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Crypto assets in Austria: an assessment of their prevalence and the motives of their holders

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Security through stability.

Crypto assets in Austria: an assessment of their prevalence and the motives of their holders

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In this study, we analyze data from a preliminary survey designed to evaluate the inclusion of questions regarding crypto asset holdings of households in the Austrian segment of the Eurosystem Household Finance and Consumption Survey (HFCS). Our objective is to examine the extent of crypto asset ownership within the Austrian population and to explore the motivations behind these holdings.

Our findings reveal that a consistent, albeit small, proportion of individuals hold relatively modest quantities of crypto assets. Demographically, crypto asset holders tend to be younger than the average and predominantly male. Notably, a significant proportion of crypto asset owners (41%) in Austria initiated their investments in 2019. On average, they hold relatively low amounts of crypto assets, with the median value hovering around EUR 6,000 and the 90th percentile near EUR 6,500. Even when evaluating across various levels of crypto asset holdings, the average proportion of these assets in crypto asset owners' overall financial portfolios remains below 30% across the full distribution of crypto assets and below 15% for owners whose holdings exceed EUR 5,000. The primary motivations cited for owning crypto assets are their speculative potential for profiting from market fluctuations (36% of stated reasons), owners' curiosity about new technology (27%) and their desire to diversify portfolios of risky assets (12%).

JEL classification: E44; G29
Keywords: crypto assets; financial risk; household survey

Since the bitcoin network was established almost 15 years ago, crypto assets have attracted increasing and significant public attention and substantial economic activity.[2] Specialized exchanges have emerged where the trading of crypto assets against official currency subjects crypto assets to permanent market evaluation. So far, the market prices of bitcoin and other crypto assets have been characterized by pronounced volatility, with a number of multi-month rallies leading to successive peaks in market valuation, often followed by substantial downturns.

Although crypto asset markets have lacked comprehensive regulation so far and crypto asset market prices exhibit persistent volatility, individual owners' risks associated with crypto asset exposure have not translated into economy-wide financial stability risks in the past, mainly due to the sector's modest size and limited interconnectedness with the broader financial system (ECB, 2019; FSB, 2022). Surveying crypto asset ownership is a means for central banks to monitor crypto asset markets' potential to become a possible future source of financial stability risks. Because of evidence that, in recent years, public attention to crypto assets has been misused for substantial scamming and misleading promotion activities (FCA, 2023b; FMA, 2024), information

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[2] A recent survey conducted in the UK testifies to crypto assets having become a widely known component of popular culture. "Awareness of crypto assets has risen significantly since 2021 – [in 2023,] 91% of adults surveyed [said] they [had] heard of crypto assets up from 78% in 2021." (FCA, 2023a).

about households' perception of crypto assets provides important input to the design of any public policies aimed at addressing these problems.

1 Data

In this section, we review the current availability of data on crypto assets from a general viewpoint in subsection 1.1 and introduce the survey data we use in our study in subsection 1.2.

1.1 Data on crypto assets

The observation of crypto asset markets is currently hampered by a lack of reliable data. In a recent report, the Financial Stability Board (FSB) summarized global regulatory and supervisory concerns around this issue, diagnosing a "lack of transparent, consistent and trusted data on crypto asset markets and their linkages with the core financial system" (FSB, 2022). Bitcoin and many crypto asset projects it inspired are designed as networks for creating, storing and transferring electronic entries in databases run by voluntary participants with no responsible entity behind them. Over time, markets have developed where these database entries are valued and traded as assets. Assets that lack a responsible issuing entity located in a specific jurisdiction not only lack a source of economic guarantee that holds backing assets to support their value but also a legal addressee that can be subjected to regulation and reporting requirements. Over time, crypto asset markets have evolved to an extent that most of their segments now rely on various intermediaries enabling economic activities associated with crypto assets. These intermediaries facilitate a range of financial functions such as buying, selling, trading against official currency, storing crypto assets in digital wallets, borrowing against crypto asset holdings and lending crypto assets for interest. Nonfinancial functionalities are also expanding, including smart contracts that automatically execute agreements between parties, decentralized applications (dApps) that operate on blockchain technology, and the use of crypto assets for digital identity verification. The development of various other financial and nonfinancial functionalities is subject to ongoing research and entrepreneurial activities within the crypto asset sector. Regulatory authorities at the EU and national levels have started to apply both existing and new regulations on crypto asset-related activities. A comprehensive EU regulatory framework for crypto asset markets was finalized in 2023 (EU, 2023). Economic data based on any regulatory reporting requirements derived from this framework will take some additional time to become available.

In the meantime, demand for crypto asset data has been catered for by commercial data publishing entities and promoters and providers of crypto services, based on information supplied by crypto intermediaries like exchanges and by crypto asset owners participating in surveys or resulting from blockchain data analysis. Because the quality, reliability and interpretation of results from many of these sources is difficult to assess due to a lack of mandatory reporting requirements and limited transparency and standardization with respect to data and methods, some central banks and financial regulatory and supervisory authorities have made attempts to produce more reliable data on their own by conducting and publishing user surveys on crypto asset ownership among households. Nonreliable survey results based on nonrepresentative sampling methods often suggest that a large and growing share of the population owns bitcoin, often referring to households' purchases of this crypto asset as an "adoption" by "users," as if there were any special activities associated with bitcoin ownership beyond owning and trading them like any other items of a portfolio. Such results are potentially misleading not only for policymakers but also for retail

investors as they may trigger psychological biases like the "fear of missing out" to the detriment of a proper assessment of risks associated with purchasing crypto assets.

