

THE RACE FOR GLOBAL CURRENCY IS ON, UNCERTAINTY IS EXPECTEDLY HIGH

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What is Libra?

Libra is a blockchain platform initiated by Facebook with a native low-volatility cryptocurrency, designed to provide financial services for unbanked people and enable low-cost transactions across the world. The Libra cryptocurrency will be 100% backed by a reserve of bank deposits and short-term government securities denominated in USD, EUR, JPY, GBP and possibly other major currencies in the future. The blockchain will be governed by the Switzerland-based Libra Association, which already includes 28 well-known companies such as Visa, Mastercard, Uber, PayPal and Coinbase among others. The current roadmap plans to increase the number of members to 100 before launch.



Current Libra Association Founding Members

Since the project's white paper was released on 18 June, Libra has been one of the most discussed and controversial topics in crypto with many people expressing concerns about









Facebook's project, while others have highlighted its potential benefits to people and the crypto market as a whole. Major concerns are focused on the topics of data privacy, centralisation, monopolisation and Facebook's potential control over consumers' private data. This report has been compiled to cover the Libra project in general and specifically its most controversial elements, as well as to evaluate its impact on the crypto space and analyse Libra's competitors.

Libra & Calibra: technical capabilities, limitations and privacy

Sixty-nine – this was the number of times the word "trust" was mentioned during Libra's hearings in the Senate. This is a good illustration of the major concerns regarding Facebook's new Libra initiative, which could potentially give the corporation, notorious for data privacy scandals, control over the financial data of millions of consumers. In order to understand how real those concerns are, a line has to be drawn between the two organisations: Facebook's subsidiary Calibra and the nonprofit Libra Association. The technical capabilities and limitations of these entities are completely different, though it seems that lawmakers and market participants have been regularly mixing them up.

Libra is the blockchain, which will, at least for the first several years after the launch, have a permissioned architecture – only a limited number of Libra Association members will participate in consensus and network governance. According to the white paper, transition to a permissionless network will begin within five years of the public launch of the Libra blockchain. At the same time, Libra has been designed as a public blockchain where all transactions are pseudonymous – they are not linked to a real-world identity, but only to the public key, and can be accessed through a block explorer. What is even more important is that the Libra blockchain supports smart contracts and will be open to developers - everybody will be able to build applications (including wallets) on top of the network. The Move programming language has been developed for this purpose. While Facebook expects to maintain a leadership role for the rest of 2019, once the network has been launched Facebook's Calibra will play the same role as the other Libra Association Founding Members. Calibra, as a representative of Facebook within the association, will have one vote out of a hundred.

Calibra is the for-profit subsidiary of Facebook that is developing a wallet for the Libra blockchain. Concerns

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regarding monopolisation of financial services rest on the fact that Calibra will be integrated into Facebook's products such as Messenger and WhatsApp. Facebook has stated that it would never cut deals with vendors to secure exclusivity for its digital wallet, highlighting the fact that there will be healthy competition.

Calibra claims that it is going to be a fully regulated entity. In every jurisdiction it operates in, it will be 100% compliant with local laws, and will not provide its services in jurisdictions that have banned cryptocurrencies. In anticipation of major concern regarding consumer data privacy, Calibra states that it will store data separately from Facebook, and that "<u>Aside from</u> limited cases, Calibra will not share account information or financial data with Facebook, Inc. or any third party without customer consent. For example, Calibra customers' account information and financial data will not be used to improve ad targeting on the Facebook, Inc. family of products."

Blockchain architecture assumes irreversible transactions, and even while on some blockchain platforms transactions can be rolled back, this may be achieved only through a relatively complex procedure of node voting. To be able to provide traditional mechanisms such as anti-fraud protection and refunds, Calibra will implement a custodial model. That means that the digital currency will be stored on the company's wallets instead of consumer wallets, comparable perhaps to a PayPal-like payment system on top of Libra and similar to current crypto exchanges such as Coinbase. As a side effect, it will reduce the network load in case of major worldwide adoption, as the Libra blockchain will only be able to process 1,000 transactions per second.

