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Market Intelligence

New Framework for Stablecoin Growth

August 21, 2025

- Our stochastic method which runs thousands of Monte Carlo-style simulations using autoregressive modeling – suggests the stablecoin market cap could reach \$1.2T by the end of 2028.
- The inflows necessary to reach this size are consistent with around \$5.3B of US Treasury demand per week over that period, which may lower front-end yields by around 2-4bps.
- We also think the evolving regulatory landscape following the approval of the GENIUS Act in July will be crucial for mitigating run risks and fostering a more resilient stablecoin ecosystem.

Summary

- Our previous report <u>Stablecoins and the New Payments</u>
 <u>Landscape</u> (August 2024) looked at the role of stablecoins
 in the global payments system, examining why traditional
 banking rails, credit cards and mobile vendors have to adapt
 to the changing needs of their customers.
- In our follow up report, we examine how the complexities of stablecoins' integration into the existing financial system might limit the growth of stablecoins' total market size, such as the net impact on total US Treasury demand.
- Our stochastic model forecasts that stablecoins could reach a market cap range centered around \$1.2T by the end of 2028. In our view, this doesn't require unrealistically large or permanent rate dislocations to materialize; instead it relies on incremental, policy-enabled adoption compounding over time.
- Persistent growth in stablecoins lowers front-end funding costs at the margin, whereas sharp redemptions can tighten them. We estimate a \$3.5B stablecoin 5-day inflow could compress 3-month T-bill yields by around 2 bps within 10 days and up to 4 bps within 20 business days. Substitution effects could put downside risks on that estimate.
- Finally, we believe regulatory developments like the GENIUS
 Act are crucial for establishing clear reserve rules and liquidity buffers, which could reduce the risk that large redemptions will turn into a cascade of forced T-bill selling.

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Stochastic growth forecasting

The stablecoin market is at an inflection point, with its growth resting on key factors like efficient ramps, broad distribution networks, and the evolving roles of market players. At a compound annual growth rate of ~65% (since 2021), the global stablecoin market cap has breached \$275B as of mid-August 2025, with average adjusted transaction volumes surging to \$15.8T in 2025 YTD (through July 31) up from \$10.3T over the same period in 2024, based on Artemis data (see Charts 1 and 2).

\$100B \$100B

Chart 1: Adjusted stablecoin transaction volumes vs incumbent systems

Sources: Artemis. Average last 30D rolling volumes. Adjusted stablecoin transactions exclude MEV and intra-centralized exchange transactions.

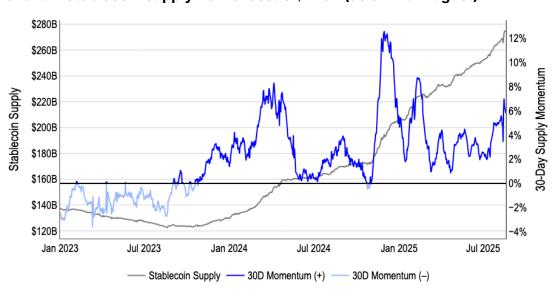


Chart 2: Stablecoin supply now exceeds \$275B (as of mid-August)

Sources: DefiLlama and Coinbase

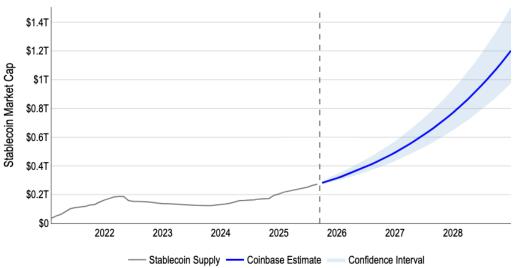
Future growth projections often rest on assumptions about the share of the global money supply that stablecoins could ultimately capture. We take a different approach. Our stochastic method – which runs thousands of Monte Carlo-style simulations with autoregressive modeling – indicates stablecoins could reach a market cap range centered around \$1.2T by the end of 2028 (see Chart 3).