In Europe, UK authorities have published detailed and informative surveys on households' crypto asset ownership for a number of years. The Financial Conduct Authority's most recent report finds that a rather high number of persons (close to one in ten UK citizens) may own crypto assets, but it points out an important caveat: "As this was an online only survey, the results do not include those adults that are digitally excluded. As a result, this may overestimate the number of crypto asset users." (FCA, 2023a). People who do not use computers will neither participate in online surveys nor be very likely to own digital assets like crypto assets. According to Statistics Austria, 6% of Austrians said they had not used the internet for several months, and 43% said they did not shop online (Statistics Austria, 2023). Under such circumstances, face-to-face interviewing seems more promising than online-only surveys when it comes to achieving representative results, always provided that cost and health considerations allow for personal interviews (during the COVID-19 pandemic, for instance, social distancing constrained non-online surveys).

In our 2022 OeNB Barometer survey, face-to-face interviews were possible, establishing favorable conditions for generating a picture of current crypto asset ownership in Austria that is as representative and accurate as possible. We used this survey as a pretest to explore the inclusion of crypto asset ownership in future waves of the comprehensive Household Finance and Consumption Survey (HFCS) carried out in Austria on behalf of the Eurosystem. To provide some hints at changes over time where appropriate, we report 2022 OeNB Barometer survey results in comparison with the results of a previous OeNB Barometer survey on household crypto asset ownership conducted in 2018 (Stix, 2021).

1.2 Experimental pretest data

As a pretest for the upcoming HFCS wave, we used the OeNB Barometer survey, a smaller, methodologically less sophisticated OeNB survey. Traditionally, the OeNB Barometer survey relied on computer-assisted personal interviewing (CAPI) only, with exemptions during the COVID-19 pandemic. For the 2022 wave, a CAPI/CAWI (computer-assisted web interviewing) mix was applied, including both face-to-face and online interviews. This approach allowed us to test the effect of differences in sampling schemes and modes on outcomes.

While CAPI interviews were conducted using the usual methodological approach (based on stratified multistage clustered random sampling), in addition two lower-quality variants of sampling-mode combinations of the survey design were used for the CAWI interviews:

1) **CAWI-access panel,** based on a random draw from the access panel (an IFES[3] interviewee pool) and CAWI. Conditional incentive (upon successful completion of interview): EUR 15 voucher.
2) **CAWI-push to web,** used to keep the sampling quality sufficiently high while allowing for a change in interview mode to CAWI. Individuals were invited by an invitation letter and a reminder to participate in an online interview (push to web). Postal addresses were used as the sampling frame. Conditional incentive (upon successful completion of interview): EUR 15 voucher.

[3] The Institute for Empirical Social Research (IFES) provides social, market and opinion research and has carried out HFCS interviews in Austria on behalf of Oesterreichische Nationalbank.

3) **CAPI,** based on a random sample from postal addresses and CAPI.

The list above ranks the three methods from the lowest to the highest quality: The first method uses CAWI based on a convenience sample; the second uses CAWI based on a random address sample; and the third method uses CAPI as an interview mode and is based on random sampling from postal addresses and CAPI interviews. A random sample generally provides higher-quality data than a convenience sample. This is because a convenience sample does not ensure the representativeness of results, nor does it allow for accurate uncertainty calculations, even when there is no unit or item nonresponse.

Table 1 illustrates the composition of our survey's pretest sample. It shows the response distribution across the different data collection methods. For the CAWI-access panel method, we secured a net sample of 460 participants from a gross sample of 2,942 persons, which resulted in a response rate of 15.6%. The CAWI-push to web method yielded a net sample of 18 respondents from a gross sample of 703 persons, translating to a notably lower response rate of 2.6%. The CAPI approach resulted in the most substantial response rate of 33.8%, with 953 respondents from a gross sample of 2,816 persons. These figures underscore the varying degrees of response each method achieved with the target population, with CAPI proving to be the most effective in terms of response rate. These differing response rates are critical for understanding the representativeness and potential biases in survey-based research, particularly when assessing the penetration of crypto asset ownership and related perceptions in the Austrian market. In our analysis, "individual-level crypto asset ownership" refers to the crypto asset ownership status of a single person within a household, whereas "household-level crypto asset ownership" refers to any crypto assets owned by one or more members of a household. The exact survey questions (in German) can be found in the annex.

Table 1

Pretest sample

	Gross sample	Net sample	Response rate
	Number		%
CAWI-access panel	2,942	460	15.6
CAWI-push to web	703	18	2.6
CAPI	2,816	953	33.8

Source: OeNB Barometer survey, HFCS crypto asset pretest 2022.

