



The State of Cryptocurrency Adoption: Germany Q1 2019

Results of a representative survey among German Internet users

Report Series No. 1

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Executive Summary

A survey among 3,864 respondents that is representative of the adult Internet population in Germany allows deep and reliable insights into the adoption and usage of cryptocurrencies. 87% of the population know about cryptocurrencies.

18% of all adult Internet users in Germany either currently own cryptocurrencies (9.2%) or have owned some in the past (9.1%), with Bitcoin being most well-known (83%), followed by Bitcoin Cash (27%) and Ethereum (23%).

Most users first acquired or mined cryptocurrency in 2017 or 2018. Bitcoin.de is the preferred exchange of Germans, followed by Coinbase and Kraken. On average, €2,770 was invested and the current average portfolio value is €6,314 (+128%).

Nearly two thirds of crypto users (62%) report their exposure to be ideologically motivated. The average age of crypto users is 39 years, they are very often male (68%), better educated, and have a higher income compared to non-users.

About us

The Blockchain Research Lab (BRL) was founded in April 2018 as a non-profit organization. Its focus lies on independent and interdisciplinary academic research on blockchain technology and its socio-economic impact. The BRL awards scholarships to high-potential, motivated and committed scientists, enabling the recipients to work on relevant projects independently and autonomously. Through its interdisciplinary approach to research, the BRL aims to foster the societal, political and economic discussion on blockchain with objective facts and findings.

Background

Blockchain-based cryptocurrencies have existed for a decade. Yet fundamental research gaps persist in regard to how they are perceived and used by the population. For example, fundamental questions about the frequency of use, the composition of user groups, and the motivation to buy cryptocurrency have not yet been adequately researched. Instead, the public opinion still relies heavily on anecdotal evidence and guesstimates, leading to perceptions such as that cryptocurrencies are only a marginal phenomenon among some cypher punks or the prejudice that their only real-world application is for criminals.

To fill this gap in socio-economic research, the Blockchain Research Lab has conducted a representative survey among the German Internet population to find out about mainstream awareness of cryptocurrencies and their adoption. This research project aims to investigate a range of basic aspects of cryptocurrency and the underlying blockchain technology in order to provide the public, politics and science with substantial and insightful data.

A common perception about cryptocurrencies holds that their use requires technical knowledge, and only tech-savvy users can understand how they work, while their complexity is beyond everyday people's understanding. We thus wanted to know who owns cryptocurrencies, especially with regard to age, gender, income, and education.

The prices of cryptocurrencies are rather volatile and investing in them is often considered very risky. Some prejudices conveyed in the mainstream media even go so far as to suggest that crypto-investors are doomed to lose all their money. We thus asked when people adopted cryptocurrencies for the first time, how much they invested and how much their portfolio is worth today. This allows us to trace the rate of adoption over time and also to estimate crypto-investors' losses or, as the case may be, their profits.

Special attention is paid to ideological reasons for crypto usage, which are often suggested to play a large role in the decision to buy cryptocurrencies. Examples of ideological causes include the rejection of traditional currencies or the desire to strengthen immutable transactions and currencies that are not burdened by traditional banking activities. We thus asked crypto users to which degree their holdings are ideologically motivated.

In general, the present study for the first time offers extended and well-founded insights into the user structure of cryptocurrencies in connection with the underlying motivation and the actual successes of the investors. This multi-dimensional approach provides an overview of the status of cryptocurrencies in Germany. The results of this study shall form a basis for fact-based action by policy-makers and regulators.

Methodology

The survey is based on a sample of 3,864 German Internet users (persons who had been online at least once during the last quarter) aged 18 and above, among whom it is representative with respect to age and gender. The survey was implemented by *mo'web research* and was conducted online between February 8 and March 28, 2019.

