

# CRYPTOCURRENCIES AND THE FUTURE OF MONEY

Money and Trust  
in France

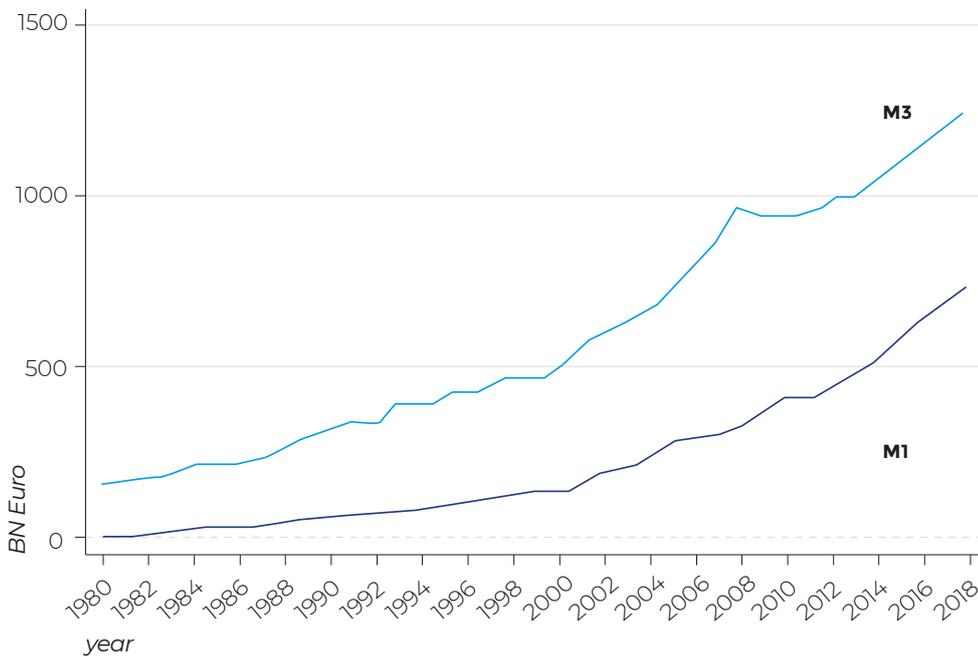
# Content

- I. Background 3
- II. Current Usage of Types of Money in France 4
- III. Knowledge and Trust in Money in France 5
- IV. Attitudes toward Cryptocurrencies in France 8
- V. The Future of Cryptocurrency in France 10
- VI. A Conjoint Analysis of Preferences for Money in France 13

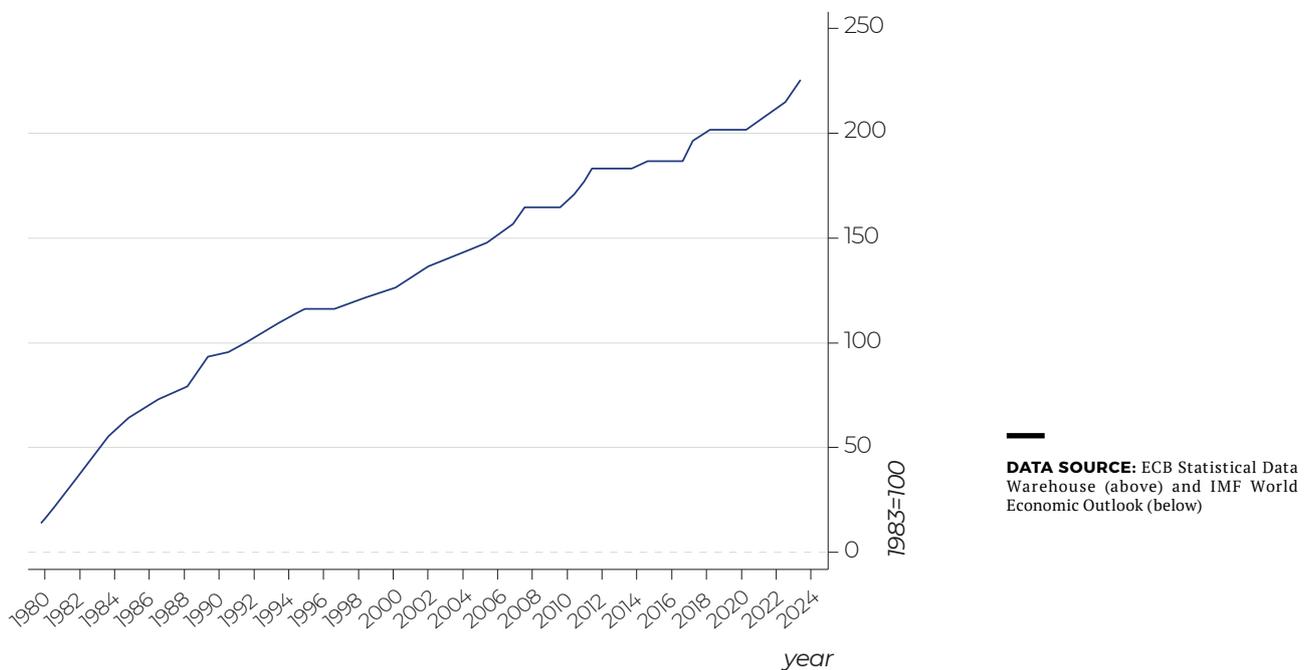
## I. BACKGROUND

The euro was established by the provisions of the 1992 Maastricht Treaty, and is now the official currency of 19 of the 28 member states of the European Union, including France. It has replaced the previous French currency, French franc, which ceased to be convertible to euros by 2012. As of today, the euro is the second-largest reserve currency as well as the second-most traded currency in the world after the US dollar. The euro has even surpassed the US dollar and become the currency with the highest values of banknotes and coins in circulation in the world. From the charts below, we can see that money supply and consumer prices, in both pre and post euro eras, have experienced a fairly stable increase over the 1980 – 2018 period.

