



Research report (initial coverage)

Bitcoin Group SE



**Highly profitable trading platform for cryptocurrency
exceeds 1 million customers and continues to grow**

-

**The business model is relatively
independent of the crypto price**

Target price: € 120.00

Rating: BUY

IMPORTANT NOTE:

Please note the disclaimer/risk warning
as well as the disclosure of possible conflicts of interest in accordance with § 85 WpHG and Art. 20 MAR from page 39

Note in accordance with MiFID II regulation for research "Minor non-monetary benefits": The research in question meets the requirements for classification as "Minor non-monetary benefits". For further information, please refer to the disclosure under "I. Research under MiFID II".

BITCOIN GROUP SE *5a,7,11

Rating: BUY
Target price: € 120.00

current price: 50.00
26.10.21 / XETRA / 09:44
Currency: EUR

Data overview:

ISIN: DE000A1TNV91
WKN: A1TNV9
Stock exchange symbol: ADE
Number of shares³: 5.00
Market cap³: 250.00
EnterpriseValue³: 49.80
³ in million / in EUR million
Free float: < 75.0 %

Market segment:
Open Market

Accounting:
IFRS

Designated Sponsor:
Bank M AG

Financial year: 31.12.

Analysts:

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Company profile

Industry: Software

Focus: Holding in the field of cryptocurrencies

Employees: 27 as of 30.06.2021

Foundation: 2008

Head office: Herford

Executive Management: Marco Bodewein, Michael Nowak,
Per Hlawatschek



Bitcoin Group SE is a holding company focused on innovative and disruptive cryptocurrency and blockchain business models and technologies.

Bitcoin Group SE holds 100% of the shares in futurum bank AG, which operates a trading platform for digital currencies such as Bitcoin, Bitcoin Cash, Bitcoin Gold, Ethereum and others under Bitcoin.de, as well as 50% of the shares in Sineus Financial Services GmbH, a financial services provider, in addition to classic securities services.

The company's goal is to build up a portfolio of investments through further acquisitions that meets the requirements of investors in terms of risk diversification and potential returns.

P&L in EUR million \ FY-end	31.12.2019	31.12.2020	31.12.2021e	31.12.2022e
Sales	6.30	15.03	24.00	25.92
EBITDA	2.59	10.55	18.31	20.05
EBIT	3.24	13.54	17.66	19.39
Net income for the year	2.15	9.52	12.40	13.63

Key figures in EUR				
earnings per share	0.43	1.90	2.48	2.73
dividend per share	0.00	0.00	0.00	0.00

Key figures				
EV/Sales	7.91	3.31	2.08	1.92
EV/EBITDA	19.19	4.72	2.72	2.48
EV/EBIT	15.39	3.68	2.82	2.57
PE	116.11	26.26	20.16	18.34
PB		3.12		

Financial Calendar

**last research from GBC:

Date: Publication / Target price in EUR / Rating

The research studies listed above can be viewed at www.gbc-ag.de or requested from GBC AG, Halderstr. 27, D86150 Augsburg, Germany.

* Catalogue of possible conflicts of interest on page 40

EXECUTIVE SUMMARY

- Bitcoin Group SE, as the holding company, primarily operates the crypto trading site bitcoin.de. The trading platform is highly profitable and is experiencing dynamic growth. Furthermore, according to management, the company holds crypto stocks of € 234 million as of 24.10.2021, which corresponds to net crypto stocks of € 172.93 million according to our approximation. With a market cap of € 250,00 million and enterprise value of € 49.80 million (market cap less crypto and cash holdings), we currently view the company as highly undervalued. In our opinion, the extensive net cash could also lead to a share buyback program.
- Significant revenue and earnings growth were recorded in the past financial year 2020. This was due to the significant increase in trading volumes on the bitcoin.de trading platform and the steadily rising number of registered users. The resulting commissions also led to a significant increase in the company's own cryptocurrency holdings. The highly favorable development continued in the first half of 2021.
- The increase in sales in the 2020 financial year by 138.7% to € 15.03 million (PY: € 6.30 million) can be explained on the one hand by the relatively low base of the previous year and, on the other hand, by the high trading volume in 2020. The strong interest in cryptocurrencies has continued in 2021 and sales increased by 184.2% to € 17.70 million (PY: € 6.23 million) as of 30.06.2021.
- Due to the high scalability of the business model, EBITDA increased to € 10.55 million (previous year: € 2.59 million), which corresponds to an improvement in the margin from 41.2% to 70.1%. Operating costs rose by 24.0% to € 4.70 million (previous year: € 3.79 million), with a large part of the increase being due to the full consolidation of futurum bank AG, which has higher personnel expenses. Overall, net income for the year thus increased to € 9.52 million (previous year: € 2.15 million). On the earnings side, the company improved even more in the first half of 2021, with EBITDA rising by 245.8% to € 14.44 million (PY: € 4.18 million). The net result for the first half of 2021 also increased disproportionately by 190.0% to € 10.17 million (previous year: € 3.51 million). This means that the full-year result for 2020 was already exceeded in the first half of 2021.
- In balance sheet terms, the company is in a very good position, with equity as of 31.12.2020 of € 80.15 million (31.12.2019: € 30.42 million) and an equity ratio of 73.7% (PY: 77.0%). The increase in equity is due on the one hand to the net profit for the year and on the other hand to the strongly positive development of the cryptocurrencies held in the amount of € 90.31 million less the potentially incurred taxes in the amount of € 23.66 million. As of 30.06.2021, equity improved again to € 115.25 million due to the high net result, which corresponds to a high equity ratio of 73.7%.
- The guidance was confirmed for the first half of 2021. The company expects moderate to strong revenue growth and EBITDA in the low to mid double-digit million range. Our current forecast is based, among other things, on the stock-to-flow model, which currently has the most accurate bitcoin price predictions. We believe revenues should increase 59.6% to € 24,00 million in the current fiscal year, followed by € 25.92 million in fiscal 2022.

- Due to the high scalability of the business model, we also expect margins to improve as revenues increase and anticipate EBITDA of € 18.31 million in 2021 and € 20.05 million in 2022. Net income should grow accordingly to €12.40 million in 2021 and € 13.63 million in 2022.
- **The company is highly profitable and comparatively independent of the cryptocurrency price trend. Nevertheless, the share price is still strongly oriented towards the bitcoin price. Based on our DCF model, we have determined a fair value of € 120.00 per share and assign a BUY rating due to the very high upside potential.**

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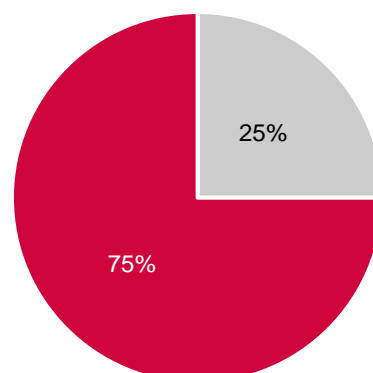
COMPANY

Shareholder structure

Shareholders	Share
Priority AG	>25%
Free float	<75%

Sources: Bitcoin Group SE; GBC AG

- Priority AG
- Freefloat



Business activities of Bitcoin Group SE

Bitcoin Group SE is an investment company with a focus on crypto and blockchain technology. The main business activity is currently the crypto trading platform bitcoin.de, which is operated by the wholly owned subsidiary futurum bank AG. In addition to the trading platform, futurum bank AG operates classic investment banking as well as investment banking with a crypto approach (e.g. a crypto trading desk).

The website Bitcoin.de

The screenshot shows the Bitcoin.de website interface. At the top, there's a navigation bar with links like HOME, MARKTPLATZ, NEWS, FORUM, FAQ, KONTAKT, and INVESTOR RELATIONS. Below this, a search bar contains the text "Mehrere Käufe mit nur einem Klick: Express-Kauf Kompakt". A section titled "Marktplatz wechseln" allows switching between different cryptocurrencies (BTC, BCH, BTG, ETH, BSV, LTC) and fiat currencies (EUR). The main section is titled "BTC / EUR Marktplatz" and displays the current Bitcoin price as 27.672,93 €. It features two side-by-side order book panels: "Kaufen / Bid" on the left and "Verkaufen / Ask" on the right. Each panel includes input fields for the number of Bitcoins, the price, and the volume, along with filters for payment methods (Express-Handel, SEPA-Überweisung) and other criteria. Below the input fields, there are tables listing the top orders with columns for quantity, price, volume, and status (KAUFEN or VERKAUFEN).

Source: GBC AG

Management team

Board of Directors

Marco Bodewein



Marco Bodewein, Managing Director of Bitcoin Group SE and Board Member of futurum bank AG is a trained banker at Dresdner Bank and holds an international degree in International Management. He has more than fifteen years of experience in investment banking. Prior to joining Bitcoin Group SE, Mr. Bodewein held board and management positions at mid-sized investment boutique banks. Mr. Bodewein is a "Capital Markets Allround - Talent", for equity and debt capital markets. He also has extensive knowledge in structuring capital markets transactions including IPOs, equity and debt financing. In his career, he has advised on over 150 IPOs and 200 issues. With his many years of expertise in the regulated financial sector, Mr. Bodewein is responsible, among other things, for the strategic further development of Bitcoin Group SE and, in particular, Bitcoin.de towards an exchange for cryptocurrencies and tokens.

Michael Nowak



Michael Nowak is a trained banker and has been working for Bitcoin Group SE since 2013. In various management roles, he managed branches of Dresdner Bank, Commerzbank and Sparkasse between 2007 and 2013. Prior to this, he acquired extensive knowledge in securities trading (including stock exchange futures).

Since 2013, Mr. Nowak has been responsible first as a board member of Bitcoin Deutschland AG, and later as an executive director of the Bitcoin Group.

Per Hlawatschek



As Chief Information Officer (CIO), Per Hlawatschek is a member of the Management Board of Bitcoin Group SE. He was born in 1973 and lives in the eastern Westphalian district of Herford, the city where the crypto marketplace Bitcoin.de was launched in 2011 and has been an integral part of the "crypto revolution" ever since.

Already during his studies of economics at the University of Bielefeld, Per Hlawatschek focused on information technology. After his diploma, he worked as a research assistant at the Chair of Applied Computer Science and Business Informatics.

After his academic career, he contributed his expertise to numerous well-known online platforms. In the group of companies of Oliver Flaskämper, the founder of Bitcoin.de, he was responsible for realignments of established websites as well as for completely new developments as a member of the board of Priority AG.

In 2011, Mr. Hlawatschek and his team played a leading role in the conception and development of the cryptocurrency trading platform Bitcoin.de. As a proven digitization expert, he took leading positions in the operating companies of the platform.

Per Hlawatschek has been a member of the Management Board of Bitcoin Group SE since 2021. Following the merger of Bitcoin Deutschland AG with futurum Bank AG, he has also held the position of Chief Information Officer (CIO) at futurum bank AG, the operator of Bitcoin.de.

Mr. Hlawatschek will continue to drive the development of Bitcoin.de in this constellation and will also undertake and accompany the technological and strategic evaluation of potential investments and partnerships for Bitcoin Group SE and its subsidiaries, currently in particular futurum bank AG.