The questionnaire consisted of two main blocks for which the interview participants were filtered. The first filter screened persons who are familiar with cryptocurrencies while the

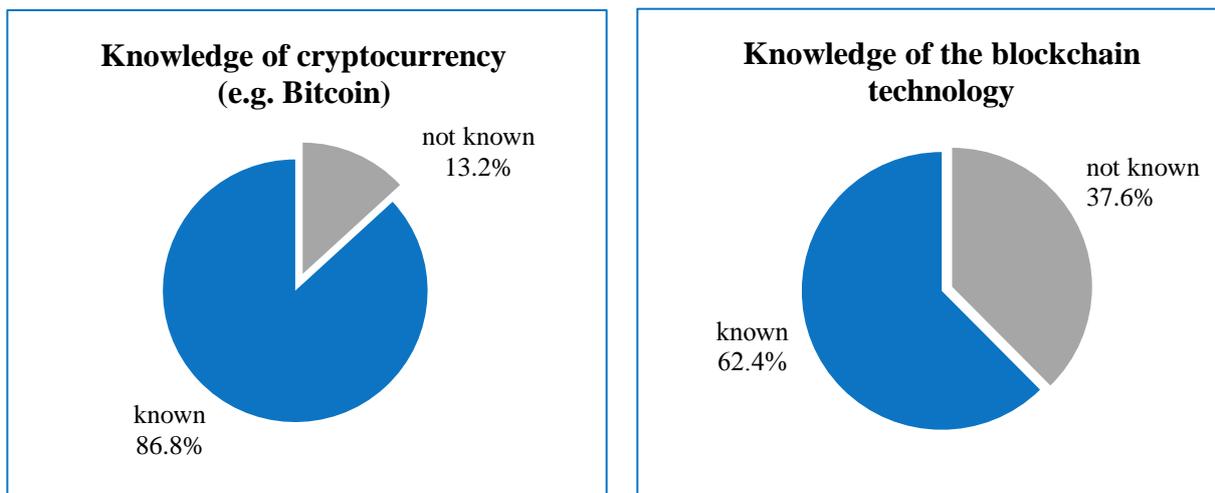
second filter screened prior or current possession of cryptocurrencies. Respondents to whom neither filter applied were only asked a set of questions about their socio-economic data.

In order to obtain a data set that is as accurate as possible, participants who answered too quickly for them to have given their answers substantial thought were dropped from the data set prior to any analysis. Furthermore, two subjects whose response behavior was considered erratic were also excluded.

Knowledge

The vast majority of German Internet users (86.8%) are familiar with cryptocurrencies such as Bitcoin, whereas 62.4% reported to know about blockchain technology. This result is remarkable in two ways. First, it is surprising how wide-spread both cryptocurrencies and blockchain knowledge is in the general population. Second, since blockchain constitutes the base layer technology and cryptocurrencies are only one of its many applications, it could have been expected that Blockchain is more widely known.

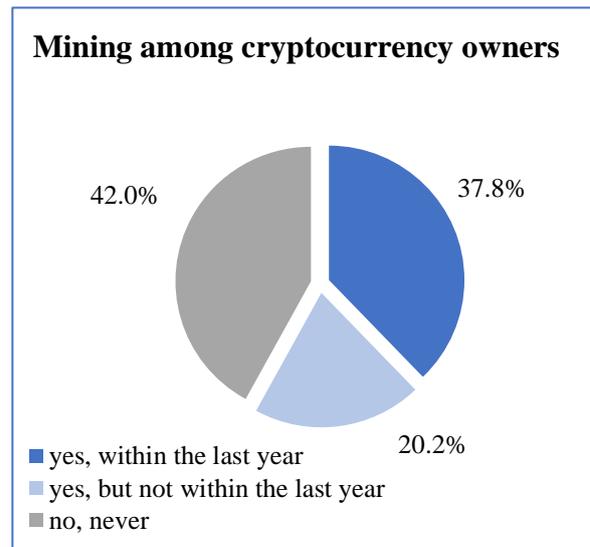
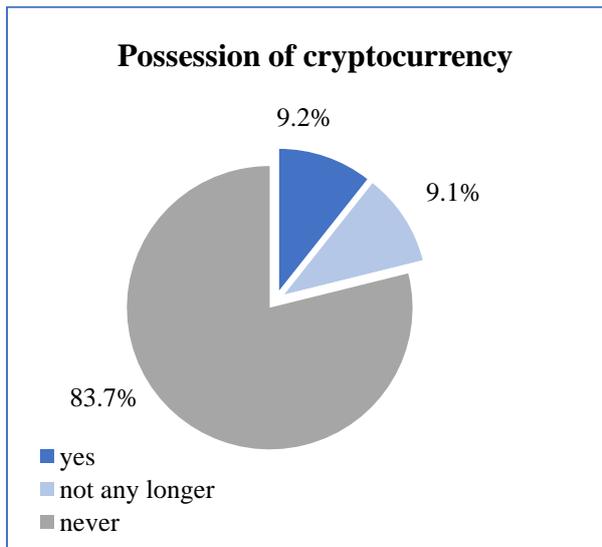
The result however indicates that the application (Bitcoin) as the second layer of innovation is subject to greater awareness and public knowledge than the first layer, the underlying technology (blockchain). To illustrate: More people having known about email than about the Internet in the 1990s would have been a similarly remarkable result.