Table 2 compares the subsets of our pretest sample resulting from the three methods described above, focusing on estimates of the prevalence of crypto asset holders based on the different data collection methods.

The CAWI-access panel data indicate a higher incidence of crypto asset ownership, with 5.3% of individuals and 8.2% of households reporting holdings, both unweighted and slightly increasing to 5.3% and 8.9%, respectively, after weighting. This potentially reflects a selection bias toward internet-savvy respondents, a characteristic inherent to the online nature of the CAWI methodology.

The CAWI-push to web subset, while utilizing a true probability sampling approach akin to the CAPI sample and thereby yielding a more representative sample, still yields higher ownership rates, like the CAWI-access panel method, namely 6.3% (unweighted) for both the individual and

household levels, which adjusts to 5.3% after weighting. This could be due to the push-to-web approach still requiring internet usage, thus not entirely eliminating the bias toward more technologically inclined participants. However, as the push-to-web approach only yielded a very small unit nonresponse rate, it might also suffer from a large nonresponse bias. Given the small number (18) of respondents in this category, it is hardly possible to judge this approach in our study.

In contrast, the CAPI method, characterized by its probability-based sampling and face-to-face interviews, thus ensuring a more representative demographic cross-section, shows a lower ownership rate of 2.2% for individuals (2.8% when weighted) and 3.0% for households (3.9% when weighted). This suggests that the CAWI-access panel may overrepresent crypto asset ownership due to its internet user bias, whereas CAPI results are likely more indicative of the general population.

Thus, table 2 highlights how important it is to consider the mode of data collection in survey-based research, particularly when measuring phenomena such as crypto asset ownership that may be inherently linked to technology usage. The weighted estimates, adjusted to Austrian population demographics, serve to mitigate these biases and afford a more accurate depiction of crypto asset ownership across the country. However, it is imperative to note the OeNB Barometer survey's limitation in not incorporating nonresponse weights, a factor that must be taken into account when interpreting these findings.

Table 2

Pretest sample subset estimates

	Observations	Share of crypto asset holders			
		Individual level		Household level	
		Unweighted	Weighted	Unweighted	Weighted
	Number	*%*			
CAWI-access panel	460	5.3	5.3	8.2	8.9
CAWI-push to web	18	6.3	5.3	6.3	5.3
CAPI	953	2.2	2.8	3.0	3.9

Source: OeNB Barometer survey, HFCS crypto asset pretest 2022.

Note: Weights refer to post-stratification weights calculated for the overall sample, which reweight results to match the Austrian population (individual level, aged 16+) based on province of residence, gender, age, education and political party preference (standard weights for the OeNB Barometer survey). Like many other surveys, the OeNB Barometer survey does not allow for proper nonresponse weights.

Due to the small sample size and the low proportion of crypto asset owners (as shown in table 2), we are working with a limited number of observations. There are 66 crypto asset owners in our sample, of whom only 35 responded to the valuation question, resulting in a conditional response rate of 53%. In the CAPI sample, although the response rate improves to 64% (18 out of 28 crypto asset owners responded), the sample size remains very small. Consequently, we opted to provide robust percentile estimates and a binned scatter plot that comprehensively and clearly cover almost the entire distribution of the observed data but are more accessible compared to just plotting the few observations of crypto asset values and allow us to include weights in a meaningful way. We avoided calculating mean values or aggregate measures which could be misleading due

to the small sample size and the additional nonresponse issue. While the larger sample size and advanced methodology of the HFCS will help alleviate these issues identified in our pretest, they will not completely resolve them. To accurately track such a minor segment of potentially risky assets with precision and conditional on other characteristics, significantly larger survey sample sizes would be required.

2 Results

In the following subsections, we discuss the results on the share of crypto asset holders among households in Austria, their socioeconomic characteristics, the size and share of their holdings and their motives.

2.1 Share of crypto asset holders in the Austrian population

Like the OeNB Barometer survey conducted in 2018, the 2022 survey was conducted in a period (end-May to mid-August) when crypto asset market prices had fallen considerably from a historical peak reached several months before. In such periods, survey results are likely to be less distorted by a more transient segment of crypto asset owners participating only during bull market runs before exiting the market for good. This refers to participants who only engage with the market during periods of rising prices (bull markets) and typically withdraw completely once these conditions subside.

According to the 2018 survey, the share of crypto asset owners in the Austrian population was 1.6% (with an additional 1% indicating that they had previously owned crypto assets but sold them before the survey was conducted). From the share of non-owning survey participants indicating that they were interested in buying crypto assets in the future, our analysis suggested a market potential of 5% for crypto asset ownership.

With about 3% of crypto asset ownership among Austria's population in 2022, the recent survey shows an increase in ownership compared to 2018. Despite this growth, which is associated with price increases in crypto asset markets over a number of months, large media exposure and a new historical peak reached in crypto asset market prices in late 2021, this figure remains below the potential expected in 2018.