Business activity

Company history at a glance

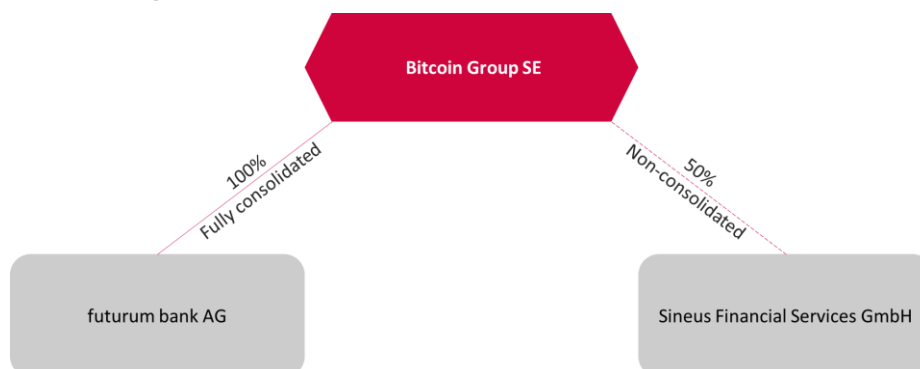
Date	Development
2011	Foundation of Bitcoin Deutschland GmbH and start of the crypto Marketplace bitcoin.com Bitcoin Deutschland GmbH is transformed into Bitcoin Deutschland AG
2013	A cooperation with Fidor Bank AG is established Listing of AE Innovative Capital SE on the Düsseldorf Stock Exchange Contribution of Bitcoin Deutschland AG to AE Innovative Capital SE
2015	AE Innovative Capital SE is renamed Bitcoin Group SE Start of the express trading function on bitcoin.de via Fidor Bank AG
2016	Xetra listing in Frankfurt
2017	Commencement of trading of Ethereum, Bitcoin Cash and Bitcoin Gold on bitcoin.com Bitcoin Group SE acquires a 50% stake in Sineus Financial Services GmbH
2018	Bitcoin Group SE acquires 100% of the shares in Tremmel Wertpapierhandelsbank GmbH Tremmel Wertpapierhandelsbank GmbH is renamed futurum bank GmbH futurum bank GmbH receives a licence extension according to §32 KWG (issuing and placement business)
2019	futurum bank GmbH is transformed into futurum bank AG futurum bank AG receives provisional permission to operate crypto custody business
2020	Merger of Bitcoin Deutschland AG into futurum bank AG, creating Germany's first crypto bank Commencement of trading Litecoin and Ripple on bitcoin.de
2021	Bitcoin Group SE reaches more than one million customers on cryptocurrency trading site bitcoin.de Start trading Doge on bitcoin.com

Sources: Bitcoin Group SE; GBC AG

Business model

Bitcoin Group SE is an investment and consulting company focused on Bitcoin and Blockchain technologies.

Shareholdings of the Bitcoin Group SE



Sources: Bitcoin Group SE; GBC AG

Currently, the company focuses almost entirely on the 100% investment futurum bank AG, which is fully consolidated. In addition to futurum bank AG, the company also holds a 50%

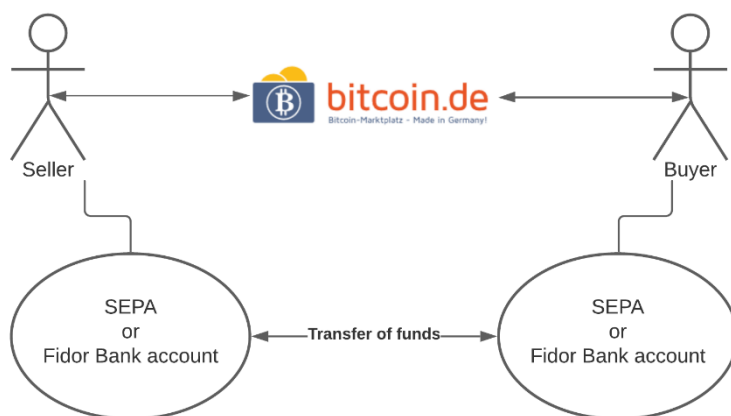
stake in Sineus Financial Services GmbH. Sineus Financial Services GmbH is currently not the focus of operations and is not contractually controlled, which is why it is not consolidated.

futurum bank AG was merged with Bitcoin Deutschland AG in 2020 and is now Germany's first crypto bank. On the one hand, futurum bank AG operates Germany's largest trading platform for cryptocurrencies **bitcoin.de** and, on the other hand, the classic business areas of a securities trading bank are addressed (such as capital market consulting, capital market measures and sales trading). As a crypto bank, the company also offers a crypto trading desk for institutional investors.

Bitcoin.de is a trading platform where users can trade different cryptocurrencies with each other. Currently, over one million users are registered. The trading platform differs from many crypto exchanges. Through a connection to the classic banking system via Fidor Bank AG, users can carry out transactions in the shortest possible time via "express trading". The euro capital is held in the respective Fidor bank accounts of the users and is thus subject to the regular deposit protection. The funds do not flow to the exchange provider futurum bank AG. The customers' crypto holdings are held in custody by futurum bank AG. In the event of successful transactions, futurum bank AG receives 0.66% to 1.0% commission in cryptocurrency.

For trading cryptocurrencies, users do not necessarily need their own wallet. The digital currencies acquired via bitcoin.de can be managed by bitcoin.de and remain in the bitcoin.de wallet system. This significantly simplifies the use of cryptocurrencies, as users do not have to take care of their own wallet. Nevertheless, there is also the possibility to have the cryptocurrency paid out to one's own wallet.

Transactions via bitcoin.com



Source: GBC AG

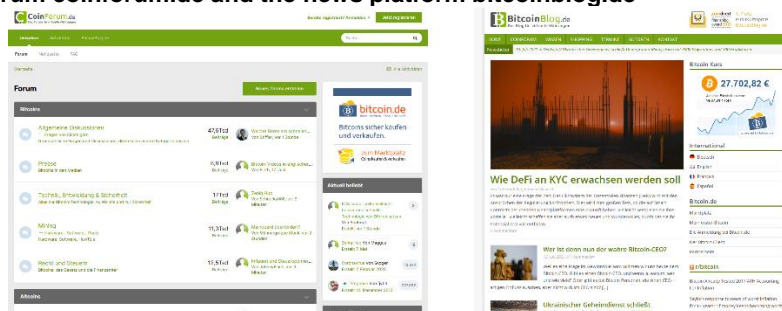
Payments between buyer and seller are made either via SEPA settlement or via the express trade of Fidor Bank. With SEPA trading, the buyer receives the seller's bank details after buying the cryptocurrency on bitcoin.de and transfers the corresponding euro amount within a period of time. The disadvantage in this procedure is that a SEPA transfer takes at least one day, which can make a significant difference in value with the volatile crypto prices. Therefore, bitcoin.de also offers automated payment processing via express trading. For this, at least the buyer needs an account with Fidor Bank, which is linked to bitcoin.de

In addition, a trust level was introduced to increase the trustworthiness between market participants. The more positively rated transactions a user has, the higher his trust level or, conversely, negative ratings lead to a reduction of the trust level.

Security is Bitcoin Group SE's top priority and so 98% of customer funds are stored in a cold wallet, which protects them from hacker attacks. A cold wallet is a cryptocurrency wallet that is not connected to the internet. With cold storage, the generation and storage of private keys occur in an offline environment. Moreover, the use of a cold wallet requires multiple people. In contrast, hot wallets are vulnerable to hackers in an online environment. Most exchanges and brokers have a large portion of their cryptocurrencies in cold wallets. This makes it impossible for hackers to steal cryptocurrency from the wallets. In addition, all crypto holdings are audited once a year by an independent German IT auditing company and their availability is certified.

Another reason for the great success of bitcoin.de, especially in German-speaking countries, is probably the regulation. While trading venues outside of Germany are often unregulated, bitcoin.de is regulated under a banking license via futurum bank AG.

The forum coinforum.de and the news platform bitcoinblog.de



Sources: Bitcoin Group SE; GBC AG

In addition, the Bitcoin Group operates the news platform bitcoinblog.de and the forum coinforum.de. These websites are at the same time advertising partners of bitcoin.de and serve as an important instrument for customer acquisition.

MARKET AND MARKET ENVIRONMENT

The primary business activities of Bitcoin Group SE are the crypto trading site bitcoin.de and investment banking activities including crypto investment banking solutions of futurum Bank. As an investment company in the field of cryptocurrencies, further business areas can be developed in the future.

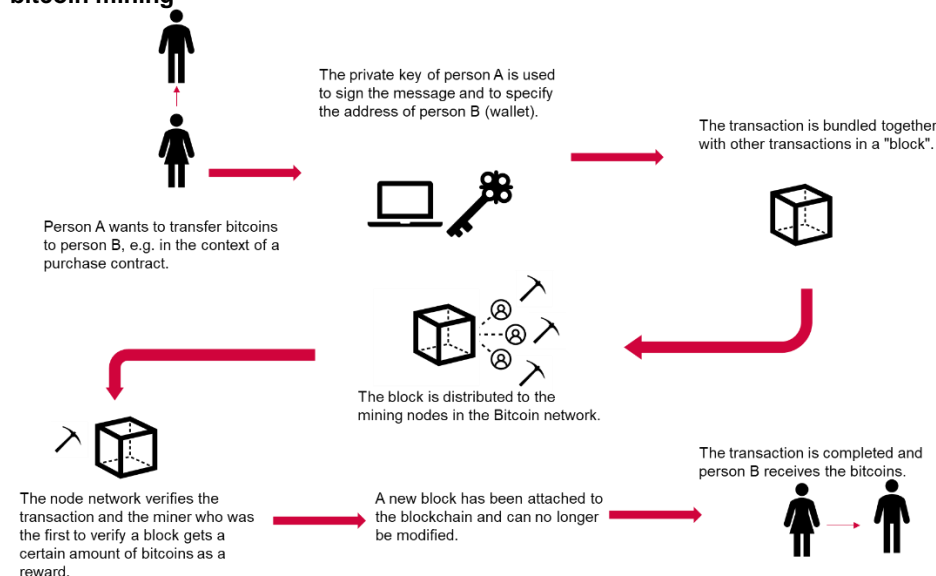
Bitcoin market

Bitcoin represents the most important digital currency for bitcoin.de and is also the most widespread and established cryptocurrency globally. It is the world's first blockchain-based cryptocurrency. The underlying algorithm sets the maximum amount of 21 million tokens, and so far there are an estimated 18.75 million in circulation, according to blockchain.com. It is estimated that the full amount of 21 million bitcoins will be created ("mined") by 2140.

bitcoin mining

Mining confirms transactions and at the same time rewards the miner (in this case a computer) with Bitcoins. Mining is done by solving sophisticated mathematical problems, which requires enormous computing power. While many miners compete to add each new block, the miner who solves the problem actually adds the block to the blockchain. Currently, the miner receives a reward of 6.25 bitcoins for each new block added. The reward reduces every 210,000 blocks or nearly every four years. In May 2020, the block reward for miners was cut in half from 12.5 BTC to 6.25 BTC per block. Also, Bitcoin is designed to adjust the difficulty required to mine a block. The difficulty is adjusted every 2016 blocks based on the time it took to find the previous 2016 blocks. At the desired rate of one block every 10 minutes, it would take exactly two weeks to find the 2016 blocks. If finding the previous 2016 blocks takes more than two weeks, the difficulty is reduced. If they take less than two weeks, the difficulty is increased.

bitcoin mining



Source: GBC AG

Bitcoin supply and demand

As with all other assets, the pricing of Bitcoin, like traditional currencies, is determined by supply and demand. The main difference between Bitcoin and traditional currencies is on the supply side. The supply of Bitcoin is fixed, whereas for many fiat currencies (fiat money = a national currency) the supply is controlled by central banks. Other major differences

still relate to institutional and private investors, liquidity, market sentiment, miners and technical factors.

The pre-programmed, finite supply of all Bitcoins determines the value of each Bitcoin. The maximum number of Bitcoins that will ever exist is just under 21 million, a number that is expected to be reached in 2140. Today, over 18.75 million Bitcoins have been mined, which is approximately 89% of the total supply of Bitcoin. This is why the typical comparison between Bitcoin and gold usually comes from a supply perspective, as the world's supply of gold is also limited to what can be found in the ground. And as with gold, Bitcoins cannot be created by a central bank or government. To the extent that the supply of something is fixed, the key driver of price becomes demand. After the last bitcoin is discovered, it will become a pure transaction system.

Bitcoin / EUR exchange rate



Source: GBC AG

Importantly, bitcoin transactions are not processed through a bank or clearing party.