To be clear, it's not feasible to model stablecoin growth dynamics perfectly due to the compounding effect of stablecoins' utility as more consumers and businesses use them. That leaves a lot of room for variability on analyst estimates. That is, there's still a data gap on real-world adoption patterns that make predicting the ultimate stablecoin market size challenging. Our weighted autoregressive, or AR(1), model puts more relevance on certain historical observations over others to capture both long-term and local temporal patterns:

- We estimate monthly growth using a simple AR(1) model on log supply, but we weight the post-2024 period more heavily to reflect (1) a structurally better policy backdrop and (2) accelerating adoption trends.
- We then run Monte Carlo simulations on thousands of forward paths by re-sampling recent growth shocks, which preserves the fatter-tailed, "crypto-style" noise we actually see rather than assuming a neat bell curve.

See Appendix A for more details on our methodology.

Chart 3. Model-based projection of stablecoin market cap growth



Sources: DefiLlama and Coinbase

How to model stablecoin growth

We think this approach is accurate for today's market because it captures the **right economics with the fewest assumptions**. Stablecoin supply growth is path-dependent and persistent. Good policy and distribution means growth likely begets growth. An AR(1) in log levels captures that persistence without overfitting dozens of co-variates that themselves are regime-sensitive. The post-2024 weighting lets the model "learn" from the environment we care about most.

That is, our model focuses on historical observations that include (1) the recent US policy momentum (e.g., passage of the GENIUS Act, allied state/federal frameworks, etc.), (2) the integration of stablecoins into institutional rails, and (3) major improvements in fiat on/off-ramps. We think this is more relevant than diluting the data with older, less relevant periods. The residual bootstrapping step then respects the observed volatility of growth, so our forecast band is statistically honest about uncertainty while still centered on the new regime.

Moreover, we think a \$1.2T path is both realistic and consistent with our front-end rates model. Growing from \$275B today to \$1.2T implies roughly \$925B of net US Treasury issuance over ~175 weeks—or about \$5.3B per week. (See next section.) Our model shows that such weekly issuance would only cause a temporary ~4.5bps dip in short term rates (3-month yields) over a two to four week horizon. Because the response decays, effects don't compound without bound. We think multi-trillion dollar money-market funds can reallocate among Treasury bills, repo, and the Fed's overnight reverse repo (O/N RRP) facility, which sets an effective floor for overnight rates and limits pricing of bills.

On the supply side, the Treasury can lean into bill issuance when demand is strong, and on the demand side stablecoin treasurers can diversify maturities modestly around the 3-month point, both of which further dilute any sustained downward pressure on yields. In short, we think the forecast doesn't require unrealistically large or permanent rate dislocations to materialize; instead it relies on incremental, policy-enabled adoption compounding over time.

A deeper look into the Treasury "constraint"

Stablecoins have emerged as a significant new source of demand for US Treasuries, which promise to fundamentally alter the dynamics of managing the debt supply. Indeed, stablecoin issuers are jointly among the top 10 holders of US government debt across sovereign entities. In fact, the

top two stablecoin issuers alone have been the seventh largest buyers of US treasuries in 2025 YTD through June 30 (see Chart 4).

\$140B \$120B \$100B \$40B \$40B \$20B \$40B \$20B \$0B \$40B \$20B \$10D \$40B \$20B \$20B

Chart 4. Largest buyers of US treasuries in 2025 YTD (through 6/30)

Sources: TIC. Circle Deloitte audit. Tether BDO audit, and Coinbase. Tether data includes direct and look-through Treasuries exposure inside MMFs.

However, the mechanics of how stablecoins are backed raises questions about whether these vehicles could exhaust the US government's capacity to issue Treasury bills (T-bills) and the extent to which flows may potentially affect these yields.