Table 3 compares estimates from the overall sample, including all three data collection methods, to estimates using the CAPI sample only. In both cases, weights are calibrated to represent the full population. One can clearly see that, in line with table 2, also the combination of all data collection methods yields a somewhat larger estimated share of crypto asset holders: in the case of individuals, 3.5% instead of 3%; and in the case of households, 5.3% instead of 4%. We regard the CAPI-only sample estimate as the more trustworthy metric. Despite the smaller number of observations, it benefits from robust probability sampling and does not depend on internet accessibility as a prerequisite, unlike CAWI. Moreover, a nonprobability sample such as the one obtained from the access panel is technically inept at enabling the estimation of precise standard errors. Given our preference for a less biased estimate and the ability to attach valid standard errors, we opted to proceed with the CAPI sample for the subsequent stages of our analysis.

Table 3

Data selection and preferred pretest sample estimate

	Observations	Share of crypto asset holders	
		Individual level	Household level
	Number	*%*	
Overall sample and weights	1,431	3.5	5.3
CAPI sample and weights	953	3.0	4.0

Source: OeNB Barometer survey, HFCS crypto asset pretest 2022.

Note: Weights refer to post-stratification weights, which are calculated for both the overall sample and CAPI and which reweight results to match the Austrian population (individual level, aged 16+; see table 1). Note, however, that here CAPI weights reweight to the full population while in table 1, CAPI is only a subset of the overall reweighted sample.

Table 4 places our preferred estimates within the broader context of existing research on crypto asset ownership in Austria, also detailing the corresponding 95% confidence intervals where available. While the findings from Abramova et al. (2022), which originated from a wholly access panel-based study, may appear less robust due to the nonprobability nature of the sampling method, our results align closely with those from other studies employing representative sampling techniques. It is important to highlight that the figure provided by Triple A represents a commercial estimate provided by a firm active in the crypto asset markets; the methodology behind their data collection remains unspecified. Interestingly, despite potential methodological uncertainties, their estimate indicates an even smaller proportion of crypto asset owners than ours.

Table 4

Comparison with other avialable estimates for the share of crypto asset holders in Austria

	Estimate reference year(s)	Estimate of share of crypto holders	95% confidence intervall	
			Lower bound	Upper bound
		%		
HFCS crypto pretest 2022, individual level	2022	3.0	1.5	4.4
HFCS crypto pretest 2022, household level	2022	4.0	2.3	5.7
Stix (2021), individual level	2018/2019	1.6	1.2	2.2
Abramova et al. (2022), individual level	2021	7.0	n.a.	n.a.
Ciaian et al. (2022), individual level	2019	2.9	2.5	3.3
Triple A, individual level[1]	2023	1.3	n.a.	n.a.

Source: OeNB Barometer survey, HFCS crypto asset pretest 2022, studies and website cited.

[1] https://triple-a.io/cryptocurrency-ownership-data .

Note: n.a. = not available.

2.2 Who holds crypto assets?

Our 2018 survey had identified crypto asset owners as being more likely to be male, young and more educated than non-owners, and in particular as being more risk embracing in their attitude, which was often expressed by their ownership of other risky assets on top of crypto asset holdings. A recent OeNB survey conducted in selected Central, Eastern and Southeastern European (CESEE) countries[4] in fall 2023 reports a similar pattern for these countries.

Table 5

Descriptive socioeconomic characterization of crypto asset holders

	Breakdown	Share of crypto asset holders		Probability of holding crypto assets (household level)	
		Individual level	Household level	Marginal effects after logit	Standard error
		%	%		
Age (years)	15–29	7.2	7.8	–	–
	30–44	3.7	5.1	-0.041	0.034
	45–59	2.2	4.2	-0.041	0.031
	60–79	0.8	1.1	-0.041	0.050
	80+	0.0	0.0	0	–
Gender	Man	5.1	6.2	–	–
	Woman	0.9	1.9	-0.041**	0.020
Education	Primary	0.0	1.0	–	–
	Lower secondary	3.7	3.7	0.044	0.032
	Higher secondary	2.8	5.3	0.053	0.036
	Tertiary	4.6	4.6	0.040	0.047
Job status	Full-time	4.3	5.3	–	–
	Part-time	0.6	4.9	0.054	0.038
	Unemployed	13.4	13.4	0.064	0.043
	Retired	0.5	0.5	-0.088	0.064
	Other	0.0	3.2	0.023	0.040
Personal income (EUR/month)	No income	0.0	2.1	-0.113	0.083
	0–900	1.6	4.7	-0.079	0.063
	900–1,350	3.2	4.3	-0.067	0.057
	1,350–1,650	3.9	4.5	-0.052	0.052
	1,650–1,950	0.3	0.3	-0.160**	0.072
	1,950–3,000	4.5	5.6	-0.038	0.040
	3,000+	1.6	10.3	–	–
Municipality size (number of inhabitants)	0–3,000	1.8	3.5	–	–
	3,000–5,000	3.9	3.9	0.001	0.034
	5,000–1 million	4.8	5.5	0.003	0.022
	1 million+	0.3	1.8	-0.037	0.035

Source: OeNB Barometer survey, HFCS crypto assest pretest 2022.

Note: The two right-hand columns show marginal effects and their standard errors after a logit regression where a dummy indicating "holding crypto assets" is the dependent variable and all socioeconomic characteristics are used as independent explanatory variables. No marginal effects are shown for reference categories.
*** denotes statistical significance at the 5% level.*

[4] See the report on 2023 Euro Survey results, forthcoming in the OeNB Reports series in 2024.