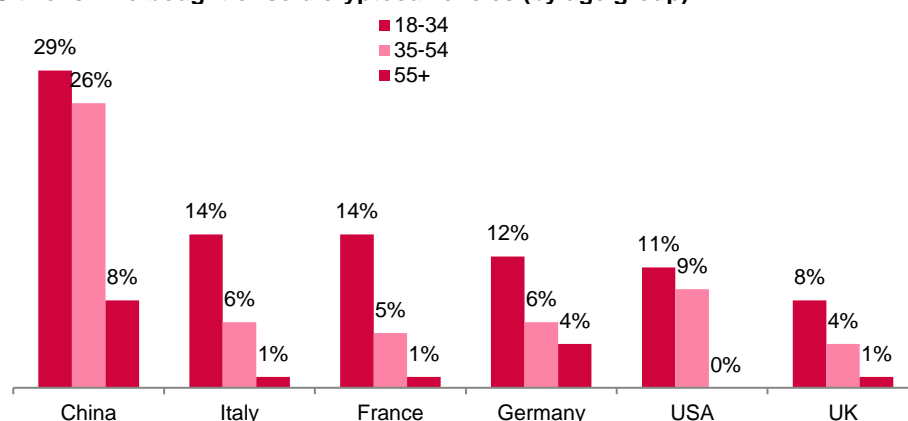
Bitcoin applications

In the early days, Bitcoin and other cryptocurrencies were sometimes used for many illegal purposes. This has changed as Bitcoin transactions are now much harder to hide. The majority of cryptocurrencies are not used for criminal activities. According to an excerpt from Chainalysis' 2021 report, criminal activity accounted for 2.1% of total cryptocurrency transaction volume in 2019 (about \$21.4 billion worth of transfers). In 2020, the criminal share of all cryptocurrency activity fell to just 0.34% (\$10.0 billion in transaction volume). According to the UN, it is estimated that between 2% and 5% of global GDP (US \$ 1.6 trillion to US \$ 4 trillion) is associated with money laundering and illicit activities annually. This means that criminal activities using Bitcoin transactions are much smaller than fiat currencies and their criminal use is decreasing year by year.

Cryptocurrency adoption rates are influenced by generational views, according to Deutsche Bank dbDIG. Older people have fears about cryptocurrencies. They believe cryptocurrencies lead to volatile financial bubbles (like the dotcom bust) and see them as financial instruments with low liquidity. One-third of respondents had no idea how cryptocurrencies work, and 40% had only a partial understanding. In contrast, about one-third of Millennials believed cryptocurrencies will replace cash and credit/debit cards. However, it also shows that there is still a very low adoption rate compared to China, which could level out in the medium term and increase the addressable market for bitcoin.de.

Bitcoin's market capitalization of \$ 1 trillion at times and the scope for further price appreciation make it too important to ignore. Central banks and governments now understand that Bitcoin and other cryptocurrencies are a long-term phenomenon. It is safe to assume that more regulation will come. This may also have the positive effect of making cryptocurrency even more widely accepted. Nevertheless, liquidity and tradability are currently a hurdle. Trading sites like bitcoin.de, which already comply with national regulation, should help to further reduce these hurdles. Due to the illiquidity and the final limited supply of Bitcoin, we would rather classify it with comparable commodity asset classes (such as gold) than as a classic currency.

Citizens who bought or sold cryptocurrencies (by age group)



Source: Deutsche Bank dbDIG

Overall, we see Bitcoin as an established asset class, which facilitates access to cryptocurrencies for the general population, but also for professional investors, through platforms such as bitcoin.de.

Crypto Trading Sites

A trading platform for cryptocurrencies is offered under the domain bitcoin.de. Currently, the currencies Bitcoin, Bitcoin Cash, Bitcoin Gold, Bitcoin SV, Ethereum, Doge Coin and Litecoin are offered. Further digital currencies are to follow. Here, the company is in direct competition with other trading venues and exchanges. From a global perspective, bitcoin.de still plays a minor role, but bitcoin.de is one of the best-known trading venues in German-speaking countries.

While other exchanges and trading venues have more currencies and higher liquidity, their high attractiveness in German-speaking countries is likely due to their operability or easy access, the lack of a language barrier, their affordability in euros and especially the local German regulation. Due to the German headquarters and the BaFin regulation with a banking license, more regulatory security and enforceability can be ensured for the customers. Thus, alternative trading venues should not automatically pose a threat to bitcoin.de only due to lower fees or higher liquidity.

In addition, the published volume figures of other cryptocurrency exchanges should be viewed critically. While many use CoinMarketCap as their first stop for cryptocurrency market data, according to a report by Bitwise Asset Management, about 95% of the bitcoin trading volume reported by this site is skewed.

The biggest cryptocurrencies

Below are the 10 largest cryptocurrencies by market capitalization (according to CoinMarketCap as of 08/13/2021). In addition, there are other currencies that can be traded on bitcoin.de with the corresponding ranking by market capitalization.

1. bitcoin (BTC)

Market capitalisation of USD 737.86 billion
Tradable on Bitcoin.com: Yes

Bitcoin is a decentralized digital currency without a central bank or a single custodian that can be sent from user to user on the peer-to-peer Bitcoin network without an intermediary. Transactions are verified by network nodes through cryptography and recorded in a public distributed ledger, the blockchain.

2. ethereum (ETH)

Market capitalisation of USD 319.94 billion
Tradable on Bitcoin.com: Yes

Ethereum is a decentralized, open source blockchain with smart contract functionality. Ethereum is a blockchain platform with its own cryptocurrency, called Ether (ETH) or Ethereum, and its own programming language, called Solidity. As a blockchain network, Ethereum is a decentralized public ledger for verifying and recording transactions. Users of the network can create, publish, monetize, and use applications on the platform and use the cryptocurrency Ether as a payment method. Ethereum users pay fees to use dApps. The fees are referred to as "gas" because they vary depending on the computing power required.

3. binance coin (BNB)

Market capitalisation of USD 319.94 billion
Tradable on Bitcoin.com: No

Binance Coin is the cryptocurrency issued by the Binance exchange. Binance was originally based on the Ethereum network, but is now the native currency of Binance's own blockchain, the Binance Chain. Binance was created in 2017 as a utility token for discounted trading fees, but its uses have expanded to include numerous applications, including payments for transaction fees (on the Binance chain), travel bookings, entertainment, online services, and financial services.

4. cardano (ADA)

Market capitalisation of USD 53.82 billion
Tradable on Bitcoin.com: No

Cardano is a blockchain platform designed to serve as a development platform for decentralized applications (DApp) with a multi-asset ledger and verifiable smart contracts. Cardano is built in five stages: Foundation, Decentralization, Smart Contracts, Scaling, and Governance. Cardano runs on the proof-of-stake consensus protocol Ouroboros, and developments are supported by academic research. Oversight of Cardano is decentralized and shared between the Cardano Foundation, IOHK, and EMURGO.

5. tether (USDT)

Market capitalization of 53.68 billion USD
Tradable on Bitcoin.com: No

Tether is a stablecoin (fiat currency backed), a type of cryptocurrency that aims to keep cryptocurrency valuations stable. Tether is used by crypto investors who want to avoid the extreme volatility of other cryptocurrencies while keeping value within the crypto market. In April 2019, the New York Attorney General accused Tether's parent company of hiding an \$850 million loss.

6. ripple (XRP)

Market capitalisation of USD 40.75 billion

Tradable on Bitcoin.com: Yes

Ripple, or XRP, is both a cryptocurrency and a platform. Technically, Ripple is the name of the company and the network, and XRP is the cryptocurrency. The Ripple platform is an open-source protocol designed to enable fast and inexpensive digital transactions.

7. dogecoin (DOGE)

Market capitalisation of USD 30.69 billion

Tradable on Bitcoin.com: Yes

Dogecoin (DOGE) is a peer-to-peer, open-source cryptocurrency. It is considered an alt-coin and was started as a joke or meme coin. Dogecoin was launched in December 2013 and has the image of a Shiba Inu dog as its logo. Although it was seemingly created as a joke, Dogecoin's blockchain still has its merits. The underlying technology is derived from Litecoin. Notable features of Dogecoin, which uses a scrypt algorithm, are its low price and unlimited supply. Dogecoin has a loyal community of followers who trade it and use it as a tip currency for social media content.

8 USD Coin (USDC)

Market capitalisation of USD 23.75 billion

Tradable on Bitcoin.com: No

USD Coin is a digital stablecoin pegged to the US dollar that runs on the Ethereum, Stellar, Algorand, and Solana blockchains, as well as the Hedera hashgraph system. USD Coin is managed by a consortium called Centre, which was founded by Circle and includes members of cryptocurrency exchange Coinbase and bitcoin mining company Bitmain, an investor in Circle. Circle claims that each USDC is backed by a dollar held in reserve or by other "approved investments," but does not elaborate. The wording on Circle's website was changed in June 2021 from "backed by U.S. dollars" to "backed by fully reserved assets." USDC reserves are periodically certified (but not audited) by the accounting firm Grant Thornton LLP, and monthly certifications are available on the Centre Consortium website. On March 29, 2021, Visa announced that it will permit the use of USDC to process transactions on its payment network.

9. polkadot (DOT)

Market capitalization of USD 18.34 billion

Tradable on Bitcoin.com: No

Polkadot is a unique proof-of-stake cryptocurrency that aims to ensure interoperability between other blockchains. The protocol is designed to connect permissioned and permissionless blockchains, as well as oracles, so that the systems can work together under one roof. The core component of Polkadot is its relay chain, which enables interoperability between different networks. It also enables "parachains" or parallel blockchains with their own tokens for specific use cases. The difference between Polkadot and Ethereum is that developers can not only create decentralized applications on Polkadot, but also create their own blockchain while leveraging the security of the Polkadot chain. On Ethereum, developers can create new blockchains, but they have to create their own security, which

can make new and smaller projects vulnerable because the larger a blockchain is, the more security it provides. This concept in Polkadot is known as shared security.

10. uniswap (UNI)

Market capitalisation of USD 14.74 billion

Tradable on Bitcoin.com: No

Uniswap is a type of decentralized exchange, meaning it is not owned and operated by a single entity and uses a relatively new type of trading model called an automated liquidity protocol.

The Uniswap platform was built in 2018 on the Ethereum blockchain, the second largest cryptocurrency project in the world by market cap, making it compatible with all ERC-20 tokens and infrastructures such as wallet services like MetaMask and MyEtherWallet, among others.

Uniswap is also completely open source, which means anyone can copy the code to create their own decentralized exchanges. It even allows users to list tokens on the exchange for free. Normal centralized exchanges are for-profit and charge very high fees for listing new coins, so this alone is a notable difference. Since Uniswap is a decentralized exchange (DEX), this also means that users retain control of their funds at all times, unlike a centralized exchange where traders have to give up control of their private keys so that orders can be logged to an internal database instead of being executed on a blockchain, which is more time-consuming and expensive. Maintaining control over private keys removes the risk of losing assets if the exchange is ever hacked. According to recent figures, Uniswap is currently the fourth largest decentralized financial platform (DeFi) and has over \$ 3 billion worth of crypto assets stored on its protocol.

Other currencies traded on bitcoin.de

13. bitcoin cash (BCH)

Market capitalisation of USD 10.11 billion

Tradable on Bitcoin.com: Yes

Bitcoin Cash (BCH) holds an important place in the history of altcoins, as it is one of the earliest and most successful hard forks of the original Bitcoin. In the world of cryptocurrencies, a fork is the result of debates and disputes between developers and miners. Due to the decentralized nature of digital currencies, extensive changes to the code underlying each token or coin must be made based on a general consensus, and the mechanism for this process varies by cryptocurrency. When different factions cannot agree, the digital currency is sometimes split, with the original chain staying true to its original code and the new chain starting as a new version of the previous coin with changes to its code. BCH began its life in August 2017 as a result of one of these splits. The debate that led to the creation of BCH had to do with the issue of scalability; the Bitcoin network has a limit on the size of blocks: one megabyte. BCH increases the block size from one MB to eight MB because larger blocks can hold more transactions, increasing transaction speed. Other changes are also being made, including the elimination of the Segregated Witness protocol, which affects the block size.

14. litecoin (LTC)

Market capitalization of USD 10.01 billion

Tradable on Bitcoin.com: Yes

Launched in 2011, Litecoin was among the first cryptocurrencies to follow in Bitcoin's footsteps and is often referred to as the "silver to Bitcoin's gold". Litecoin is based on an open-source global payment network that is not controlled by a central authority, and uses "Script" as a working credential that can be decrypted using consumer-grade CPUs. Although Litecoin is similar to Bitcoin in many ways, it has a faster block generation rate and therefore offers a faster transaction confirmation time.

45. bitcoin SV (BSV)

Market capitalization of USD 2.55 billion

Tradable on Bitcoin.com: Yes

On November 15, 2018, a hard fork chain split of Bitcoin Cash occurred between two rival factions called Bitcoin Cash and Bitcoin SV.