Calibra will not be monetised through the taking of fees on peer-to-peer transactions, the monetisation model rather assuming the provision of financial services such as credit and loans. Potentially, a company could also provide merchandise services to businesses and charge them a per-transaction fee.

In a letter provided by David Marcus, the Head of Calibra, to US Senators, he writes that it will be the responsibility of the wallet provider to collect information in order to comply with KYC and AML rules. Given that it is an open-source blockchain platform where everybody can develop a wallet, it is possible that not every wallet will be compliant with regulators. It therefore seems possible that Libra's user base will split into two major groups — those who value privacy and personal data security more, and those who prefer greater convenience and will delegate things such as key storage to wallet providers.

The table below provides a brief overview of the distinctions between Libra & Calibra:





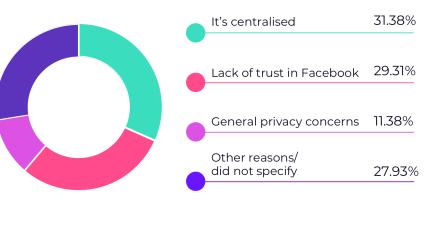


| Libra | Calibra |
|--|---|
| Does not know real-world identity of users. | Knows real-world identity of Calibra users. |
| Technically unable to manipulate customers' data as it does not store any data. | Technically able to manipulate data. |
| Has the ability of legal enforcement of on-chain activity. | Technically able to freeze funds in Calibra wallets, but unable to freeze or roll back transactions in Libra blockchain. |
| No KYC/AML rules.* | Focus on KYC/AML compliance. |
| Semi-decentralised. Decisions are made by 100 entities. | Centralised. Decisions are made by one entity. |

*Except in cases where the wallet provider shares information about the illegal actions of its users.

We asked our analysts whether they would use Libra and why. The responses fell almost perfectly into two groups — 45.23% of analysts would use Libra while 48.53% of users would not, with the remainder not having decided yet. Most analysts who said they would not use Libra named specific reasons. On the other hand, most analysts who said they would use it did not specify a reason or remained vague.

Reasons to avoid Libra



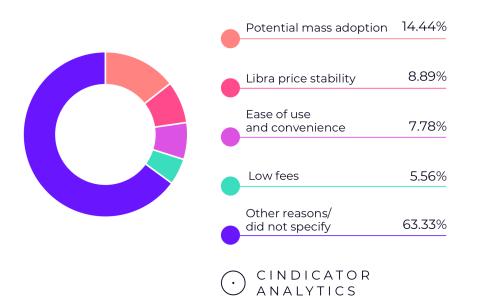
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Reasons to use Libra



Libra Association structure and financials

The Libra Association is a not-for-profit entity, registered in Geneva, Switzerland. The association is governed by the Libra Association Council, which consists of its Founding Members. At the time of publishing, 28 of the members are known, though this figure is expected to increase to 100 by launch. All members are considered equal and each of them has one vote. Their routine obligations are to secure the network and validate transactions, and they are also in charge of governance, long-term strategy and technical developments. To become a Founding Member, an enterprise must meet two of the following criteria:

- Hold over USD 1 billion in market value or over USD 500 million in customer balances;
- Reach over 20 million people a year, multinationally;
- Be recognised as an established top 100 industry leader by a third-party association.

There will be two types of tokens in the Libra ecosystem – Libra coin and the Libra Investment Token (LIT). While the Libra coin will be a low-volatility coin pegged to a basket of low-risk assets, denominated in major currencies, LIT will serve the purpose of network governance and potential profit distribution. The Libra Investment Token is to be distributed among the Association's members, each of which (except for not-for-profit entities) has to invest at least USD 10 million, which will be converted into LIT.

Libra generates revenue by earning interest on assets stored in the Libra Reserve. The white paper states that the Libra







Association will use the revenue generated to pay for development costs and, if a profit remains, to pay a dividend to LIT holders. Some of the expected expenses of the association include:

- Engineering research and technical developments;
- Ecosystem maintenance and development;
- Covering all operational costs;
- Providing grants.

