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Crypto-asset ownership among Spanish households

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Rationale

Crypto-assets have become an important economic and social phenomenon, associated with new ways of managing savings and investment. This article analyses their degree of penetration in Spain, the characteristics of their holders and their share in households' financial wealth.

Takeaways

- Spanish households' direct exposure to crypto-assets is limited. 4.8% of the Spanish population owned crypto-assets in 2021. For 80% of households owning crypto-assets, the share of these products in their financial portfolio did not exceed 10% in 2022.
- Crypto-asset ownership is more prevalent among young men with a higher level of education and greater financial literacy. Crypto-asset holders consider themselves risk-tolerant, claim to plan their personal finances and also invest in other assets, such as shares and investment funds. They do not show any signs of rejecting the traditional financial system.
- 0.6% of households hold a substantial portion of their wealth in crypto-assets, which entails greater exposure to the risks associated with these assets.

Keywords

Crypto-assets, holder profile, financial competences, financial risk, households, Spanish Survey of Household Finances, Survey of Financial Competences.

JEL classification

D14, G11, G53.

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Introduction

Crypto-assets have gained prominence in recent years within the financial system and appear to have established themselves as investment instruments.[1] Crypto-assets are digital assets that can be transferred and stored electronically using distributed ledger technology or other similar technologies (Financial Stability Board, 2022). The best-known group of crypto-assets are cryptocurrencies (such as Bitcoin or Ethereum), which represent the most widespread form of this type of asset.[2]

The unconventional nature of these products raises questions about how they work and their risks for holders. While they are beginning to be subject to specific regulatory frameworks,[3] these assets have historically operated outside traditional financial channels. The Banco de España's Financial Stability Report (FSR) notes that the valuation of crypto-assets is highly volatile, especially in the case of those not backed by traditional financial assets. It also warns of the difficulties in monitoring the activity of this market (Banco de España, 2025).

For Spain, there are few systematic sources that quantify their market penetration or the motivations of their holders. This article aims to characterise crypto-asset holders in Spain: it identifies their socio-demographic characteristics and analyses their level of financial competences and attitudes towards risk, as well as their ownership of other assets, their relationship with the traditional financial system and their attitudes towards saving. This paper also quantifies for the first time the share of households' financial wealth accounted for by these assets.

This is carried out based on data from the Survey of Financial Competences (ECF, 2021) and the Spanish Survey of Household Finances (EFF, 2022). These surveys feature large representative samples of the Spanish population[4] that make it possible to study the aforementioned elements. It should be noted that the data used in this analysis correspond to 2021 and 2022 and, therefore, the conclusions should be interpreted in the context of that time.

Ownership of crypto-assets and their share in households' financial portfolios

Households' financial exposure to crypto-assets requires studying two dimensions: the proportion of the population that owns this type of asset and the share it represents in their portfolios.

1 The study on the payment attitudes of consumers in the euro area (SPACE), conducted by the European Central Bank (ECB), asks those who report owning crypto-assets about their main use of these assets. 59% state that they use them as an investment instrument, 19% as a means of payment and 20% for both purposes (ECB, 2024).

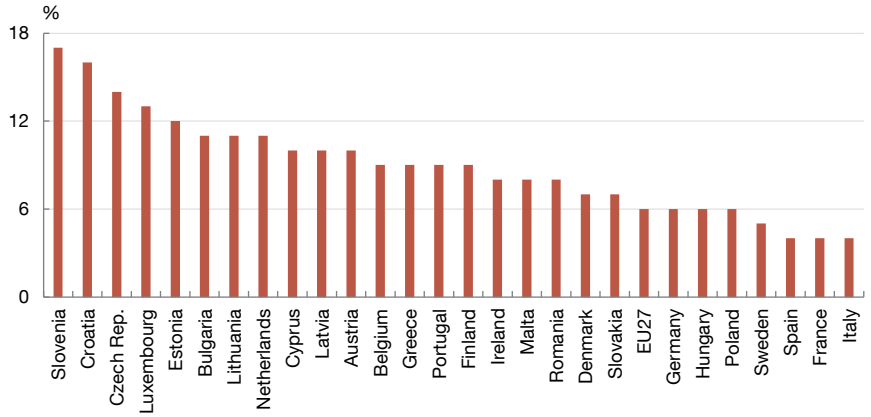
2 In this article, we have chosen to use the term "crypto-asset" systematically, despite the fact that in the surveys used for the analysis the question refers to the ownership of cryptocurrencies.

3 Regulation (EU) 2023/1114 on markets in crypto-assets (MiCA) aims to establish a common regulatory framework for such markets in the European Union (EU), allowing, inter alia, for regulating the issuance, offering and trading of crypto-assets, protecting holders and establishing requirements for providers of related services.