One camp, backed by entrepreneurs Roger Ver and Jihan Wu of Bitmain, promoted Bitcoin ABC (short for Adjustable Blocksize Cap) software that would keep the block size at 32 MB. The other camp, led by Craig Steven Wright and billionaire Calvin Ayre, promoted a competing software version Bitcoin SV (short for "Bitcoin Satoshi Vision") that would increase the block size to 128 MB.

84. bitcoin gold (BTG)

Market capitalisation of USD 0.90 billion

Tradable on Bitcoin.com: Yes

Bitcoin Gold is a hard fork of the original open-source cryptocurrency that took place on October 24, 2017. While hard forks happen for a number of reasons - including scaling as a cryptocurrency's customer base grows, or due to conflicts between developers and differing goals - Bitcoin Gold's stated purpose was to "make Bitcoin decentralized again." Bitcoin Gold was one of the largest and most talked about Bitcoin forks. On the surface, the idea of "making Bitcoin decentralized again" may seem counterintuitive. Like all other cryptocurrencies, Bitcoin is already decentralized; it is not tied to a central bank, a specific country, or a government agency.

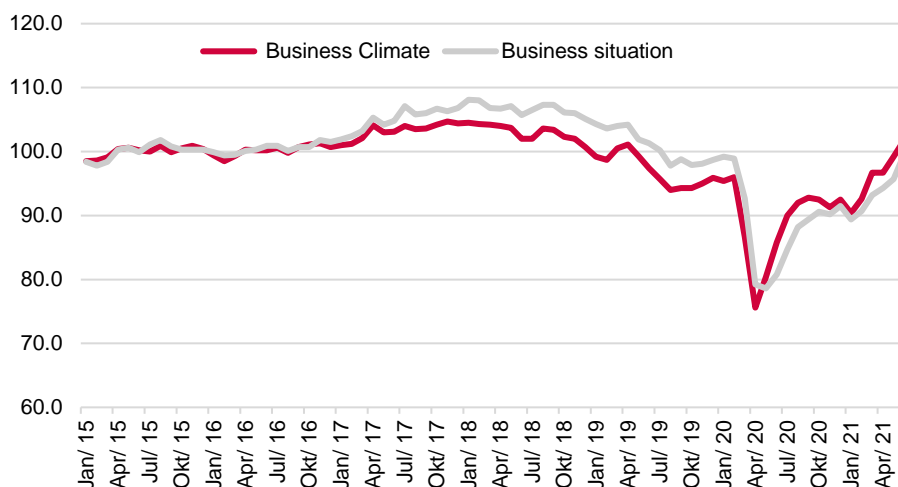
However, one of the main problems with Bitcoin that led to the development of Bitcoin Gold had nothing to do with the issue of centralized issuance. Rather, it had to do with the mining process. The developers of Bitcoin Gold believe that by introducing a new algorithm for the mining process (in this case, a so-called proof-of-work algorithm called Equihash-BTG), the new branch of the world's most popular cryptocurrency by market capitalization would not disproportionately benefit the large mining operations.

Capital market

In addition to bitcoin.de, futurum bank AG is also active in investment banking. Here, the German capital market in particular should be relevant.

The falling number of cases and the increasing relief in dealing with the Covid-19 pandemic strengthen the outlook for a positive future economic development. The German economy is expected to grow by 3.3% this year and by 4.4% next year. The Ifo business climate index is rising sharply again, reaching 101.8 points in June 2021, its highest level since October 2018, and optimism looking ahead to the second half of the year has also increased. The German economy is shaking off the corona crisis relatively well.

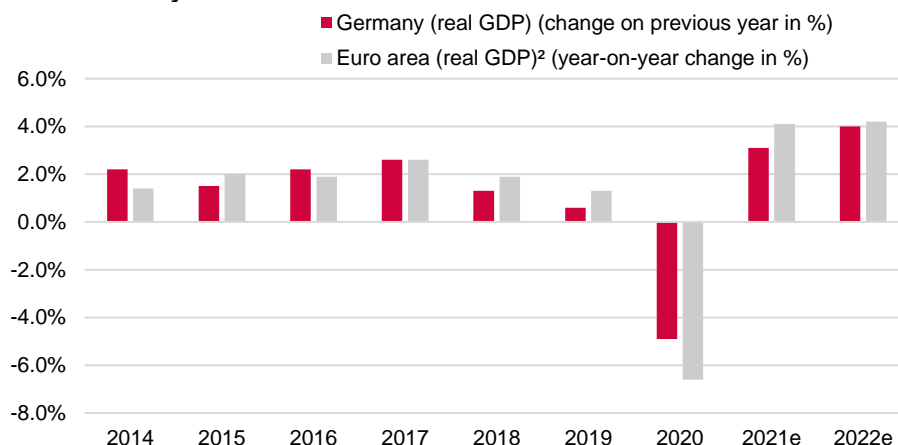
ifo Business Climate Germany



Source: ifo Business Surveys

The German Council of Economic Experts expects Germany's gross domestic product (GDP) to grow by 3.1% this year. In the coming year, the economic recovery is expected to continue at a rapid pace, supported not least by the reduction of the private savings backlog and rising global demand. The German Council of Economic Experts expects GDP to rise by 4.0% in 2022. Consumer price inflation is likely to pick up temporarily this year, in particular due to higher energy prices and the expiry of the sales tax cut. For 2021 and 2022, the German Council of Economic Experts expects an average annual inflation rate in Germany of 2.1% and 1.9%, respectively. In the euro area, the GCEE expects GDP growth of 4.1% and 4.2% in 2021 and 2022, respectively.

GDP in Germany and the euro area



Sources: Eurostat, Federal Statistical Office, German Council of Economic Experts

There is currently a risk of a further wave of infections in Germany and Europe intensified by the spread of mutations of the Covid-19 virus. A sharp rise in the number of infections could delay economic recovery, especially if industry were severely affected by restrictions and plant closures. In contrast, faster progress in vaccination could contain the pandemic earlier, allow restrictions to be lifted, and accelerate recovery.

Both the DAX and the Stoxx600 were able to extend their previous quarterly records in the second quarter and the indices were trading within reach of their all-time highs at the end of June. While markets have benefited from rising vaccination figures over the past three months, they have also reacted to inflation concerns that are currently preoccupying

investors and central banks, leading some market participants to assume a possible summer correction. Furthermore, there are a number of factors that could put additional pressure on the markets in the coming months, in particular the discussions about a reduction in bond purchases by central banks as well as the growing pressure on margins and higher taxation of companies.

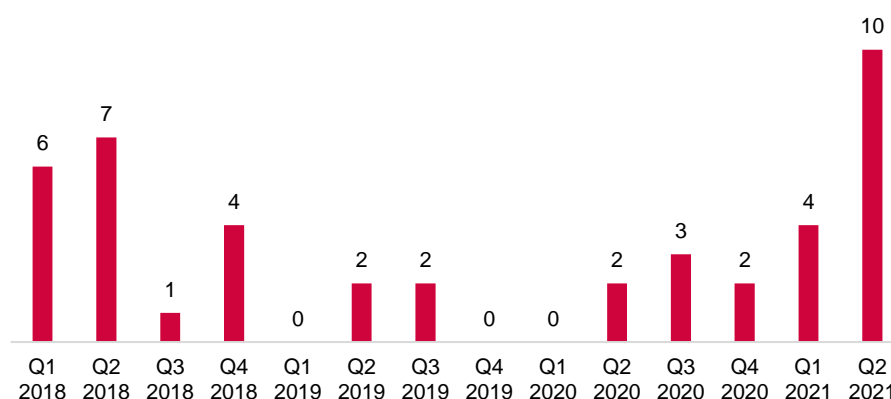
Development of the DAX and Stoxx600 (01.01.2016 = 100% basis)



Source: ariva.de

In the first half of 2021, 14 companies have already ventured onto the Frankfurt Stock Exchange, which could lead to a record year in 2021. With the total issuance volume of € 8.8 billion already reached, the already strong IPO year of 2018 could be surpassed with 18 IPOs and € 11.38 billion in issuance proceeds. Q2 2021 alone saw 10 IPOs, more than any quarter in 20 years. In addition to traditional IPOs, three SPACs were also listed (shell companies with substantial liquidity targeting unprecedented acquisitions). Moreover, according to our market research, the IPO pipeline is well filled for the second half of the year.

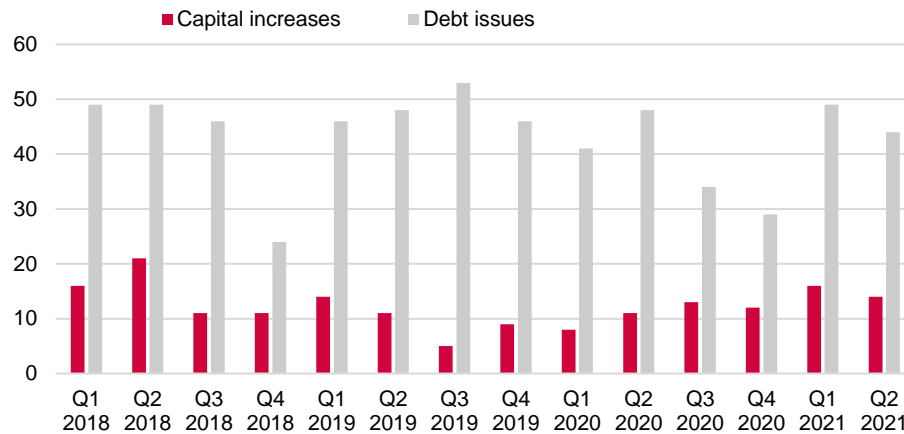
number of IPOs



Source: Deutsche Börse

The number of capital increases in the regulated market has also increased significantly in 2021. In Q1 2021, 16 (PY: 8) capital increases were carried out and in Q2 2021 14 (PY: 11). The number of debt capital issues also increased to 93 (PY: 89) in the first half of 2021.

Number of transactions



Source: Deutsche Börse

Overall, the stock market sentiment in 2021 is very good. The capital markets are reaching new highs and a record number of transactions have been carried out. We assume that futurum bank will also successfully accompany capital measures in the small and midcap segment and should conclude a successful year in investment banking.

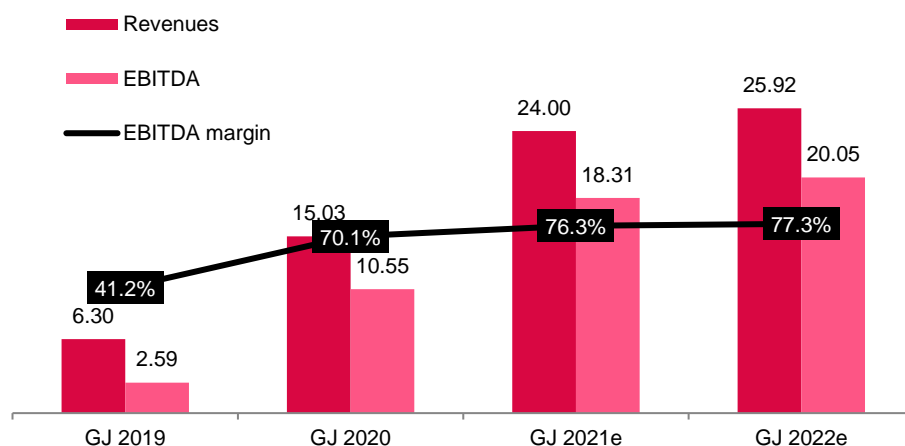
CORPORATE DEVELOPMENT

Key figures at a glance

	FY 2019	FY 2020	FY 2021e	FY 2022e
Revenues	6.30	15.03	24.00	25.92
Other operating income	0.09	0.21	0.08	0.05
Other operating expenses	-1.47	-1.90	-2.56	-2.61
Cost of materials	-0.90	-0.48	-0.51	-0.53
Personnel expenses	-1.42	-2.31	-2.70	-2.78
EBITDA	2.59	10.55	18.31	20.05
Depreciation	-0.06	-0.12	-0.65	-0.66
Depreciation/amortization (cryptocurrencies)	0.70	3.12	0.00	0.00
EBIT	3.24	13.54	17.66	19.39
Financing income	0.04	0.01	0.01	0.00
Financing income from affiliated companies	0.00	0.00	-0.02	0.00
Financing costs of affiliated companies	0.00	0.00	0.00	0.00
Financial expenses	-0.01	-0.02	-0.02	-0.02
profit before tax	3.27	13.53	17.62	19.37
Actual tax expense	-1.13	-4.01	-5.22	-5.74
Income from deferred taxes	0.00	0.00	0.00	0.00
Net result	2.15	9.52	12.40	13.63
Revenues	6.30	15.03	24.00	25.92
EBITDA	2.59	10.55	18.31	20.05
<i>EBITDA margin</i>	<i>41.2%</i>	<i>70.1%</i>	<i>76.3%</i>	<i>77.3%</i>
EBIT	3.24	13.54	17.66	19.39
<i>EBIT margin</i>	<i>51.4%</i>	<i>90.1%</i>	<i>73.6%</i>	<i>74.8%</i>
Net result	2.15	9.52	12.40	13.63
<i>Net margin</i>	<i>34.2%</i>	<i>63.3%</i>	<i>51.7%</i>	<i>52.6%</i>

