

# The banknote's future

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[special issue of *Réalités Industrielles*, November 2017]

## **Abstract:**

Despite the steady increase in the number of card payments and the growing spread of innovative electronic payment solutions (such as contactless, mobile and instant payments), the circulation of paper money continues to rise in most developed countries.

This only seems like a paradox, for numerous studies and estimates show that the proportion of banknotes held for transaction purposes is only a fraction of the banknotes in circulation. Indeed, demand for banknotes is driven by various motives (ease of use, availability, security, confidentiality, or as a response to being unable to hold a bank account), and corresponds to various uses (carrying out transactions, hoarding cash, international demand, etc.).

Therefore, although the effects of digitalisation will probably reduce the banknote's role in settling transactions in the medium to long term, its function as a store of value and the confidence it inspires are likely to remain two powerful reasons for holding cash in the years ahead.

## **Introduction**

The end of cash is frequently proclaimed, or at least promised in the near future. Granted, technological innovations in the field of payments are gathering pace, driven notably by fintech firms, but also by changes in the financial sector as a whole. Technological advances are becoming widespread not only in businesses, with the modernisation of electronic payment terminals, but also among the general public, as the equipment rate for connected devices increases.

Nevertheless, the banknote remains the dominant payment instrument in points of sale in Europe. In France, stable demand for banknotes has long coincided with extensive use of bank cards. Despite the criticism made of it, the banknote has unique characteristics that make it a very popular mode of payment even today.

Apart from being used in transactions, the banknote is the preferred form of money for precautionary cash holdings thanks to the confidence it inspires, as evidenced by the estimated magnitude of cash hoarding by households and the strong foreign demand for international currencies such as the dollar or the euro. Moreover, it is robust and not dependent on IT infrastructure and networks, making it the financial instrument of last resort for payments and hoarding in the event of crisis.

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## **The banknote is subject to criticism, but its unique characteristics make it a very popular payment instrument.**

### Criticism

The banknote is frequently criticised for several reasons. Some criticisms are based on academic grounds, whereas others emphasise that the use of cash may indirectly support the development of illegal activities.

From an academic standpoint, the banknote hampers the effectiveness of monetary policy measures based on setting negative key interest rates, as has been the case in the euro area since June 2014, by preventing interest rates from dipping as low below zero as necessary.

This is because, below a certain threshold of nominal negative rates, it may be less costly to resort to holding cash (despite the costs related to physically holding currency, such as storage costs) than to pay interest. This could neutralise the sought-after effect of rate cuts by triggering a wide-scale shift from bank deposits to holding cash. However, in reality, the current level of negative interest rates (in the euro area and elsewhere) has not triggered a significant rise in demand for banknotes. This fact invalidates the hypothesis of a “liquidity trap” that would make interest rate cuts by the central bank inoperative.

The banknote is also accused of making it easier to carry out illegal activities, such as tax avoidance, criminal activities, corruption or terrorism. These suspicions of illicit use of banknotes, fuelled by the fact that cash flows are anonymous and untraceable, are notably connected with banknotes in high denominations that allow very large sums to be transported easily and discreetly.

Such suspicions are not unfounded. Furthermore, the Governing Council of the ECB reacted to the concerns that the €500 banknote could be used to finance illegal activities; in May 2016, the decision was made to stop printing the €500 denomination immediately and to stop putting these banknotes into circulation by the end of 2018.

Likewise, in France, the Ministry for the Economy's cap on cash payments to traders was recently lowered from €3,000 to €1,000 for French residents, in order to limit anonymous transactions in the French economy. At EU level, the Commission has launched a consultation period that could lead to an EU-wide cap on cash payments being set.

### The banknote's unique advantages

These criticisms aside, the banknote has unique characteristics that help ensure its attractiveness.

First of all, the banknote is the only physical, tangible form of base money (i.e. money issued by the central bank) that is accessible to the public. Thus, the banknote (as well as coins, from this standpoint) is the sole payment instrument with the status of legal tender: it is accepted everywhere and at any time, provided certain regulatory thresholds are complied

with. This universal power to discharge debts is immediate, allowing individuals holding cash to settle any debt immediately.

On a daily basis, paper currency is a payment instrument that is easy to use and readily accessible (at least in France) from ATMs or local bank branches, and soon – under certain conditions – from retailers that wish to offer this service.

The fact that cash is easy to use and available across the country is an advantage that is particularly appreciated by vulnerable populations such as the elderly or disadvantaged. Thus, migrants or recipients of minimum welfare benefits can withdraw their welfare benefits (which are credited to their Livret A savings passbooks) in cash at the post office.

The banknote is also a physical, tangible form of money that encourages people to stick to a budget by increasing their awareness of daily budgetary constraints. For children, it has been definitely proven that managing their pocket money is a good lesson.

The banknote is also a secure payment instrument that inspires confidence: combining multiple technologies, it is protected by security features that are frequently updated. It is also an especially robust and resilient payment instrument. Its use does not require any technical infrastructure or access to telecommunications networks, and it remains accessible even during crisis periods (such as natural catastrophes or wide-scale outages).

Lastly, free of any tracking between the time they are withdrawn and deposited, banknotes ensure users of confidentiality in their transactions. Citizens' legitimate concerns about their privacy being respected are being magnified by the perception that the use of network technology raises the risks of personal data being exploited for commercial or fraudulent purposes.

## The banknote is still a very frequently used means of payment

The banknote continues to enjoy strong demand. In the euro area, the value of euro-denominated banknotes and coins in circulation has risen threefold since 2002, surpassing the €1,100 billion mark at the end of 2016.

The banknote is the dominant means of payment in the euro area: According to a large-scale survey (carried out on behalf of the Eurosystem) of the use of cash by households, more than three-quarters of payments made in points of sale in the euro area are in cash, i.e. slightly more than half the total amount of transactions.