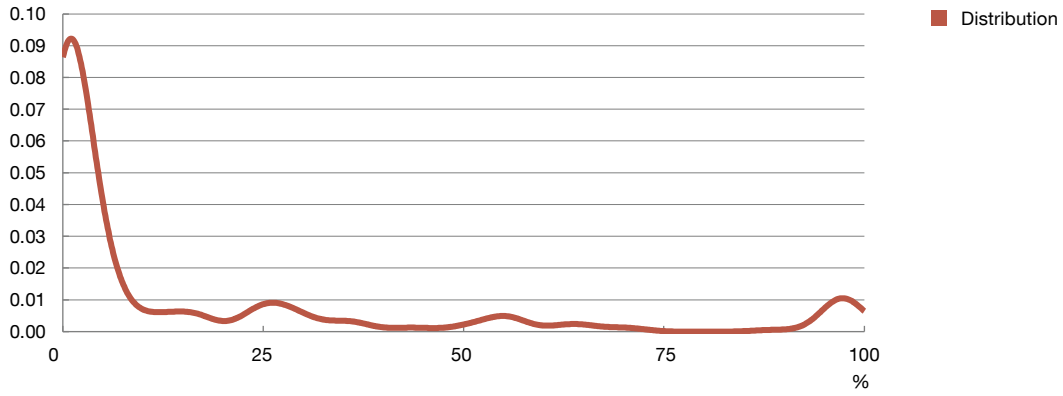
4 See Hospido, Machelett, Pidkuyko and Villanueva (2023) and Banco de España (2024).

Chart 1
Ownership and share of crypto-assets

1.a Percentage of individuals who own crypto-assets in EU countries (a)



1.b Distribution of the share of households' financial wealth held in crypto-assets (b)



SOURCES: Flash Eurobarometer 525 (2023) and Spanish Survey of Household Finances (2022).

a The Eurobarometer questionnaire asks respondents which financial products they own or have owned in the past two years. The sample consists of individuals aged 18 and over in each of the 27 Member States. The interviews were carried out online between 29 March and 5 April 2023.
b The distribution is estimated using a kernel density estimator, which provides a smoothed representation. A positive value around 0% indicates that a significant number of households concentrate a very small proportion (close to zero but not entirely negligible) of their financial wealth in crypto-assets. Only the 200 households that reported owning crypto-assets in the EFF are included.

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According to the 2023 Flash Eurobarometer 525, 6% of the EU population owns crypto-assets (see Chart 1.a), with this proportion standing at 4% in Spain (EU, 2023). Other sources give similar estimates for Spain: a study by the Spanish National Securities Market Commission (CNMV) puts the proportion of individuals investing in crypto-assets at 4.2% in 2022 (De Miguel Rato and Palomar Bueno, 2022), while another study by the Spanish Savings Banks Foundation (Funcas) estimates 5% for 2021 (Carbó-Valverde, Cuadros-Solas and Rodríguez Fernández, 2021). SPACE suggests that this percentage may have increased recently, from 4% in 2022 to 9% in 2024 (ECB, 2024).

As mentioned in the introduction, this article draws on two data sources. Firstly, the ECF provides information at the individual level, which allows us to estimate the proportion of people who own crypto-assets and, further on, to characterise their socio-demographic and financial profile. Secondly, the EFF gathers data at the household level, including details on income, wealth, debts and expenditure. Thus, if any of the household members declare that they own crypto-assets, it is possible to calculate their share within the household's financial wealth.[5]

According to the ECF, 84% of the population in Spain have heard of crypto-assets, 5.2% state that they have owned them in the last two years and 4.8% claim to have crypto-assets at the time of the interview.

Furthermore, EFF data show that, for most households, crypto-assets constitute a small fraction of their financial portfolio. An analysis of Chart 1.b shows that, for 80% of the households that own crypto-assets, their value accounts for less than 10% of total household financial wealth. However, there is a minority of households, around 130,000, for which these assets represent a substantial portion of their financial wealth. This significant exposure entails a higher degree of vulnerability to fluctuations in their value.

Socio-demographic profile of crypto-asset holders

Drawing on ECF data, the socio-demographic characteristics of individuals holding crypto-assets are compared with those of the rest of the population along four dimensions: age, gender, educational level and living with parents (see Chart 2). This analysis makes it possible to identify which segments of the population are most exposed to the risks arising from this product.

