

CHAPTER 2

Means of payment and payment instruments

Updated on 17 December 2018

Let us begin this chapter by clarifying how the terms “means of payment”, “payment instrument” and “money” are used. The distinction between money itself and the payment instruments used to transfer it is often blurred in practice. This confusion stems from our day-to-day use of fiduciary money, i.e. banknotes and coins, which constitute money (a store of value, unit of account and medium of exchange for commercial transactions) as well as payment instruments (used to transfer value). This is not the case for any other payment instrument (card, cheque, credit transfer, direct debit, etc.). We should not allow this characteristic specific to fiduciary money to blur the lines between the two concepts. As regards “means of payment” and “payment instrument”, the difference here relates to the use of terminology: “means of payment” is commonly used as a broad term covering both payment instruments (banknotes and coins, cards, cheques, credit transfers, direct debits and so on) and money (fiduciary money or scriptural money, i.e. bank account balances), without distinguishing between the two. In this chapter, “means of payment” will be used in preference to “payment instrument”, while banknotes and coins will generally be referred to as “fiduciary money”, given their specific nature.

The payment methods in use today are evolving fairly quickly. We are seeing a shift away from physical formats, such as cheques, towards electronic formats like cards and credit transfers, along with the emergence of new payment solutions afforded by the rise of the digital economy. This chapter purports to shed light on these development trends.

1. Types of payment method

In France, means of payment are defined in Article L. 311-3 of the Monetary and Financial Code, under which, “any instrument which enables any person to transfer funds shall be deemed to be a means of payment, regardless of the

medium or technical process used”. This definition actually covers two types of instrument, which can be distinguished from each other based on their nature and their role in transfers between parties: fiduciary money and cashless means of payment.

1.1. Fiduciary money

The term fiduciary money refers to banknotes and coins that are issued by government authorities (central banks or national Treasuries) and have legal tender status. They can be given to a creditor or vendor in order to immediately discharge a debt or pay for goods or services (see Chapter 1).

The conditions for the issuance and circulation of euro banknotes and coins are established by Article 128 of the Treaty on the Functioning of the European Union and by Regulation (EC) 974/98 of 3 May 1998, which provides, in Articles 10 and 11, that banknotes and coins denominated in euro shall be the only currency that has legal tender status in euro area Member States.

1.2. Cashless means of payment

“Scriptural” means of payment enable monetary units to be transferred from a payer’s account held with a payment service provider¹ to that of a beneficiary. If the two accounts are held by two different institutions, the payment method gives rise to an interbank settlement (see Chapter 11).

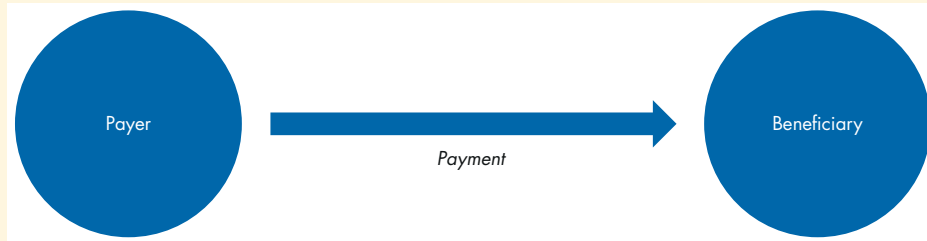
The main categories of cashless means of payment are as follows:

- **payment cards:** these are used to make payments via electronic payment terminals, which read a physical device (chip, magnetic strip) in conjunction with a personal identifier (signature or personal identification number – PIN). With contactless payments, only the chip is needed. Payments can also be made remotely (e.g. on e-commerce websites) by entering the card’s number together with security information. Payment cards

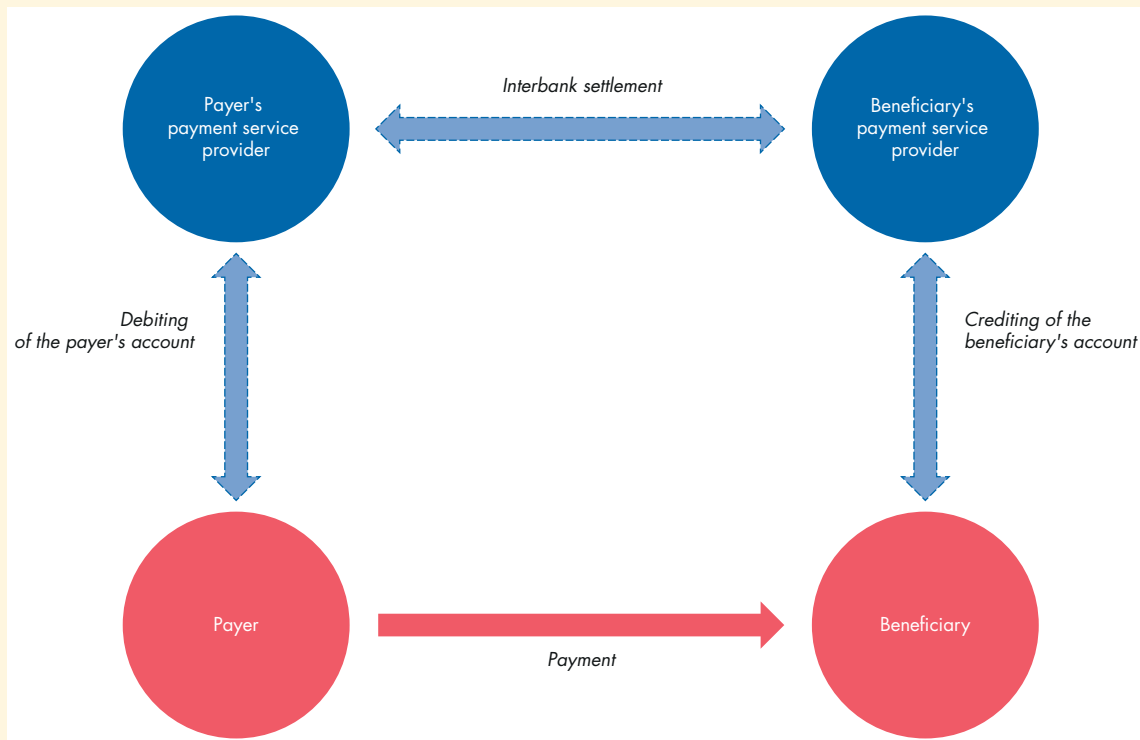
¹ The concept of “payment service provider” (PSP) was introduced into European legislation following the adoption of Directive 2007/64/EC on payment services in the internal market (PSD1), which opened up the provision of payment services to entities other than traditional credit institutions (banks).

Payment service providers (PSPs) are therefore institutions authorised to open and maintain payment accounts for their clients and to issue means of payment. Within the meaning of French and European regulations, they include entities with the following statuses:

- credit institutions and their equivalents (as referred to in Article L. 518-1 of the French Monetary and Financial Code), electronic money institutions, payment institutions and account information service providers **subject to French law**;
- credit institutions, electronic money institutions, payment institutions and account information service providers **subject to foreign law and authorised to practice on French territory**.