In France, since 2002, cumulative net issuance (i.e. the difference between banknotes issued by, and returned to, the Banque de France) has continuously increased since the euro's introduction, rising from €36bn to nearly €120bn in the span of 15 years. Despite the sharp growth in card payments over the same period, the proportion of cash payments for local transactions remains high in France, as shown by the fact that cash withdrawals from ATMs are stable at a high level.

In the future, the use of cash for payments could decline thanks to the development of innovative electronic means of payment, such as contactless payment, which is expanding rapidly even though it currently represents a marginal proportion of total transactions in value terms. Another current trend is the widespread, simultaneous roll-out of cashless payment solutions in retail shops. The impact of these solutions is not yet visible in the statistics. One example in France is Paylib, a solution that several banking institutions have been rolling out since the start of 2017. Moreover, the first operational instant payment solutions based on SEPA (Single Euro Payments Area) transfers are expected by November 2017: these solutions could become a serious rival to the banknote for transfers from one mobile phone to another, or even for payments made locally.

**In addition to being used for transactional purposes, the banknote is used for cash hoarding, and thanks to its robustness, it is the financial instrument of last resort for payments and hoarding**

The banknote functions as a store of value, especially in periods of economic, political and/or social tensions

In addition to being used for transactions, another use of the banknote – and perhaps the most important one – is for precautionary cash holdings. For example, a recent study by the Banque de France evaluated the amount of cash held in France for transactional purposes at €12bn (i.e. around 10% of French net banknote issuance).

Hoarding by economic agents, particularly households, is a response to their legitimate concern about setting aside precautionary savings for unexpected events. In the euro area, the range of banknote denominations is especially wide, with high-denomination banknotes that are suitable for hoarding – despite the announced end of the €500 banknote. This is also true in Switzerland, for instance, with the CHF1,000 banknote denomination (by comparison, note that the highest denomination for the French franc was FF500, i.e. €76).

It is estimated that over half European net issuance of €50 banknotes is used for hoarding purposes, whereas this denomination represents more than 45% of the total amount of euro banknotes and coins in circulation. Therefore, the amount of cash hoarded – while hard to estimate with precision – is probably quite high.

For currencies with reserve currency status, foreign demand is a powerful component of demand for banknotes. The most recent research by the US Federal Reserve estimated that the proportion of dollars in circulation held outside the United States is at least 50%. Note that the \$100 banknote (the highest denomination) is predominant in these international flows. In 2017, the European Central Bank revised up its estimate of the proportion of euros in circulation outside the euro area. In value terms, its current estimate is now about one-third, vs. 25% previously. Foreign demand for euros originates mainly in the regions bordering the EU: the countries of Central and Eastern Europe, Russia, Turkey, etc.

Lastly, the banknote is a safe haven in periods of uncertainty. Thus, increased demand for banknotes has been observed in many geographic regions (including the US, the UK, Switzerland and the euro area) since the early 2000s. The 2007-2008 financial crisis accelerated this trend. This acceleration is measured by the rise in the ratio between banknotes in circulation and GDP, which indicates that demand for banknotes is outstripping demand for goods and services.

In the euro area, there is a proven connection between demand for euro banknotes and periods of political, economic or financial tension. For instance, after Lehman Brothers collapsed, demand for banknotes from the Eurosystem central banks rose by €35bn between end September and end October 2008. A clear pick-up in net banknote issuance also occurred during the Greek debt crisis, in the first half of 2015.

Thanks to its robustness, the banknote is a sound, secure instrument of last resort for cash hoarding

One inherent characteristic of the banknote – its tangible, “physical” form – can be a handicap in some (fortunately rare) cases, as when banknotes accidentally go through the wash. However, this characteristic is actually an advantage. A banknote is immediately ready for use and is not dependent on any kind of infrastructure. These are key advantages compared to scriptural money in the event of serious power outages, natural catastrophes or an interruption in telecommunications networks. This is especially true in situations when such crises last a long time, making electronic payments impossible for an extended period.

Moreover, the banknote is inherently immune to cyberattacks, which are currently a credible, proven threat to IT networks. The same holds true for computer fraud; payments by card or mobile telephone, especially online, are particularly exposed to this risk. For example, in France, two-thirds of card fraud instances involve remote payments, whereas online payments represent only 11% of card payments.

More broadly, technological innovations in payment services – such as paperless money transfers, contactless payments, mobile payments and virtual wallets for online payments – raise major stakes in terms of security. The Second Payment Services Directive (PSD2), currently being enacted into French law, implements solutions aimed at strengthening transaction security in order to take advantage of innovations while countering the subsequent increased risks.

Mistrust of innovative means of payment could expand, eventually affecting the banking and finance sector as a whole. In this case, the banknote's perfect liquidity and the trust that it inspires could prompt some people to hold their financial assets in the form of banknotes, thus sheltering them from uncertainty. This brings us back to the cash hoarding issues that we mentioned earlier.

## **Conclusion**

The national central banks of the Eurosystem have adopted a stance of strict neutrality towards changes in the use of means of payment. They do not prefer one means of payment over another, nor do they seek to influence the behaviour and preferences of the general public.

Nevertheless, we observe the banknote's resilience in terms of its transactional function. This resilience is attributable to payment habits (even though these can change) and the lack of a real alternative for certain population segments (such as people who do not have bank accounts). In addition, cash hoarding and foreign demand for banknotes are strong drivers of the demand for banknotes, linked to the trust that banknotes inspire.

In these circumstances, it is up to the central banks to sustain this trust by issuing banknotes that are secure and robust. It is also their task to ensure good access to banknotes across the entire national territory, so that consumers can freely decide which means of payment they wish to use for their purchases.