Source: GBC AG

Development of revenue, EBITDA (in € million) and EBITDA margin (in %)



Source: GBC AG

Business development 2020

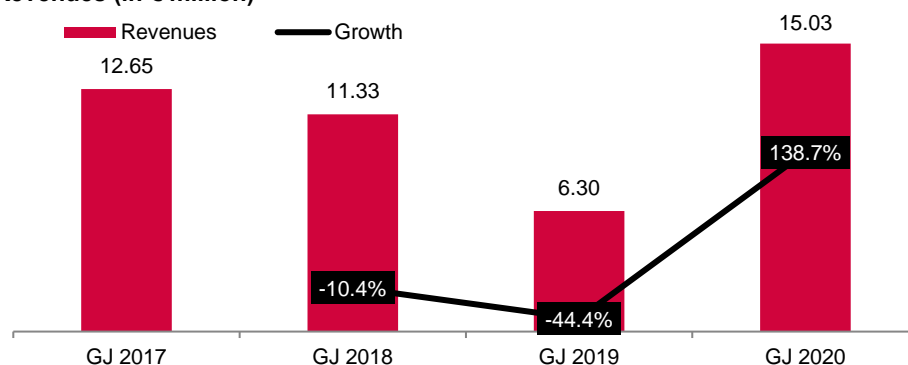
P&L (in € million)	FY 2018	FY 2019	FY 2020
Revenues	11.33	6.30	15.03
EBITDA	2.46	3.29	13.66
EBITDA margin	21.7%	52.3%	90.9%
EBIT	2.43	3.24	13.54
EBIT margin	21.5%	51.4%	90.1%
Net income for the year	1.55	2.15	9.52
EPS in €	0.31	0.43	1.90

Sources: Bitcoin Group SE, GBC AG

Sales development

Revenues increased by 138.7% to € 15.03 million (previous year: € 6.30 million) in the financial year 2022. The significant increase is also based on the comparatively low revenue base from the 2019 financial year, which at € 6.30 million was significantly lower than in previous years. The background to this volatile revenue development is the number and volume of cryptocurrencies traded. There was comparatively little trading volume in the 2019 financial year. The commission amounts to 0.66% to 1.0% of the respective transaction volumes, irrespective of the trading volume.

Revenues (in € million)



Sources: Bitcoin Group SE, GBC AG

An essential factor for trading volume should be, on the one hand, price development and, on the other hand, the news flow regarding the cryptocurrencies. The Bitcoin price is used as a benchmark, as this is a kind of lead currency and also represents the most important value driver on bitcoin.de alongside Ethereum. The development of sales can therefore also be partially explained by bitcoin price development: The year **2017** was marked by significant price explosions, which were accompanied by a corresponding media attention. Thus, Bitcoin rose from around € 1,000 to over € 16,000.

Bitcoin exchange rate in the financial years 2017 to 2020 (BTC / EUR)

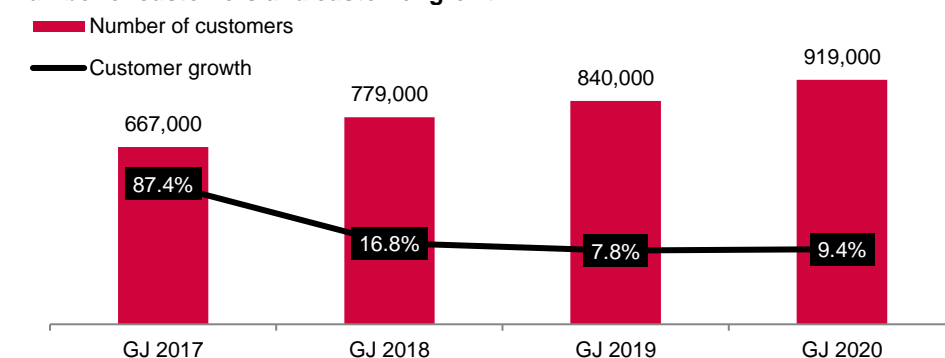


Source: GBC AG

A contrary development took place in **2018** with a drop in the price and also in media interest. At the start of the year, the bitcoin price had been at around € 11,000 but had fallen to around € 3,000 towards year's end. The year **2019** was comparatively calm with a less volatile upward movement from € 3,000 to around € 6,500. After being in the media spotlight for nearly two years, cryptocurrency received less attention from the broader media landscape in 2019. Accordingly, there was also less trading activity on the bitcoin.de trading platform.

At the beginning of **2020**, the outlook for Bitcoin was not very promising. Market liquidity remained comparatively low, and institutional investors were still shying away from cryptocurrencies. Then came the Covid-19 pandemic. Numerous monetary stimulus measures were adopted by central banks and Bitcoin was increasingly used as a store of value to escape negative interest rates. In the economic environment of low interest rates and fear of macroeconomic turmoil, many institutional investors also invested heavily in cryptocurrencies. Unlike Bitcoin's price surge in 2017, when press reports were mostly negative, this time the accompaniment was more positive. As a result, more institutional investors are now betting on Bitcoin. Listed companies such as Square and MicroStrategy have also invested in Bitcoin, with the latter company making Bitcoin a key part of its treasury management strategy. On 31.12.2020, the highest price to date of around 23,800 BTC/EUR was then initially reached.

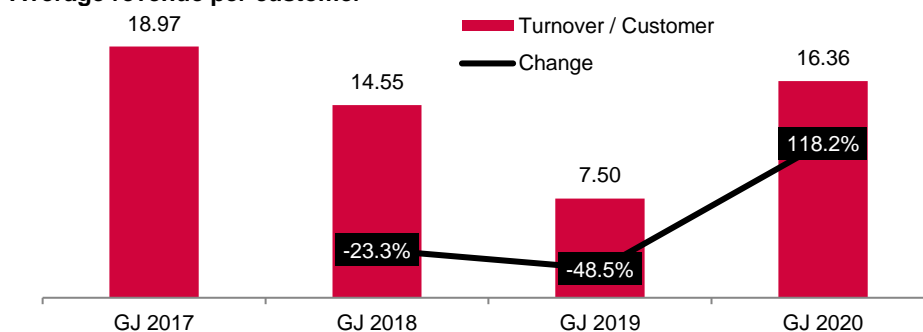
Number of customers and customer growth



Sources: Bitcoin Group SE, GBC AG

Despite the low trading interest in 2019 and less than spectacular price performance, Bitcoin Group has seen customer growth across all years. There has been very solid customer growth over the last few years, from 667,000 (FY 2017) to 779,000 (FY 2018) to 840,000 (FY 2019) and most recently a further increase of 9.4% to 919,000.

Average revenue per customer



Sources: Bitcoin Group SE, GBC AG

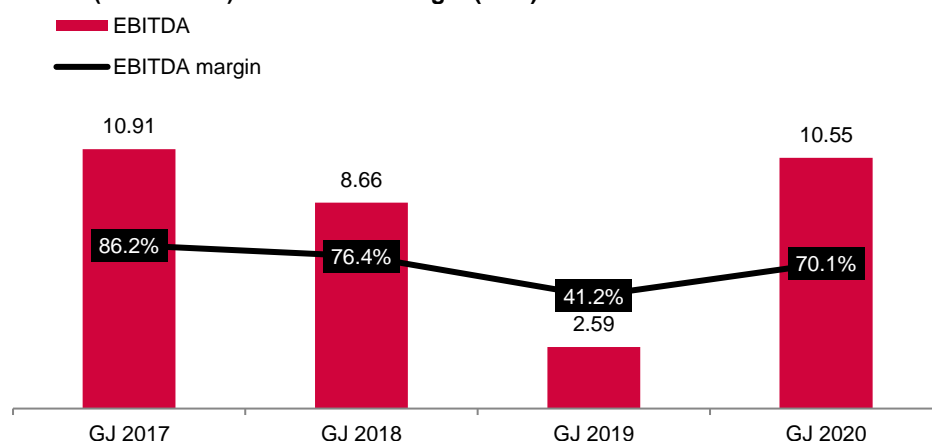
However, this also means that revenue cannot be derived from the number of customers alone. For example, it can be seen that the average revenue per customer in 2017 was € 18.97, the highest in the company's recent history, followed by € 16.36 in 2020 and € 14.55

in 2018 and € 7.50 in 2019. Nevertheless, the steady growth in customers proves the high level of interest in the bitcoin.de platform and also represents a key parameter for maximum revenue generation.

Earnings development

At € 10.55 million (PY: € 2.59 million), the significant increase in revenue was disproportionately reflected in EBITDA. As a result, the EBITDA margin increased from 41.2% (FY 2019) to 70.1% (FY 2020).

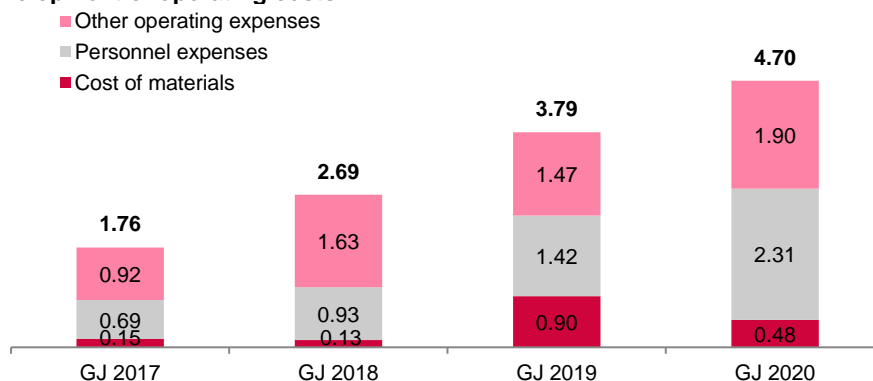
EBITDA (in € million) and EBITDA margin (in %)



Sources: Bitcoin Group SE; GBC AG

It can be seen that the business model is extremely scalable and that sales expansions have hardly any impact on the cost base. Total operating costs rose by only 24% to € 4.70 million (previous year: € 3.79 million). The largest cost effect was due to the full consolidation of futurum bank AG, which resulted in higher personnel costs, increasing personnel expenses by 62.9% to € 2.31 million (previous year: € 1.42 million). At the same time, other operating expenses rose by 29.7% to € 1.90 million (previous year: € 1.47 million); of this amount, € 0.42 million (previous year: € 0.25 million) was accounted for by legal and consulting costs, which are partly related to the consolidation of futurum bank AG. In contrast, the cost of materials fell by 46.4% to € 0.48 million (previous year: € 0.9 million), which is primarily due to project-related costs in investment banking.