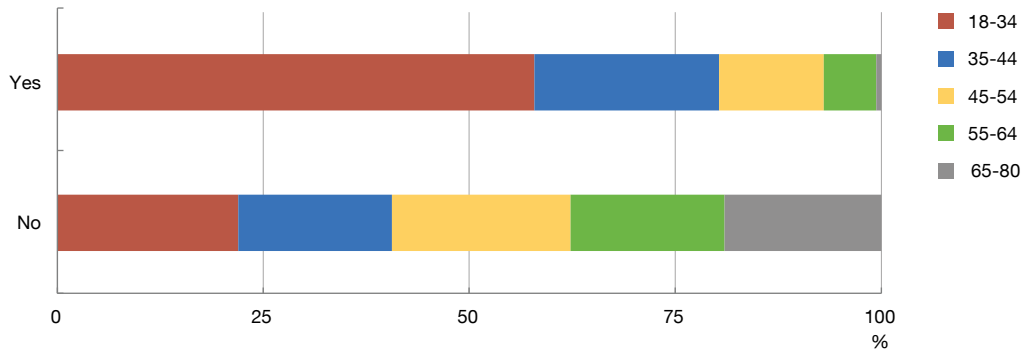
In 2021, ownership was concentrated in the younger generations: 80% of crypto-asset holders were aged under 45. Of these individuals, 33.8% live in the parental home, as compared with 15.8% of the rest of the population aged under 45. There is also a strong predominance of men, as women account for only 26.8% of crypto-asset holders. The proportion of university-educated individuals among crypto-asset holders is 10 percentage points (pp) higher than that of the rest of the population. Among crypto-asset holders, 3.2% have only primary education, while this proportion rises to 15.9% in the rest of the population. The results thus delineate a specific profile: male, young, living with their parents and with a higher level of education than the rest of the population.[6]

5 The EFF measures financial wealth on the basis of the ownership and value of the following assets: accounts and deposits usable for payments, accounts not usable for payments, home savings accounts, listed shares, investment funds, debt securities, pension plans and life insurance, unlisted shares and equity, and other financial assets.

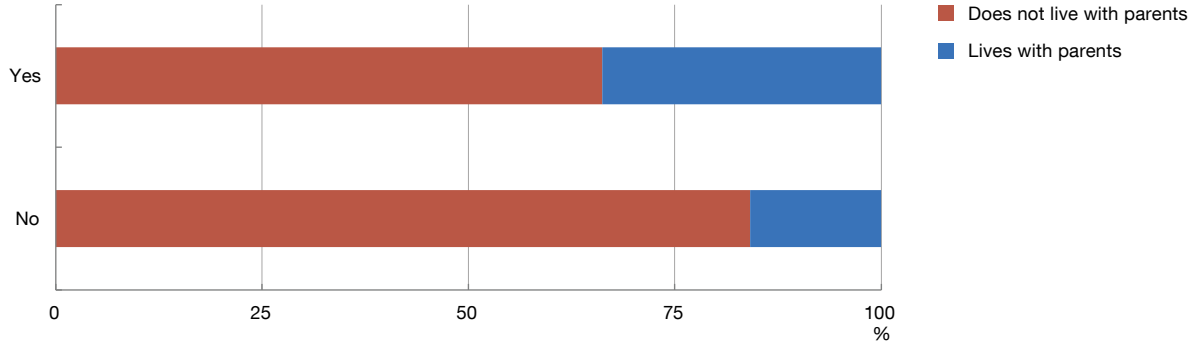
6 In addition, a multivariate regression model is estimated in which the dependent variable is crypto-asset ownership and the explanatory variables are each of the socio-demographic factors studied in this section. This exercise allows the individual effect of each socio-demographic characteristic to be isolated and potential confounding factors to be controlled. All the variables included show statistically significant associations with crypto-asset ownership.

Chart 2
Socio-demographic profile of crypto-asset holders (a)

2.a Age



2.b Living with parents (b)



SOURCE: Survey of Financial Competences (2021).

a In each chart, the proportions shown in the upper bar refer to individuals who own crypto-assets and those shown in the lower bar refer to individuals who do not.
b The ECF collects information about the structure of the respondent's household. The variable "Living with parents" is constructed based on whether the respondent reports that they live with at least one of their parents.

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Financial competences, attitude towards risk and preference for present consumption

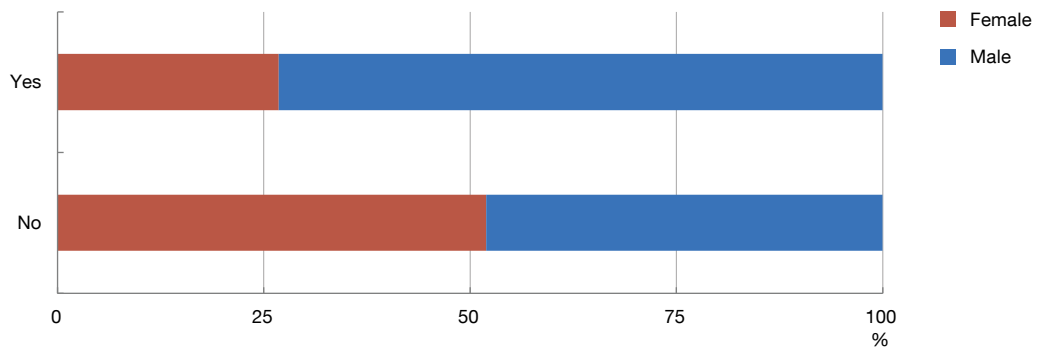
The ECF gathers information on certain financial traits of respondents: attitude towards risk, preference for present consumption[7] and level of financial competences.[8] These are determining factors in financial decision-making and make it possible to analyse the risks that such decisions entail for the population.