### Money Supply in Euro Zone



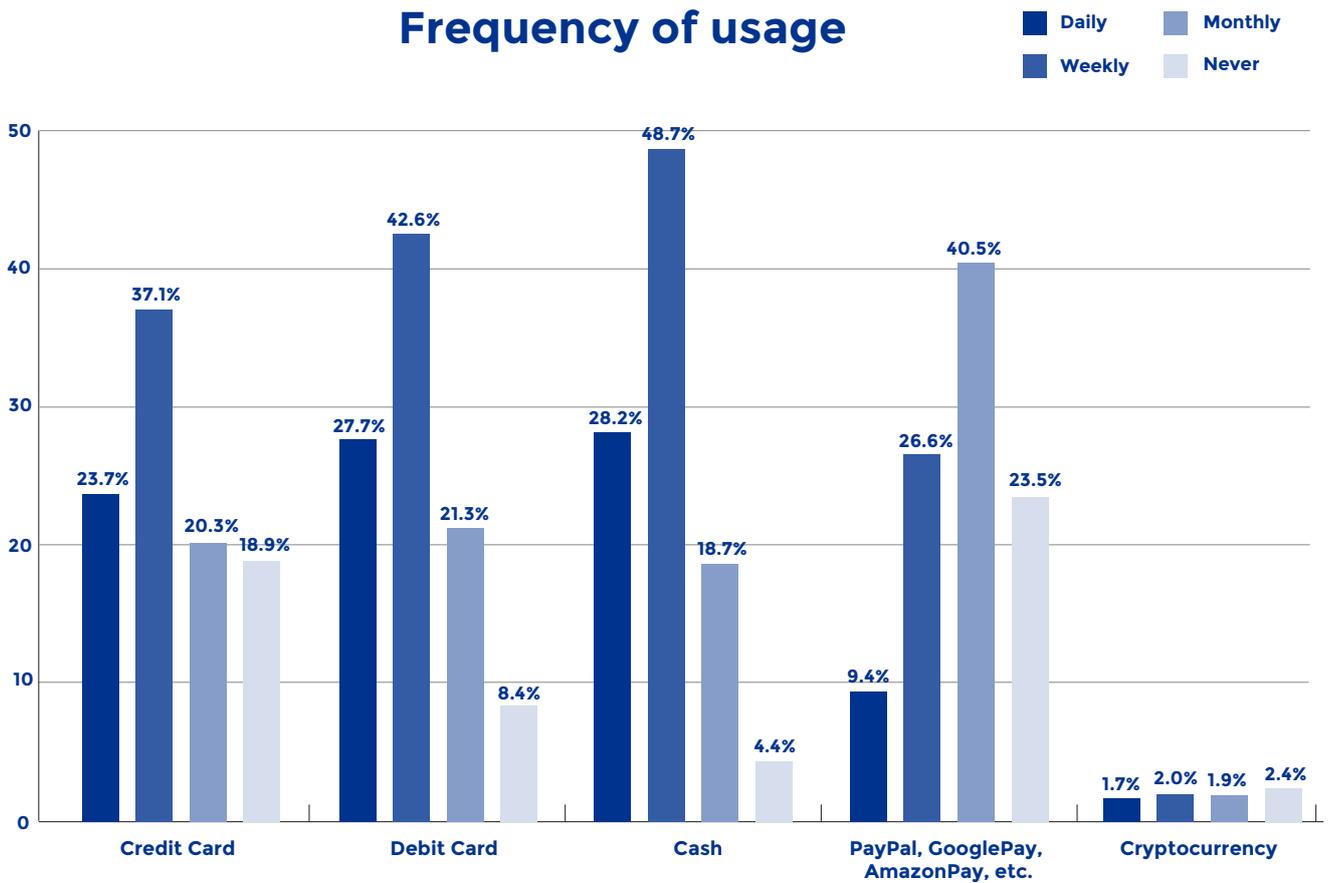
### Consumer Prices in France



**DATA SOURCE:** ECB Statistical Data Warehouse (above) and IMF World Economic Outlook (below)

## II. CURRENT USAGE OF MONEY IN FRANCE

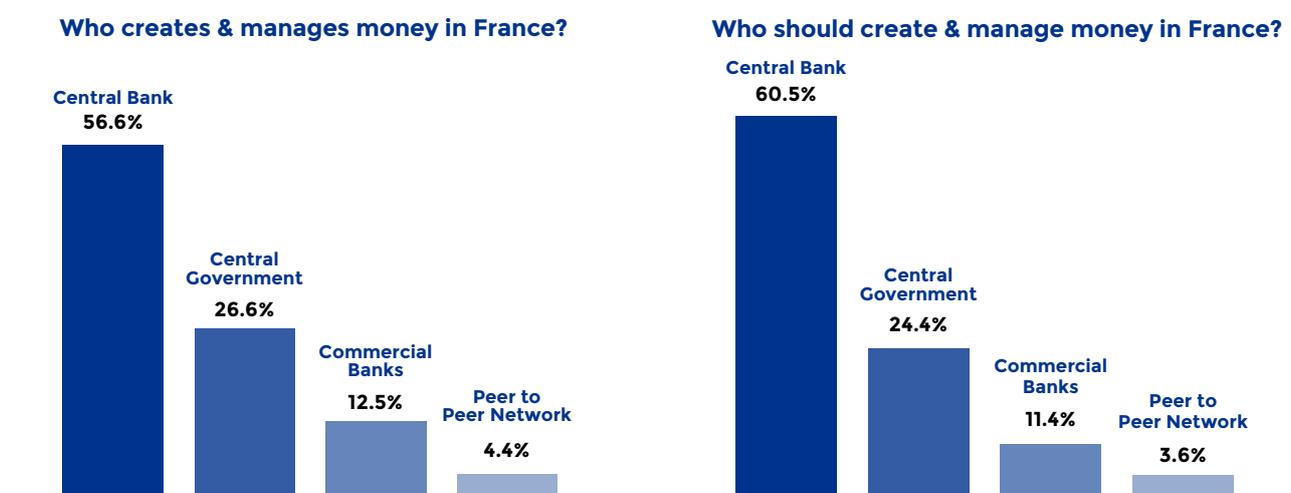
Looking at current usage of different types of money in France, a majority of French residents make use of credit cards (85%), debit cards (58%), and cash (61%) on a daily or weekly basis, with credit card standing out as the most used money. The newly emerging online payment companies have only around 23% usage on a daily or weekly basis. By far, the least used form of money in our survey is cryptocurrency with only around 4% of respondents using these on a daily or weekly basis, though France has the highest degree of usage amongst European countries in our sample. (footnote: Sample includes Argentina, Brazil, France, Germany, Mexico, UK, and USA).



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

### III. KNOWLEDGE OF AND TRUST IN MONEY IN FRANCE

In 2017, a EuroBarometer survey found that almost half of French residents (48%) tend not to trust the European Central Bank<sup>1</sup>. To get an understanding of how well French residents understand some basics regarding the issuance and management of money, we asked respondents who they thought created money and who they thought 'should' create money. The results suggest that the majority of French residents (57%) correctly believe that the central bank creates and manages money. The other creator of money, commercial banks, were less well known with only around 13% of French residents believing that they create and manage money. Interestingly, more French residents believed that the central government created and managed money (27%) than commercial banks. Comparing the left and right-hand side, it also appears that French residents are pretty content with who they currently believe creates and manages money (no significant changes are desired).