Box 1: Fiduciary money and cashless means of payment**Payments in fiduciary money**

When a payment is made in cash, monetary units are transferred directly from the payer to the beneficiary without the need for intermediation by a third party. Cash transfers provide immediate finality, so the beneficiary can immediately use the money received to make another payment.

Cashless means of payment

Cashless payments require the involvement of the payment service providers that hold the accounts of the two parties to a transaction. It is the two service providers that effectively make the payment – a transfer of monetary units – by entering the corresponding amounts in their accounts (for example, by debiting the payer's account and crediting that of the beneficiary). Cashless means of payment thus initiate transactions between the service providers that hold the parties' accounts. The transactions are subsequently settled by means of an interbank payment between the providers.

can also be used to withdraw money from ATMs. Payment cards are attached to card schemes,² i.e. networks that generally manage authorisations (by querying card issuers' authorisation servers to ensure that transactions are valid) and clear transactions to facilitate payment. In most cases, payment service providers ("issuers") that provide cards to their clients ("holders") manage payment flows between the cards and the accounts they are attached to. With card payments, holders' payment service providers guarantee that merchants ("acquirers") will receive amounts due, provided that they comply with the scheme's rules of operation.

- **credit transfers:** based on an instruction from the payer to their payment service provider, the payer's account is debited and that of the beneficiary credited with a specified amount. Payment instructions

are usually transmitted electronically (via online banking orders, file transfers, etc.). In Europe, on 1 August 2014, SEPA transfers permanently replaced the various "national" credit transfer instruments previously used.

- **direct debits:** based on an instruction from the beneficiary to their payment service provider, a payer's account is debited. In Europe, on 1 August 2014, SEPA direct debits permanently replaced the various "national" direct debit instruments previously used. With SEPA direct debits, the payer authorises the beneficiary – under a direct debit mandate – to begin debiting their account. Setting up a SEPA direct debit does not guarantee that the beneficiary will be paid: the payer's payment service provider may be forced to reject a direct debit if, say, there are insufficient funds in the payer's account.

² "Card payment scheme" refers to the rules, procedures and technical systems that together ensure the proper functioning of the processes used to issue cards and manage associated transactions. In France, for example, the bank card economic interest group *GIE Cartes Bancaires (CB)* is the scheme with the largest number of cards in circulation, i.e. almost 60 million CB cards in 2017.

Box 2: the SEPA project

SEPA (Single Euro Payments Area) was launched in 2002, with the creation of the European Payments Council (EPC) by forty or so major European banks. Following the changeover to the euro for the financial markets in 1999 and the switch to euro notes and coins in 2002, the introduction of SEPA was a key stage in European integration in the area of payments in euro.

The objective of SEPA was to create an area in which cashless means of payment used to carry out euro transactions would have the same format (based on the ISO 20022 XML standard) and operating rules. To this end, the EPC developed "Rulebooks" for SEPA transfers and direct debits, which were published in 2008 and 2009, respectively. At that time, however, there was no obligation to follow the rules and their adoption by entities involved in the payment chain was hugely inadequate.

To remedy the situation, in 2012 the European Commission adopted Regulation (EU) 260/2012, which set a number of deadlines for the adoption of SEPA transfers and direct debits by payment service providers and companies. Migration to the SEPA Credit Transfer (SCT) and SEPA Direct Debit (SDD) was completed on 1 August 2014 in euro area Member States.

SEPA is expected to bring a wealth of benefits for entities involved in the payment chain. First and foremost, the establishment of standard processes paves the way to fully automated processing of SEPA payment orders ("straight-through processing" or STP), enabling companies that issue orders, as well as payment service providers, to achieve significant economies of scale. Consumers also stand to benefit, since orders should be processed with greater speed and fluidity.

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Another major advantage for companies and consumers is that the adoption of SEPA breaks down barriers in the SEPA area.¹ For instance, cross-border payments are now subject to the same pricing conditions as domestic payments. This allows companies operating in several countries to set up central payment platforms for Europe-wide payments. Moreover, the fact that companies can set up their main account in any State in the SEPA area heightens competition between payment service providers and should, over time, cause banking fees to converge across Europe.

The SEPA project also promotes longer-term development, in that the existing SEPA payment instruments prepare the ground for the emergence of new European means of payment, such as instant payments (see below) or cross-border electronic invoicing systems.² Moreover, SEPA's success has generated new impetus for Europe-wide harmonisation of other payment instruments, particularly payment cards and new payment services: aggregation of account information, payment initiation, mobile payments between individuals (see Chapter 3). All these initiatives constitute what has come to be referred to as "SEPA 2.0"

1 The SEPA area comprises the European Union's 28 Member States, plus Iceland, Norway, Switzerland, Liechtenstein, Monaco and San Marino (34 countries in all).

2 As defined in Directive 2014/55/EU, an electronic invoice is "an invoice that is issued, sent and received in a structured electronic format which enables it to be processed automatically and electronically". With SEPA instruments already in place, it is much easier to set up this kind of system for cross-border payments.

- **cheques:** written payment orders whereby the holder of a payment account (the "drawer") instructs the payment service provider ("drawee") to pay a specified amount to the beneficiary. Although the specified amount in the drawer's account is legally signed over to the beneficiary as soon as the cheque is signed, there remains a risk that the beneficiary may not be paid if there are insufficient funds in the drawer's account. For this reason, mechanisms were put in place to prevent cheques without sufficient funds from being issued, and France's lawmakers appointed the Banque de France to maintain the Central Cheques Register, in which reports filed by banks on payment incidents involving bad cheques issued by their customers are recorded, among other items.
- **payment in electronic money,** which is also considered to be a cashless payment method. In Article L. 315-1 of the French Monetary and Financial Code, electronic money is defined as "a monetary amount that is stored in electronic form and represents a claim

on its issuer". It must also meet a number of conditions, including being issued against receipt of funds and being accepted as payment by a natural or legal person other than the issuer. Holders of electronic money must credit their account with their electronic money institution before they can use it. They can then draw on the account by paying for purchases by card or online, in the knowledge that the total sum of all payments made using the account can never exceed the amount deposited in it. One of the key advantages of the electronic money system is that it is an easy way to make payments up to a given ceiling, making it particularly suitable for e-commerce.

- **commercial paper:** marketable securities representing a commitment to pay an amount of money to the bearer and used for payment thereof. In France, this type of instrument includes two main categories: promissory notes³ and bills of exchange.⁴

Lastly, under Law 2013-100 of 28 January 2013, the Banque de France was appointed

3 A promissory note is a written order whereby a client agrees to pay a specified sum of money on a given date to their supplier, the beneficiary.

