Title: [TEMP CHECK] Aave V3 Deployment on Celo

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Summary

This Temperature Check aims to provide general background information on the Celo blockchain and seeks the community's input on the opportunity to deploy Aave V3 on Celo, an emerging L2 on Ethereum.

Motivation

As detailed in the Background section below, the Celo ecosystem offers a unique value proposition featuring real-world usage and ReFi. As Aave will be given a prominent role on Celo, this deployment offers Aave differentiated expansion and revenue opportunities.

1. A deployment on Celo expands AAVE's utility and user base to a unique population of Celo's mobile-first community which has grown significantly over the past few months led by key launches that have brought in returning real-world users in emerging markets.
2. Aave will be heavily utilized for real-world DeFi and ReFi use cases, particularly in emerging markets given Celo's growing presence in these regions led by protocols like GoodDollar and Grassroots Economics.
3. The Celo Foundation will allocated 0.5% of CELO circulating supply as an incentive for Aave users to support the adoption and bootstrap growth on Celo.

This deployment will bring new users to the Aave platform and reach more users from the Celo community. The Celo Foundation can also support Aave DAO in setting up a verified node for the Celo network (subject to technical requirements being met and voting by the community) for which Celo can provide a grant.

1. The Mento protocol on Celo proposed returning 120M CELO to the Celo Community Fund, which the Celo community has expressed interest in placing in Aave to boost on-chain liquidity for CELO (pending a governance process). More details here. Additionally, they proposed a $10M CELO / wETH pool on Uniswap which is expected to pass through Celo governance.
2. In the long-term, this Celo x AAVE deployment has the potential opportunity to expand into natural capital-backed assets such as tokenized carbon credit and other ReFi assets (conditional upon rigorous liquidity and credit assessments by Chaos Labs and others).

Background

Celo is an open-source, mobile-first EVM-compatible Layer 1 blockchain, on a mission to foster an inclusive financial system for everyone. With an ecosystem thriving on 9.4M addresses, around 1M daily transactions, ~500,000 monthly active wallets, and over 234M transactions since inception, Celo sets the stage for real-world applications from day one. Celo has been one of the fastest-growing blockchains over the past few months.

Source: Nansen

Key Features:

Mobile Accessibility

: Utilizes a decentralized phone verification protocol and SNARK-based light clients such as Plumo 1 for mobile-friendly operations.

Flexible Assets

: Celo offers native stablecoins in the form of Mento stable assets (cUSD, cEUR, cREAL), which are eligible for transaction fees. CELO itself natively supports the ERC20 interface, eliminating the need for wrapped versions.

Regenerative Finance

: Committed to regenerative finance, Celo is carbon-negative, offsetting over eight times its carbon footprint. An upcoming proposal, the Ultragreen Money, looks to further push Celo's green initiatives.

Real World Usage:

CELO TVL continues to grow and is at193M CELO showing continued locking of assets into Celo DeFi protocols.

Additionally, Celo has been chosen by Kickstarter for its upcoming decentralized product (to date, Kickstarter has successfully supported over 214,000 projects with over $6B in funding and 20M backers) and Deutsche Telekom which will attract new users to the ecosystem.

The Celo ecosystem emphasizes real-world applications—real-world usage has been the core focus since day 1 of the blockchain. Several of the many solutions actively being used by people around the world on the Celo blockchain include the following:

- UBI: GoodDollar has over 130,000 monthly beneficiaries around the world.
- Community Currency: Grassroots Economics has over 20,000 active users across Kenya and South Africa
- Digital Microwork: The Celo Foundation initially piloted digital microwork with Mercy Corps Ventures and today Jumptask has over 40,000 users on Celo
- Climate action: Plastiks recently partnered with FC Barcelona on a climate-focused NFT launch and Ecosapiens debuted their new enterprise climate collectible on Celo. Toucan protocol, Carbonpath, and CarbonTerra offer on chain carbon credit retirements. Additionally, the Climate Collective continues to remain a leader in the industry driving web3 solutions for solving the climate crisis.
- Real-world lending: EthicHub supports 21 smallholder farming communities in Mexico, Brazil, and Honduras for uncollateralized lending. The Credit Collective is currently seeding liquidity into new impact-driven lending and RWA protocols on Celo with members including impactMarket, Flowcarbon, Huma Finance, and Canza Finance.
- Native mobile offramps: Through FiatConnect, an API standard for web3 wallets to integrate with cash-in/cash-out providers, Celo users will be able to natively onramp and offramp through mobile wallets. In its initial activation, Valora wallet users across 20 countries can now leverage this technology.
- Social impact and mobile gaming: The Celo Foundation partnered with Animoca on mobile-first and social impact gaming. Engagements include Animoca serving as a validator and climate education with TinyTap.