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

In the presence of many new forms of money in the 21<sup>st</sup> century, the types of institutions who create money has increased dramatically over the past five years. For example, in 2019 there are over 2,000 different cryptocurrencies which are not issued by government or commercial banks. To get a clearer idea of how people trust different types of institutions to create and manage money in France, we asked respondents to rank each these from most preferred to least preferred. The results are similar to those above with a few key differences. In terms of similarities, French residents trust the central bank with around 60% ranking it as their first choice. A key difference is that French residents seem to show similar levels of trust when comparing the central government with commercial banks. It turns out that the central government and commercial banks were ranked by 18% and 16% respectively of the respondents as their first choice to create and manage money.

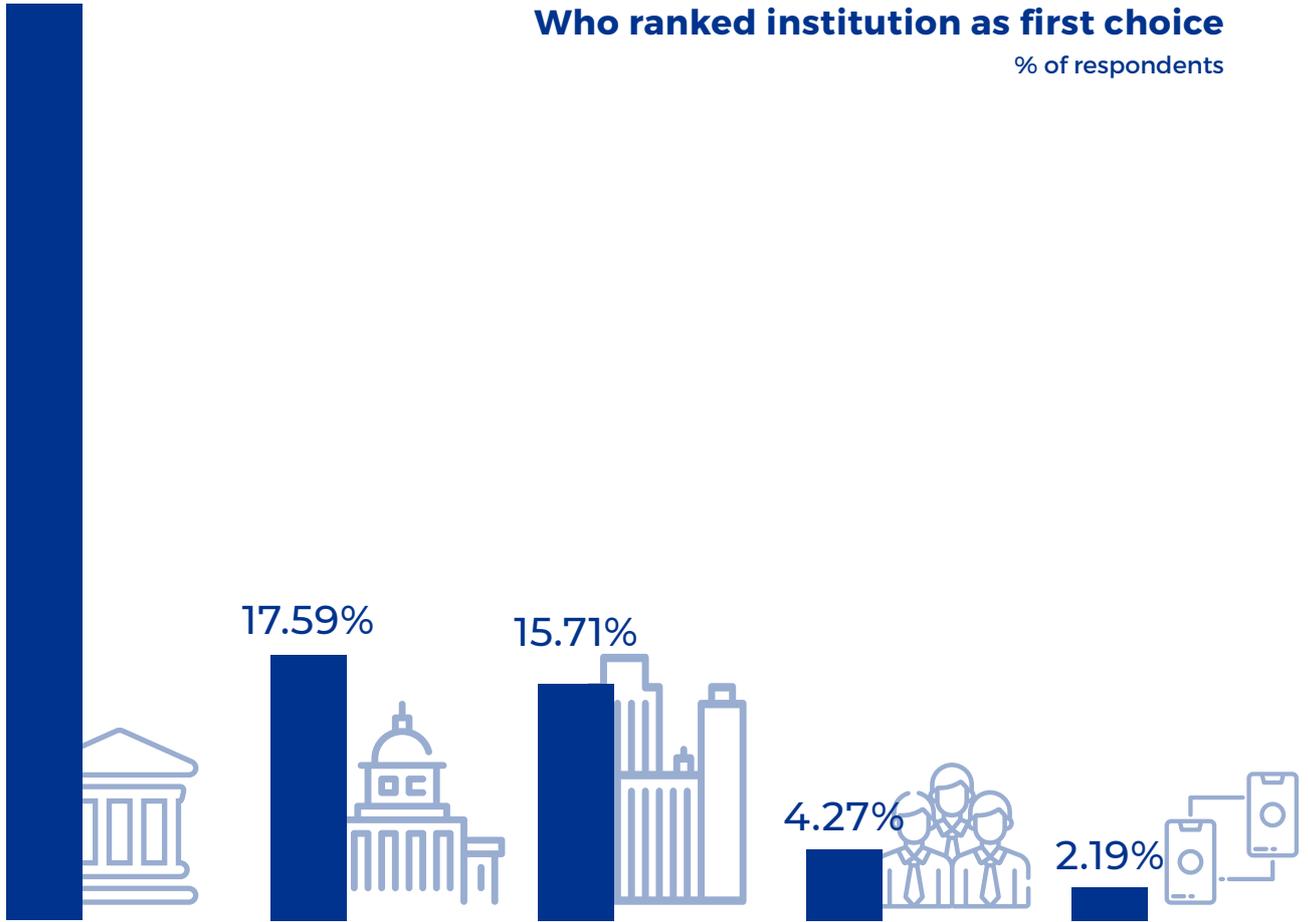
Comparing these levels of trust with nontraditional source of money creation and management shows significant differences with only about 12% of French residents ranking peer-to-peer networks as their first or second choice and 7% ranking private (nonbank) companies at their first or second choice. These results paint a fairly pessimistic prognosis for cryptocurrencies becoming a widely used type of money in the near future.

<sup>1</sup> <https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/ResultDoc/download/DocumentKy/82873>