It's clear that stablecoin issuance and redemptions move the front end of the US yield curve, as issuers buy short-dated Treasury bills when stablecoins are minted and sell when they're redeemed. However, modeling the effects can be complex, particularly when looking at inflows versus outflows. For example, we estimate that a \$3.5B stablecoin inflow (over five days) can compress 3-month yields by around 2 bps within 10 days and up to 4 bps within 20 business days. That's roughly in-line with the results of a recent BIS study (see Chart 5).

For inflows, our baseline estimates suggest the impact on 3-month T-bill yields is small in week 1 and grows through weeks 2-3 before tapering off. Our model strips out the usual front-end drivers before estimating a "stablecoin effect." We control for forward changes in neighboring maturities (1-month and 6-month yields) and recent 5-day moves in 1-month/3-month/6-month yields, bills outstanding (supply), Fed RRP balances (front-end cash pressure), and VIX (risk sentiment). This prevents Fed days, curve shifts, or liquidity swings from being mistaken for a stablecoin catalyst.

0.01 3M T-bill Response (%) -0.01 -0.02-0.03-0.04-0.055 15 25 30 10 20 Horizon (Days) Impulse Response Function (\$3.5B Inflow) 95% Confidence Interval

Chart 5. Impact of \$3.5B stablecoin 5-day inflow on 3M T-Bill yields

Sources: U.S. Treasury, DefiLlama, TradingView, and Coinbase

That is, we isolate causation by using predictive factors that move flows but don't directly move T-bill yields. Our inputs include a lagged, cumulated crypto-market residual (the part of crypto returns unexplained by macro/curve factors) and lagged peg deviations of USDT/USDC from \$1.00 (clipped for outliers and split by sign). We then confirmed that our method for identifying the direct impact of stablecoin flows on T-bill yields is statistically robust. For more details on our model construction, see Appendix B below.

Risks and uncertainties

Modeling the effect of stablecoin outflows on T-bill yields proves far tricker because **outflows exhibit highly asymmetric effects compared to inflows**. Such a model would need to feature distinct characteristics that tend to compromise its accuracy. For example, BIS argues that a similarly sized \$3.5B stablecoin *outflow* can tighten yields by around 6-8bps, as stressed market conditions could prevent stablecoin issuers from timing their T-bill sales. However, limited data on tail events makes such model estimates less reliable, while regulatory changes may offer the possibility of issuers tapping into alternative funding sources.

This is not to diminish the risks associated with stablecoin outflows. Their asymmetric impact is directly linked to negative depegs that can have nonlinear, cascading effects on T-bills. One of the largest such incidents in recent history (among the major stablecoin issuers) was in March 2023 when USDC temporarily fell below 87 cents after it was revealed that 8% of

its reserves were in <u>Silicon Valley Bank</u> (SVB). That concentration risk was itself created by a regulatory landscape that made it difficult for crypto-related entities to establish the widespread banking relationships necessary to mitigate redemption risks.

For example, the failure at SVB was primarily caused by poor asset-liability management as the bank invested heavily in long-duration US Treasury bonds and mortgage-backed securities using short-term, uninsured deposits. What's pertinent to stablecoin issuers is that Operation Chokepoint 2.0 forced many crypto firms to only engage with the handful of crypto-friendly banks willing to do business with them. Subsequently, federal regulators then urged these banks to curb deposits from crypto-related entities, directly leading to the deposit instability that pressured SVB's ultimate bank run. (Evidence based on FDIC documents obtained from a Freedom of Information Act lawsuit.)

While this doesn't invalidate the depegging incident, it does suggest that this was likely an isolated case that offers limited explanatory power for testing either stablecoin stability or Treasury market resilience during stress periods.