Usage

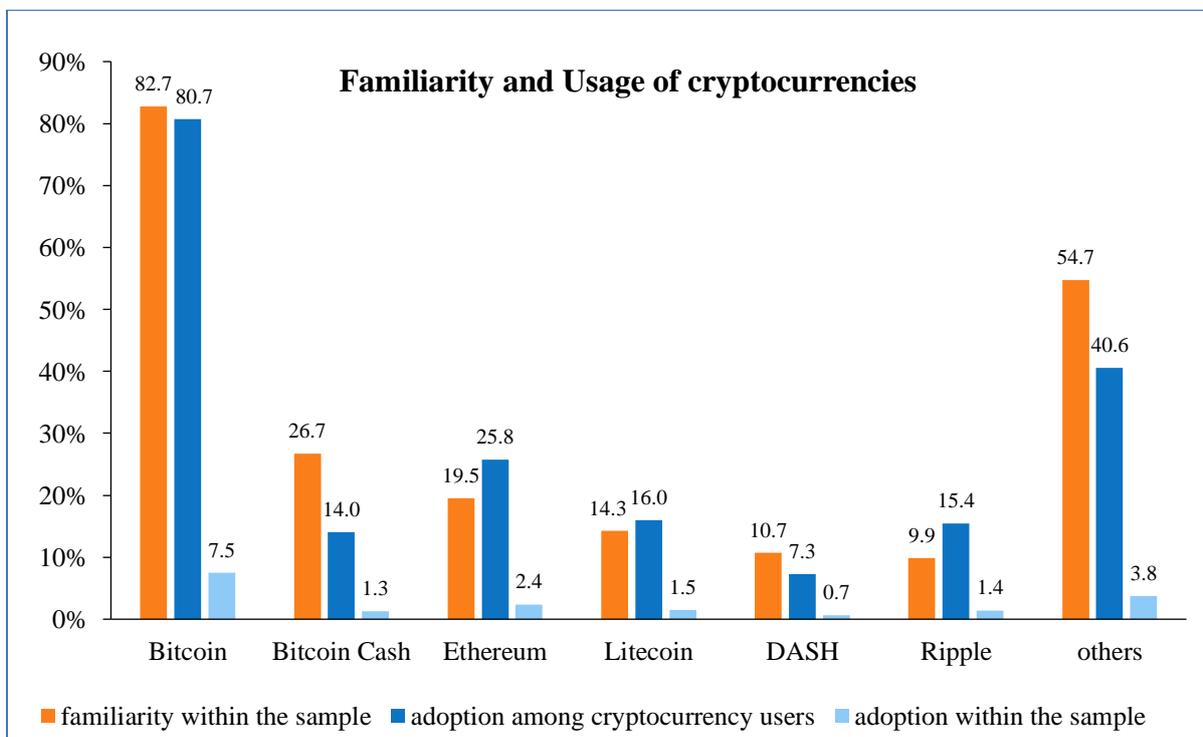
Just over 18% of German Internet users have at some point actually owned cryptocurrency. That group comprises almost exactly equal shares of past and current cryptocurrency owners. In comparison, 7.7% of Germans directly and 15.7% directly or indirectly held stocks in 2017.¹ The majority (58%) of the past or present crypto owners have engaged in mining at some stage, and about two-thirds of those who have ever mined have done so within the last year.

¹ Aktionärszahlen des Deutschen Aktieninstituts 2017.