Development of operating costs

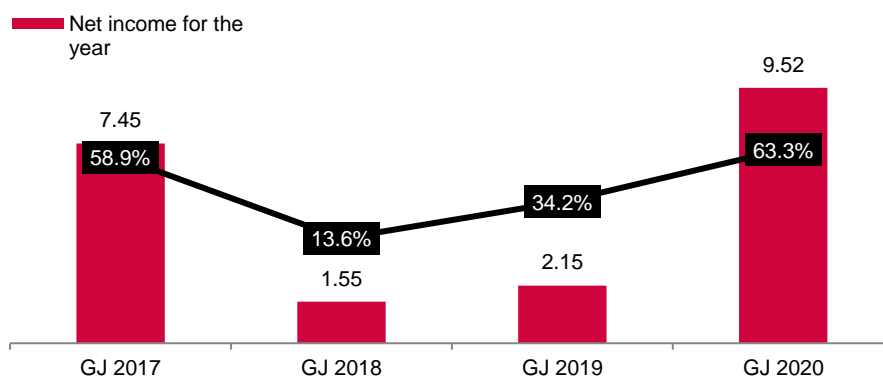


Sources: Bitcoin Group SE; GBC AG

Depreciation (€ 0.12 million) and the financial result (€ -0.01 million) play a very minor role. However, revaluations of crypto stocks have significant P&L effects. Cryptocurrencies are revalued on the respective reporting date, which led to a write-up of € 3.12 million (previous

year: € 0.70 million). Adjusted for this valuation effect, EBT amounted to € 10.41 million (previous year: € 2.58 million), unadjusted to € 13.53 million (previous year: € 3.27 million). As the reversal of impairment losses is a valuation effect, it is cash-neutral. We have therefore adjusted EBT. At 38.5% or € 4.01 million (previous year: 43.7% or € 1.13 million), the tax burden is very high in relation to adjusted EBT. The background to this is higher profits under commercial law in accordance with German tax regulations compared to the reported profit in accordance with IFRS.

Net income (in € million) and net margin (in %)



Sources: Bitcoin Group SE; GBC AG

Overall, net income increased to € 9.52 million in FY 2020 (PY: € 2.15 million), representing a margin improvement from 34.2% (FY 2019) to 63.3% (FY 2020).

Business development 1st half-year 2021

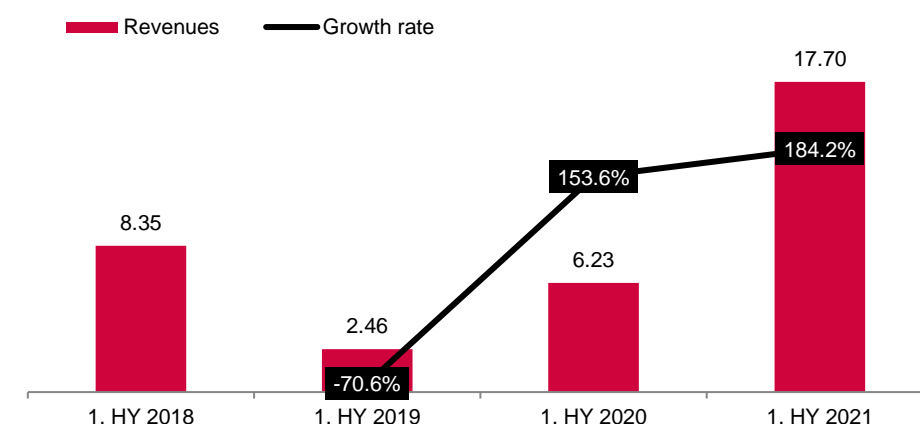
in € m	HY1 2019	HY1 2020	HY1 2021
Revenues	2.46	6.23	17.70
EBITDA	1.23	4.18	14.44
EBITDA margin	50.1%	67.1%	81.6%
EBIT	1.22	4.12	14.03
EBIT margin	49.9%	66.1%	79.2%
Net income for the year	2.85	3.51	10.17
EPS in €	0.57	0.70	2.03

Sources: Bitcoin Group SE; GBC AG

Sales development

For the first half of 2021, the Bitcoin Group increased revenues by 184.2% to € 17.70 million (PY: € 6.23 million). This means that revenues in the first half of 2021 were higher than the full-year revenues of € 15.03 million in 2020. This dynamic development is largely due to the strong price increases of cryptocurrencies in the first quarter of 2021. The company should have benefited here in particular from the price development of Bitcoin but also of Ethereum. Due to the strong price development, the topic of cryptocurrencies was also increasingly covered in the press, which should also have led to an increased trading volume. Thus, the target of one million customers was already reached by the end of the first half of 2021.

Revenues (in € million)



BTC/USD returned around 280% in the 12-month period ending June 30, 2021 and around 20% in the six-month period of 2021. The majority of BTC returns were achieved in the fourth quarter of 2020 and the first quarter of 2021 before the cryptocurrency's price fell in the second quarter of 2021. BTC/USD peaked at USD 64,899 (EUR 54,203) on April 13 and closed the period at USD 34,996 (EUR 29,636).

The global number of BTC holders continued to rise in the first half of the year as cryptocurrency education and access improved. According to Coinbase, the total number of unique Bitcoin addresses that have a BTC balance greater than zero was 38 million at the end of the first half, up from 33 million at the beginning of the period. We believe that this metric likely lags well behind actual user growth, as many of the fastest-growing access points for BTC holders are platforms that use omnibus wallet infrastructures (such as bitcoin.com) on their backend that hold funds for many end users.

Bitcoin exchange rate in the financial years 2020 to H1 2021 (BTC / EUR)



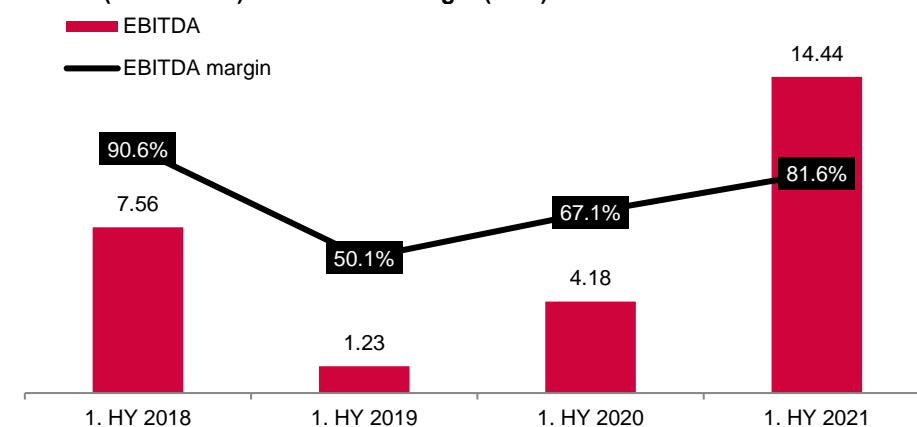
Source: GBC AG

Furthermore, the addition of the two new currency pairs Ripple and Dogecoin should have increased the attractiveness of bitcoin.de. This could have been conducive to customer growth and trading volume and generated corresponding revenues.

Earnings development

The dynamic increase in sales led to a disproportionate improvement in earnings due to the high scalability of the business model. EBITDA rose by 245.8% to € 14.44 million in the first half of 2021 (previous year: € 4.18 million). At the same time, the EBITDA margin increased from 67.1% (H1 2020) to 81.6% (H1 2021).

EBITDA (in € million) and EBITDA margin (in %)

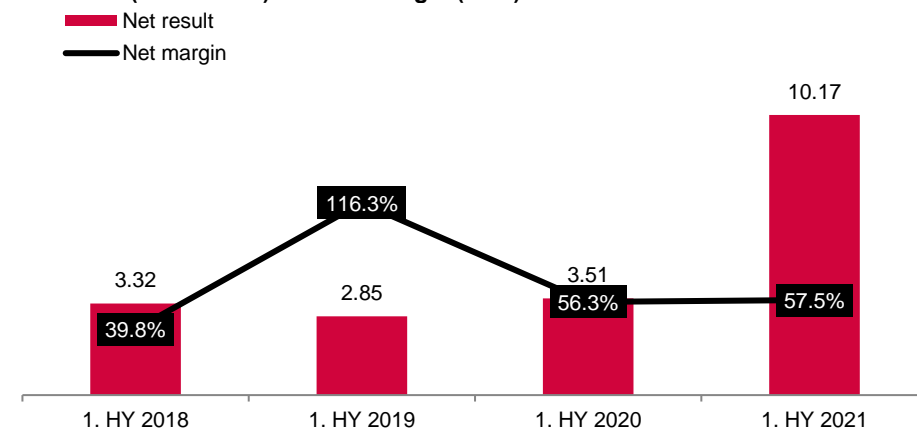


Sources: Bitcoin Group SE; GBC AG

The main cost items that increased were personnel expenses and other operating expenses. Personnel expenses rose by 32.5% to € 1.44 million (previous year: € 1.09 million), due in part to performance-linked remuneration of employees and the additional remuneration of the Board of Directors for the new Board member Mr. Per Hlawatschek, who was appointed to the Board of Directors on May 1, 2021.

Other operating expenses increased by 92.9% to € 1.55 million (PY: € 0.80 million), which is mainly due to increased marketing costs and increased network fees. However, the marketing costs do not relate to classic advertising, but are incurred as part of bitcoin.de's affiliate program. This allows users to refer new customers and receive a 10% refund of the marketplace fee for six months. The network fee is incurred for crypto transfers and is passed on to the customer.

Net result (in € million) and net margin (in %)



Sources: Bitcoin Group SE; GBC AG

As a result, the net result for the first half of the year increased by 190.0% to € 10.17 million (previous year: € 3.51 million), which was disproportionately high compared to sales.

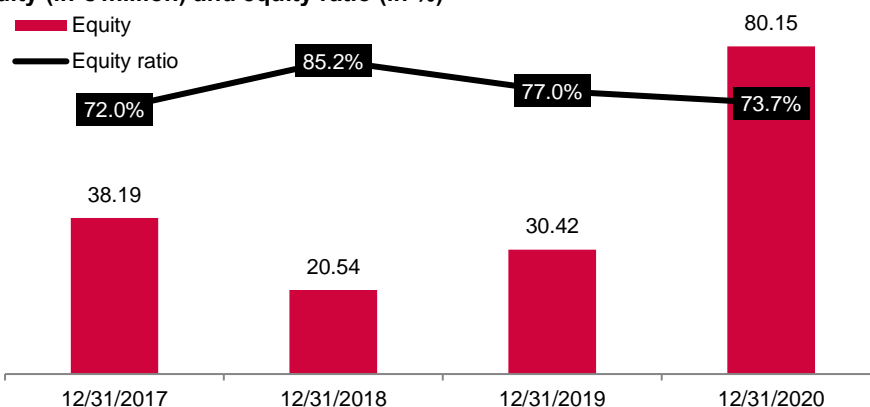
Balance sheet and financial situation as of 30.12.2020

in € m	31.12.2017	31.12.2018	31.12.2019	31.12.2020
Equity	38.19	20.54	30.42	80.15
Equity ratio (in %)	72.0%	85.2%	77.0%	73.7%
Operating fixed assets	0.12	0.10	1.64	1.57
working capital	-3.45	0.34	-0.78	-4.12
net cash	-7.14	-2.25	-4.52	-12.02
Cashflow - operating	6.69	-1.11	-0.36	7.41
Cashflow - investment	-0.11	-3.69	2.53	-0.04
Cashflow - financing	0.00	0.00	-0.02	-0.07

Sources: Bitcoin Group SE; GBC AG

Bitcoin Group SE has a very solid balance sheet. Equity increased to € 80.15 million as of 31.12.2020 (31.12.2019: € 30.42 million), which means that the equity ratio remains at a high 73.7% (31.12.2019: 77.0%).

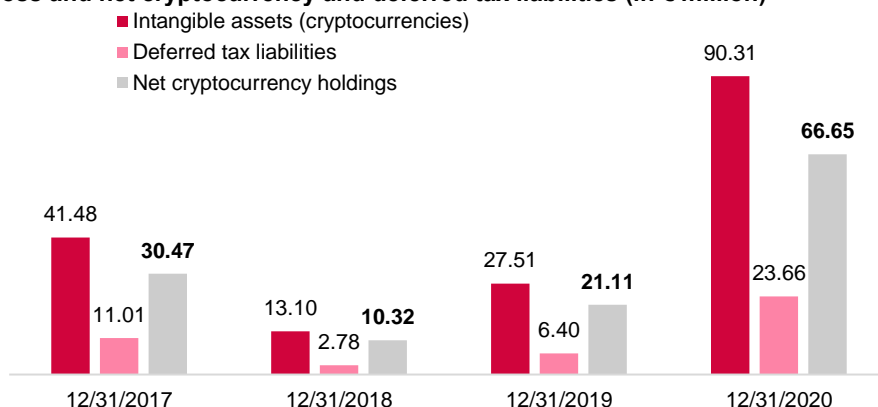
Equity (in € million) and equity ratio (in %)



Sources: Bitcoin Group SE; GBC AG

On the one hand, the increase in equity is attributable to increased retained earnings to € 20.72 million (31.12.2019: € 11.20 million), due to the net income of € 9.52 million. On the other hand, it is due to other comprehensive income, which increased to € 54.43 million (31.12.2019: € 14.22 million) due to the increase in cryptocurrencies held, net of taxes payable on disposal (deferred taxes).

