

# **The Reserve Channel: Stablecoin Architecture and the Monetary Policy Transmission Mechanism the GENIUS Act Opens**

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## Abstract

Federal Reserve monetary policy transmission through the reserve channel depends on a structural condition established by the Federal Reserve Act of 1913 and formalized in the floor system constructed after 2008: the institutions that hold reserve-eligible assets and the institutions that create credit are the same institutions. This correspondence is not incidental. It is the mechanism through which adjustments to the interest rate on reserve balances propagate into credit conditions, asset prices, and aggregate demand. The GENIUS Act authorizes a new class of money-creating institution, the payment stablecoin issuer, that holds reserve-eligible assets at scale while possessing no authority and no operational capacity to create credit. This paper traces the precise mechanism through which stablecoin reserve accumulation severs the correspondence the floor system requires, maps the conditions under which that severance becomes quantitatively material to policy transmission, and identifies the specific instruments in the Federal Reserve's operational toolkit that have no capacity to address the resulting gap. The analysis draws on the Bernanke-Blinder credit channel framework, the Keister-McAndrews formalization of the floor system, and current reserve balance data from the Federal Reserve H.4.1 statistical release. The GENIUS Act does not represent a marginal adjustment to the monetary architecture. It opens the reserve channel to

participation by institutions the transmission mechanism was not designed to accommodate. The Federal Reserve has published no analysis of this interaction.

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## 1. Introduction

The Federal Reserve's floor system is, at its operating core, a simple mechanism. The Fed pays member banks interest on the balances they hold at Federal Reserve Banks. This rate, the interest on reserve balances (IORB), functions as the effective floor beneath the federal funds rate because no institution with access to IORB will lend overnight at a rate below it. The Federal Open Market Committee adjusts the IORB rate. The adjustment propagates through the overnight market into short-term lending rates, into longer-term credit conditions through term structure expectations, and into the broader economy through channels that monetary economists have mapped in detail since Bernanke and Blinder (1988).

The mechanism works because the banks that hold reserve balances are the same banks that make loans. When the Fed raises IORB, it raises the return on holding reserves and raises, simultaneously, the opportunity cost of deploying those reserves into credit. The signal and the credit creation function are colocated on the same institutional balance sheet. This colocation is not a historical accident. It is the load-bearing assumption of the transmission channel.

The GENIUS Act of 2025 (S.1582, 119th Cong.) authorizes nonbank payment stablecoin issuers to hold reserves in cash, short-term Treasury securities, and, under specific conditions, balances at Federal Reserve Banks. A stablecoin issuer holding \$200 billion in Treasury bills is not a bank. It does not create credit. It does not intermediate between depositors and borrowers. Its reserve assets sit in the same instruments the Fed uses to conduct monetary policy, but the institution holding those assets participates in none of the transmission channels those instruments are designed to carry.

This paper describes, with precision, what that structural condition produces.

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## 2. The Floor System and Its Foundational Assumption

The Federal Reserve operated under a corridor system from its founding through the financial crisis of 2008. In a corridor system, the Fed supplied reserves to the banking system in quantities calibrated to produce a target federal funds rate. Banks with excess reserves lent overnight to banks with insufficient reserves; the funds rate cleared the market between those two positions. Scarcity of reserves was the mechanism. The Fed managed a quantity, and that quantity determined the rate.

The quantitative easing programs initiated in November 2008 flooded the system with reserves. Total reserve balances expanded from approximately \$10 billion in August 2008 to approximately \$800 billion by early 2009 (Federal Reserve H.4.1, 2009). The corridor mechanism collapsed under that volume; the Fed could no longer calibrate scarcity because scarcity had been removed. Congress authorized the payment of interest on reserve balances in October 2008, effective immediately rather than on the 2011 date previously scheduled (Emergency Economic Stabilization Act, 2008). The floor system was operational by necessity before it was operational by design.

Keister and McAndrews (2009) formalized the floor system's operating logic. Banks with access to IORB will not lend federal funds below the IORB rate, because doing so would be irrational; they can earn IORB by holding reserves instead. The IORB rate therefore constitutes a floor beneath the market rate regardless of the total quantity of reserves outstanding. The Fed no longer manages a quantity. It manages a price. Total reserve balances currently stand at approximately \$3.26 trillion (Federal Reserve H.4.1, December 2024). The precise quantity is largely irrelevant to policy transmission. What matters is the rate the Fed pays on those balances and the institutional response to that rate.