7 The present consumption preference variable is constructed from a question in the ECF, which gives respondents a choice between receiving an amount of money in the present (€2,000) or a higher amount in one year (€2,200).

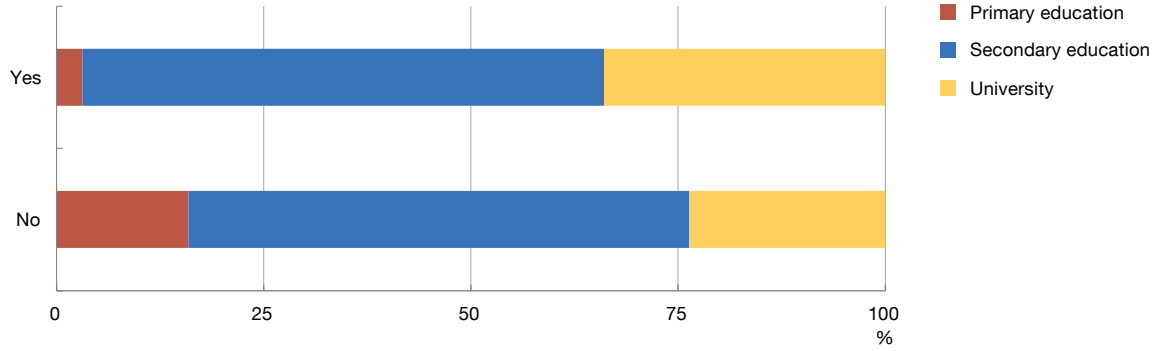
8 Objective financial competences are measured using four general questions that have previously been used in several international studies and by the Organisation for Economic Co-operation and Development (Lusardi and Mitchel, 2014). Each question measures respondents' understanding of four different concepts: inflation, simple interest, compound interest and risk diversification. In this article, an index is constructed that measures the number of questions the individual answers correctly.

Chart 2
Socio-demographic profile of crypto-asset holders (a) (cont.)

2.c Gender



2.d Educational level



SOURCE: Survey of Financial Competences (2021).

a In each chart, the proportions shown in the upper bar refer to individuals who own crypto-assets and those shown in the lower bar refer to individuals who do not.

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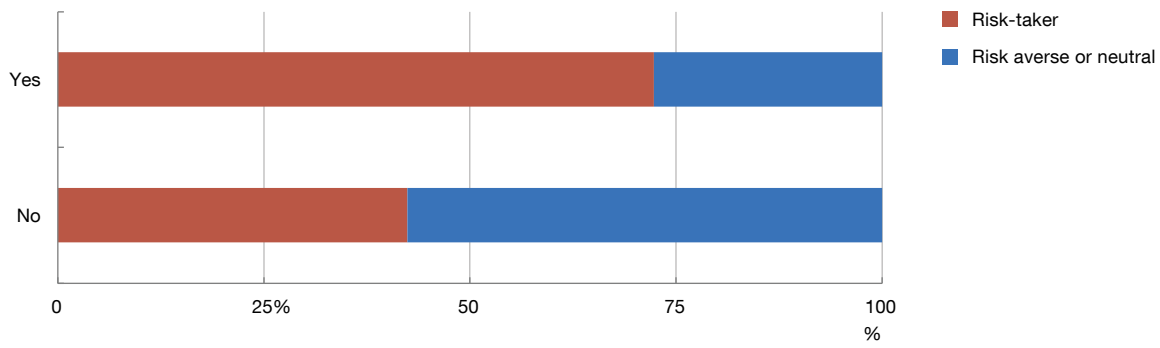
Chart 3.a shows the differences in attitudes towards risk: 72% of crypto-asset holders state that they are willing to risk a little money when saving in exchange for a higher future return (i.e. they can be categorised as risk-takers), as compared to 42% of the rest of the population. In the case of the preference for present consumption, Chart 3.b shows that the gap is narrower, with a percentage of respondents reporting a preference for present consumption over future consumption 10 pp lower among crypto-asset holders than among non-crypto-asset holders.

Chart 3.c shows that 17% of crypto-asset holders state that they have a high level of financial literacy, as compared to 8% of the rest of the population. Furthermore, the proportion of crypto-asset holders who answer four financial competence questions correctly is 18 pp higher than the rest of the population (see Chart 3.d). Likewise, the proportion of individuals who do not answer any question correctly or answer only one question correctly is 15 pp lower among crypto-asset holders.