Gross and net cryptocurrency and deferred tax liabilities (in € million)



Sources: Bitcoin Group SE; GBC AG

The crypto balance on its own balance sheet is created by the transaction fees of 0.66% to 1.0%, half of which is paid by the seller and the other half by the buyer. Management

determines what portion of the daily crypto revenue is converted. Currently, the ratio is around 70% cash and 30% cryptocurrencies, although the conversion ratio can always be adjusted by management. The daily crypto holdings are converted into EUR several times per day on a pro-rata basis. The last conversion takes place at 0:00, so that all current pro-rata earnings of the day are converted. The daily conversion is necessary because otherwise the cryptocurrency would be included in the balance sheet and would trigger extensive tax effects upon conversion. Thus, cryptocurrencies held must be treated on a first-in-first-out basis, which would result in the first cryptos being converted first, presumably from 2013. This would also trigger very high taxation due to the strong increase in value since 2013 (see deferred taxes).

In addition to the assets on the balance sheet, the domain bitcoin.de should also have a high intrinsic value, which is to be regarded as a hidden reserve.

Overall, the company has a solid and lean balance sheet with low operating fixed assets of € 1.57 million (31.12.2019: € 1.64 million), which can be explained by the digital business model. There are very low bank liabilities of € 0.28 million, with a very high liquidity of € 12.01 million (31.12.2019: € 4.72 million).

Balance sheet and financial situation as of 30.06.2021

in € m	31.12.2018	31.12.2019	31.12.2020	30.06.2021
Equity	20.54	30.42	80.15	115.24
Equity ratio (in %)	85.2%	77.0%	73.7%	73.8%
Operating fixed assets	0.10	1.64	1.57	1.53
working capital	0.34	-0.78	-4.12	-4.49
net cash	12.57	-4.52	-12.02	-17.03
Cash flow - operating	-1.11	-0.36	7.41	6.03
Cash flow - investment	-3.69	2.53	-0.04	-0.38
Cash flow - financing	0.00	-0.02	-0.07	-0.04

Sources: Bitcoin Group SE; GBC AG

As of June 30, 2021, equity increased again to € 115.24 million, bringing the equity ratio to 73.8%. The increase was achieved through the higher revenue reserves via the net result and other comprehensive income via crypto holdings.

In addition, it was reported via DGAP on 02.09.2021 that crypto holdings of € 182.8 million were held in the company's own portfolio as of 30.08.2021. The largest positions are 10,232 Ethereum and 3,673 Bitcoin.

According to management, the value of crypto equity holdings last stood at € 234 million as of 10/24/2021.

SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Highly profitable and scalable business model • Extensive cash and crypto holdings • Comparatively independent business model from crypto price development • Steady customer growth • Own banking license • Competitive advantage through German regulation and licensing • Stable and lean cost structure • Sales increases can be achieved in rising and falling markets • High security, as only 2% of crypto holdings are in a hot wallet. 	<ul style="list-style-type: none"> • Value of crypto holdings dependent on volatile crypto price trend • Investment banking still plays a subordinate role • Turnover dependent on the news flow around cryptocurrencies • The perception of the stock is still too much linked to Bitcoin and the Bitcoin price
Opportunities	Risks
<ul style="list-style-type: none"> • Crypto boom continues including strong news flow • Stronger regulation could cause an influx of customers to the already regulated bitcoin.de • Broadening of the business model through M&A activities • Regional expansion could accelerate growth 	<ul style="list-style-type: none"> • Cryptocurrencies could be banned • Interest of cryptocurrencies declines and is hardly illuminated by the press • Complete loss of value of the cryptocurrency due to a loss of trust, e.g. due to a successful hacker attack • A possible hacker attack on bitcoin.de could lead to a loss of trust

FORECAST AND EVALUATION

Income statement (in € million)	FY 2020	FY 2021e	FY 2022e
Revenues	15.03	24.00	25.92
EBITDA*	10.55	18.31	20.05
EBITDA margin*	70.1%	76.3%	77.3%
EBIT*	10.42	17.66	19.39
EBIT margin*	69.3%	73.6%	74.8%
Annual net profit*	9.52	12.40	13.63
EPS in €	1.90	2.48	2.73

Source: GBC AG; *2021 & 2022 excluding write-ups or write-downs of crypto holdings.

Sales forecast

The current corporate guidance assumes a moderate to strong increase in revenues and an EBITDA in the lower to mid double-digit million range. Furthermore, a moderate increase in free cash flow is assumed. The Covid pandemic complicates the forecast. In the guidance in the 2020 annual report, the number of registered users was still expected to reach 1,000,000 by the end of the 2021 financial year. This mark was already reached in June 2021.

We assume that the primary driver of the sales trend is the media interest in cryptocurrencies. In our opinion, media interest should always occur when there are strong price changes in cryptocurrencies. However, this development cannot be forecast in concrete terms.

Different forecasting approaches for the future Bitcoin price exist. Unfortunately, there is no universal way to make such an assessment.

Some investors prefer a more fundamental approach, evaluating macro trends to identify future performance. Variables here may include the ongoing shift to electronic payments, as well as inflationary spending by central banks in response to the economic challenges posed by the pandemic.

Fundamental analysts also strive to assess the intrinsic value of an asset, the characteristics that make it unique and valuable. Much effort has gone into defining Bitcoin's intrinsic value, which is a combination of capped supply, network security, divisibility (Bitcoin can be broken down to eight decimal places), and transportability.

Other investors take a more quantitative approach to investing. This route is less concerned with the intrinsic value of an asset and the trading strategy is based on attractive opportunities arising from technical price analysis.

However, these approaches are not mutually exclusive and many traders use a combination of the strategies. In addition, there are some technical models that require an element of fundamental analysis to be useful. One example of this is Stock-to-Flow (S2F), one of the most accurate price prediction models we have seen in the crypto world to date. The S2F model is currently considered the most accurate and successful model and therefore we use it as a proxy for bitcoin price trends.

S2F is elegant in its simplicity. One simply divides the current supply (stock) of a commodity or asset by its annual production (flow). This model is more commonly used for precious metals, and its applicability to Bitcoin can be explained by the limited supply.

	Floor (tn)	Flow (tn)	S2F*	Supply growth	Price \$/Oz	Market value
Gold	185,000	3,000	62	1.6%	1300	8,417,500,000,000
Silver	550,000	25,000	22	4.5%	16	308,000,000,000
Palladium	244	215	1.1	88.1%	1400	11,956,000,000
Platinum	86	229	0.4	266.7%	800	2,400,000,000

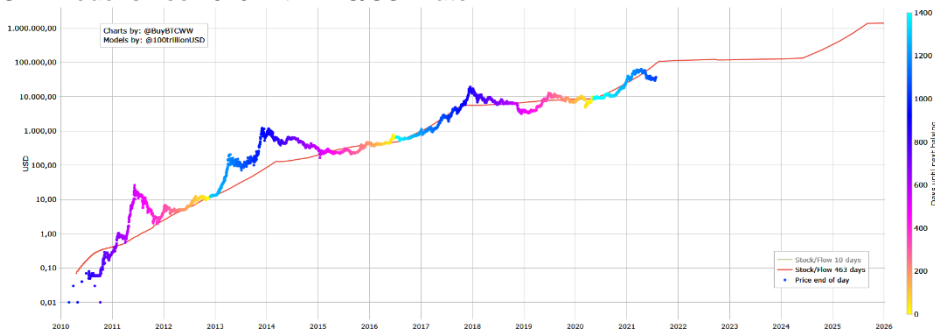
Source: Stock-to-flow ratios for the most important precious metals PLANB, *years to double the stock

The third column in the chart above (SF) represents the number of years it would take to double the amount of existing supply of an asset based on current production levels. As can be seen from the chart, it would take 62 years to get the current amount of gold out of the ground, making the existing supply relatively tight. For silver, it would take 22 years, while metals like palladium and platinum, which are more commonly used for industrial activities, have lower ratios. When this chart was first published, Bitcoin's S2F was 25 (17.5 million Bitcoins / 700,000 production per year). This put Bitcoin above silver, but behind gold.

Today, Bitcoin's S2F is much higher. Its total supply has increased to 18.6 million units, and in May 2021, the last halving took place, reducing its production to 328,500. This leads to an S2F of 56.6.

Despite S2F's accuracy so far, it is not above reproach. For example, one of the big challenges of S2F is demand, which is directly related to intrinsic value. There are thousands of Bitcoin mimics with the same spending plan, but none can match its demand and thus its value.

S2F model since 2010 with BTC/USD rate



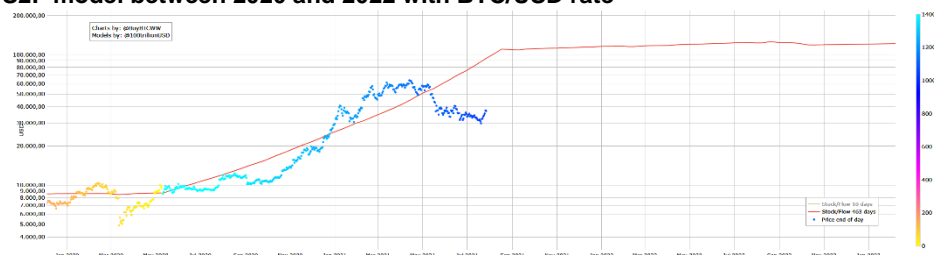
Sources: BuyBTCWW; PlanB

Moreover, due to its simplicity, S2F is unable to account for exogenous factors and Black Swan effects, such as an attack on the Bitcoin network or the acceleration boost Bitcoin received last year from the central bank response to Covid and that of institutional investors.

Currently, the Bitcoin price is significantly below the S2F model, which suggests that there will be a price increase again in the near future. We assume that the price increase will occur at the end of this year or the beginning of 2022.

However, the model also shows that the price momentum is related to the halving of mining rewards. Thus, after reaching the 110,000 BTC / USD mark, there should be a significant reduction in price momentum until the next halving occurs. The next halving will probably take place between March and June 2024.

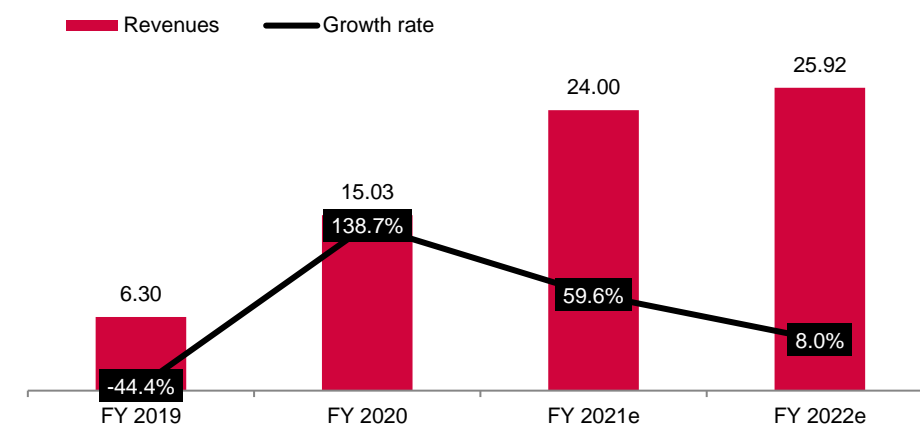
S2F model between 2020 and 2022 with BTC/USD rate



Sources: BuyBTCWW; PlanB

Nevertheless, the forecast is very difficult, because many factors influence the Bitcoin price, which also makes the sales forecast of Bitcoin Group SE very difficult. Moreover, not only the price development is relevant, but also the time period of the price development. Very sharp price rises or falls should generate more media interest than a gradual price development. In our valuation model, we try to reflect the dynamics, but also the volatility of the cryptocurrency. Therefore, we expect higher growth momentum in 2021, followed by a slowdown in 2022, with a subsequent higher average growth rate in the DCF model. As a result, we expect revenues to increase 59.6% to € 24.00 million in the current fiscal year, followed by 8.0% to € 25.92 million in 2022.