In the 2022 survey results reported in table 5, the comparatively higher crypto asset ownership among younger people and males again stands out among the relevant socioeconomic characteristics.

The age group below 30 years has a considerably higher share of crypto asset holders than other age groups, with participation particularly low among those past retirement age. Crypto asset ownership is strikingly higher among men than among women.

With regard to other household characteristics like education, job status, personal income and size of residents' municipality, no clear pattern emerges. Notable outliers within these categories do not point to explanatory power: The high share of crypto asset ownership among the unemployed seems striking but lacks significance due to the small number of unemployed people owning crypto assets in our sample. The surprisingly low share of crypto asset ownership among inhabitants of big cities as compared to inhabitants of smaller municipalities is likely to be driven by the comparatively large share of old people among the inhabitants of Vienna, Austria's only city in this category. A similar reasoning applies to educational factors. The low level of crypto asset ownership among people with only primary education reflects the dominance of elderly people in this educational category.

Crypto asset owners in our sample are more likely to be male and young but cannot be distinguished by a particular education level, job status, personal income level or municipality size of their residency.

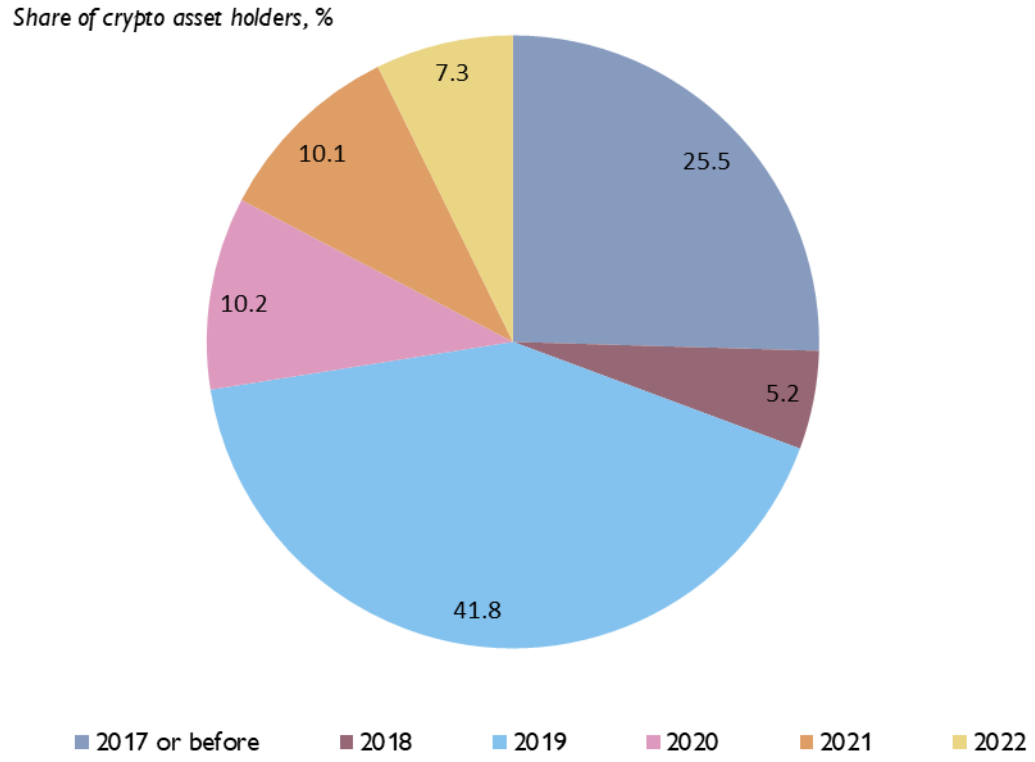
Our survey contains interesting information on the longevity of crypto asset ownership. As shown in chart 1, one-quarter of crypto asset owners covered in the 2022 survey acquired their first crypto asset holdings in 2017 or before; an additional 5% entered the market in 2018 (note that crypto asset market prices reached a historical peak at the end of 2017 and deteriorated in 2018). The largest group (around 40%) started buying crypto assets in 2019 (which was characterized by rallying crypto asset market prices in the first two quarters). Only slightly more than one-quarter of current crypto asset owners joined the market in the 2020s (in 2021, crypto asset market prices reached a new historical peak).

The information about market entry dates suggests that behind the approximate doubling of the share of crypto asset owners in the Austrian population between 2018 and 2022, there is a considerable fluctuation in crypto asset market participation. A substantial number of previous crypto asset owners is likely to have exited the market before 2022, with 2019 obviously having been a particularly successful year for finding persistent first-time buyers to sell their holdings to.

Episodes of spectacular transitory price increases in crypto asset markets traditionally serve as a key mechanism to attract new retail investors, resulting in the support of price momentum (Cornelli et al., 2023). Such episodes continued to occur after 2019, with crypto asset market prices reaching an all-time high in 2021, followed by a severe and prolonged market downturn until 2023. That crypto asset market veterans dominate over more recently arrived market participants among current crypto asset-owning households in our survey in spite of the more recent historical price peak is a noteworthy sign of the continuously diminishing growth in permanent household participation in the period before the survey was conducted.