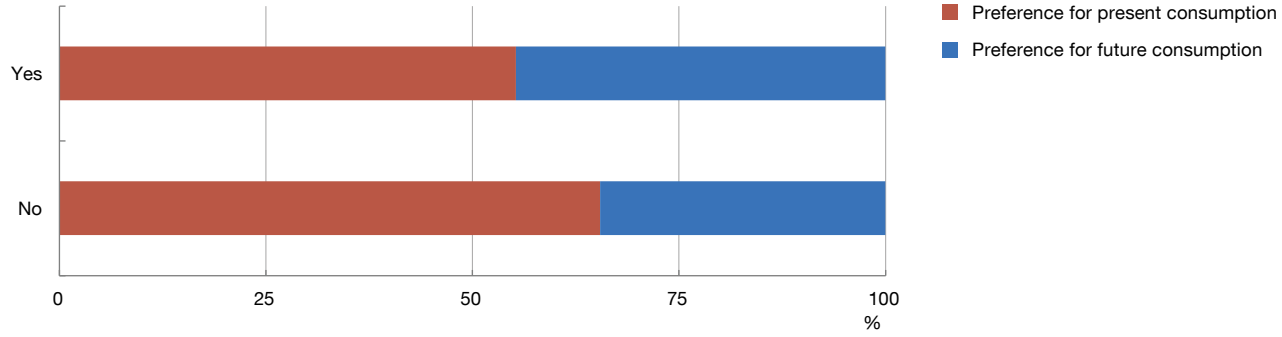
In order to analyse the relationship of these variables jointly, Chart 4 presents the regression coefficients of a linear probability model comparing individuals with similar demographic

Chart 3
Attitude towards risk, preference for present consumption and financial competences (a)

3.a Attitude towards risk



3.b Preference for present consumption (b)



SOURCE: Survey of Financial Competences (2021).

a In each chart, the proportions shown in the upper bar refer to individuals who own crypto-assets and those shown in the lower bar refer to individuals who do not.
b Preference for present consumption is measured using a question included in the ECF (2021) that offers respondents a choice between receiving €2,000 today (present consumption) or €2,200 in one year (future consumption).

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characteristics (age, gender, household structure and level of education). Individuals willing to assume risks in exchange for higher returns are 3.7 pp more likely to own crypto-assets than those who adopt a risk-averse or risk-neutral attitude. There is not, however, an association that is statistically different from zero between crypto-asset ownership and the present consumption preference variable.

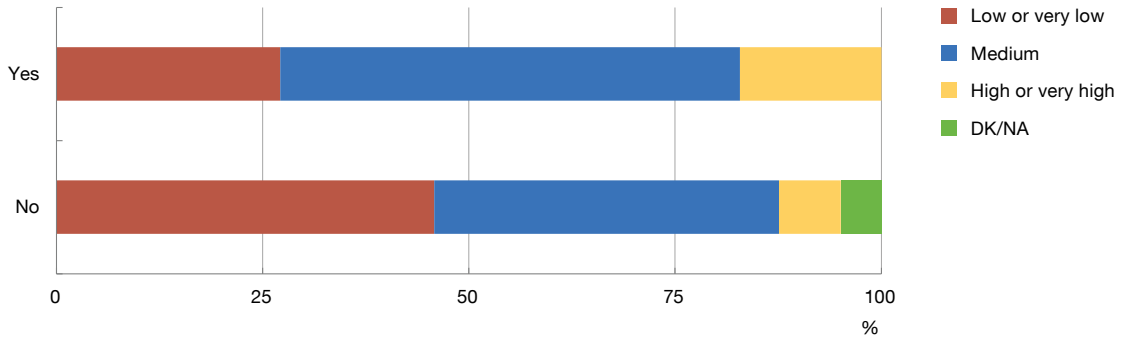
Furthermore, the analysis of financial competences shows that individuals who answer the four financial competence questions correctly and those who have a high perception of their level of financial literacy are 5.1 pp and 2.6 pp more likely, respectively, to own crypto-assets than the rest of the population.

These results reinforce the profile identified in the analysis and suggest that crypto-asset ownership is associated with a greater willingness to take risks and with higher levels of financial literacy, as well as greater confidence in one's own financial knowledge.

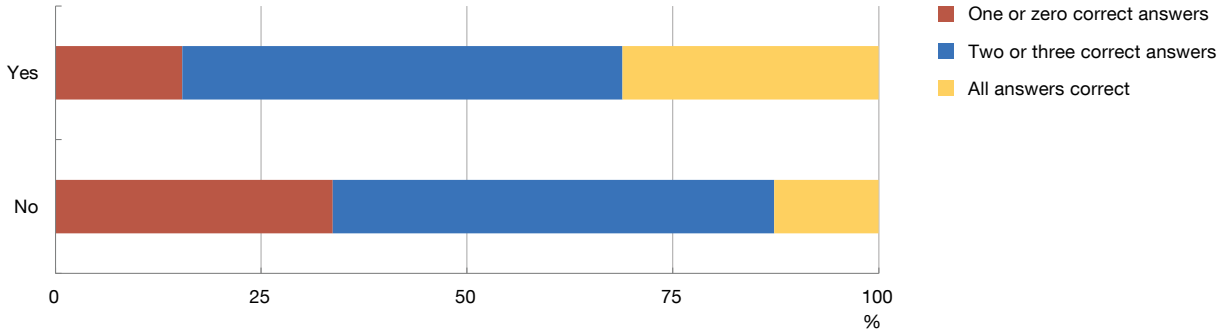
Chart 3

Attitude towards risk, preference for present consumption and financial competences (a) (cont'd)