60.24%

### Who ranked institution as first choice

% of respondents



Central Bank

Central Government

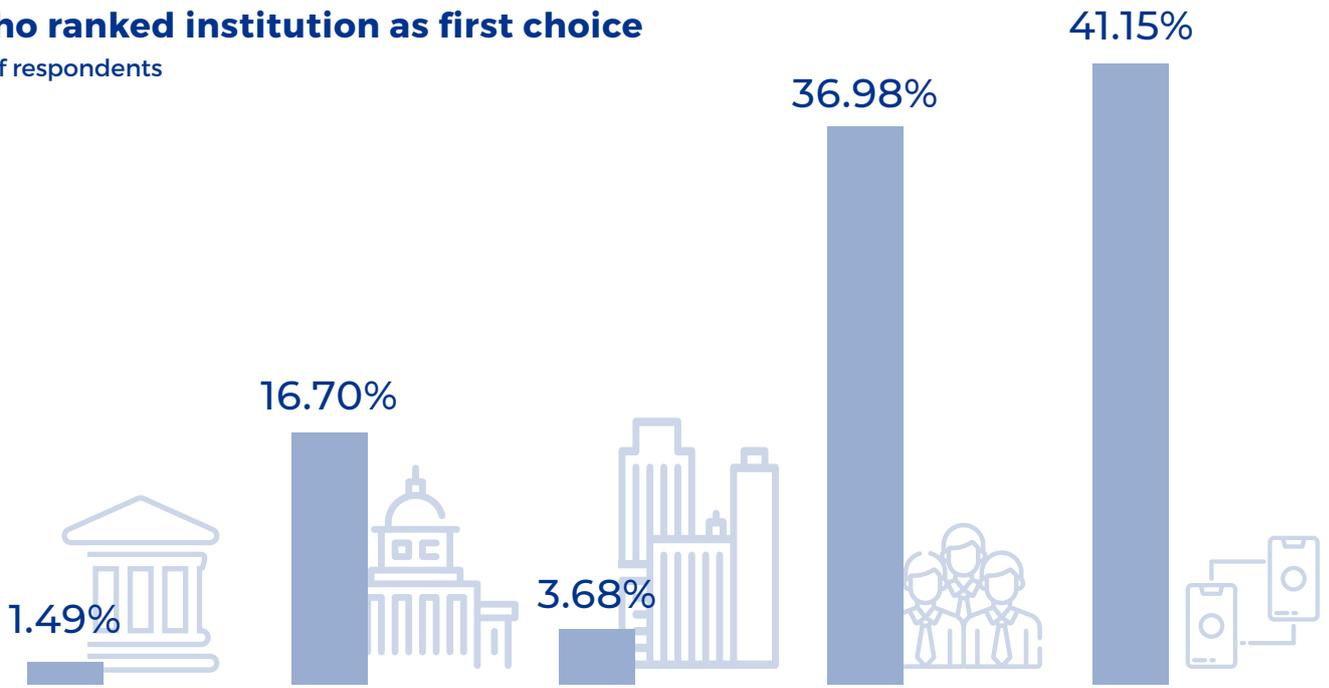
Commercial Bank

Private Company (nonbank)

Peer to Peer Network

### Who ranked institution as first choice

% of respondents



Central Bank

Central Government

Commercial Bank

Private Company (nonbank)

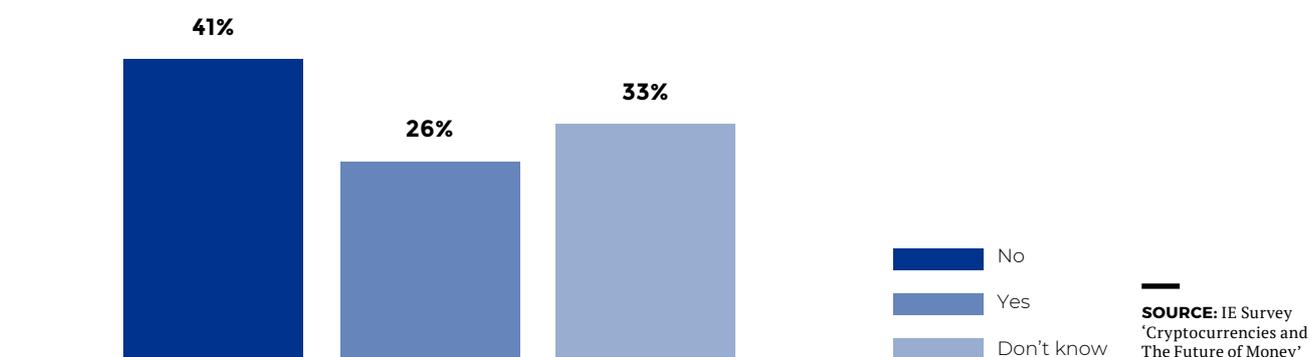
Peer to Peer Network

SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

The extremely low levels of trust in government (as compared with the central bank) could be partly attributable to the general public perception of their handling of the recent financial crisis. While the crisis was certainly not caused by the government, a large proportion of the public believes that the regulatory response has been insufficient for preventing another financial crisis in the future.

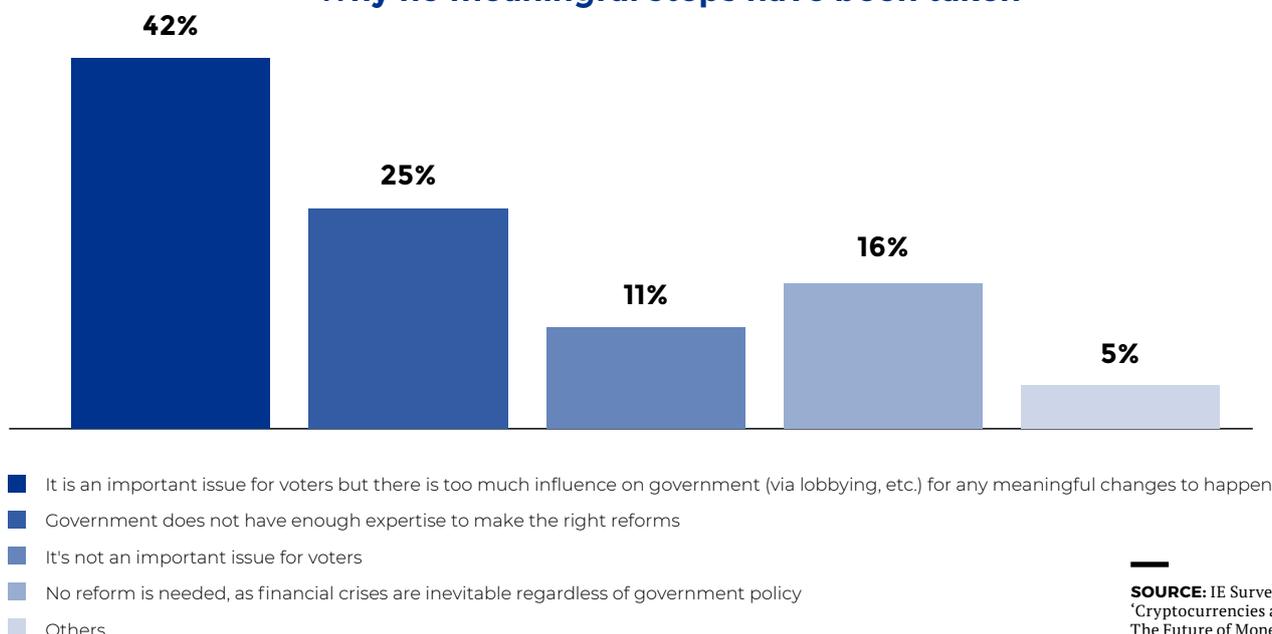
We can see this from the high proportion of respondents believing that government has taken meaningful steps in regulating the banking sector to prevent a future financial crisis. Specifically, 41% of respondents believed that government has not taken meaningful steps, 26% believed that government has. The remaining 33% of respondents were uncertain about whether has taken meaningful steps.

### Government has taken meaningful steps by regulating the banking sector since 2008 to prevent another financial crisis



For those who felt that government has not has taken meaningful steps in regulating the banking sector to prevent a future financial crisis, by far, the most common response (42%) was that believed that 'it is an important issue for voters but there is too much influence (lobbying, etc.) on government for meaningful changes to happen'. The second most chosen option was a belief that government does not have the expertise to make the right reforms (25%). Both of these suggest a lack of trust in the decision makers in government which helps to explain the surprisingly low levels of ranking when it comes to the creation and management of money.