The institutional response is the load-bearing element. Ihrig, Meade, and Weinbach (2015) describe the floor system's transmission logic in terms that make the foundational assumption explicit: the banks that receive IORB-equivalent returns are the banks that make lending decisions. An increase in IORB raises the return on holding reserves and raises the opportunity cost of deploying reserves as loans. That opportunity cost transmission is the primary channel through which IORB changes propagate into credit

conditions. The mechanism requires that the institutions earning IORB-equivalent returns have a credit creation function to forgo.

Payment stablecoin issuers authorized under the GENIUS Act do not have that function. They cannot make loans. They are not chartered to intermediate credit. They hold reserve-eligible assets and issue dollar-pegged tokens against those holdings. The return on reserve assets is not an opportunity cost relative to lending. It is the totality of their revenue model. The signal the Fed sends through IORB rate adjustments reaches their balance sheets and stops.

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### 3. What the GENIUS Act Authorizes and What That Structure Produces

The GENIUS Act defines a payment stablecoin as a digital asset used primarily as a means of payment or settlement, denominated in or pegged to a fixed monetary value, and redeemable on demand at par (GENIUS Act, §2(22), 2025). Permitted reserve assets include United States currency, demand deposits at insured depository institutions, Treasury bills with maturity of 93 days or less, repurchase agreements collateralized by Treasury securities, and shares in government money market funds (GENIUS Act, §4(a)(1)(A), 2025). The Act explicitly prohibits payment stablecoin issuers from paying yield to holders.

Two structural consequences follow from these provisions. Neither has appeared in Federal Reserve public communications.

The first is a reserve asset accumulation mechanism without a corresponding credit creation function. Every dollar that moves from a bank deposit into a payment stablecoin undergoes the following transformation: the user's bank deposit is redeemed, the stablecoin issuer deploys the resulting cash into Treasury bills or equivalent instruments, and a stablecoin token exists in circulation representing a claim on those assets. The bank deposit that previously supported credit creation through the capital-constrained lending model has been extinguished and replaced by a Treasury bill position at a nonbank institution. No loan has been made against the converted funds. No credit has been

created. The reserve-equivalent assets exist, but they have migrated from an institution with a credit function to one without.

The second is a structural incentive for maximum reserve accumulation. The Act's prohibition on yield to holders means the stablecoin issuer earns the full return on reserve assets and passes none to token holders. The issuer's revenue is the spread between the IORB-equivalent return on reserve assets and the zero yield distributed to holders; this is seigniorage capture by a private institution. The larger the reserve pool, the larger the revenue. The competitive logic of the framework pushes issuers toward maximum reserve accumulation, which is maximum absorption of assets from the transmission-capable banking system.

Current scale makes the trajectory visible. Tether's Q3 2024 reserve attestation reports \$102.5 billion in US Treasury bill holdings, placing Tether among the largest single holders of short-duration Treasury securities globally (Tether, 2024). Circle's USDC maintains reserves of approximately \$43.5 billion, held primarily in a government money market fund (Circle, 2024). Total stablecoin market capitalization as of December 2024 stands at approximately \$214 billion, representing roughly 0.9 percent of M2 as measured by the Federal Reserve (CoinGecko, 2024; Federal Reserve H.6, December 2024). The GENIUS Act's regulatory clarity has accelerated stablecoin issuance substantially. Standard Chartered (2024) projects stablecoin market capitalization reaching \$2 trillion within three years of legislative passage. Citigroup (2024) projects \$3.7 trillion under base case adoption assumptions. The scale at which transmission distortion becomes quantitatively material is a direct function of the growth trajectory the Act is designed to enable.

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#### 4. Three Transmission Distortion Mechanisms

The Brayton, Levin, Tryon, and Williams (1997) FRB/US model, the primary large-scale macroeconomic model used by Federal Reserve Board staff for policy analysis, embeds a specific set of assumptions about how monetary policy propagates through the economy. The model assumes that reserve-eligible assets are held primarily by institutions that participate in credit intermediation, that changes in short-term rates propagate through

term structure expectations into longer-term credit conditions, and that the money stock measures in the model's financial sector block reflect liabilities of credit-creating institutions (Brayton et al., 1997; Kiley & Roberts, 2017). None of these assumptions accommodate a large pool of reserve-eligible assets held by institutions with no credit function.

Three specific distortion mechanisms follow from the GENIUS Act's architecture.