Integration with Ethereum

: cLabs recently proposed that Celo return home to Ethereum by transitioning from an EVM-compatible Layer 1 blockchain to an Ethereum Layer 2. Following months of research by the cLabs team as well as initial discussions among core Celo and Ethereum community members, the cLabs team detailed an architecture in which the Celo blockchain becomes an Ethereum L2, with key differentiators including

- Decentralized sequencer powered by Celo's existing validator set running Byzantine Fault Tolerance consensus.
- Off-chain data availability layer, powered by EigenLayer and EigenDA, operated by Ethereum node operators, and protected by restaked ETH. EigenDA brings the design of danksharding to Ethereum early, enabling Celo to maintain its low fees.
- A design that retains Celo's 1-block finality.

This proposal was overwhelmingly approved by the Celo ecosystem in a temperature check to continue this work.

Security

: The chain consensus is Proof of Stake with validators taking delegation. There is no multisignature contract that can change the network. On-chain governance proposals and hard-forks are the only ways to make changes to the network. The Smart Contract was audited by OpenZeppelin and a Security Audit was conducted by Trailofbits. There is also a formal verification of Celo governance protocols by Certora.

Native Mobile Solutions

: FiatConnect allows Celo users to natively handle onramps and offramps through mobile wallets in multiple countries.

Emphasizing global utility, Celo has been a touchstone for decentralized solutions worldwide. From UBI, community currencies, and digital microwork, to climate action, Celo propels web3 solutions with a real-world impact.

For a detailed dive, head over to https://docs.celo.org/.

Specification

Risk Parameters

Chaos Labs advised us on initial parameter recommendations, given the current liquidity levels on Celo. Please note that these recommendations would be updated closer to launch.

We encourage other risk managers for updated analyses post temperature check. Crucially, the metrics below do not

include a governance proposal in which $10M of liquidity is proposed by the Celo ecosystem for a CELO / wETH pool on Uniswap.

Based on current liquidity levels, we believe a Metis-type of initial deployment would be most suitable—the emphasis here being the Celo blockchain's real-world and social impact use cases

. Over time, we expect we can continue to increase caps as the Celo blockchain grows through the development of more real-world use cases and the transition to an L2 on Ethereum.

Risk Parameters

WETH

USDC

CELO

cUSD

Isolation Mode

NO

NO

NO

YES

Enable Borrow

YES

YES

YES

YES

Enable Collateral

YES

YES

NO

YES

Emode Category

N/A

N/A

N/A

N/A

Loan To Value

80%

75%

N/A

70%

Liquidation Threshold

82.5%

80%

N/A

75%

Liquidation Bonus

7.5%

5%

N/A

5%

Reserve Factor

15%

10%

15%

10%

Liquidation Protocol Fee

10%

10%

10%

10%

Borrow Cap

110

880,000

60,000

3,400,000

Supply Cap

140

1,100,000

80,000

4,300,000

Debt Ceiling

N/A

N/A

N/A

TBD

uOptimal

80%

80%

45%

75%

Base

1%

0%

0%

0%

Slope1

3.8%

4%

7%

7%

Slope2

80%

60%

300%

75%

Stable Borrowing

Disabled

Disabled

Disabled

Disabled

Stable Slope1

13.00%

13.00%

13.00%

13.00%

Stable Slope2

300.00%

300.00%

300.00%

300.00%

Base Stable Rate Offset

3.00%

3.00%

3.00%

3.00%

Stable Rate Excess Offset

5.00%

5.00%

5.00%

5.00%

Optimal Stable To Total Debt Ratio

20.00%

20.00%

20.00%

20.00%

Flashloanable

YES

YES

YES

YES

Siloed Borrowing

NO

NO

NO

NO

Borrowed in Isolation

NO

YES

NO

NO

Oracle:

Chainlink recently deployed on Celo as part of the Chainlink SCALE Program.

Cross-chain Interactions

: Celo has integrations with token bridges likePortal (Wormhole), Allbridge, and Squid–along with cross-chain messaging partners including Wormhole, Hyperlane, LayerZero, and Axelar.

Disclaimer

The information provided above about Celo is from public sources and Michigan Blockchain cannot guarantee that it is or will stay accurate.

The Celo Foundation has been collaborating with Michigan Blockchain to work through the details of this proposed deployment and communicate the merits to the broader Aave community. Michigan Blockchain was not provided consideration as a result of this collaboration as both proposers believe the passing of this proposal is in the best interest of the Aave protocol.

As a cautionary measure to prevent an appearance of a conflict of interest, Michigan Blockchain will abstain from voting on this proposal.

This TEMP CHECK has been prepared solely to facilitate community discussion.

Next Steps

Temperature Check

: Gather community feedback and assess sentiment towards the proposal of deploying Aave V3 on Celo.

ARFC

: If the Temperature Check Snapshot indicates positive sentiment, proceed to the ARFC stage for further discussion, risk parameter evaluation network analysis, and finalization of the proposal.

AIP

: If the ARFC stage Snapshot is successful, submit the proposal as an AIP for voting and on-chain governance approval.

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