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Explaining Facebook's Libra digital currency system

BY CRISTINA RIVERO, POLITICO PRO DATAPOINT

A growing number of lawmakers are questioning the effect Facebook's global digital currency Libra, planned for launch in 2020, may have on the global financial system. At a July 10 House Financial Services Committee hearing, Federal Reserve Chairman Jerome Powell expressed concern that Facebook's Libra currency could potentially pose privacy, money laundering, consumer protection and financial stability risks, given the potential of broad adoption of Libra among Facebook's expansive user network. Five days later, Treasury Secretary Steven Mnuchin said that the company must comply with the same anti-money laundering regulations that govern financial institutions.

Facebook executive David Marcus, who heads the social media giant's Calibra financial services subsidiary, testified at two congressional hearings this week to answer questions about Libra and possible ramifications to financial system stability. Earlier this month, Marcus posted on Facebook that the company will not control Libra and will be one of more than 100 members of the governing entity Libra Association by its launch. He also stated that Facebook will operate a digital wallet service on top of Libra, will not see financial data, and Libra users will be able to use payment services offered by other companies.

Libra's structure will be made up of three interworking parts

In his July 16 and July 17 testimonies to the Senate Banking and House Financial Services Committees, Marcus defined Libra currency as a payment tool designed to be used like cash instead of as an investment to hold onto such as stock or bonds. Marcus states: "Unlike existing stablecoins — digital currencies designed to minimize volatility by being 'pegged' to a single asset — Libra will not have a fixed value in any single real-world currency."

To execute that idea, Facebook's Libra structure will be made up of three interworking parts — the Libra Association, the Libra Reserve and the Libra Blockchain working together to maintain Libra's global payment system.



1. The Libra Association

An independent not-for-profit organization based in Geneva, Switzerland, to be supervised by the Swiss Financial Markets Supervisory Authority.

The Libra Association is the only part of the Libra system that can create or destroy Libra currency.

The Libra Association Council will govern the Libra Reserve and Libra Blockchain.







LIBRA COUNCIL

Facebook, through its financial subsidiary Calibra, is one of 28 Libra Association founding members. The Association hopes to quadruple membership by Libra's 2020 target launch.

Founding members will serve as the Libra Blockchain's initial "validator" nodes that confirm transaction senders in the Libra Blockchain have funds to transfer. To serve as validator nodes, founding members must purchase at least \$10 million of Libra Investment Tokens. Token investment provides capital to jumpstart Libra and grants rights to a share of future interest accumulated in the Libra Reserve.

Libra Token investment also allows a representative from a founding member to join the Libra Association Council, which makes decisions regarding development, operation and management of the Libra Blockchain network and Libra Reserve. Council membership would eventually reflect the relative share of Libra held in custody by, or delegated to, a validator node.

FOUNDING MEMBERS, BY INDUSTRY



Technology and marketplaces

- Booking Holdings
- eBay
- Facebook/Calibra Farfetch
- Lyft
- Spotify • Uber



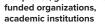
Venture Capital

- Mastercard Breakthrough Initiatives
- Mercado Pago PayPal
- PayU
- Stripe



- · Andreessen Horowitz
- Ribbit Capital
- Thrive Capital
- Union Square Ventures





- · Creative Destruction Lab
- Kiva
- Mercy Corps · Women's World Banking





- Anchorage Iliad
- Bison Trails Coinbase

Xapo

Vodafone



2. The Libra Reserve

Libra.org says the Libra Reserve will be a "geographically" distributed network of financial custodians set up to preserve the value of Libra by backing every coin with stable and liquid assets.

The Libra Association will manage the Libra Reserve, a financial mechanism created to back each Libra coin with holdings of currencies — including the U.S. dollar, British pound, euro and Japanese yen — from stable and reputable central banks in stable assets, such as cash bank deposits, and liquid assets, such as short-term government securities.

The idea behind this approach is that Libra's value will not be fixed to a single real-world currency and remain relatively stable for widespread global adoption.

Source of Reserve money

Libra users and founding members' investment in Libra Investment Tokens will provide funds for creation of Libra coin.

Token investment provides capital to initiate the Libra currency.

LIBRA USERS



TOKEN INVESTORS



How the Reserve will be invested

The Reserve will be invested in low-risk, low-yield assets and interest will be used to cover Libra system operating costs and to pay dividends to Libra Investment Token investors.

Libra users will not receive interest.

TOKEN INVESTORS ASSET INTEREST



How the Reserve is held

A network of financial custodians with investment-grade credit ratings will safeguard the Reserve.

The Libra Association will authorize entities as resellers that sell Libra coin to the Reserve.

FINANCIAL CUSTODIANS





3. The Libra Blockchain

The Libra currency is built on the "Libra Blockchain" and Facebook will operate digital wallets produced by its financial services subsidiary Calibra to securely store and exchange Libra coin currency.

Sources: Libra Association white paper "An Introduction to Libra," Libra.org, David Marcus testimony provided to Senate Banking and House Financial Services Committee hearings, Facebook, POLITICO staff reports







Libra Blockchain will be a decentralized record of transactions, called a ledger. A network of validator computers will maintain the ledger and add to it. The Libra Association white paper states "Unlike previous blockchains, which view the blockchain as a collection of blocks of transactions, the Libra Blockchain is a single data structure that records the history of transactions and states over time."

Libra Blockchain is designed to start out as a permissioned blockchain system with transactions only verified by founding members of the Libra Association. The Association foresees that within five years, the network will transition to a permissionless blockchain that allows any Association member, not just founding members, to serve as validator nodes.

Facebook's subsidiary Calibra will provide financial services to the Libra Blockchain by creating digital wallets for Libra users to save, send and spend Libra on the Facebook platform and elsewhere. Facebook says that other companies will also be able to create their own wallet services so that Libra users do not have to use the Calibra wallet.

Permissionless system

Each computer or "node" in the network can compete to guess a code used to add transaction blocks to the ledger.

Permissioned system

Network owner decides who can join and only authorized nodes can add or "verify" transaction blocks to the chain.

Wallets and public keys

Wallets securely store and exchange cryptocurrency; keys lock and unlock wallets to enable transactions.

Cryptocurrency

Digital currency

Facebook Libra

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