3.c Self-perceived financial knowledge



3.d Number of questions answered correctly (b)



SOURCE: Survey of Financial Competences (2021).

a In each chart, the proportions shown in the upper bar refer to individuals who own crypto-assets and those shown in the lower bar refer to individuals who do not.
b Based on four questions assessing respondents' understanding of inflation, simple interest, compound interest and risk diversification, a variable is constructed reflecting how many were answered correctly by the respondent.

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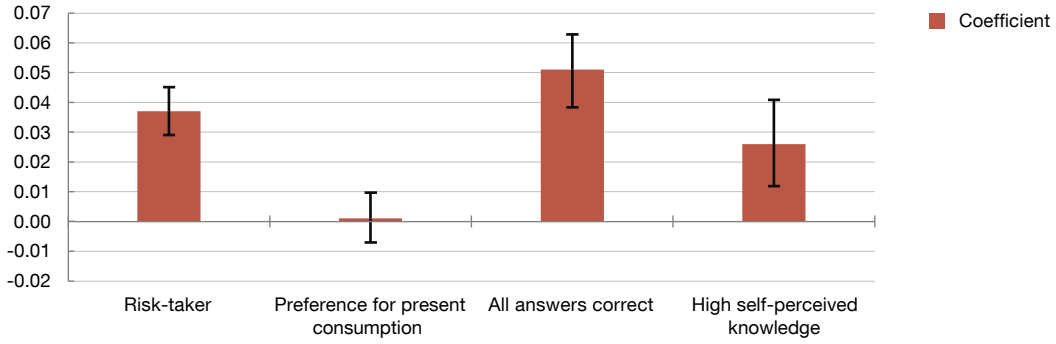
Ownership of other risky assets and confidence in banks

Once the individual financial traits of crypto-asset holders have been detected, the composition of the portfolio of the households in which they live and their attitudes towards banks are examined.[9]

For most households, crypto-assets account for a small share of their financial portfolio. The ECF provides data on the ownership of various financial products. In order to analyse the association between crypto-asset ownership and the ownership of other assets, Chart 5.a shows the regression coefficients of a linear probability model that compares individuals with the same socio-demographic characteristics (age, gender, household structure and educational level). The results show that,

9 To analyse the ownership of other financial assets, individual-level EFF data are used. The EFF gathers information on households' confidence in banks. However, these attitudes correspond to the reference person and not necessarily to the household member who owns crypto-assets. In the EFF, the reference person is the person who responds to the survey and is most knowledgeable about the household's finances.

Chart 4
Relationship between attitudinal characteristics, financial competences and crypto-asset ownership (a)



SOURCE: Survey of Financial Competences (2021).

a The chart shows the regression coefficients of a linear probability model. The dependent variable is crypto-asset ownership and socio-demographic controls are included (age, gender, educational level and household structure). Each bar represents the magnitude of the estimated coefficient of the model's explanatory variables, and the lines denote the 90% confidence interval.

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compared to the rest of the population, those who own investment funds are 3.2 pp more likely to invest in crypto-assets, while for those who own listed shares, the probability is 4.2 pp higher.

Furthermore, we analyse whether the adoption of crypto-assets is associated with a critical or distrustful attitude towards the traditional financial system, given the alternative nature of this type of asset. Two questions from the EFF are used to capture the assessment of the banking services received and the level of confidence in banks of the household reference person. The results in Chart 5.b show that households where the reference person expresses a distrust of financial institutions have a similar probability of owning crypto-assets as other households.

Overall, the acquisition of crypto-assets does not seem to arise from a rejection of the traditional financial system and their ownership is associated with other risky financial products.

Attitudes towards saving

The ECF explores individual attitudes towards saving. Respondents are asked to agree or disagree with 16 statements addressing various aspects of personal financial management, such as long-term planning, expenditure tracking, use of credit or perception of personal financial situation. These statements are detailed in Table 1.