Also, our analysis thus far has only assumed that stablecoin issuance represents new T-bill demand, but we think it's possible that we could see a substitution effect of funds being reallocated from commercial bank deposits, offshore FX holdings and money market funds to stablecoins. That is, if \$1 is moved from banks to stablecoin issuers, this might only constitute marginal net new demand for additional T-bill supply. This not only poses a downside risk to our initial estimate of a 2-4bps compression on T-bill yields from stablecoin inflows, but also on the yield tightening estimates from stablecoin outflows as well.

A new regulatory landscape

An additional challenge for modeling the effect of stablecoin flows stems from the evolving regulatory landscape following the <u>approval</u> of the GENIUS Act in July. The GENIUS Act – which takes effect in January 2027 – ensures consumer protections through:

- strict 1:1 reserve requirements on 100% of the face value of outstanding stablecoins (audited monthly),
- bankruptcy priority claims for stablecoin holders, and
- regulatory oversight at either the state or federal level.

Still, there are open questions about the future of stablecoin operations that may be decided over the next 18 months. For example, many stablecoins are currently distributed through intermediaries rather than directly from issuers. This has created a two-tiered redemption system where only institutions – but not retail users – have a direct contractual relationship with issuers, for which SEC Commissioner Caroline Crenshaw <u>raised concerns</u> in April. Resolving this may remain a point of contention, though enhanced legal protections for stablecoin holders under the <u>GENIUS Act</u> will mean that stablecoin issuers need to publicly disclose their redemption policies.

Another critical issue for addressing "run risk" from potential outflows is whether stablecoin issuers will gain access to the Fed's balance sheet (e.g. credit lines, master accounts), mirroring the access afforded to banks and money market funds. The GENIUS Act does not explicitly grant stablecoin issuers access to master accounts or discount windows, leaving this to the Fed's discretion. However, it may allow these entities to operate as subsidiaries of insured banks, which could indirectly enable Fed access assuming the parent qualifies. Again, implementation remains the key here.

Conclusions

Our analysis indicates that stablecoins are poised for substantial growth, with our stochastic model forecasting a market capitalization range centered around \$1.2T by the end of 2028. This growth is underpinned by an improving policy landscape and accelerating adoption trends. Ultimately, as stablecoins continue to grow, we think clear reserve rules, high-frequency disclosure, and liquidity buffers will be critical for reducing the risk that large redemptions will turn into a cascade of forced T-bill selling. That is, we believe developments like the GENIUS Act are crucial for mitigating run risks and fostering a more resilient stablecoin ecosystem.

Appendix A

Stablecoin market cap projection model - methodology

Data & alignment: We use a cleaned history of total circulating stablecoins and align it to month-end levels (last trading day of each month). Month-end aggregation reduces daily noise and better captures structural drivers (policy, distribution, payments integrations).

Outcome we forecast: The level of circulating supply through December 2028, presented as a central path with 10th–90th percentile bands (a probabilistic outlook rather than a single point).

Core modeling: We model the monthly percentage change in supply (log growth). Log growth adds up cleanly over time and reflects the fact that issuance tends to exhibit momentum that fades (mean-reversion).

- Monthly log growth follows a simple AR(1) process: This month's growth depends on last month's growth plus an average drift and an innovation. This captures both short-run persistence and eventual stabilization without overfitting.
- Regime awareness: To reflect the post-2023 environment (clearer policy, better custody/settlement rails, expanding integrations), observations from January 2024 onward are up-weighted by 3x in estimation. Older history still informs long-run dynamics; recent history anchors the forecast in today's regime.
- <u>Shock distribution</u>: Uncertainty comes from bootstrapping recent forecast errors, sampling with replacement from the model's residuals in the recent regime. Real crypto markets often have fat tails (occasional big moves) and sometimes skew (upside shocks aren't the same as downside shocks). Using actual recent surprises preserves those features instead of forcing a neat, symmetric bell curve.

Estimator. Parameters are estimated via weighted least squares on the month-over-month log-growth series, using the recency weights.