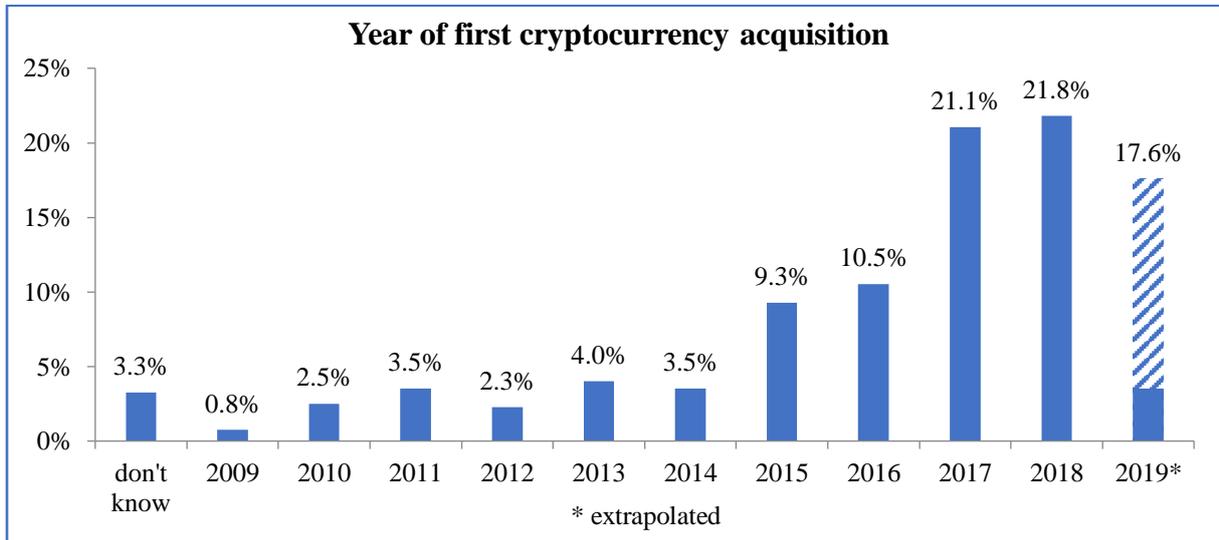
Bitcoin takes the lead by a long distance among the different cryptocurrencies in terms of usage, both among cryptocurrency users and among all respondents, and in terms of awareness: 83% of respondents have heard of Bitcoin, and more than 80% of all crypto users own Bitcoin. The rate of Bitcoin ownership among the sample stands at 7.5%. Bitcoin Cash takes second place in terms of familiarity, followed by Ethereum and Litecoin. In terms of ownership, Ethereum is the second most popular cryptocurrency.

The diversity of cryptocurrencies is reflected in the fact that 54.7% of the sample know other cryptocurrencies apart from Bitcoin, Bitcoin Cash, Ethereum, Litecoin, DASH and Ripple; 40.6% of cryptocurrency owners possess these coins.