4 A bill of exchange is a written order whereby a creditor instructs a debtor to pay a specified sum of money on a given date to the creditor himself or to a third party (the beneficiary).

to ensure that **specific electronic payment vouchers**⁵ are secure and subject to appropriate standards. The status of these vouchers is, however, ambiguous: although they are similar to cashless means of payment, for tax reasons⁶ they are not legally considered as electronic money or cashless means of payment. As a result, specific electronic payment vouchers constitute a category in their own right. What they all have in common is that their use is restricted to purchases of a limited number of goods or services, or to a limited network of parties that accept them. The list of recognised specific electronic payment vouchers was established by the Decree of 17 June 2013 and comprises nine categories, including restaurant vouchers, holiday vouchers and pre-paid CESUs.

1.3. Alternative means of payment

Alongside the proliferation of payment channels supported by new technologies, recent years have also seen the emergence of “alternative” means of payment, whereby transactions can be made in units other than currency with legal tender status. This category includes a variety of instruments that differ in terms of status.

- The first group of alternative means of payment includes crypto-assets (see Chapter 1, Section 2.7, and Chapter 20), which are not means of payment in the legal sense. However, in France, the intermediation business, whereby funds are received from a buyer in order to transfer them to a seller, of bitcoin for example, is qualified as the provision of payment services and, as such, is subject to authorisation by the ACPR.⁷
- The second group includes “complementary local currencies” (see Chapter 1, Section 2.6), which were introduced in the French Monetary and Financial Code by Law 2014-856 of 31 July 2014. They can be defined as unofficial currencies that can only be used within a specific geographical region and are created as a medium of exchange to

complement the currency designated as legal tender. They come in various possible formats (paper securities, scriptural money or electronic money) and are issued – strictly pegged to the euro – by specific, supervised companies. As such, they can be considered to be a means of payment in the legal sense, provided that they meet specific conditions governing their format.⁸

Taking all these alternative methods together, the total volume and value of transactions they are used to conduct is low. For instance, the total valuation of crypto-assets worldwide was around EUR 600 billion as of end-December 2017, which amounts to around 8% of the M1 aggregate for the euro area alone (EUR 7,500 billion). Moreover, at the end of 2017, the average daily number of trades in bitcoin – the most widely used virtual currency, representing 45% of the total – was just 300,000, compared to the 330 million cashless transactions executed daily across the 28 countries of the European Union. The volumes for complementary local currencies are even lower. Taking, for example, the *eusko* – one of France’s principal, longest standing complementary local currencies – in 2017, the total in circulation was equivalent to less than EUR 750,000.

2. Change in the use of means of payment

2.1. General use of means of payment

Breaking down payment transactions into cash (fiduciary) and cashless methods is a complicated task, mainly because it is difficult to ascertain the exact number of transactions conducted using fiduciary money.

Based on the Eurosystem’s estimates of point-of-sale transactions,⁹ in the euro area, payments in fiduciary money are more popular than cashless payments. On average, payments in fiduciary money represent nearly 79% of total payments in terms of volume (number of transactions)

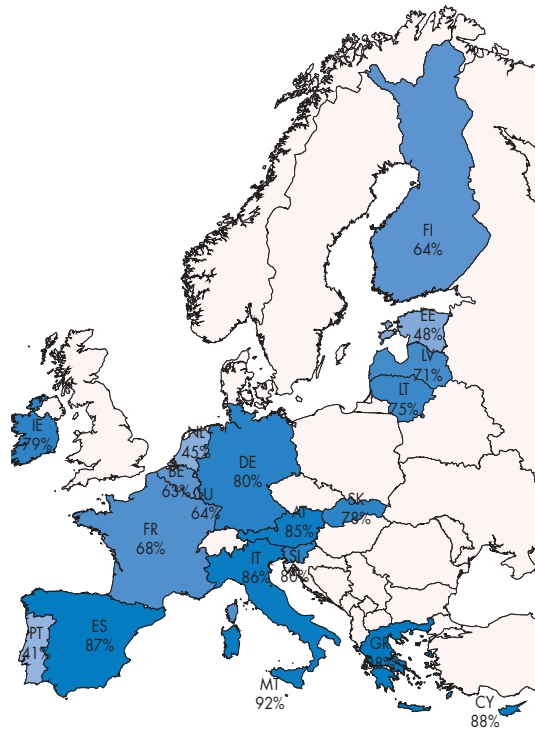
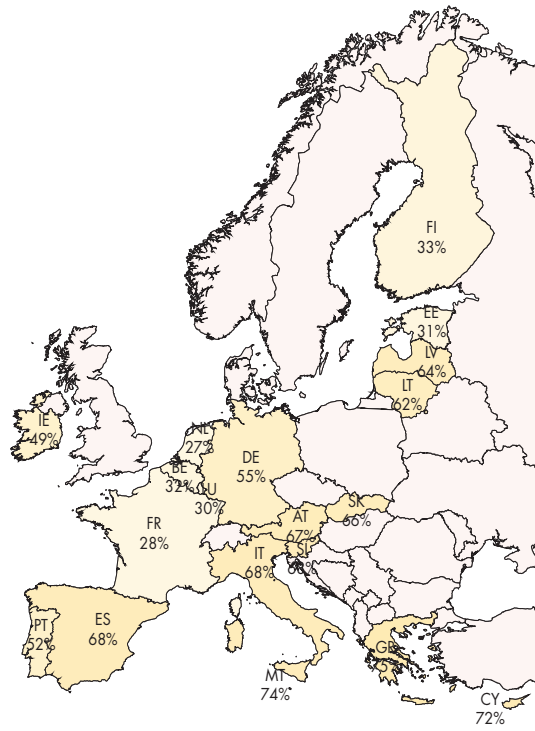
5 Article L. 141-4 of the French Monetary and Financial Code, which governs the key roles assumed by the Banque de France, stipulates that it “[...] ensures that the means of payment as defined in Article L. 311-3, other than fiduciary money, are secure and that the regulations applicable thereto are pertinent”.

6 Specific electronic payment vouchers are subject to specific tax and social security regimes. If, having been made paperless and stored on an electronic device, they had to be considered as electronic money, the issuer would be obliged to reimburse the holder, which could interfere with these regimes. For this reason, France’s lawmakers explicitly differentiate them from electronic money.

7 See “Position de l’ACPR relative aux opérations sur Bitcoins en France” (Position 2014-P-01), 29 January 2014: https://acpr.banque-france.fr/sites/default/files/20140101_acpr_position_bitcoin.pdf

8 See “Les monnaies locales”, La revue de l’Autorité de contrôle prudentiel et de résolution, no. 14, September-October 2013, p.14-15: <https://acpr.banque-france.fr/sites/default/files/media/2018/06/07/201309-revue-autorite-contrôle-prudentiel-resolution.pdf>

9 “The use of cash by households”, Occasional paper series no. 201, November 2017: <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op201.en.pdf>

Box 3: Cash payments as a percentage of point-of-sale transactions**Based on volume****Based on value**

Source: European Central Bank

and 54% in terms of value (amounts paid). As shown in the map below, these averages take in a wide range of situations in the various countries covered. In France, for example, the same study found that fiduciary payments represent only 68% of point-of-sale payments and just 28% of total amounts paid.