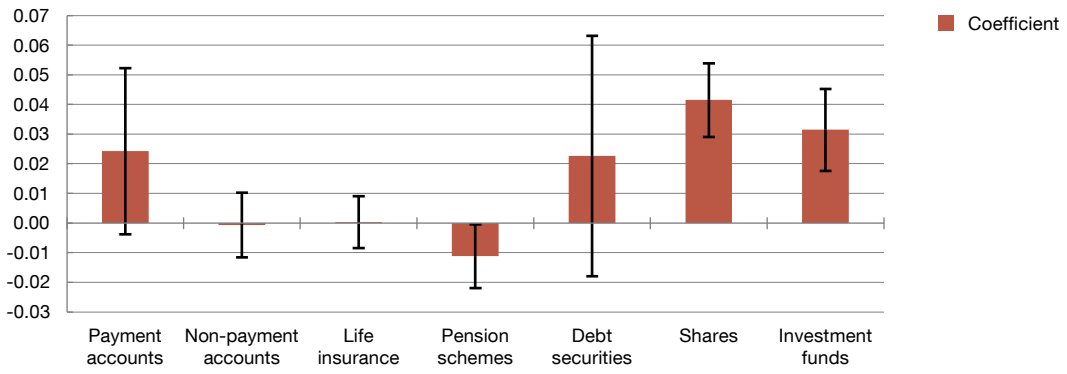
An analysis is conducted of how these traits predict crypto-asset ownership, by means of a linear regression model and a machine learning model.[10] Both models yield similar results (see Table 1).

10 The linear regression model identifies the scale and direction of the associations observed. The LASSO regularised regression model is trained on a subset of the total observations and its parameters are validated on the remaining observations. Thus, it selects variables and estimates their coefficients based on their predictive ability outside the sample used to estimate it. See Tibshirani (1996).

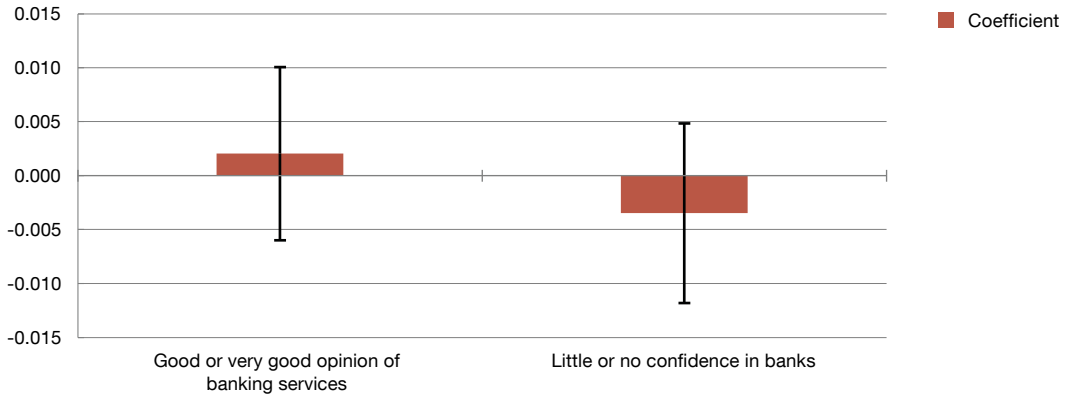
Chart 5

Ownership of financial assets and liabilities and confidence in the traditional financial system

5.a Relationship between ownership of other financial assets and crypto-asset ownership (a)



5.b Relationship between confidence in banks and crypto-asset ownership (b)



SOURCES: Survey of Financial Competences (2021) and Spanish Survey of Household Finances (2022).

a The chart shows the regression coefficients of a linear probability model. The dependent variable is crypto-asset ownership and socio-demographic controls are included (age, gender, educational level and household structure). Each bar represents the magnitude of the estimated coefficient of the model's explanatory variables, and the lines denote the 90% confidence interval.

b The chart shows the regression coefficients of a linear probability model. The dependent variable is crypto-asset ownership and socio-demographic controls are included (age, gender, educational level and total household income). Each bar represents the magnitude of the estimated coefficient of the model's explanatory variables, and the lines denote the 90% confidence interval.

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Crypto-asset owners are more active in and more focused on controlling their economic situation than the rest of the population. In particular, crypto-asset ownership is positively associated with the statement "I set long-term financial goals", which points to greater planning in their savings or investment decisions. Also, crypto-asset holders do not resort to credit to finance consumption and they do not consider themselves to be particularly constrained by their financial situation, although they would like to improve it.

In line with the above, the results show that crypto-asset owners regularly devote time to handling their finances, a trait that emerges as one of the main predictors of crypto-asset ownership. Crypto-asset holders also report a lower degree of satisfaction with their financial situation, which could reflect a more demanding or critical perception of their current financial status.