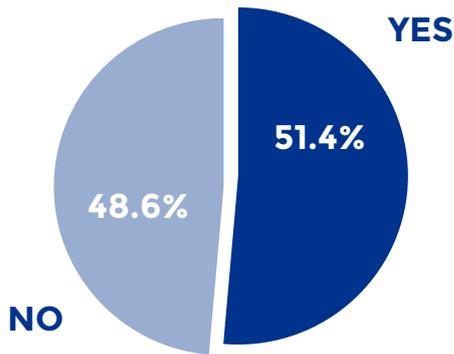
### Why no meaningful steps have been taken



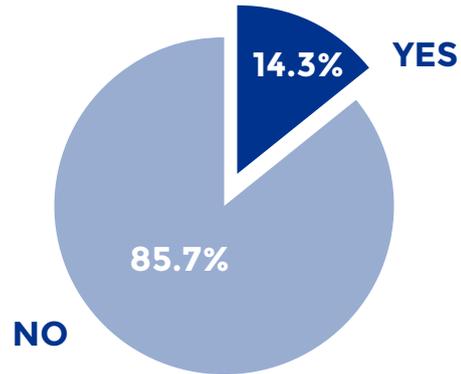
## IV. ATTITUDES TOWARD CRYPTOCURRENCIES IN FRANCE

In a June 2018 survey, ING found that 50% of France residents had heard of cryptocurrency with around 6% claiming to own some form of cryptocurrency<sup>2</sup>. In August of 2019 our survey results suggest that these figures rose slightly to 51% in terms of awareness of cryptocurrencies and more than doubled to 14% in terms of interest in cryptocurrencies amongst residents of France. This suggest a growing interest among French residents in purchasing cryptocurrency since 2018.

**Have you heard of cryptocurrency?**



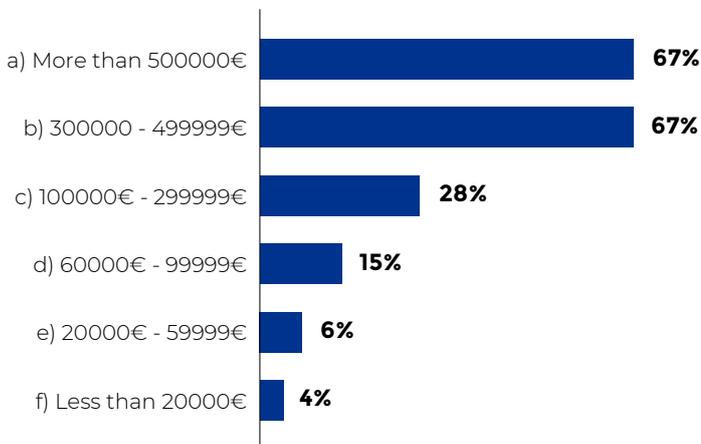
**Do you own any cryptocurrency?**



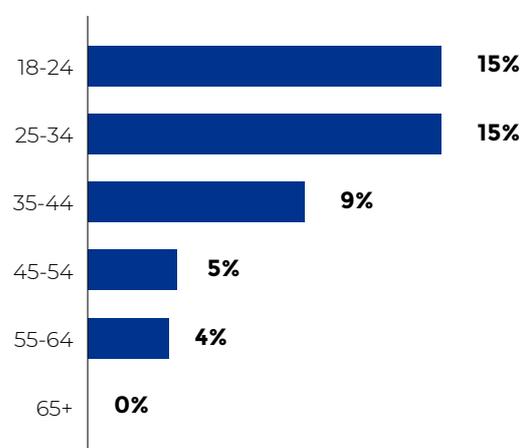
**SOURCE:** IE Survey 'Cryptocurrencies and The Future of Money'

Breaking ownership down by income, levels are very high amongst the very wealthy with 67% of respondents with income between 300,000 and 499,999 and more than 500,000 Euros owning some cryptocurrency. The ownership levels of these high-income groups are at least twice as any other income group. The variation over age is fairly intuitive with the majority of owner being in the 18-34 age group and very little ownership (around 4%) amongst those 55 and up. The result that cryptocurrencies are largely owned by young and wealthy French residents, suggesting that these are likely to be investments rather than for day to day transactions. Looking at variation across education ,we can see that those with higher levels tend to have higher degrees of cryptocurrency ownership (21% for those with postdoctorate compared with only 4% for those with secondary education). Lastly, as was the case with other countries in our sample, men (9%) tend to own cryptocurrencies at higher levels than women (6%).

**Ownership of cryptocurrency by income**



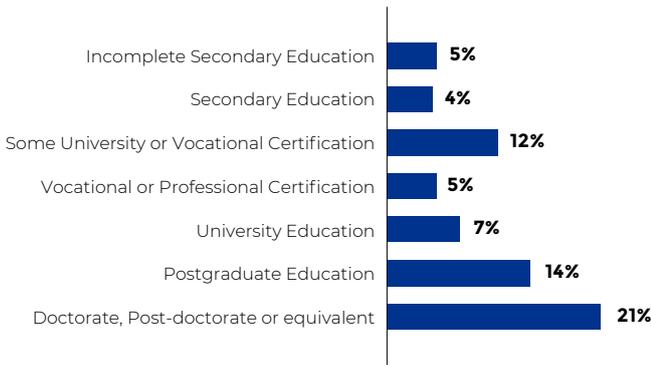
**Ownership of cryptocurrency by age**



**SOURCE:** IE Survey 'Cryptocurrencies and The Future of Money'

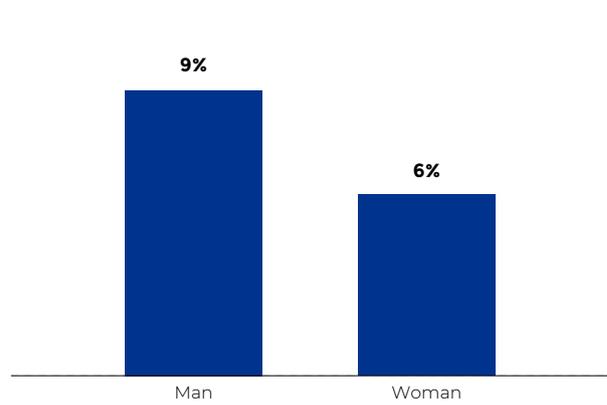
<sup>2</sup> See [https://think.ing.com/uploads/reports/ING\\_International\\_Survey\\_Mobile\\_Banking\\_2018.pdf](https://think.ing.com/uploads/reports/ING_International_Survey_Mobile_Banking_2018.pdf)

### Ownership of cryptocurrency by education



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

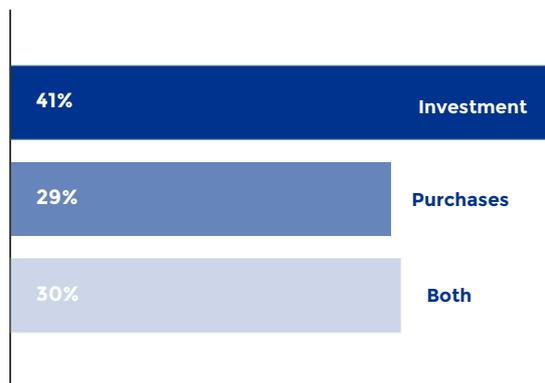
### Ownership of cryptocurrency by gender



To validate this, the survey asked those French residents who owned cryptocurrency whether it was as an investment or to make purchases.