Chart 1

Year of first market entry of crypto asset holders at time of survey

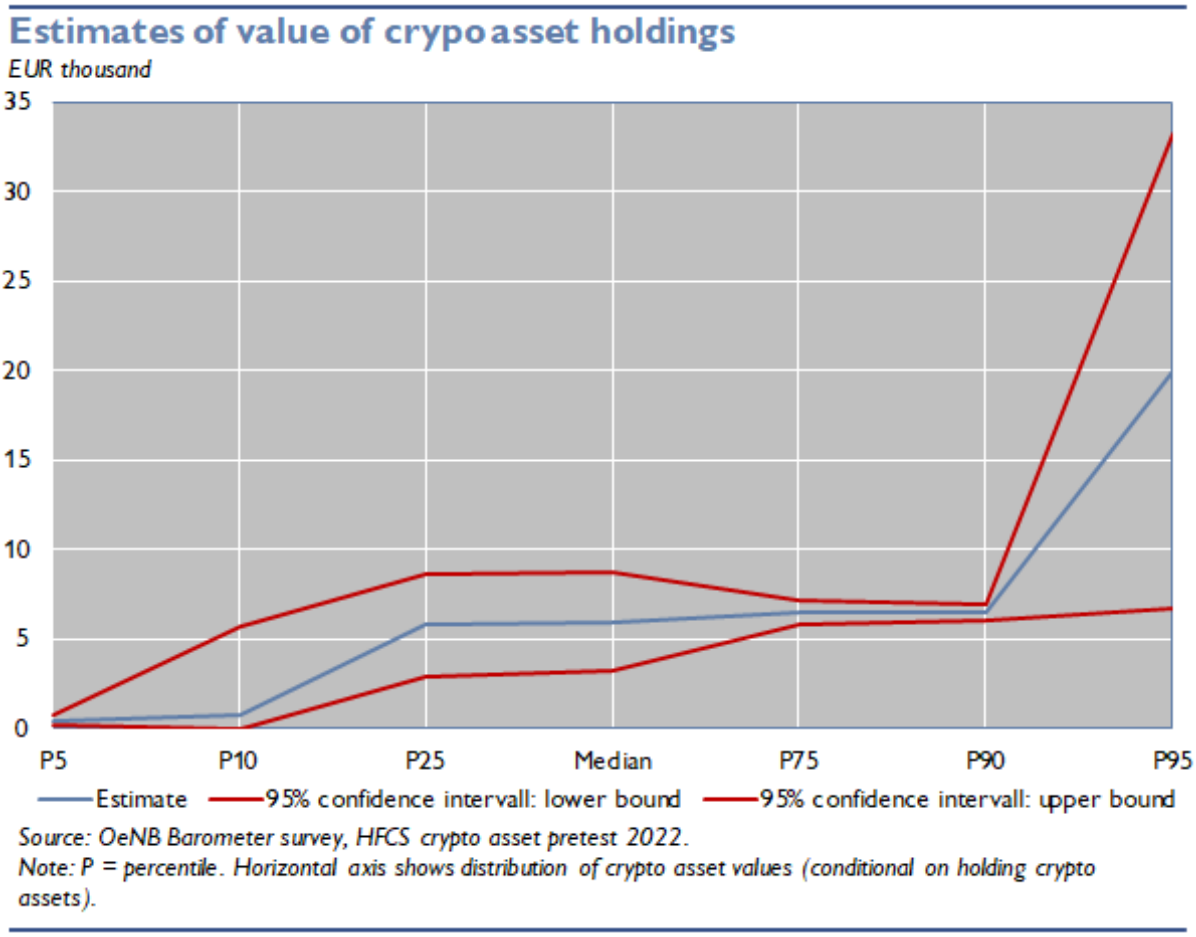


Source: OeNB Barometer survey, HFCS crypto asset pretest 2022.

2.3 What volumes of crypto assets do owners hold?

Chart 2 shows that the market value of crypto assets held by the median crypto asset-owning individual lies below EUR 10,000. As the 90th percentile also lies below that value, this statement holds for more than 90% of crypto asset holders. Even up to the 95th percentile, crypto asset holdings remain comparably modest (below a market value of EUR 20,000), which implies that less than 5% of owners hold more than EUR 20,000 in crypto assets.