Facebook is trying to attract the most established and best incentivised partners to join the Libra Association. Retailers and service providers pay significant amounts in credit card fees which could be optimised via the Libra blockchain. Uber, for example, paid USD 749 million in credit card processing fees in 2017 and approximately USD 1 billion in 2018. Businesses — and Libra itself — may incentivise consumers to pay in Libra by giving them bonuses, which could potentially bring millions of dollars to the network, primarily from developed countries. Taking Uber as an example, if just 10% of all transactions switch from credit card to Libra, it would mean more than USD 4 billion in annual cash flows from just one service provider.

The potential market share of Libra as a currency is very hard to predict as it is in its very early stages and there are still many uncertainties regarding the project. Nevertheless, we can take some known figures to see the potential of the market. According to <u>Federal Reserve data</u>, as of 12 August 2019 the supply of M1 (cash, checkable deposits and travellers' cheques) in the US economy was USD 3.8723 trillion, while the supply of M2 (M1 plus savings and time deposits, money market funds and certificates of deposits) was USD 14.9554 trillion. Given that Facebook has more than 2.3 billion active users and other Libra Association members are incentivised to contribute to the network's success, we can consider various scenarios regarding the amount of assets in Libra's Reserve and the potential revenue of the association.

USD 10 billion = USD ~206 million of revenue annually* USD 100 billion = USD ~2.06 billion of revenue annually* USD 1 trillion = USD ~20.6 billion of revenue annually*

* US 1 Month Treasury Bills taken for calculations, without consideration of potential rate cuts.

All the above numbers do not include additional cash flow from other products on top of the Libra blockchain, such as Calibra. It is fair to expect similar initiatives from other companies, for example PayPal's Libra wallet which will be integrated into eBay and PayPal.





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Regulator's reaction

Facebook's Libra project attracted the attention of regulators all over the world and especially in the US. The two main concerns are related to data privacy and compliance with KYC, AML and CFT (Combating the Financing of Terrorism) laws. Policymakers insist that Facebook, whose credo is "Move fast and break things", should not release the product until all issues and concerns that regulators have voiced are addressed. Facebook's position is unclear — on the one hand David Marcus states that the company will take its time and wait for all of the necessary approvals, but on the other hand the launch is scheduled for 2020, and the Head of Calibra has consistently said: "If we don't lead, others will", apparently alluding to China. Many of the lawmakers' questions were also related to Switzerland as the jurisdiction of choice for Libra.

The fact that Facebook — a huge and well-established company – is taking this kind of regulatory and reputational risk shows how important the Libra project is for the company and that it is ready to spend a great deal of resources on development and lobbying. Other Founding Members have not yet publicly supported Libra, leaving Facebook to take the reins in discussions with regulators. Events have been unfolding very fast, and the timeline given below provides a quick overview of the news surrounding Libra to date:

20 December 2018

Initial rumours that Facebook is developing a US dollar-pegged stablecoin that will allow users to send money over WhatsApp emerge. "Facebook is far from releasing the coin, because it's still working on the strategy."

2 May 2019

Facebook sets up a new company called Libra Networks in Geneva, Switzerland. According to Reuters, the company will focus on "investing, payments, financing, identity management, analytics, big data, blockchain and other technologies."

10 May 2019

The US Senate Committee on Banking, Housing and Urban Affairs <u>writes</u> an open letter to Facebook founder and CEO Mark Zuckerberg, requesting details regarding its new cryptocurrency project, with a focus on data privacy and consumer protection.

18 June 2019

Facebook for the first time provides details on Libra by publishing its white paper and announcing Calibra. According



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to the Libra white paper, the project should be launched as soon as 2020.

France's Finance Minister Bruno Le Maire says that Libra should never be seen as a replacement for traditional fiat currencies: "It can't and it must not happen."

21 June 2019

France forms a special working group within the G7 to study issues related to the Libra cryptocurrency.

June and July

US, UK, EU, Australian and South Korean regulators and policymakers express their concerns regarding Libra.

8 July 2019

Calibra Head David Marcus writes a response to the open letter from the Senators. He states: "I want to give you my personal assurance that we are committed to taking the time to do this right."