Since euro notes and coins were introduced in 2002, the amount in circulation has risen steadily at a rate of around 8.5% a year (see Chart 1). This reflects strong demand for euro notes and coins and likely includes demand from outside the euro area, where euro could be sought as a store of value or for hoarding, for example.

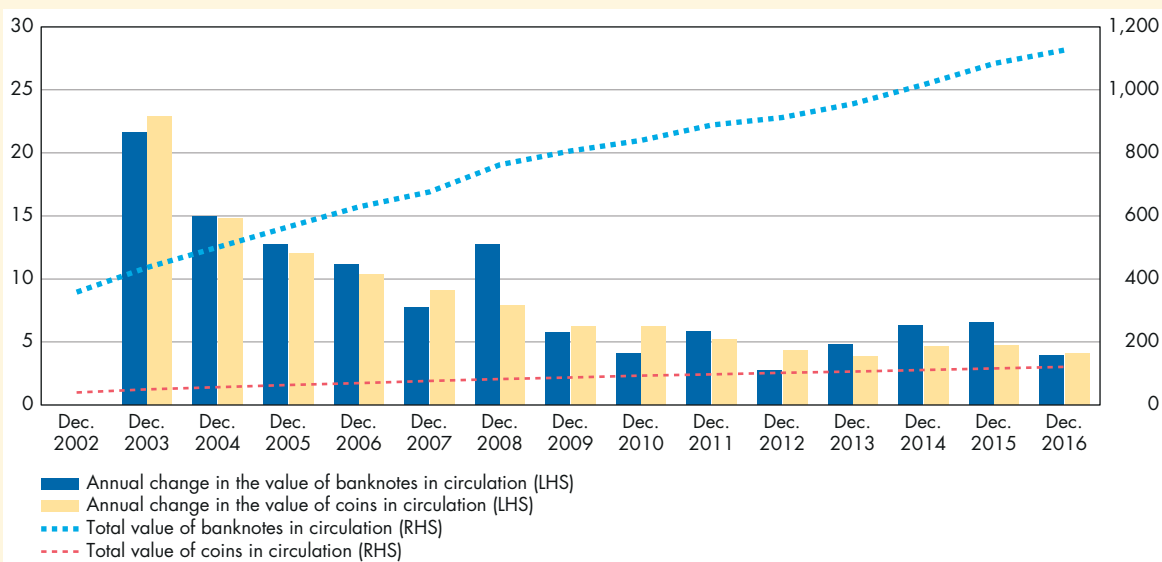
That said, in some countries outside the European Union, particularly countries in Asia and Africa, together with Sweden,

demand for fiduciary money has stabilised or fallen so much, usually following government decisions, that the prospect of a cashless society seems to be drawing closer (see Box 4).

Cashless transactions are easier to monitor, since all transactions can be tracked by the payment service providers in charge of the associated accounts. In 2016, more than 122 billion cashless transactions were carried out in the European Union, including almost 21 billion in France, which ranks third after the UK and Germany in terms of the number of cashless transactions executed annually in the European Union. The use of cashless means of payment has been increasing steadily for several years in the European Union, as in France, at average annual rates of 8.5% and 3.5%, respectively. However, the pace of growth

C1: Fiduciary money in circulation in the euro area

(Annual change as a percentage; amounts in circulation € billions)



Source: European Central Bank

Box 4: The cashless society

The notion of a cashless society is based on the observation that, despite all their benefits, banknotes and coins may have a number of disadvantages relative to cashless means of payment.

First, there are the general costs involved, for society as a whole, in using cash. Based on an ECB study published in September 2012, “The social and private costs of retail payment instruments: a European perspective”¹ the costs incurred by using cash means of payment, which are primarily borne by banks and merchants, on average represent 0.5% of GDP, versus 0.21% for payment cards. However, given the different payment volumes involved and the other ways in which cash is used (notably for hoarding), this data must be treated with caution.

In addition, the reduced traceability of cash transactions, coupled with their higher risk of theft and misappropriation, is likely to slow down the transition of many activities to the legal economy, for tax or other reasons, especially in economies that have a strong informal sector.

A challenge for developing countries...

Some central banks have taken measures to reduce the use of cash payments and promote cashless methods. For instance, in January 2012, the Central Bank of Nigeria implemented a “Cashless Policy” aiming to curb the use of fiduciary money, without eliminating it altogether. The policy is based on three key measures: (a) the introduction of fees (3-5% of the amount concerned) payable on cash withdrawals exceeding a certain daily amount; (b) a ban on banks offering cash transport services to professional customers wanting to deposit notes and coins; (c) restrictions on cash withdrawals by cheque.

¹ <https://www.ecb.europa.eu/pub/pdf/scpops/ecbocp137.pdf>

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India's authorities adopted a similar strategy, based on one-off measures such as the introduction in summer 2014 of restrictions on the number of free cash withdrawals permitted at ATMs in the country's six main cities, and the end of 2016 demonetisation of two major currency denominations, the 500 and 1,000 rupee notes.

The effects of these measures on the use of cash remain difficult to assess. In Nigeria, the central bank's decisions do not seem to have had a significant impact on the quantity of cash in circulation, which remains very volatile.

... and a trend driven by innovation and the development of new uses in other countries

The fact remains that cash payments have also dropped sharply in countries such as those of Scandinavia. For instance, the percentage of transactions made in cash in Sweden and Denmark, as estimated by the ECB in a study published in 2012² (around 40%), is much smaller than that for card payments and well below the European average (60%). Moreover, a more recent report by the Central Bank of Sweden (the *Riksbank*)³ demonstrates the continuous drop in the overall value of Swedish krona coins and notes in circulation as a percentage of GDP (from 10% of GDP in 1950 to 2.6% in 2011, versus 11% for the euro area today). This situation, however, has more to do with long-term changes in user behaviour than with deliberate government policies. In Sweden's case, although the *Riksbank* expects the value of currency in circulation to continue falling, it does not anticipate the complete disappearance of its fiduciary money, which is still useful for some purposes (such as payments between individuals). The Riksbank's end-2017 launch of a project involving digital central bank currency (see Chapter 20), could, however, be a further step in the (long) path towards a cashless society.⁴

2 "The social and private costs of retail payment Instruments", Occasional paper series n°137, September 2012: <https://www.ecb.europa.eu/pub/pdf/scops/ecbocp137.pdf>

3 "The Swedish retail-payment market", Riksbank Studies, Sveriges Riksbank, June 2013: http://www.riksbank.se/Documents/Rapporter/Riksbanksstudie/2013/rap_riksbanksstudie_The_Swedish_retailpayment_market_130605_eng.pdf

