to thank all the speakers who were present on this occasion, as well as the people interviewed in the framework of this reflection:

- Hervé Alexandre, Director of the Fintech/Digital Finance Chair, Paris-Dauphine Foundation
- Kate Appleby, Head of the Economic and Social Affairs Department, UK Embassy in France
- David Bounie, Head of the Economic and Social Sciences Department (SES), Télécom Paris
- Delphine Charlot, Senior Counsel, Privacy and Data Protection, Mastercard
- Philippe Chassaing, Member of the French Parliament representing Dordogne
- Marie Degrand-Guillaud, Managing Director, Nickel
- Arnaud Delaunay, Head of Banking Services and Means of Payment, French Directorate General of the Treasury
- Corinne Dromer, Chair, Financial Sector Advisory Committee, Banque de France
- Eric Ducoulombier, Head of the Retail Financial Services Unit, Directorate General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA), European Commission
- Olivier Gayraud, Lawyer specialized in payment solutions, Association Consommation Logement et Cadre de Vie
- Julien Lasalle, Head of the Cashless Payment Instruments Monitoring Department, Banque de France
- Marc Lolivier, Director General, Federation of e-commerce and distance selling (Fevad)
- Pierre Person, Member of the French Parliament representing Paris
- Jérôme Raguénès, Director of the 'Digital, Systems and Means of Payment' Department, French Banking Federation
- Annabelle Richard, Associate Lawyer, Pinsent Masons



## **DIRECTOR OF THE PUBLICATION**

**Henri Isaac**, President, Renaissance Numérique

## **COORDINATION**

**Jennyfer Chrétien**, Executive Director, Renaissance Numérique

## **CONTRIBUTORS**

**Marie Audren**, Head of Public Affairs, Fevad

**Didier Haggège**, Head of Management and Coordination of Public Affairs, La Banque Postale

**Bertrand Pineau**, Head of Monitoring, Innovation and Development, Fevad

**Vincent Richir**, Director of Public Affairs France and Benelux, Mastercard

## **RAPPORTEURS**

**Clément Le Ludec**

**Ruben Narzul**

## **PROOFREADING**

**Jessica Galissaire**, Studies Manager, Renaissance Numérique



## ABOUT RENAISSANCE NUMÉRIQUE

Renaissance Numérique is France's main independent think tank focusing on the challenges of the digital transformation of society. Bringing together universities, associations, corporations, start-ups and schools, it aims to develop workable proposals to help public stakeholders, citizens and businesses build an inclusive e-society.

Renaissance Numérique  
32 rue Alexandre Dumas – 75011 Paris  
[www.renaissancenumerique.org](http://www.renaissancenumerique.org)

September 2020  
CC BY-SA 3.0