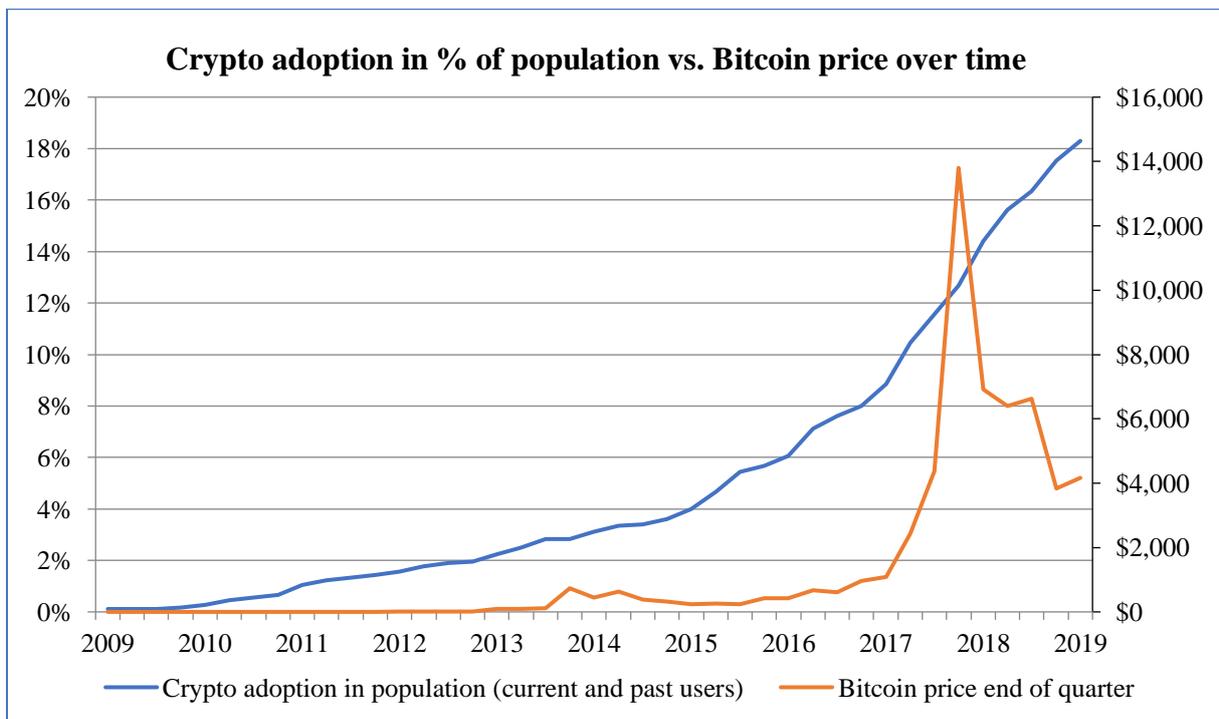


Adoption

More than half of the respondents who currently hold or have in the past held cryptocurrency first acquired it in the years 2017 to 2019, which reflects the exponential growth in the industry. Still, quite a few have been active for a much longer period, stretching all the way back to 2009.



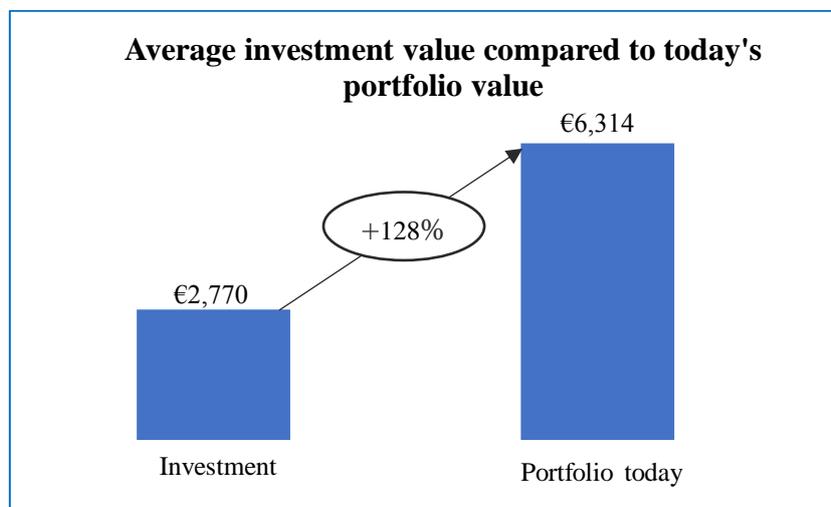
Those who bought or mined early – in which case we are talking almost exclusively about Bitcoin – have likely enjoyed substantial gains, if they held on to their cryptocurrency long enough. This is evident if we plot cryptocurrency adoption over time alongside the quarterly average Bitcoin price.



Return on Investment

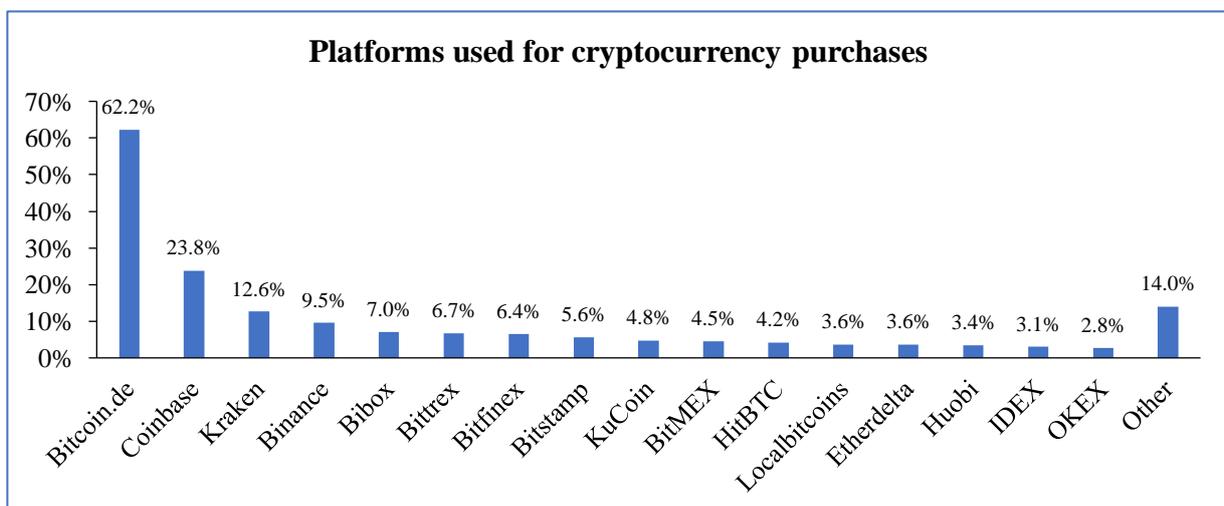
On average, crypto users reported having invested a total of €2,770. Their average current portfolio is worth €6,314, an increase by 128%. Hence, investors in cryptocurrencies have made a significant positive return. The investment value equals the cumulated investment while the portfolio value does not include any funds that were cashed out. Thus, the actual profits might likely be even higher.