10 July 2019

Federal Reserve Chair <u>Jerome Powell, speaking</u> at his testimony in Congress, states: "Libra raises many serious concerns regarding privacy, money laundering, consumer protection and financial stability... I don't think the project can go forward without addressing those concerns." He also mentioned that the Fed had set up a working group to focus on this set of issues.

11 July 2019

US President Donald Trump tweets: "Unregulated Crypto Assets can facilitate unlawful behavior, including drug trade and other illegal activity. Similarly, Facebook Libra's "virtual currency" will have little standing or dependability. If Facebook and other companies want to become a bank, they must seek a new Banking Charter and become subject to all Banking Regulations, just like other Banks, both national and international."

16 July 2019

The US House Committee on Financial Services holds a hearing on Libra.

17 July 2019

The US Senate Committee on Banking, Housing and Urban Affairs holds a hearing on Libra.

22 July 2019

Huawei's CEO calls on China to make a Libra-like cryptocurrency. "Even China is able to issue such currencies, why wait for Libra? The strength of a state is greater than that of an internet company."





24 July 2019

Mark Zuckerberg <u>declares</u> that Facebook will work "however long it takes" to win over the regulators and launch Libra.

10 August 2019

A senior official at China's central bank announces at the China Finance 40 Forum meeting that the country will soon roll out its central bank digital currency (CBDC).

20 August 2019

The European Commission is "<u>currently investigating</u> potential anti-competitive behaviour" related to the Libra Association amid concerns the proposed payment system would unfairly shut out rivals.

23 August 2019

The <u>Financial Times reports</u> that three Libra Association Founding Members have stated concerns regarding participation in the project due to regulator pressure.

Impact on the crypto space

Libra is often considered a competitor to cryptocurrencies, primarily Bitcoin and Ethereum. It might be the case that Libra takes a significant market share of existing cryptocurrencies, especially in cases such as Argentina and Venezuela, where people are trying to protect their savings in an environment of constant hyperinflation. At the same time, Libra might become a gateway to crypto for a large audience that has never used it before. It also seems that Libra has an ETF-like structure, as it will be pegged to a basket of currencies (USD, EUR, JPY, GBP) and assets denominated in these currencies. This could potentially turn it into an investment tool, but different enough from the volatile cryptocurrencies so as not to be a competitor.

The Libra story coincided with the rise of the crypto market, so it is difficult to distinguish its impact on prices since the beginning of the year. On the Bitcoin daily chart we can observe eight green candles in a row following the announcement of the Libra white paper, with the highest value of the year close to USD 14,000. On the day of the first Senate Libra hearings, BTC's price lost ~13%, potentially as a result of the tough rhetoric of lawmakers.









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18 of June — Libra white paper publication

- 17 of July the Senate Banking Committee hearings on Libra
- ↑ 16 of July the U.S. House Financial Services Committee hearings on Libra

Facebook is not the first enterprise to experiment with blockchain technology. There are many initiatives already underway and a significant number of major companies could have some kind of blockchain-based pilot project. Facebook became the first big company to introduce a blockchain-based borderless payment solution — the initial use case of the technology. It would be fair to say that Facebook's Libra has shone a spotlight on the whole industry. It accelerated discussions regarding cryptocurrency regulation, made the US Congress hearing on cryptocurrencies happen and significantly increased cryptocurrency coverage in the media. Never before has the US president expressed his opinion regarding Bitcoin on Twitter and one congressman even used the word "shitcoin" at a hearing.

The CEO of Ripple, a company which is considered one of Libra's competitors, said that he would send a case of champagne to David Marcus, the Head of Calibra, because the week following Libra's white paper announcement was Ripple's best ever week for contract signings.

Libra's competitors

Libra is not the only digital currency initiated by a big company or institution with the aim of becoming a "global coin". There are other projects with resources and influence that will be competing for users. Libra, being an initiative from Facebook, definitely has the biggest user base and the biggest partner

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network, but regulatory issues can slow down Libra's development and provide opportunities for other projects.

Telegram Open Network (TON)

One of the most mysterious projects, with not much known about it. Telegram Open Network is a blockchain protocol being developed by the Telegram Messenger team. The founder of Telegram Open Network, Pavel Durov, previously built the largest Russian social network, VK, as well as Telegram Messenger. A USD 1.7 billion ICO took place at the beginning of 2018 and was approved by the SEC. It is notable that just 44% of tokens were sold to big investors, while 52% remain in the so-called TON Reserve (the remaining 4% were allocated to developers).