The first is IORB signal degradation. When the Fed raises IORB, it raises the opportunity cost of lending for banks that hold reserve balances. That opportunity cost is real: the bank could earn IORB by holding reserves rather than deploying capital into loans. For a stablecoin issuer holding Treasury bills, the equivalent rate signal carries no such opportunity cost, because there is no lending alternative to forgo. The stablecoin issuer holds Treasury bills regardless of the IORB rate, subject only to the constraint that those assets remain reserve-eligible under the Act's framework. A 50-basis-point IORB increase changes nothing in a stablecoin issuer's balance sheet optimization because the optimization function contains no credit creation variable. As the fraction of reserve-eligible assets held by non-credit-creating institutions rises, the fraction responsive to the IORB signal falls in proportion. The signal degrades without announcement.

The second is deposit displacement. When a dollar of bank deposits converts into a stablecoin, the banking system loses a liability and a corresponding asset simultaneously. The depositor's claim on the bank is extinguished. The reserve balance or cash that supported that deposit transfers to the stablecoin issuer's reserve pool. The banking system has lost a deposit that, under the capital-constrained lending model that replaced formal reserve requirements after March 2020 (Federal Reserve, 2020), supported some multiple of credit creation. The stablecoin issuer has acquired an asset that supports none. The net effect on the credit stock is negative and permanent for as long as the user holds stablecoins. The Fed's existing tools cannot reverse this structural credit withdrawal. Open market operations add reserves to the banking system; they cannot restore the deposit base of banks that have lost deposits to stablecoin conversion. The two effects are not symmetric.

The third is velocity distortion. The FRB/US model and its predecessors assume that money velocity, the rate at which the money stock turns over in nominal transactions, moves within a range conditioned by bank behavior and payment system capacity. Programmable stablecoins settled on distributed ledger infrastructure execute transactions at finality speeds no existing bank payment rail matches; settlement on major stablecoin networks currently ranges from seconds to under two minutes at costs measured in fractions of a cent per transaction (BIS, 2023). The velocity assumptions embedded in M2-based monetary aggregates used in Federal Reserve analysis do not accommodate this. When a material fraction of retail and commercial transactions migrates to programmable stablecoin rails, the velocity of that monetary stock becomes effectively unobservable through existing measurement frameworks. Stablecoin balances are excluded from M1 and M2 as currently defined. The Federal Reserve acknowledged in a 2022 technical note that existing monetary aggregate definitions do not capture digital payment instruments (Federal Reserve Board, 2022). That definitional gap remains unresolved.

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## 5. The Toolkit, the Overnight Reverse Repurchase Facility, and the Boundary the Act Creates

The Federal Reserve's operational toolkit consists of four primary instruments: the IORB rate, the overnight reverse repurchase agreement (ON RRP) rate, open market operations, and the discount window. Each operates through channels that require participation by credit-creating institutions to complete the transmission cycle. As described in the preceding section, the IORB rate degrades as a signal to institutions without credit functions. The remaining instruments face equivalent structural limits.

The ON RRP facility allows eligible counterparties, including money market funds, government-sponsored enterprises, and primary dealers, to place cash at the Federal Reserve overnight in exchange for Treasury collateral. The rate paid on ON RRP transactions reinforces the floor beneath the federal funds rate and prevents sustained deviation below the policy target range. ON RRP outstanding peaked at \$2.554 trillion in December 2022 and declined to approximately \$239 billion as of December 2024 (Federal

Reserve, 2024), reflecting the normalization of excess liquidity and compression of rate differentials.

The GENIUS Act does not specify whether payment stablecoin issuers may access the ON RRP facility. Access requires Federal Reserve counterparty status, granted at the Fed's discretion under criteria established in the facility's terms and conditions (Federal Reserve, 2014). The Act separately provides that it does not expand or contract existing legal eligibility to receive services from Federal Reserve Banks (GENIUS Act, §4, 2025). The interaction between that status quo preservation, ON RRP eligibility, and the Fed's operational framework for this new counterparty class has received no public analysis from the Federal Reserve.

This is not an administrative detail awaiting resolution. It is a structural boundary problem with consequences that bifurcate cleanly. If stablecoin issuers gain master account access and ON RRP eligibility, they become participants in the Fed's rate corridor architecture with a balance sheet the corridor was not designed to accommodate. A money market fund accessing ON RRP holds short-term assets and issues shares redeemable at net asset value; it participates in credit markets indirectly through its portfolio composition. A stablecoin issuer accessing ON RRP holds identical assets and issues tokens redeemable at par; it does not participate in credit markets at all. The same facility would serve two institutions with identical asset profiles and completely different transmission characteristics. The Fed's operational framework has no mechanism to distinguish between them.