Chart 2

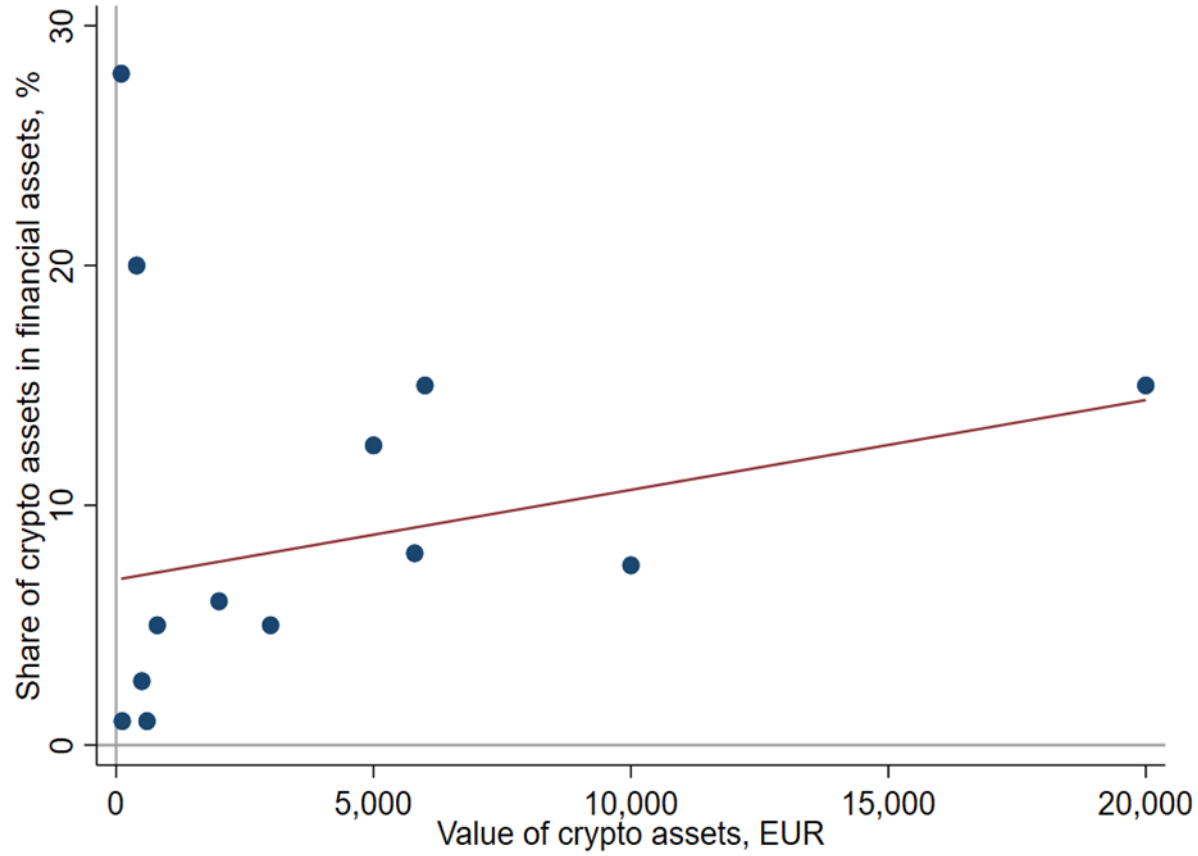


Source: OeNB Barometer survey, HFCS crypto asset pretest 2022.
Note: P = percentile. Horizontal axis shows distribution of crypto asset values (conditional on holding crypto assets).

Our survey results do not provide new evidence of a rise in reckless financial behavior, financial illiteracy or lack of risk awareness among crypto asset holders, nor any evidence of crypto assets being of significant macrofinancial relevance. None of the survey respondents has gone "all in" with regard to crypto assets in an attempt to exit the monetary and financial system. Instead, crypto assets are usually held jointly with other assets as part of respondents' portfolio. A large share of respondents explicitly mentions the diversification of risks in their portfolio as the main motivation for holding crypto assets (see below).

Chart 3

Value of crypto assets held as a share of total financial wealth



Source: OeNB Barometer survey, HFCS crypto asset pretest 2022.
Note: This binned scatter plot shows the relation between the value of crypto assets (EUR) and the share of crypto assets in financial assets (%) for households owning crypto assets. Each point represents the average share of crypto assets in households' financial assets within a specific range of crypto asset values. The line indicates the overall trend in the data.

Among crypto asset owners, average crypto asset holdings represent around 10% of their financial assets, as reported in chart 3 by means of a binned scatterplot. Dots in chart 3 represent averages for clusters of households that are similar with regard to the value of their crypto assets. Outliers with a higher share of crypto assets in their portfolios tend to be among households with smaller portfolios, but they typically do not have more than 30% of their financial assets invested in crypto assets. Among the thousands of crypto assets currently available on crypto asset markets, bitcoin and Ethereum dominate portfolios by far. 80% of crypto asset owners in our sample own bitcoin, 40% own Ethereum and only about 10% hold other crypto assets as either their only crypto asset or as part of their crypto asset portfolio.

2.4 What are crypto asset holders' motives?

Most crypto asset owners surveyed in Austria in 2018 stated that they perceived crypto asset ownership as an investment with a prospect for capital gains. Many cited an "interest in technology" as an important motive. About one-quarter of crypto asset-owning respondents in 2018 mentioned crypto assets' current or future use for payments, an even smaller share of

owners cited cost savings in payments, and a small minority was motivated by mistrust in the monetary and financial system (Stix, 2021).