Past returns are, of course, not indicative of any potential future returns. Moreover, the positive returns do not necessarily indicate that the investment was sound – given that cryptocurrencies carry substantial risks including volatility in prices, loss, theft, or counterparty risks if the funds are held at exchanges.



Trading Venues

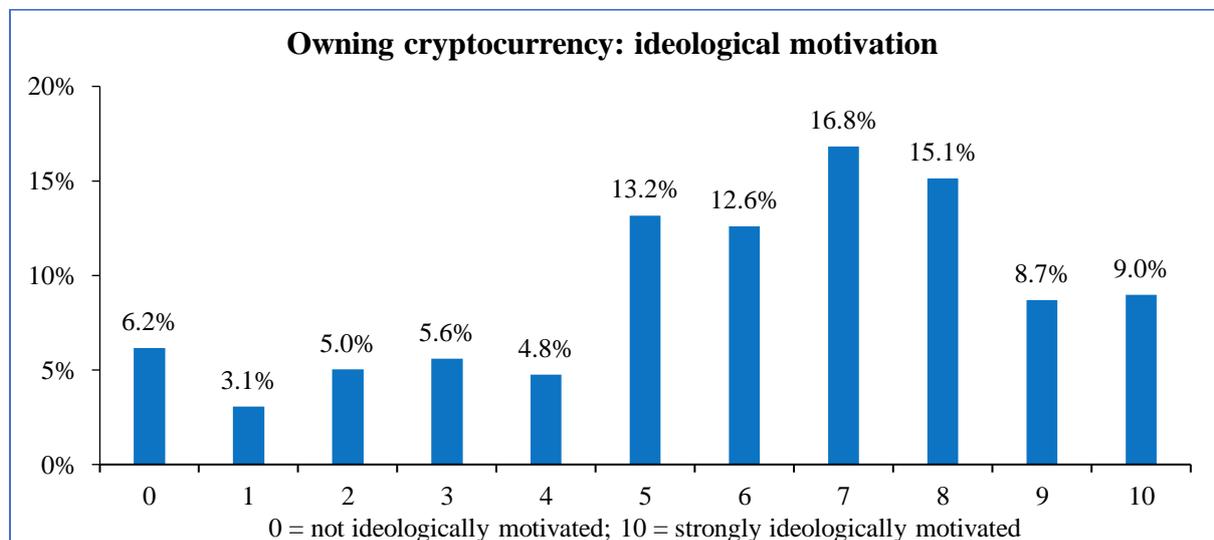
The respondents bought their cryptocurrency on a wide range of platforms. However, Bitcoin.de is by far the most popular choice, used by 62% of the respondents. It is followed by Coinbase, Kraken, and Binance, with a long list of platforms each receiving less than 7% of the mentions at the tail end of the distribution.



Ideology

Motivational factors for using cryptocurrencies include making payments, speculation, value retention, criminal purposes, access to services, or start-up funding. In addition, respondents mention that ideology plays a strong role in the decision to own cryptocurrency. The cryptocurrency owners among the respondents were asked to indicate, on a scale from 0 (not ideologically motivated) to 10 (strongly ideologically motivated), to what extent their holding of cryptocurrency is ideologically motivated. 62% of them stated their motivation was ‘predominantly ideological’ (6 or above on the scale).

While it is unclear what the specific ideological motivation of a particular user is, arguably at least some users are unhappy with the options offered by the traditional financial system and/or regard their cryptocurrency investment as a hedge against a potential financial crisis.