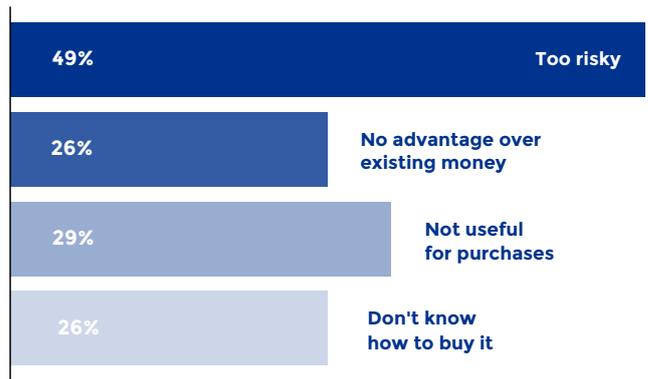
Unsurprisingly, the most common reason (41%) for cryptocurrency ownership in France is investment, with only 29% using cryptocurrency specifically to make purchases. In this sense, cryptocurrency is not a currency at all in France, but instead a financial investment. Tying this in with the results above, the small niche of cryptocurrency owners tend to be young and wealthy and are in the cryptocurrency market to make a return on the investment rather than use it as a type of money.

### Why do you own cryptocurrency?



For those respondents who do not own cryptocurrencies, the most common reason (49%) was they believe that it is too risky, followed by the belief that cryptocurrency is not useful for making purchases (29%). Under such perception, it appears unlikely that the cryptocurrency will unlikely take on the role of money in France in the near future.

### Why do you not own cryptocurrency?



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

Putting these findings together, an increasing number of French residents are becoming aware of cryptocurrencies but ownership is still very limited. The majority of current owners are young wealthy people who hold these as an investment. There is some potential for cryptocurrencies to expand their ownership but this will require the building of trust with the public through better education and communication.

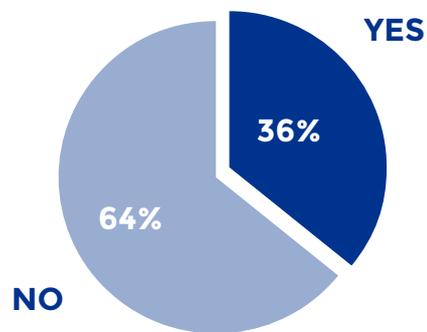
## V. THE FUTURE OF CRYPTOCURRENCY IN FRANCE

To gauge the public's appetite for a well designed and efficient cryptocurrency in France which is issued by a private company, we asked respondents:

**Q20: "Suppose that a new cryptocurrency was designed by a private company (or group of companies) that could be used to make all of your day-to-day transactions (it is accepted by all sellers) and has a stable value over time (low inflation/deflation). This currency could also be converted to other currencies at a very small cost. Would you prefer to use this currency over your current method of payment?"**

The results are more optimistic than current usage levels from Section II, possibly due to the fact that currently existing cryptocurrencies are not efficient and do not have stable prices. Around 37% of French residents expressed a willingness to use a new type of money issued by a nontraditional backer (a private company).

Would you use an Effective Private Currency?

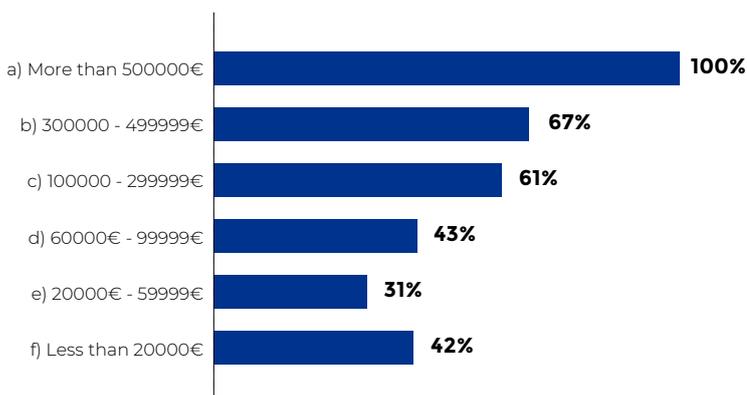


SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

Amongst those who said that would support an effective privately created digital currency, there were significant differences across age and income. In particular, young wealthy French residents show higher willingness to se an effective new currency than people in other income and age group. With respect to education and gender, there does not appear to be any significant differences across levels of education and men and women in France tend to have similar levels of willingness to own cryptocurrency at around 35%.

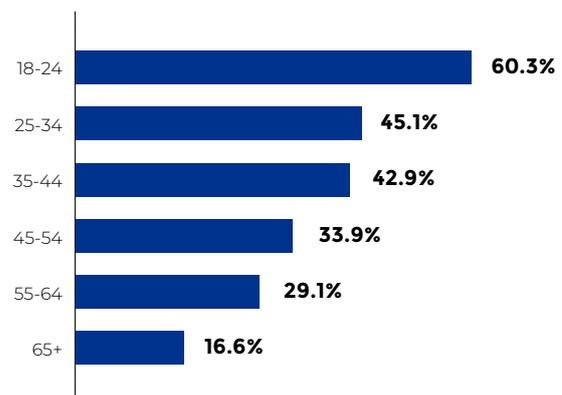
Would you use an Effective Private Currency?

BY INCOME



Would you use an Effective Private Currency?