Our 2022 survey asked crypto asset owners to describe their motives in their own words. Results show that, with one important exception, the main motives for crypto asset ownership have hardly changed. The major motives cited by crypto asset owners in 2022 are the speculative prospect of profiting from changes in crypto asset prices (36% of the number of motives mentioned), curiosity about new technology (27%) and an attempt to diversify their portfolios of risky assets (12%). Distrust in money and banking coupled with a belief that crypto assets represent some kind of viable alternative continues to motivate a minority among crypto asset owners (about one in five motives mentioned). But in contrast to some previous surveys and the alleged key attractions of crypto assets according to some segments of crypto asset marketing, it is noteworthy that survey participants did not mention that they intended using crypto assets for making payments or that they held or used them for reasons of privacy. For about 7% of motives mentioned in the survey, crypto asset owners added that they experienced some form of disappointment with crypto assets.

Fundamental differences in perception about the purpose and potential of crypto assets (Weber, 2022) persist, but the results of our survey suggest that at least some differences are more likely to have grown smaller rather than larger over time in light of experience gained with the performance of crypto assets and services. From our survey, there is no evidence of widespread changes in individual behavior associated with crypto assets that would give rise to significant concerns and issues around personal financial health, financial literacy or financial stability.

3 Conclusions

About 3% of Austria's population own crypto assets. To a large extent, their crypto asset ownership means holding modest sums that represent only a small fraction of their personal portfolios (10% of households' financial assets on average). With regard to socioeconomic characteristics, crypto asset ownership is pronouncedly more prevalent among younger people and males. The major motives given for crypto asset ownership are the speculative prospect of profiting from changes in crypto asset prices (36% of the number of motives mentioned), curiosity about new technology (27%) and an attempt to diversify risky asset portfolios (12%). Although a small minority among crypto asset owners do consider crypto assets an alternative to the monetary and financial system, we see no evidence of crypto assets being actually used to pay or denominate prices for goods and services.

Persistent crypto asset ownership among Austrian households is dominated by "crypto veterans" who entered the market in 2019 or before, whereas later cohorts with persistent crypto asset ownership are found to be becoming smaller by the year, even though crypto asset prices reached a historical peak shortly before our survey was conducted.

Given the limited focus of our survey, we can neither give a full picture of crypto assets held in Austria beyond those held by households nor provide information on the financing of crypto assets held or any other information relevant for arriving at a comprehensive risk assessment. The share of crypto assets held in private portfolios within our sample and the information owners provided on their motives do not point to particularly reckless financial behavior, financial illiteracy or a lack of risk awareness among crypto asset holders in Austrian households or to crypto assets being of significant macrofinancial relevance.

Nevertheless, given the unpredictability, volatility and risks that have come to characterize crypto asset markets, from a public policy perspective we recommend improving their monitoring.[5] Due to the absence of register data that directly link crypto assets to individual or household owners, it seems useful to include a new category in future updates of household balance sheet surveys like the Eurosystem's Household Finance and Consumption Survey (HFCS). Notably, the Austrian HFCS is poised to become the first large household wealth survey to classify crypto assets as a distinct, not a residual category. We anticipate that this classification will be adopted by other household wealth surveys, making it possible to better understand the role of crypto assets in household portfolios and the broader economy.

We advocate for policies that promote such initiatives. Having access to comprehensive data on the prevalence and distribution of crypto assets in investors' portfolios supports the effective design and implementation of a broad range of related economic and regulatory analyses and policies.

[5] See also Saggese et al. (2023) for recent research on methods how to assess the solvency of crypto service providers based on other data sources.

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Annex

Pretest questions (in German)[6]

Question 20: crypto asset holdings

Besitzen Sie oder ein anderes Haushaltsmitglied Bitcoin oder ähnliche Kryptoanlagen?

- Ja, ich selbst
- Ja, ein anderes Haushaltsmitglied
- Nein
- Weiß nicht
- Keine Angabe

Question 20.1: value of crypto asset holdings

Wie hoch ist derzeit der Wert dieser Kryptoanlagen insgesamt in Euro?

- Numerische Angabe in EUR, zehnstellig
- Weiß nicht
- Keine Angabe

Question 20.2: crypto asset market entry

In welchem Jahr haben Sie erstmals solche Kryptoanlagen gekauft?

- Numerische Jahresangabe, vierstellig
- Weiß nicht
- Keine Angabe

Question 20.3: portfolio share of crypto assets

Welcher Anteil Ihres gesamten Finanzvermögens, also Konten, Spareinlagen, Bausparverträge, Lebensversicherungen, Aktienvermögen etc., ist in etwa in solche Kryptoanlagen investiert?

- Numerische Angabe in %, zweistellig
- Weiß nicht
- Keine Angabe

Question 20.4: reason for holding crypto assets

Können Sie in wenigen Worten sagen, aus welchem Grund Sie Kryptoanlagen halten?

- Offene Antworten notieren
- Weiß nicht
- Keine Angabe

[6] English translations are available from the authors upon request.

Question 20.5: type of crypto assets

Können Sie uns sagen, welche Kryptoanlagen Sie halten?

(Mehrfachantwort erlaubt)

- Genannt
- Nicht genannt
- Liste von drei Variablen:
    a) Bitcoin
    b) Ethereum
    c) Sonstige: offene Antwort, Aufzählung
- Weiß nicht
- Keine Angaben

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