Demographics

Current and past crypto users are on average markedly younger than those who have never owned cryptocurrency (39 versus 48.5 years). They are also much more likely to be male (68.2% versus 47.0%).

Biographical information	Have you ever owned cryptocurrency?	
	yes	no
Average age	39.0 years	48.5 years
Share of males	68.2%	47.0%

Education

Cryptocurrency owners, past or present, have a higher education than non-users. A greater share of them have a university degree or even a PhD than among the non-owners, and fewer have completed none or only the lowest level of secondary education.

If we assign a score to each category of educational achievement, from 1 for ‘no secondary education certificate’ to 5 for ‘PhD’, with vocational and commercial training arbitrarily rated the same as ‘A levels equivalent’, and multiply each score with the percentage of respondents who belong to each category, then those who own or have owned cryptocurrency are associated with a weighted average score of 3.21, as compared to 3.03 for the non-owners.

Educational achievement	Score	Have you ever owned cryptocurrency?	
		yes	no
No secondary education	1	0.6%	0.8%
GCSE equivalent	2	15.8%	22.2%
A level equivalent	3	20.2%	14.5%
Vocational training	3	9.9%	15%
Commercial training	3	18.1%	22.7%
Higher education degree	4	33.5%	23.3%
PhD	5	2%	1.6%
average score		3.21	3.03

Income

Cryptocurrency owners also differ from the non-owners with respect to their personal income – the former are markedly better off. Though this question only provided a choice of income brackets as answer options, it is possible to calculate a weighted average income for each group: The cryptocurrency owners enjoy an average net monthly household income of about €2,700, whereas the non-owners earn only about €2,000.

Net monthly household income	Have you ever owned cryptocurrency?	
	yes	no
Below €500	2.7%	6.7%
€500 to €999	6.5%	12.5%
€1,000 to €1,499	13.6%	17.6%
€1,500 to €1,999	14.7%	16.4%
€2,000 to €2,499	26.6%	21.5%
€3,000 to €4,999	25.4%	15.3%
€5,000 or more	7.5%	3.6%
average	€2,700	€2,000

Discussion

The present findings significantly enrich the knowledge base on the use of cryptocurrencies in Germany. For the first time there is a comprehensive insight into cryptocurrencies, which combines not only the user structure but also the purchased currencies, the trading platforms used, the motivational reasons for buying and the investment results.

Worth mentioning are the generally high level of awareness and the surprisingly widespread ownership of cryptocurrencies among the respondents. Both are indicative of cryptocurrencies being a phenomenon that persists not just among a few tech-savvy Internet geeks but that has arrived in the midst of the population – and continues to grow. Still, with more than two thirds of all crypto owners being male, adoption within the population is not yet balanced.

The results clearly show that cryptocurrencies are neither a marginal nor only a transitory phenomenon. Instead, they are already widely adopted by the population, even more than direct stock ownership. While the landscape of cryptocurrencies is expected to change over the coming years, it seems very unlikely that they will simply vanish. More in-depth research and monitoring by politics and business is thus mandatory.

In general, the results show that users focus less on the underlying blockchain technology than on cryptocurrencies as one of its applications. There may be many reasons. For example, blockchain as a technology may appear more abstract and complex than cryptocurrencies. Or there are simply not yet enough other applications of blockchain technology that have raised user interest.

To a majority of respondents, ideology provides a strong motivation to purchase cryptocurrencies. Thus, the purchase is often based more on attitude than on actual use cases or an intense technical interest in the underlying processes. This remarkable aspect begs further research.

Notably, cryptocurrency users have a stronger socio-economic background in terms of income and education than non-users. This finding is even more pronounced when considering that crypto users are much younger on average, since age is positively correlated with income.

Outlook

Overall, it can be concluded that cryptocurrencies have experienced considerable momentum in recent years and that an interruption of this trend is not yet discernible. Continued growth seems probable; we may expect the importance of cryptocurrencies in business and society to continue to evolve.

Many questions remain unanswered and more in-depth research is required. A continuous review of the development of cryptocurrencies and their user structure is needed to keep abreast of further developments, to identify new trends, and to respond adequately – if necessary, by regulation. We thus aim to follow up with corresponding surveys in other countries, as well as with regular updates on the situation in Germany. This should help to build an important long-term knowledge base for the public discussion on cryptocurrencies and their socio-economic impact.