4 See the speech given by Riksbank Governor Stefan Ingves on 4 June 2018 at the Stockholm School of Economics: https://www.riksbank.se/globalassets/media/tal/engelska/ingves/2018/tal_ingves_180604_eng.pdf

varies between the various Member States and different means of payment.

transactions has also risen sharply in both the European Union and France. In 2016, the total value of cashless payments made in the European Union neared EUR 267,800 billion. In France, over the

Alongside this growth in transaction numbers, the annual value of cashless

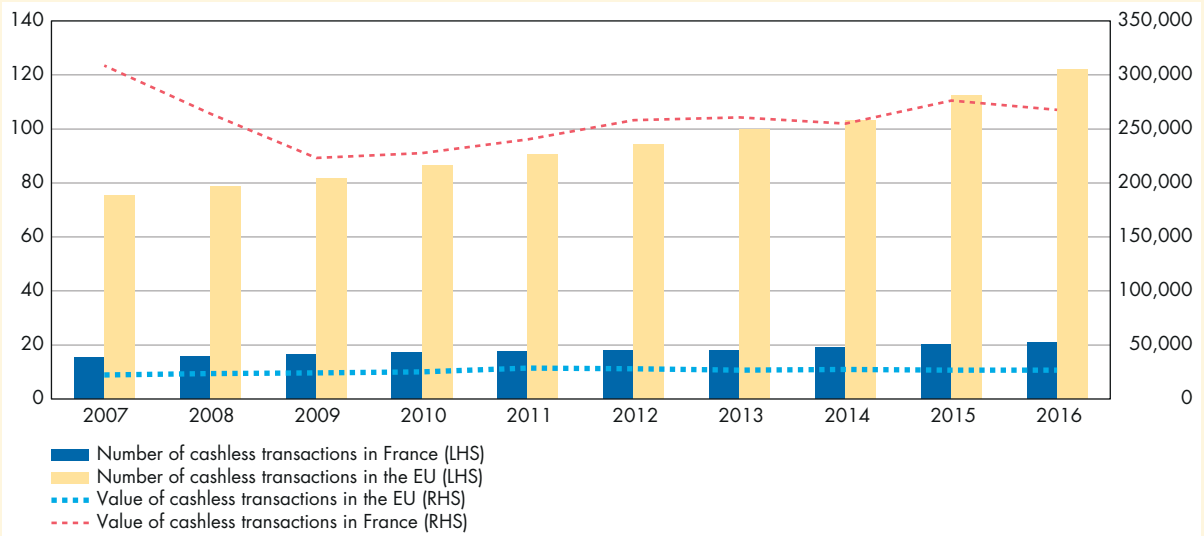
T1: Change in the annual number and total value of cashless transactions since 2006

(European Union and France)

		2009	2010	2011	2012	2013	2014	2015	2016
Annual number of cashless transactions (billions)	European Union	81.7	86.7	90.6	94.4	100	103.3	112.5	122
	O.w. France	16.4	17.1	17.5	18	18.1	19	20.2	20.9
Annual value of cashless transactions (€ billion)	European Union	220,260	226,950	242,650	258,200	260,700	255,000	276,300	267,800
	O.w. France	24,150	25,100	28,420	27,830	26,690	27,220	26,823	26,760

C2: Change in the volume and value of cashless transactions

(Number of transactions in billions, value of transactions in € billion)



Source: Banque de France

same period, the total annual value of cashless transactions rose, in a less linear fashion, to EUR 26,760 billion in 2016, representing 10% of the European total.

2.2. Breakdown of cashless means of payment used based on volume (number of transactions)

The breakdown of cashless means of payment used in the European Union, as in France, has reflected stable trends since the early 2000s.

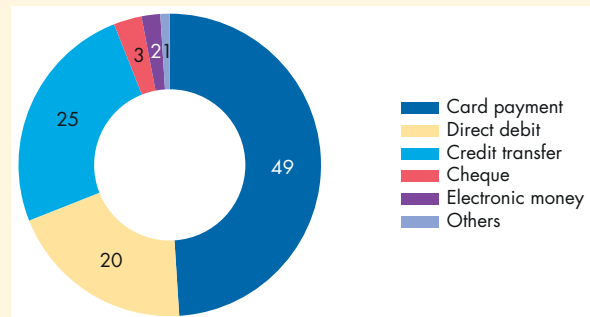
In the European Union, cards remain the most frequently used payment method (49% of total transactions, with almost 60 billion transactions in 2016) and their share of the total number of transactions conducted is rising steadily. Transfers are the second most popular payment method (25%), followed by direct debits (20%). However, the percentage of total transactions represented by these two means of payment has been stable for several years, despite continuous growth in the number of transactions made (31 billion and 25 billion, respectively, in 2016). Lastly, cheques rank fourth in terms of frequency of use, but now represent only a small fraction of transactions conducted (3%). This percentage has been falling for several

years, as has the number of payments made by cheque, which has halved since 2004, reaching 3 billion in 2016 (see Charts 3 and 4).

The breakdown for France differs slightly from that for the European Union. Payment cards remain the most frequently used cashless payment method, as in the rest of the European Union, representing over half of all payments made in 2016 (53%, or nearly 11 billion transactions). This means that the average French person used their card 165 times in 2016. The use of payment cards has been rising continuously since the beginning of the 2000s and cards became

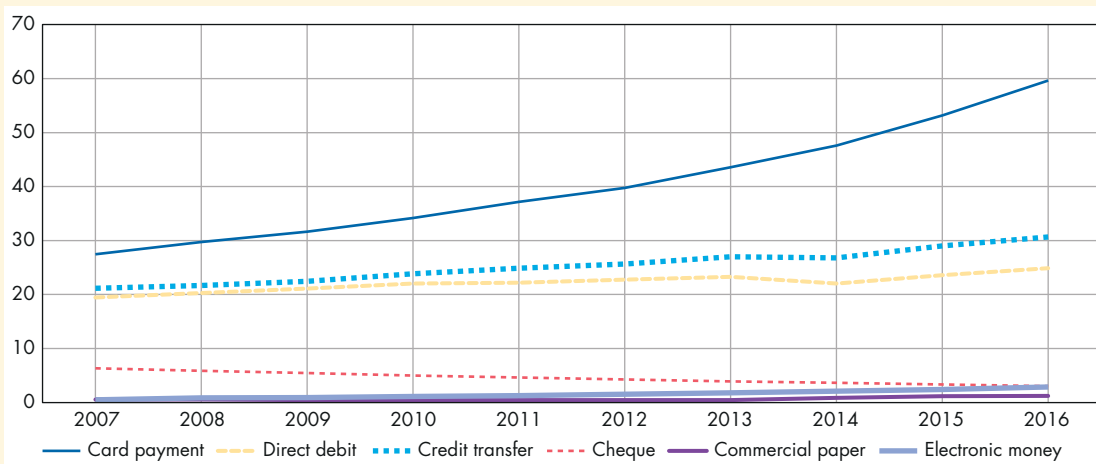
C3: Breakdown of cashless means of payment used in the European Union