Simulation engine. Starting from the latest observed level and latest observed monthly growth, we simulate 20,000 Monte Carlo paths at a monthly cadence to December 2028:

- Evolve growth using the estimated drift and persistence.
- Add an innovation drawn from the recent residuals.
- Accumulate growth in log space and exponentiate back to levels.

Appendix B

Stablecoin UST rate model – methodology

Data & alignment: We use daily (business-day) data from January 2019 to August 2025. For each horizon h=1,...,30 business days, the outcome is the future change in the 3-month US T-bill yield, measured in basis points (bps) between today and h days ahead.

Stablecoin flow we study: Our driver is the five-day net increase in the combined supply of USDT and USDC, expressed in billions of dollars.

How we isolate causality (instruments):

- 1. <u>Lagged crypto-market shock</u>. We build a "crypto sentiment" shock from total crypto market cap excluding stablecoins: take its daily return and strip out the part explained by macro and rates (changes in US Treasury yields across the curve, the term spread, equity volatility, the S&P 500, the US dollar index, oil, gold, and the prior day's crypto return). What's left—the residual—is cumulated and lagged one day. This predicts issuance pressure but is unlikely to move T-bill yields directly once those macro drivers are already controlled for.
- Peg deviations (over-identified check). For robustness we also use yesterday's positive deviations of USDT and USDC prices from \$1 ("peg premiums"), converted to bps and clipped at ±30 bps. These capture tight demand for stablecoins that typically precedes minting.

We control for the following to avoid mistaking other forces for stablecoin effects:

- <u>Yield curve moves</u>: forward changes in the 1-month T-bill and 6-month Treasury yields over the same horizons we study for the 3-month bill.
- Five-day rate dynamics: five-day changes in the 3-month, 1-month, and 6-month yields.
- <u>Liquidity & plumbing</u>: five-day change in Treasury bills outstanding (stock, in \$B) and five-day change in the Federal Reserve's overnight reverse repo (RRP) balances (in \$B).
- Risk appetite: five-day log-change in VIX.
- <u>Broader macro</u>: five-day log-changes in S&P 500, US Dollar Index, WTI crude oil, and gold.

Extremes are trimmed (two-sided winsorization), and near-constant controls are dropped.

Estimator. For each horizon we run a local projection: regress the future change in the 3-month bill yield on the current five-day stablecoin inflow and the controls, using instrumental variables to purge any feedback between yields and issuance. We use heteroskedasticity- and autocorrelation-robust standard errors. Horizons with fewer than ~260 observations are skipped.

We selected the model that uses only the crypto-shock instrument due to higher accuracy achieved. The over-identified models are used for confluence. Both give similar answers, and the Hansen-J test does not reject instrument validity.

Statistical precision:

- Robust (Newey–West) standard errors: Small relative to the point estimates through mid-horizons. For example, at 10 days, the per-\$1B coefficient is roughly –0.63 bps with a standard error of about 0.16 bps, implying a t-stat near 4 in absolute value.
- Instrument strength: The first-stage F-statistics are very strong across horizons (typically 70–80, all \gg 10). The partial R² of about 0.15–0.17 means the crypto-shock instrument explains ~15–17% of the variation in 5-day stablecoin inflows after conditioning on controls.
- Sample and controls: Each horizon uses ~1,680-1,710 daily observations. The projection controls include: forward changes in 1-month and 6-month bill yields at horizon h (to isolate curve co-movements), plus 5-day changes in the 3-month and 1-month bills, 6-month bill, Treasury bill outstanding stock, Fed RRP balances, and log VIX (to soak up liquidity/volatility conditions). These choices reduce omitted-variable bias and help attribute the remaining variation in yields to the instrumented stablecoin inflows.

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Note: Although the term "stablecoin" is commonly used, there is no guarantee that the asset will maintain a stable value in relation to the value of the reference asset when traded on secondary markets or that the reserve of assets, if there is one, will be adequate to satisfy all redemptions.