If stablecoin issuers are denied master account access, the reserve assets they hold remain in Treasury bill markets the Fed manages through open market operations. The transmission problem does not disappear; it relocates. Open market operations are calibrated to manage reserve supply in a system where Treasury bill demand is distributed across credit-creating institutions. A large, growing pool of Treasury bill demand from non-credit-creating stablecoin issuers distorts that calibration in ways the Fed's open market desk models do not currently incorporate. The Federal Reserve Bank of New York, which executes open market operations on behalf of the FOMC, has published no analytical framework for this counterparty type.

The discount window is a lending facility available to depository institutions. Stablecoin issuers chartered under the GENIUS Act's nonbank framework have no access to it. Open market operations add or remove reserve balances from the banking system; they do not affect the reserve assets of stablecoin issuers that hold Treasury bills outright rather than as central bank deposits. The Federal Reserve has no existing instrument that reaches a private monetary layer holding reserve-equivalent assets outside the banking system. Closing this gap requires either a new facility designed for this counterparty class, a regulatory framework that brings stablecoin issuers within the credit creation structure of the banking system, or an acknowledgment that monetary policy transmission will operate on a shrinking fraction of the monetary stock as the stablecoin layer grows. The Federal Reserve has proposed none of these. Its public communications on the GENIUS Act have addressed payment system stability, consumer protection, and anti-money-laundering compliance (Federal Reserve Board, 2023). The transmission mechanism implications have not appeared in any published Federal Reserve analysis, speech, or testimony during the Act's legislative consideration.

Braun (2016) documents the institutional tendency of central banks to analyze monetary innovations through the lens of existing framework compatibility rather than framework disruption. The stablecoin case follows this pattern precisely. The Fed's analytical posture has been to ask whether stablecoins are safe within the existing framework, not whether the existing framework remains functional as stablecoins scale. These are different questions. The second carries the more consequential answer.

At \$214 billion in total market capitalization, the transmission distortions described in this paper are not currently quantitatively material; they are within the normal variance of reserve system fluctuation. The Fed's existing toolkit is adequate to the current situation not because the toolkit addresses the structural gap but because the structural gap is not yet large enough to require addressing. At \$1 trillion, the stablecoin reserve pool represents approximately 4.2 percent of M2. At \$3.7 trillion, it approaches parity with total current reserve balances held by all depository institutions at Federal Reserve Banks. The transmission threshold, the level at which IORB signal degradation becomes large enough to distort policy outcomes measurably, is not determinable from existing analytical frameworks because those frameworks were not constructed to model this structural condition. The degradation of the signal is not an observable event. It is a gradual reduction in the responsiveness of credit conditions to rate changes, occurring against a

background of other factors affecting that responsiveness. By the time the degradation is empirically identifiable, the structural cause will be embedded in regulatory architecture the GENIUS Act will have established.

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## Conclusion

The floor system rests on a correspondence between reserve asset holding and credit creation that the GENIUS Act's architecture systematically erodes. The rate signal the Fed transmits through IORB reaches the reserve assets of stablecoin issuers and terminates there, because stablecoin issuers have no credit function through which the signal propagates further. The deposit displacement effect removes from the banking system, permanently and at scale, the deposit liabilities against which credit has historically been extended. The velocity distortion removes a growing fraction of monetary transactions from the measurement frameworks through which the Fed observes money stock and circulation.

None of the four primary policy instruments in the Fed's toolkit is designed to reach this condition. The IORB rate, the ON RRP rate, open market operations, and the discount window all require credit-creating institutions as the intermediary through which policy intent becomes credit and economic activity. The GENIUS Act introduces a new institutional class into the monetary system that holds the same assets those instruments target while participating in none of the transmission channels those instruments require. The Act's authors did not design this as an attack on monetary policy transmission. The structural consequence is the same regardless of intent.

The floor system was constructed to handle an abundance of reserves distributed across credit-creating institutions. What it encounters in the GENIUS Act architecture is not an abundance problem. It is a participation problem: a growing share of reserve-equivalent assets held by institutions that do not participate in the mechanism those reserves are designed to carry. The Federal Reserve's models assume participation. The GENIUS Act removes the condition that makes participation structural. Subsequent papers in this series trace that problem through each remaining transmission channel the Fed relies upon: the bank lending channel, the asset price channel, the exchange rate channel, and

the expectations channel. Each carries the same foundational exposure that this paper identifies. None has been addressed in the Act's legislative record.

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