(as a % of the total)



C4: Change in payment methods used in the EU in volume terms

(millions of transactions)



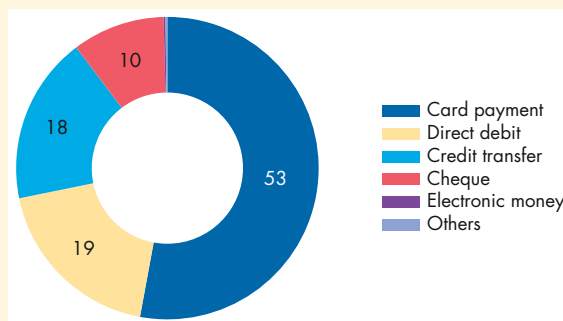
the leading cashless payment method in volume terms in 2003 (see Charts 5 and 6). A key factor driving this growth is the boom in e-commerce over the past decade, which has increased the use of cards for remote payments, together with the more recent development of contactless payment.

“Retail” direct debits and transfers¹⁰ are the second and third most popular cashless means

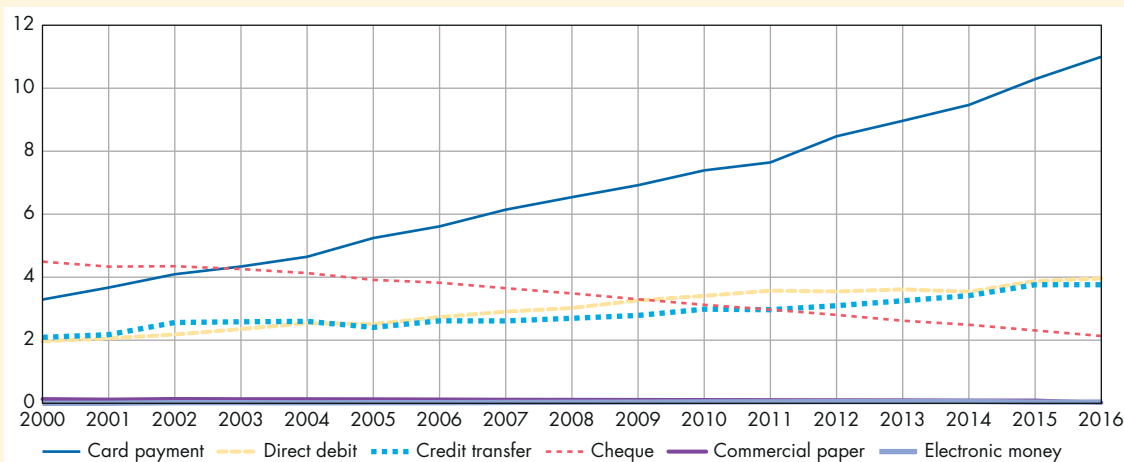
¹⁰ “Retail” transfers (or direct debits) are transactions executed via retail payment systems such as France’s CORE system (see Chapter 12).

C5: Breakdown of cashless means of payment used in France

(as a % of the total)



C6: Payment methods – relative growth trends



Source: Banque de France

of payment used in France, representing respectively 19% (3.9 billion transactions) and 18% (3.8 billion transactions) of the total number of cashless transactions recorded in 2016. This reflects French consumers' preference for direct debits, which, unlike in the European Union, remain more frequently used than transfers. The use of these two means of payment has been rising continuously in France since the early 2000s, albeit at a slower pace than payment by card. Growth has been driven by a number of factors, particularly legislative changes that make the use of these two methods compulsory for a larger number of purposes (e.g. the phasing in of the obligation for companies to pay tax and other similar charges electronically over the last few years and the requirement as of 1 April 2013 for notaries to use bank transfers for all incoming or outgoing payments above EUR 10,000) and the new channels for initiating these transactions that have emerged with the development of internet access.

Cheques are the fourth most frequently used cashless payment method in France, representing almost 10% of the total number of cashless transactions, i.e. 2.1 billion transactions in 2016. This ongoing use of cheques, on a much larger scale than in the European Union as a whole (where cheques make up only 3% of total transactions), is specific to France. In fact, cheque payments in France represent more than 70% of the overall number of payments by cheque recorded for the European Union. That said, even in France the use of cheques has been falling consistently since the beginning of the 2000s, when cheques were the most popular payment method. Cheques were hit by their incompatibility with e-commerce and other new uses linked to the extensive take-up of mobile internet, as well as by recent legislative developments (see above), which contributed to their gradual replacement by cards, direct debits and, to a lesser extent, transfers. As regards electronic money¹¹ and commercial paper, each of these methods represents a tiny fraction (less than 1%) of the total number of cashless transactions.

2.3. Breakdown of cashless means of payment based on value (transaction amount)

The breakdown of cashless means of payment based on value shows a very different picture than that based on volumes, both at the European level and in France.

In the European Union, transfers – particularly large value transfers (LVTs) conducted via dedicated payment infrastructures¹² – represent the bulk (93%) of cashless transactions in value terms, their share of value having grown in recent years. These are followed by direct debits, whose share of the total value of cashless transactions has been stable at 3% in recent years. Next come cards and cheques, each representing 1%, but with contrasting trends: cheques have declined continuously as a percentage of total transactions and in terms of amount since the start of the 2000's, while the opposite is true for card payments. Lastly, transaction amounts in electronic money continue to represent less than 1% of the total.

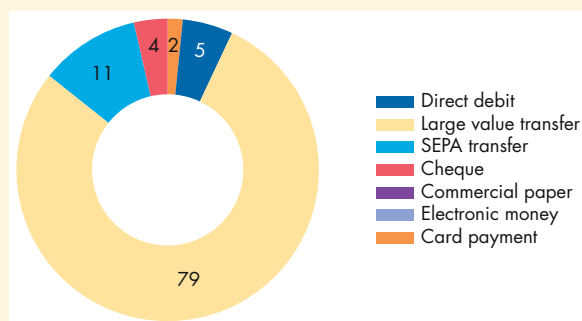
The breakdown for France reflects the broad trends seen at the European level (see Charts 7 and 8). Apart from LVTs, which logically represent the bulk of cashless transactions in terms of value (around 79%, for a total value of EUR 23,697 billion), SEPA transfers represent 11% of the total volume of cashless transactions. The average amount of an individual retail transfer

11 As electronic payment flows operate in a closed system, they are reported by the electronic money issuer and recorded in the accounts of the country of origin, regardless of whether they are used by nationals of other EU countries. This is notably the case of PayPal, Europe's leading electronic money issuer, which is based in Luxembourg and recognises all its payment flows in its Luxembourg accounts, regardless of the country in which PayPal users make their payments. These data collection rules explain why Luxembourg's payment flows represent 75% of the total value of electronic money payment flows across the European Union, while French flows appear to be very limited.