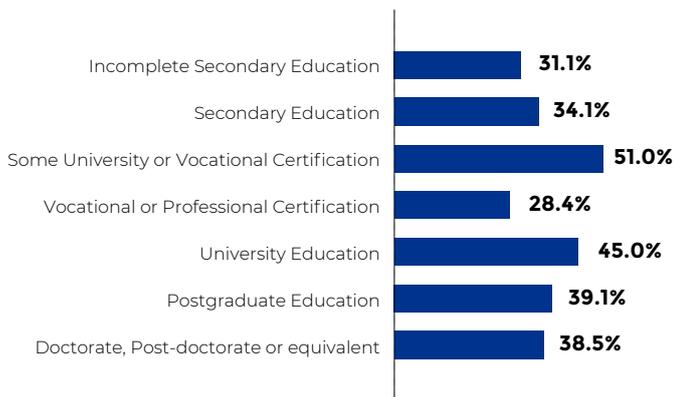
BY AGE



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

### Would you use an Effective Private Currency?

BY EDUCATION



### Would you use an Effective Private Currency?

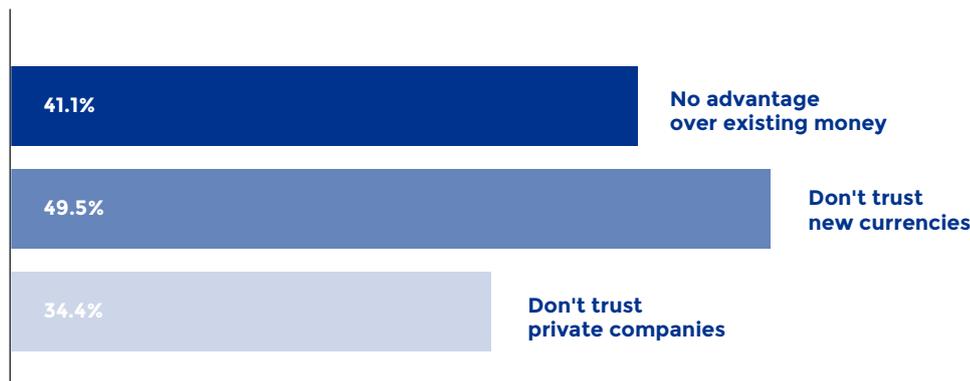
BY GENDER



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

Amongst the 64% of French residents who would not use a new effective cryptocurrency, the most common reason was a lack of trust in new currencies (50%), followed by the belief that it had no advantage over existing types of money (41%) and a lack of trust in private companies (34%). These results are somewhat optimistic for digital currencies as their advantages have apparently not been well communicated to a significant proportion of the general public.

### Why not?

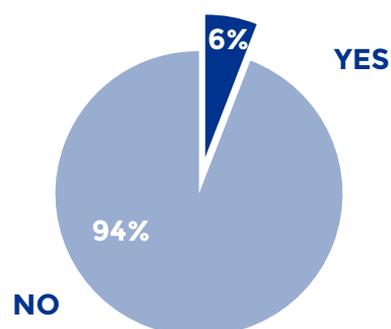


SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

With the new high profile announcement by Facebook that they, along with a large pool of high profile partners, would launch the 'Libra' in 2020 came a flood of speculation about its potential for success. Following this announcement, a significant proportion of the general public have expressed pessimistic views of the Libra given low levels of trust in Facebook when it comes to the managing valuable information.

In 2019, Finance Minister Bruno Le Maire said Libra posed severe financial risks and France cannot authorize the development of Libra on European soil<sup>3</sup>. The results from our survey paint an equally pessimistic picture. Around 6% of French residents stated that they would trust Facebook to issue a currency with 94% responding that they would not.

### Trust in Facebook to issue a Private Currency



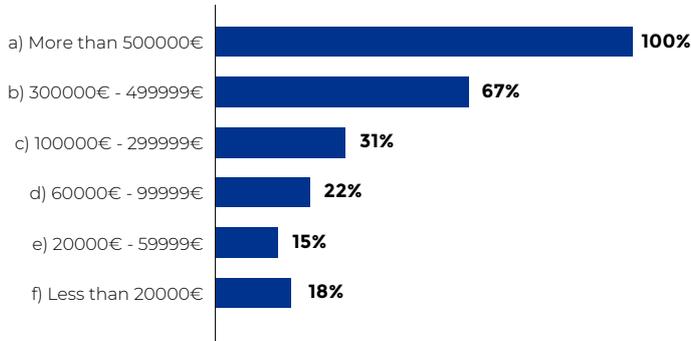
SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

3 <https://www.bbc.co.uk/news/business-49677146>

Among the few French residents who would support a new digital currency the majority of these respondents are high income and young individuals, especially those under the age of 45 and with annual income over 299,000 euros. In terms of education and gender, there do not appear to be any significant differences with respect to willingness to support Facebook’s new currency.

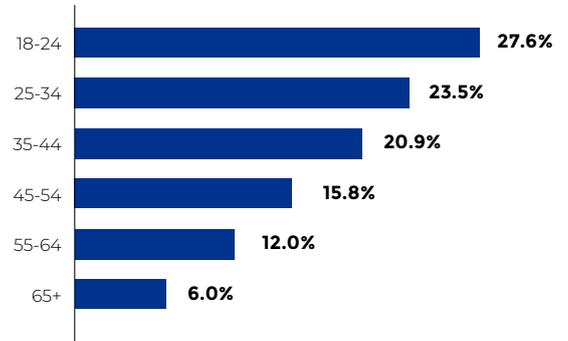
**Trust in Facebook to issue a private currency**

BY INCOME



**Trust in Facebook to issue a private currency**

BY AGE



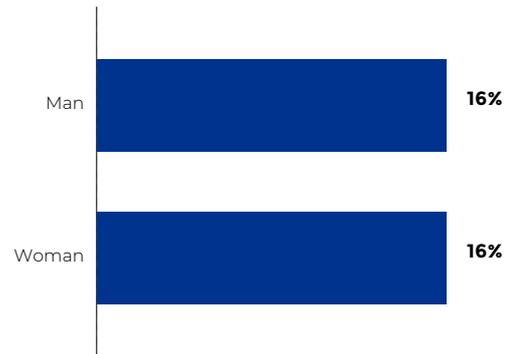
**Trust in Facebook to issue a private currency**

BY EDUCATION



**Trust in Facebook to issue a private currency**

BY GENDER



**SOURCE:** IE Survey ‘Cryptocurrencies and The Future of Money’

## VI. A CONJOINT ANALYSIS OF PREFERENCES FOR MONEY IN FRANCE

While the above discussion is helpful in gaining a deeper understanding of French resident's usage, knowledge, trust of money. Understanding exactly what characteristics of money are important to residents of France requires a systematic approach. Fortunately, a choice based conjoint analysis is an excellent way to measure the relative 'utilities' that residents of France gain from different types of money which vary across each attribute. We can look at how each of five main attributes are valued against each other. To do this, from the sample of 1,000 adult French residents, we provided each respondent with ten frames, each of which provided the respondent with a choice between three hypothetical currencies with varying attributes. For the purpose of this exercise, we characterized 'money' as having five underlying attributes:

1. **Issuer/backer** refers to who issues and/or backs that currency. This could be a central bank, a commercial bank (private sector company), or a peer-to-peer nonprofit like Bitcoin (private sector peer to peer).
2. **Acceptability** refers to where are able you use the currency. Is your currency accepted by all sellers of goods/services or only some sellers of goods/services (within the area in which you buy/sell goods and services)?
3. **Transaction costs** are there costs involved in making the transaction (these are commonly known as 'fees', 'premiums' or 'spreads').
4. **Price Stability** refers to the expected change in the amount of goods and/or services you can buy over the course of a month with the same amount of currency (i.e. x\$ in October will be worth y\$ in November)
5. **Digital/physical.** All currency that is stored outside of your personal physical possession can be considered as digital.