Table 1
Relationship between attitudes towards saving and crypto-asset ownership

	OLS (1)	LASSO (2)
I worry about my spending	0.021	0.014
	(0.013)	
I assess whether I can afford it	-0.002	-0.001
	(0.007)	
I am too busy to manage my finances	-0.011*	-0.008
	(0.006)	
I keep an eye on my finances	-0.0010	•
	(0.006)	
I set long-term financial goals	0.028***	0.028
	(0.005)	
I get by day to day	-0.007	-0.003
	(0.006)	
I pay my bills on time	0.012	0.012
	(0.011)	
I worry that the money won't last	-0.007	-0.012
	(0.006)	
My financial situation worries me	-0.006	-0.001
	(0.006)	
My finances hold me back	-0.018***	-0.017
	(0.006)	
I am too deep in debt	-0.002	•
	(0.008)	
Money is for spending	0.005	0.004
	(0.005)	
I prefer spending over saving	0.007	0.002
	(0.008)	
I prefer buying on credit	-0.014*	-0.016
	(0.008)	
I am satisfied with my financial situation	-0.029***	-0.021
	(0.005)	
Observations	7,764	7,764
Socio-demographic + financial competence controls	Yes	Yes
Household structure controls	Yes	Yes

SOURCE: Survey of Financial Competences (2021).

a Column 1 reflects the results of a linear probability model where the dependent variable is crypto-asset ownership. The table shows the estimated coefficients and the standard errors in brackets. Asterisks denote statistical significance levels: (*) $p < 0.10$; (**) $p < 0.05$; and (***) $p < 0.01$. Variables with a statistically significant result in the model are highlighted in bold.
b Column 2 presents the results of a LASSO regression model that considers all the variables included in the Column 1 ordinary least squares (OLS) model and selects those with a higher predictive value. Non-selected variables are indicated with a dot. See Tibshirani (1996).

Conclusions

Although crypto-assets have gained visibility in the public and financial debate, the data presented in this article confirm that ownership of crypto-assets is still relatively limited among the Spanish population and their share within households' financial wealth is low.

The joint analysis of socio-demographic, financial and attitudinal variables allows us to outline a profile of crypto-asset holders: young men, many of whom live with their parents, with a higher level of education, a high risk tolerance and a higher level of financial competences. Crypto-asset ownership also seems to be associated with the ownership of other conventional risky financial products, such as investment funds or listed shares and, for most households, the share of crypto-assets in their financial wealth is low.

These results should be interpreted with caution. Firstly, the analysis focuses on direct exposure to crypto-assets, without capturing possible forms of indirect exposure through funds, structured products or managed portfolios that include crypto-assets among their components. Secondly, although most households have a low proportion of their wealth concentrated in these assets, there is a minority segment – 0.6% of the total, equivalent to around 130,000 households – with a high concentration, which represents a risk in terms of exposure. Given that many of the current crypto-asset holders are young people still living with their parents, it will be necessary to monitor whether, as these individuals form new households, their relationship with these assets is maintained or evolves in other directions.

REFERENCES

Banco de España. (2024). "Spanish Survey of Household Finances (EFF) 2022: methods, results and changes since 2020". Documento Ocasional, 2413, Banco de España. https://repositorio.bde.es/handle/123456789/37692

Banco de España. (2025). *Financial Stability Report. Spring 2025.* Banco de España. https://repositorio.bde.es/handle/123456789/39987

Carbó-Valverde, Santiago, Pedro J. Cuadros-Solas and Francisco Rodríguez Fernández. (2023). "Criptoactivos en el nuevo contexto financiero: tipos de interés, precio y adopción". *Papeles de economía española,* 178, pp. 118-144. https://www.funcas.es/wp-content/uploads/2024/01/PEE-178_Carbo_Cuadros_Rodriguez.pdf

De Miguel Rato, David and María José Palomar Bueno. (2022). "Results of the survey on crypto-currencies and effectiveness of the measures promoted by the CNMV". *CNMV Bulletin, Quarter III,* pp. 119-146. https://www.cnmv.es/DocPortal/Publicaciones/Boletin/BT_III_ENen.pdf#page=119

ECB. (2024). *Study on the payment attitudes of consumers in the euro area (SPACE) – 2024.* European Central Bank. https://doi.org/10.2866/2856633

EU. (2023). *Flash Eurobarometer 525 Monitoring the level of financial literacy in the EU.* https://europa.eu/eurobarometer/surveys/detail/2953

Financial Stability Board. (2022). *Assessment of Risks to Financial Stability from Crypto-assets.* https://www.fsb.org/uploads/P160222.pdf

Hospido, Laura, Margarita Machelett, Myroslav Pidkuyko and Ernesto Villanueva. (2023). *Survey of Financial Competences 2021.* Banco de España. https://doi.org/10.53479/34792

Lusardi, Annamaria and Olivia S. Mitchell. (2014). “The Economic Importance of Financial Literacy: Theory and Evidence”. Journal of Economic Literature, 52(1), pp. 5-44. https://doi.org/10.1257/jel.52.1.5

Tibshirani, Robert. (1996). “Regression Shrinkage and Selection Via the Lasso”. *Journal of the Royal Statistical Society Series B: Statistical Methodology,* 58(1), pp. 267-288. https://doi.org/10.1111/j.2517-6161.1996.tb02080.x

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