12 Link to Chapters 8 and 9.

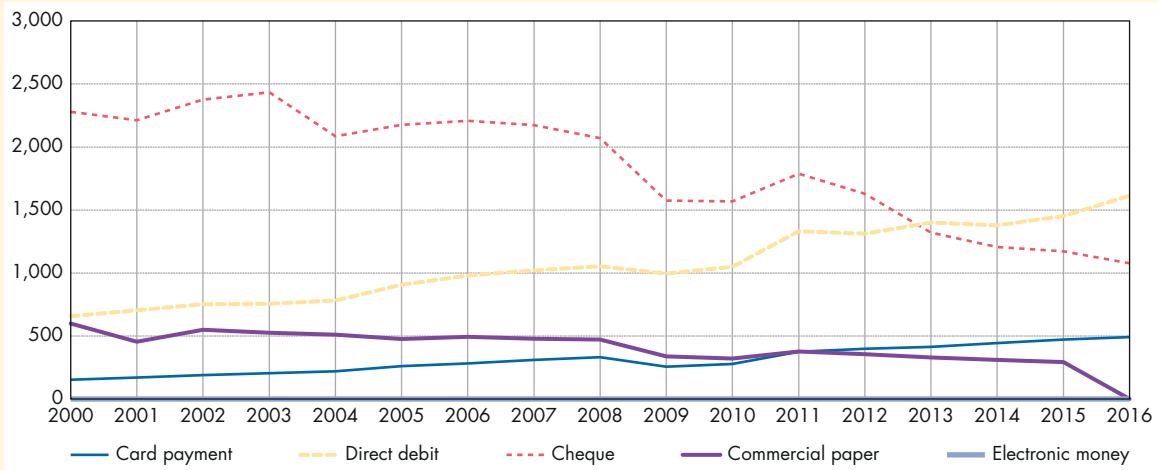
C7: Breakdown of cashless means of payment in France based on value

(as a % of the total)



C8: Transaction amounts excluding transfers

(€ billion)



Source: Banque de France

(excluding LVTs), at EUR 1,485, shows that this payment method continues to be used primarily for transactions involving large amounts.

While direct debits and cheques differ in terms of their share of overall transaction volumes (19% and 10%, respectively), in value terms they carry similar weight (respectively 5% and 4% of the total value of cashless transactions, representing around EUR 2,590 billion overall, with similar average transaction amounts of EUR 377 per direct debit and EUR 504 per cheque). These two instruments have followed diverging trends, with cheque payment amounts falling and direct debit amounts rising sharply. The fact that these two instruments have similar profiles lends weight to the idea that, to date, direct debits have often been used instead of cheques in similar payment situations.

Lastly, while payments by card account for more than half of all cashless payments in volume terms, when it comes to value they represent less than 2%. This is because cards tend to be used by consumers for small purchases (averaging EUR 45 in 2016). As such, payment cards are increasingly seen as the most popular cashless payment method for everyday retail purchases in France.

3. Prospective developments in means of payment in Europe

There are two salient trends in the cashless payment sector in Europe today. Firstly, following on from the SEPA project, there is a strong trend towards integration and harmonisation in the European payment landscape, which is set to continue. At the same time, a wealth of innovative products are being developed, generally to enable users to benefit from payment solutions that are both faster and better suited to new technologies. However, the advent of these new payment solutions creates new risks which need to be fully understood.

3.1. Changes in the use of means of payment

Europe's means of payment sector has seen an unprecedented range of new uses arise alongside rapid advances in information technology over the last ten years. Expanding internet take-up and the development of increasingly powerful mobile devices have created a wealth of new channels for making and accepting payments.

As regards payment initiation (the consumer's side), one of the key developments of the last decade is the rise of contactless or "proximity" payment systems

(used at the point of sale), particularly via payment cards. In 2016, almost 60% of French cards were enabled for contactless payments¹³ and the number of annual contactless payments passed the one billion mark in 2017. The main new trend, however, is the growing use of mobile devices to make contactless payments either by card using the same technology as contactless payment cards (near field communication or NFC) or via transfers or direct debits using checkout terminals to communicate with a customer's smartphone and initiate payment orders. The major mobile manufacturers systematically equip their new generation devices with this technology (NFC, Bluetooth and Wi-Fi modules, barcode scanners using the built-in camera, etc.).

Another key trend in payment initiation is the growing tendency for consumers to use cards, transfers or direct debits for remote payments, usually online. Thanks to the spread of mobile internet and the proliferation of devices used to access the web (computers, tablets, smartphones, etc.), remote payments are one of the fastest-growing payment initiation channels today. For example, the volumes and amounts of remote payments by card rose nine-fold between 2006 and 2016. That said, remote payments by card remain much lower, both in volume and value terms, than proximity payments and ATM transactions, representing around 12% of payments. The rise in online payments also calls into question the distinction usually made between proximity and remote payments, since payments can now be made online using a mobile device at the same point of sale, for example.

Technological advances have also affected the ways in which payments are accepted (the merchant's side). For instance, devices such as smartphones can now be used by merchants as electronic payment terminals (EPTs) to accept payments by card. Technically, this can be done in two main ways: by using a simple application that displays a payment terminal interface on the smartphone screen and requires consumers to enter their data

in specified fields, or by attaching a card reader (traditional or contactless) to the smartphone, coupled with an application to process the customer's signature or PIN. These solutions, however, are not yet mainstream and are poised to take off among merchants and mobile service providers (tradespeople, etc.), for use as the main payment channel, as well as among large retailers, for use as a back-up if checkout queues get too long.

3.2. New payment technologies

The new means of payment in use largely rely on recent technologies geared specifically towards promoting their adoption by consumers.

In the case of contactless payments, card payments and most payments by smartphone use a secure physical component (the "secure element," usually an electronic chip) on which contactless payment software is installed. This component can either be "integrated" in the mobile's SIM¹⁴ managed by the operator, or, with some mobiles, it can be separate from the SIM, in which case services independent from the SIM and the mobile operator can be developed and integrated in the secure component. To make payments, the application uses a smartphone feature that enables messages to be sent wirelessly using near field communication so the application can communicate with the merchant's payment terminal.

An alternative technology, "host card emulation" (HCE), in use since 2012, enables mobiles to be used for contactless payments without the need for a secure element. It relies on integrating a software application in the device's operating system to enable payments to be made using wireless communication without routing data to a secure physical component. The main advantage of this technology is that it opens the gates to new players creating innovative mobile payment applications, which can now be developed without the need for expertise in electronic chip-related processes.