Sales forecast (in € million) and sales growth (in %)



Source: GBC AG

In the medium term, further revenue growth could also be achieved via other cryptocurrencies that are not yet offered on bitcoin.de. Here it must be ensured that the wallet structure is set up cleanly in the background. Therefore, countless cryptocurrencies cannot be added in a short time. A spot market could also be offered, although it is still unclear to what extent this would cannibalize the original business.

In addition, the number of customers is steadily increasing. For example, during the peak of bitcoin growth, a record of over 10,000 customers was realized in one day. In comparison, normal business is 100 to 300 new customers per day. However, the number increases about six times during growth periods. It also shows that scaling opportunities are available, as processing 10,000 customers per day was not a challenge (individual competitors had an intake freeze).

This should not automatically lead to higher revenues but should create a solid revenue base and also enable higher maximum possible revenues. It is also evident that the platform is attractive for individual power traders, and thus around 13% of sales were earned with one customer in the past 2020 financial year.

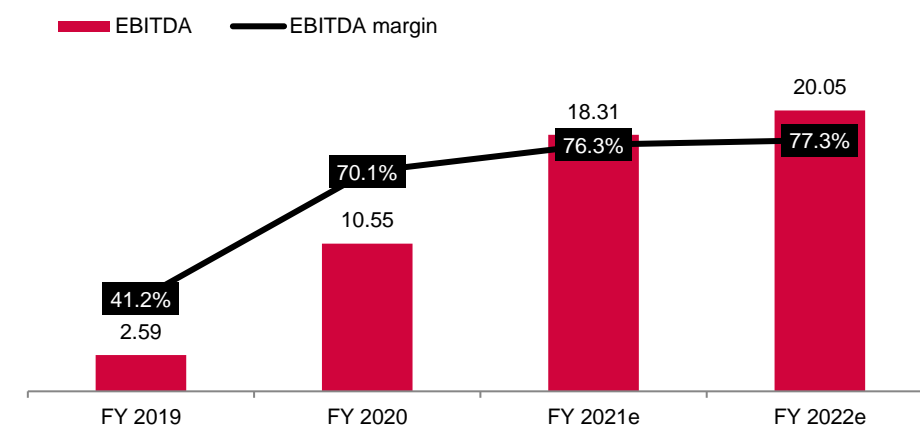
Investment banking currently plays a minor role, but could grow in the future. In particular, with proprietary trading and the trading desk for intentional customers and companies. Here, the Bank plays a pioneering role in the German banking landscape, which could secure important market shares in the future.

Furthermore, Bitcoin Group SE sees itself as an investment company and acquisition targets are always under consideration. The company has extensive cash reserves and could therefore acquire numerous targets. Nevertheless, the management focuses on the fact that a potential target fits the corporate strategy and also delivers added value.

Earnings forecast

The business model is very scalable, especially with regard to the bitcoin.de trading platform. It was also evident here that the onboarding of over 10,000 in one day did not lead to any staff bottlenecks. The other costs should also remain comparatively stable compared to the previous year. We assume that individual advertising campaigns may be tested, but these should not trigger any extensive costs.

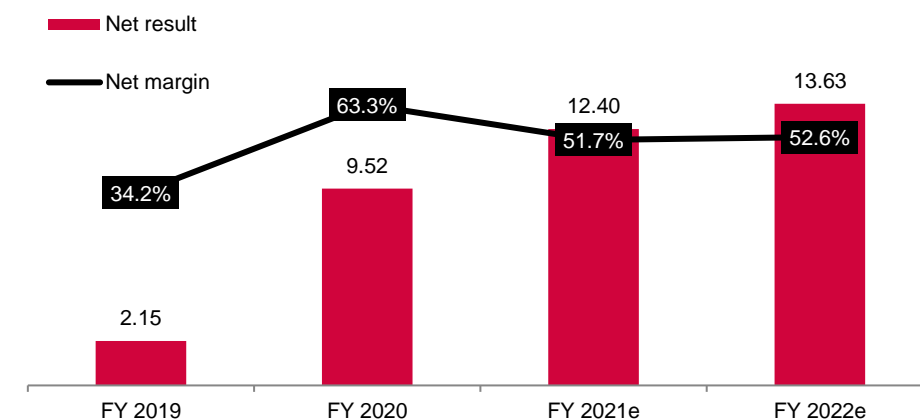
Forecast EBITDA (in € million) and EBITDA margin (%)



Source: GBC AG

We therefore expect a gradual improvement in margins and earnings. We forecast EBITDA of € 18.31 million for the current fiscal year 2021 and € 20.05 million for 2022, corresponding to a margin improvement from 76.3% (2021) to 77.3% (2022).

Forecast Net income (in € million) and net margin (%)



Source: GBC AG

The very high margin is reflected in the net result. However, it should be noted here that, in accordance with IFRS, the crypto stocks must always be revalued and pass through the income statement. This increased the result in the past fiscal year by € 3.12 million to € 9.52 million. Adjusted for this valuation effect, net income was € 6.40 million. We have not taken any valuation effects into account in our forecast. In addition, we expect hardly any effects from the financial result and only low depreciation and amortisation. As a result, earnings before taxes are almost equal to EBITDA. Deducting around 30% taxes, we expect net income of € 12.40 million in the current fiscal year 2021 and € 13.63 million in 2022, resulting in a very high net margin slightly above 50%. Consequently, we assume that the company's profitability will continue to increase in the future.

Rating

Model assumptions

Bitcoin Group SE was valued by us using a three-stage DCF model. Starting with the concrete estimates for the years 2021 - 2022 in phase 1, the forecast is made from 2023 to 2028 in the second phase by applying value drivers. We expect revenue to increase by 10.0%. We have assumed an EBITDA margin target of 80.3%. We have taken the tax rate into account at 30.0% in phase 2. In the third phase, a residual value is also determined after the end of the forecast horizon using the perpetual annuity. In the terminal value, we assume a growth rate of 2.0%.

Determination of the cost of capital

The weighted average cost of capital (WACC) of Bitcoin Group SE is calculated from the cost of equity and the cost of debt. In order to determine the cost of equity, the fair market premium, the company-specific beta and the risk-free interest rate must be determined.

The risk-free interest rate is derived from current yield curves for risk-free bonds in accordance with the recommendations of the Fachausschuss für Unternehmensbewertungen und Betriebswirtschaft (FAUB) of the IDW. This is based on the zero bond interest rates published by the Deutsche Bundesbank using the Svensson method. To smooth short-term market fluctuations, the average yields of the previous three months are used and the result rounded to 0.25 basis points. **The currently used value of the risk-free interest rate is 0.25. At the same time, the current value currently represents the lower limit in our valuation model.**

We use the historical market premium of 5.50% as a reasonable expectation of a market premium. This is supported by historical analyses of equity market returns. The market premium reflects the percentage by which the equity market is expected to yield better than low-risk government bonds.

According to the GBC estimation method, a beta of 1.39 is currently determined.

Using the assumptions made, we calculate a cost of equity of 7.9% (beta multiplied by risk premium plus risk-free interest rate). Since we assume a sustainable weighting of 100% for the cost of equity, the weighted average cost of capital (WACC) is 7.9%.

According to management, the value of crypto equity was last seen at € 234 million as of 24.10.2021. No deferred taxes were reported. Therefore, we approximate deferred taxes using the deferred tax rate relative to crypto holdings as of H1 2021, which was 26.1%. Thus, there would be deferred tax liabilities of € 61.07 million, which corresponds to net crypto holdings of € 172.93 million. We add the net crypto stock to the net debt.

Valuation result

Within the framework of our DCF valuation model, we have determined a new target price of € 120.00.

DCF model

Bitcoin Group SE - Discounted cash flow (DCF) analysis

Value drivers of the DCF model after the estimate phase:

consistency - phase		final - phase	
Sales growth	10.0%	perpetual growth in sales	2.0%
EBITDA margin	80.2%	perpetual EBITA margin	79.9%
AFA to operating fixed assets	8.0%	effective tax rate in the terminal value	30.0%
Working capital to sales	-40.0%		

three-stage DCF model:

Phase	estimate		consistency						final
in EUR million	GJ 21e	GJ 22e	GJ 23e	GJ 24e	GJ 25e	GJ 26e	GJ 27e	GJ 28e	Terminal value
Turnover (US)	24.00	25.92	28.51	31.36	34.50	37.95	41.74	45.92	
US Change	59.6%	8.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	2.0%
US to operating assets	15.00	16.00	17.28	18.67	20.18	21.81	23.58	25.51	
EBITDA	18.31	20.05	22.86	25.15	27.66	30.43	33.47	36.82	
EBITDA margin	76.3%	77.3%	80.2%	80.2%	80.2%	80.2%	80.2%	80.2%	
EBITA	17.66	19.39	22.73	25.02	27.53	30.29	33.33	36.68	
EBITA margin	73.6%	74.8%	79.7%	79.8%	79.8%	79.8%	79.8%	79.9%	79.9%
Taxes on EBITA	-5.23	-5.75	-6.82	-7.50	-8.26	-9.09	-10.00	-11.00	
to EBITA	29.6%	29.6%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
EBI (NOPLAT)	12.43	13.65	15.91	17.51	19.27	21.20	23.33	25.67	
Return on investment	-488.8%	-252.7%	-249.4%	-179.5%	-177.3%	-175.4%	-173.6%	-172.0%	-158.1%
Working capital (WC)	-7.00	-8.00	-11.40	-12.55	-13.80	-15.18	-16.70	-18.37	
WC to turnover	-29.2%	-30.9%	-40.0%	-40.0%	-40.0%	-40.0%	-40.0%	-40.0%	
Investments in WC	2.88	1.00	3.40	1.14	1.25	1.38	1.52	1.67	
Operating assets (OAV)	1.60	1.62	1.65	1.68	1.71	1.74	1.77	1.80	
AFA on OAV	-0.65	-0.66	-0.13	-0.13	-0.13	-0.14	-0.14	-0.14	
AFA to OAV	40.6%	40.5%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	
Investments in OAV	-0.68	-0.68	-0.16	-0.16	-0.16	-0.17	-0.17	-0.17	
Invested capital	-5.40	-6.38	-9.75	-10.87	-12.09	-13.44	-14.93	-16.57	
EBITDA	18.31	20.05	22.86	25.15	27.66	30.43	33.47	36.82	
Taxes on EBITA	-5.23	-5.75	-6.82	-7.50	-8.26	-9.09	-10.00	-11.00	
Total investments	2.21	0.32	3.25	0.98	1.09	1.21	1.35	1.50	
Investments in OAV	-0.68	-0.68	-0.16	-0.16	-0.16	-0.17	-0.17	-0.17	
Investments in WC	2.88	1.00	3.40	1.14	1.25	1.38	1.52	1.67	
Investments in goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cash flows	15.28	14.63	19.29	18.62	20.49	22.55	24.82	27.31	448.65

Value of operating business (reporting date)	370.52	385.20
Present value of explicit FCFs	107.21	101.07
Present value of the continuing value	263.30	284.13
Net debt	-200.20	-214.80
equity value	570.71	600.00
Minority interests in profits	0.00	0.00
Value of the share capital	570.71	600.00
Shares outstanding in million	5.00	5.00
Fair value of the share in EUR	114.14	120.00

Cost of capital determination:

risk-free return	0.3%
Market risk premium	5.5%
Beta	1.39
Cost of equity	7.9%
Target weighting	100.0%
Cost of debt	6.5%
Target weighting	0.0%
Tax shield	25.0%
WACC	7.9%

Return on investment	WACC				
	7.3%	7.6%	7.9%	8.2%	8.5%
-158.6%	128.78	124.24	120.18	116.53	113.23
-158.3%	128.67	124.14	120.09	116.44	113.15
-158.1%	128.57	124.05	120.00	116.36	113.08
-157.8%	128.47	123.95	119.91	116.28	113.00
-157.6%	128.37	123.86	119.82	116.20	112.92

APPENDIX

I.

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2. the research report shall be made available simultaneously to all investment service providers interested therein.

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BUY	The expected return, based on the determined price target, including dividend payment within the corresponding time horizon is $\geq + 10\%$.
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The analysts responsible for this analysis are

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Other people involved in the study:

Manuel Hölzle, Dipl. Kaufmann, Chief Analyst

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