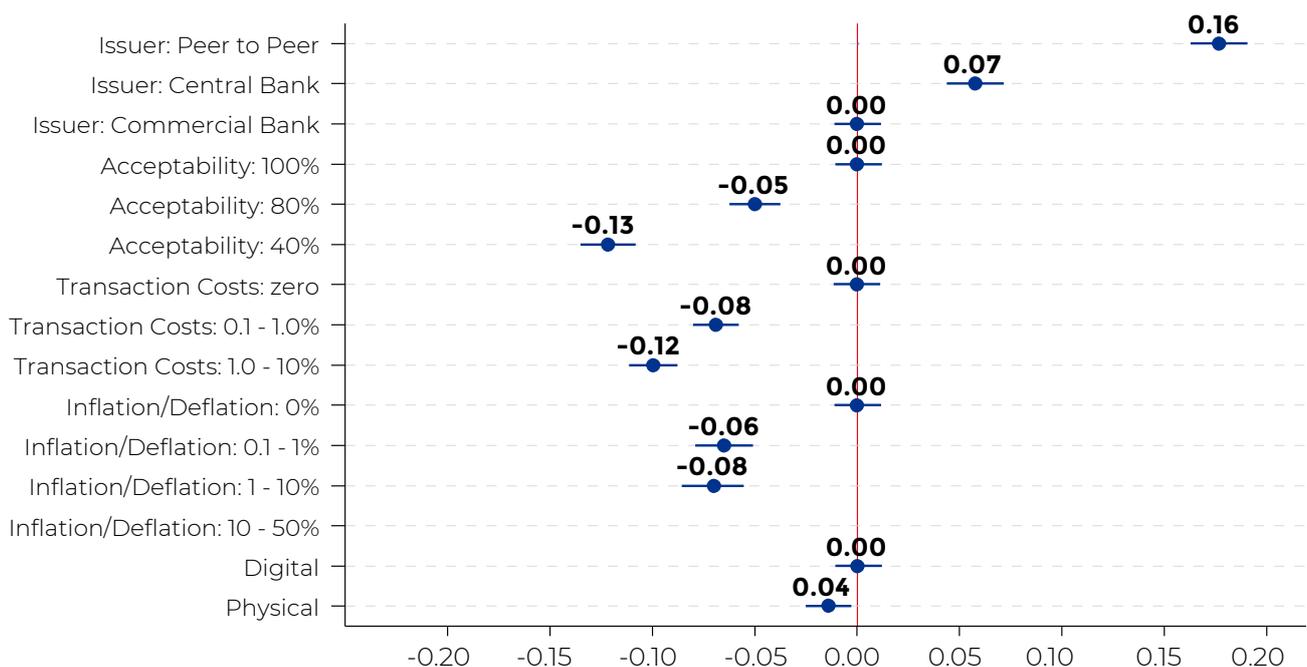
ATTRIBUTE	ATTRIBUTE CHARACTERISTIC
ISSUER/BACKER	<ul style="list-style-type: none"> <li>• Central bank</li> <li>• Private sector commercial bank</li> <li>• Private Sector peer-to-peer network</li> </ul>
ACCEPTABILITY	<ul style="list-style-type: none"> <li>• All sellers accept the currency</li> <li>• 80% of sellers accept the currency</li> <li>• 40% of sellers accept the currency</li> </ul>
TRANSACTION COST	<ul style="list-style-type: none"> <li>• Zero</li> <li>• 0.1-1% of the transaction value</li> <li>• 1-10% of the transaction value</li> </ul>
PRICE STABILITY	<ul style="list-style-type: none"> <li>• Max monthly inflation/deflation of 0 % (100=100)</li> <li>• Max monthly inflation/deflation of 0 - 1% (100 = 99, or 100=101)</li> <li>• Max monthly inflation/deflation of 1 - 10% (100 = 90, or 100=110)</li> <li>• Max monthly inflation/deflation of 10 - 50% (100 = 50 or 100 = 150)</li> </ul>
DIGITAL/PHYSICAL	<ul style="list-style-type: none"> <li>• Digital</li> <li>• Physical</li> </ul>

To give an idea of what each of these frames would look like an example is provided below where respondents would be asked to choose their preferred one of the three hypothetical currencies with predefined characteristics across each of the five attributes.

Each of these five attributes was assigned between two and four options shown below.

	CURRENCY 1	CURRENCY 2	CURRENCY 3
MONEY ISSUER	Central Bank	Private sector corporation	Private sector peer-to-peer
LEVEL OF ACCEPTABILITY	80% of sellers accept the currency	All sellers accept the currency	40% of sellers accept the currency
COST OF TRANSACTION	Fee of between 0.1 and 1% of the transaction value	Fee of between 1 and 10% of the transaction value	Zero
PRICE STABILITY	100 (local currency) could be worth between 99 and 101 next month	100 (local currency) will be worth 100 next month	100 (local currency) could be worth between 90 and 110 next month
DIGITAL OR PHYSICAL	Digital	Digital	Physical

This gives us over 30,000 (1,000 respondents with ten frames of three options) observations reflecting the preferences of French residents for money across our five attributes. The easiest way to interpret the results in a meaningful way is by examining the average marginal effects of each attribute choice. Effectively, these can be viewed as premiums/discounts placed on specific characteristics of money. For example, we can see from the figure below that residents of France place a significant premium on central bank issued money and are very averse to low acceptability rates. The advantage of using a conjoint based approach is that we can directly compare different characteristics with each other. Looking at the figure below residents of France have a strong aversion to currencies which have limited acceptability, especially when it is below 50%. There is also a fairly strong aversion to transaction costs (above 0%) and high levels of inflation (there does seem to be tolerance of moderate levels of inflation). Lastly, when comparing digital with physical money, French residents still appear to have a slight preference for physical cash.



SOURCE: IE Survey 'Cryptocurrencies and The Future of Money'

Thinking about these results in the context of current types of money, cash, credit cards, and debit cards in France all have very high levels of acceptability and relatively low transaction costs. Since the European Central Bank targets inflation rate as its monetary policy, we can expect low levels of inflation with cash, credit cards and debit cards. Overall, these three highly used types of money score quite highly in the context of the conjoint analysis. Comparing this with existing cryptocurrencies, all have very low levels of acceptability and large price fluctuations which are two of the least desired characteristics of money. As noted above, these also confirm a trust premium enjoyed by the European Central Bank relative to both commercial banks.

All of this suggests that cryptocurrencies, especially those which are privately issued, have a long way to go before they gaining the ability to compete with or overtake traditional forms of money like cash, credit cards and debt cards backed by central and commercial banks in France.



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