13 Data taken from the 2016 Annual Report by the Observatory for the Security of Payment Means.

14 The SIM (Subscriber Identity Module) card is the component that enables a phone to access a mobile network.

In the field of remote payments, the arrival of digital wallet applications means that payment card or bank account details can be transmitted to a trusted third party, so that consumers no longer need to enter them every time they make a payment. These solutions can be provided by a specialised company (such as PayPal or Paylib) or by a merchant on their website. They allow payments to be made not only between consumers and suppliers, but also between private individuals. Digital wallets can also be used to store other types of data such as loyalty card details. Some digital wallet applications can also be linked to contactless payment systems or used to make payments via social networks (such as hashtags used on Twitter, Facebook or LinkedIn).

Alongside these digital wallet services, new players are offering remote payment solutions via a different channel using their customers' online banking facilities. With these solutions, customers are redirected to their online bank when they pay. They must then enter their login details to connect to their account and approve the transaction, for which the details are automatically filled in. The advantage of this type of solution is that consumers do not have to disclose their bank details to a third party. The downside, however, is having to use online banking identifiers, which are considered to be sensitive data. The second European payment services directive (PSD 2), which came into force at the beginning of 2018, clarifies the management and security rules applicable to this new type of payment service (see Chapter 3).

While these new technologies meet the growing need to speed up payment transactions, they also increase the need for funds transferred by consumers to be made available to vendors as quickly as possible. This need can now be met by instant payment solutions, defined as electronic retail payment solutions available 24/7/365 and resulting in the immediate or close-to-immediate interbank clearing of the transaction and crediting of

the beneficiary's account (within seconds of payment initiation). These solutions rely on a reorganisation of interbank clearing and settlement channels to enable transactions to be settled more quickly (see Chapter 20). In Europe, work overseen by the Euro Retail Payment Board led to the EPC developing a new SEPA instant payment scheme (called SCT^{inst}), which is a variation of the traditional SEPA transfer (SCT) subject to execution deadlines (under 10 seconds) and the immediate crediting of the beneficiary's account. This new scheme, open to banks on an optional basis, has been operational since November 2017.¹⁵

The current situations in various countries show that the emergence of instant payment solutions is often closely linked to the development of new payment technologies, especially for initiating payments. For instance, India's instant payment system (Immediate Payment Service or IMPS), operated by the National Payments Corporation of India (NPCI) was launched in 2010, initially for mobile phone payments only, before being extended to online payments and transfers via ATMs. Moreover, several instant payment systems are explicitly geared towards new payment channels, namely the internet and mobiles. The system established in the UK (UK Fast) and that being developed in Australia (New Payments Platform or NPP) are good examples: the platforms set up to provide the service enable payers to give counterparties their phone numbers (or email addresses in the case of Australia) instead of their bank details,¹⁶ provided that this is allowed by their banks.

The development of these new payment technologies creates new challenges in terms of security, as shown in France by the high level of fraud connected with online card payments, which, in 2016, was almost 20 times higher than that connected with proximity payments.¹⁷ These factors are taken into consideration by the authorities in charge of supervising means of payment and the measures taken to address the associated risks are set out in Chapter 3.

15 Upon its launch, 585 payment service providers in 8 countries (Austria, Estonia, Germany, Italy, Latvia, Lithuania, the Netherlands and Spain), had joined the scheme and could make and accept instant payments. By mid-2018, the percentage of PSPs that have joined the scheme still varies widely from country to country: e.g. 4% in Italy, 18% in France, 26% in Germany and 71% in Spain.

16 See S. Bolt, D. Emery and P. Harrigan, "Fast Retail Payment Systems", Bulletin of the Reserve Bank of Australia, December Quarter, 2014 for further information on the various instant payment systems in use worldwide.

17 Data taken from the 2016 report by the Observatory for the Security of Payment Means.

Box 5: The role of public authorities in stimulating the development of means of payment, taking France's National Cashless Payments Committee (CNPS) as an example

The establishment of a French governance framework for cashless means of payment followed on from the process launched by the authorities at the end of 2014 to define development strategies for the payment market in France. This process was based on two pillars:

- the National Conference on Payments, arranged on 2 June 2015 by Michel Sapin, Minister for the Economy and Finance, supported by the Financial Sector Advisory Committee (CCSF), including the presentation of the results of a consultation process carried out throughout the first half of 2015 across the French means of payment sector;
- the Minister's October 2015 presentation of a National Strategy for Means of Payment, setting out the priorities assigned to the French community in the field of payments, in terms of action to be taken and institutional developments.

The objectives of the National Strategy for Means of Payment are three-fold:

- to better meet the expectations of users (consumers, companies, associations, merchants) in terms of speed and simplicity of payment transactions. This entails promoting the use of electronic means of payment, including standard transfers and instant transfers, as well as facilitating point-of-sale card payments and the most innovative new means of payment (contactless, mobile);
- reinforce the security of means of payment in an environment in which the proliferation of participants and payment solutions is creating new risks for users, financial institutions and payment systems. In this respect, the strategy provides for a broadening of the powers of the *Observatoire de la sécurité des cartes de paiement* (OSCP - Observatory for Payment Card Security) to cover all means of payment, thus creating the *Observatoire de la sécurité des moyens de paiement* (OSMP - Observatory for the Security of Payment Means);
- spur the development of innovative payment solutions and increase the competitiveness of the French payment industry, notably by creating incubators to support the sector.

The National Committee for Cashless Payments was set up in April 2016 to provide a forum for all French payment industry participants. It helps to ensure the proper implementation of the national strategy for cashless payments, launched by the Ministry for the Economy in October 2015, and to promote the French community's influence on developments in European payment systems. Thanks to the keen involvement of its members, from its first year in operation the Committee was able to fulfil its role by facilitating the first steps on the path to wider use of innovative electronic means of payment that are safe and effective, in order to better meet users' needs.

To that end, the Committee organised its work around three priorities:

- diversifying the payment channels offered by the public sector. The Committee opened a consultation on initiatives by players in the public and social spheres with the aim of providing contributors, taxpayers and users of public services with means of payment that better meet the needs of users (e.g. enabling them to pay for services by card or transfer) and those in the public sphere;

.../...

- promoting corporate use of new instruments in the SEPA range, particularly instant transfers, which are covered by a pan-European project overseen by the Euro Retail Payments Board. The Committee initiated operational and technical work to ensure the proper implementation of instant transfers in France. It also endeavoured to assess the accounting-related features of electronic payment orders such as SEPA transfers, which many companies cited as a crucial precondition for using these means of payment. The take-up of these means of payment must increase to provide an alternative to cheques as their usage declines, especially for payments between companies;
- the use of rapid, safe and accessible electronic payment instruments by the general public, including for small amounts. To this end, with the aim of enabling the public to benefit from innovations in payment channels, the Committee set up a system to monitor work being done in connection with commitments to break down the barriers to card payments being made from the first euro, in particular fees (by reducing the fixed component of commissions charged to merchants) and technical hurdles (conditions for the provision of devices to merchants). It also put monitoring in place for the use of contactless payments and undertook to actively monitor innovations in the payment industry.