In March 2018 Telegram reported that with its base of around 200 million active users and integration into Telegram Messenger, TON could become the most-used blockchain overnight. Telegram Open Network is designed as a permissionless blockchain, similar to the Ethereum 2.0 architecture. For instance, both of them will use a Proof-of-Stake consensus mechanism and sharding as solutions for scalability. The tokenomics of TON also resemble existing crypto networks' more closely than Libra's. TON tokens won't be pegged to any asset – they will be tradable on exchanges and their price will be volatile. The project also has inflationary model with a constant rate of ~2% per year.

According to a leaked TON token purchase agreement, the network must be launched by 31 October, otherwise investors may ask for a refund. The Telegram Open Network is very different from Libra by nature, but it is well funded and possesses a solid user base as well as, at present, being free from regulatory problems.

China's central bank digital currency (CBDC)

China's central bank digital currency, after five years of research and development, "can now be said to be ready", stated Mu Changchun, Deputy Chief in the Payment and Settlement Division of the People's Bank of China on 10 August. This currency will only partly rely on blockchain architecture, as the technology can't provide enough scalability in its current state.

Notably, the China Internet Information Center, an internet portal authorised by the People's Republic of China, posted an article, where they admitted that "<u>The PBOC's original</u> plan might have been influenced by Libra. It sparked discussions among Chinese financial regulators, driving the designer to rethink various models which can involve more non-governmental institutions in the CBDC development and issuance process, Yang Dong, director of the Research Center of Finance Technology and Cyber Security at Renmin University of China, told China Daily." If China goes in this direction, it could not only affect the eventual architecture of

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China's CBDC, but also give Facebook more leverage in arguments with western regulators. The mantra of "if we don't lead, others will" could become critical. However, China's CBDC in any design is unlikely to become popular outside of China, as it will be controlled by the Chinese government. Similarly, Libra will probably not be adopted in China as Facebook and cryptocurrency usage are banned in the country.

Binance's Venus

Binance is a leading cryptocurrency exchange. On 19 August, Binance announced an open blockchain project, Venus, which is described as "an initiative to develop localised stablecoins and digital assets pegged to fiat currencies across the globe". Binance has already issued two stablecoins on its Binance Chain, one pegged to the British pound and another to Bitcoin. In the English-language announcement Binance does not compare Venus to Libra, but in the Chinese one it calls the new initiative an "independent and autonomous, regional version of Libra". Binance has not yet announced any partners, but states that it "welcomes additional government partners, companies and organisations with a strong interest and influence on a global scale to collaborate with us to build a new open alliance and sustainable community."

Tokenized Asset Portfolio on MakerDAO

Fluidity, a financial technology company, <u>introduced</u> the Tokenized Asset Portfolio initiative on 25 July. This technology stack works on top of MakerDAO, the biggest lending platform on Ethereum, which at the time of publishing holds more than USD 260 million in ETH as collateral for issued DAI stablecoins.

The Tokenized Asset Portfolio (TAP) is a standard model to enable real-world assets like real estate or securities to be pledged as collateral in MakerDAO's multi-collateral Dai system and other decentralised credit facilities. As soon as multi-collateral Dai are released (expected in 2019), Fluidity will propose a vote on adding US Treasuries as an initial collateral type. As a demonstration, the Fluidity team has already executed a transaction which pledged US Treasuries as collateral on Ethereum's Kovan testnet.

We questioned our analysts regarding their expectation that another big company would issue a cryptocurrency in the near future. The table below shows the results:









24% of analysts think that none of the big tech companies will announce their own cryptocurrency at least before the end of the year, while some of them stated that such an announcement is quite likely, though it will happen after 2019. 22.62% of analysts named Amazon as the most likely to announce its own cryptocurrency, while others named Google (14%) and Apple (10%).







Contacts

This analysis was prepared by the Cindicator Analytics Team. Want to contact us? Perfect, let's start the conversation!





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