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TOP of MIND

STABLECOIN SUMMER

It's been the summer of stablecoins. The recently-passed GENIUS Act has created the first federal regulatory system for stablecoins, major companies are exploring launching their own stablecoins, and USDC issuer Circle recently went public to much fanfare. So, does the stablecoin summer have staying power? Former Acting Comptroller of the Currency Brian Brooks believes so, arguing that the sense of safety around stablecoins the GENIUS Act provides will unleash a stablecoin "gold rush". We then explore what stablecoin proliferation could mean for stablecoin issuers (the commercial opportunity should grow as asset tokenization expands), traditional payment rails (the risks are generally overstated), Treasuries (it depends), and bank deposits (likely limited impact for now). And we dig into the potential implications for financial stability, with UC Berkeley's Barry Eichengreen quite concerned that stablecoin proliferation could look like the problematic Free Banking Era, but Brooks adamantly disagreeing with this comparison.

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The GENIUS Act establishes a supervisory system… [that] will create a sense of safety in stablecoins, which will drive mass market adoption.

- Brian Brooks

The US has experimented with private monies—which is essentially what stablecoins are—in the past, often with disastrous consequences for financial stability. I'm concerned that stablecoins could follow a similar path.

- Barry Eichengreen

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WHAT'S INSIDE

INTERVIEWS WITH:

Brian Brooks, Former Acting Comptroller of the Currency; Chairman and CEO, Meridian Capital Group; Board member, Strategy

Barry Eichengreen, Professor of Economics and Political Science, University of California, Berkeley

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Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

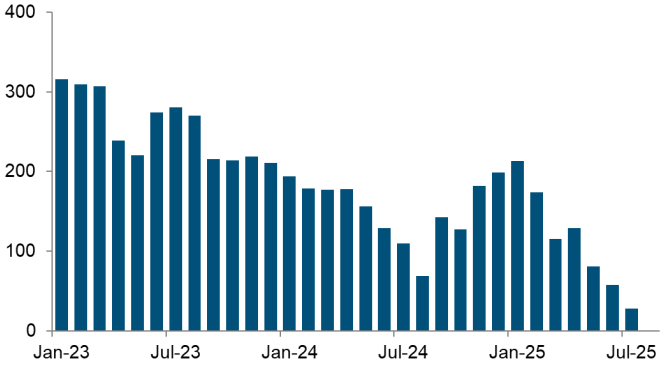
- No major changes in views.

Datapoints/trends we're focused on

- Core PCE inflation, which we expect to rise to 3.3% yoy by Dec amid higher tariffs, though we expect it to fall next year as tariffs likely provide only a one-time price level boost.
- Job growth, which we estimate has plummeted, reinforcing our view that US growth is running below potential and near stall speed.
- Fed policy; we continue to expect three 25bp rate cuts this year in September, October, and December, followed by two more cuts in 2026, for a terminal rate of 3-3.25%.

Plummeting US job growth

GS estimate* of underlying trend job growth, thousands/month



*Equal to 0.75*3m average payroll growth + 0.25*9m average payroll-adjusted household employment growth. We adjust for the undercounting of immigration.*

Source: Goldman Sachs GIR.

Japan

Latest GS proprietary datapoints/major changes in views

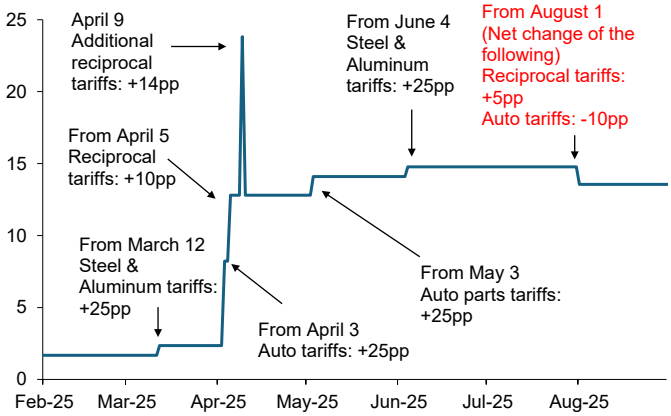
- No major changes in views.

Datapoints/trends we're focused on

- Growth; we expect the relatively benign US-Japan trade deal to support CY2025/26 GDP growth of 1.2%/0.7% yoy.
- Inflation; we expect FY2025 core CPI inflation of 2.4% yoy amid higher-than-expected food price inflation, a weaker Yen, and rising oil prices.
- BoJ policy; we continue to expect the BoJ to deliver its next rate hike in Jan 2026, though uncertainty remains high.
- Japan politics; the loss of the ruling coalition's Upper House majority portends an expansionary bias in fiscal policy ahead.

US-Japan trade deal: slightly lower tariffs

Effective tariff rate on imports from Japan, %



Source: Ministry of Finance, USTR, Nikkei, Reuters, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

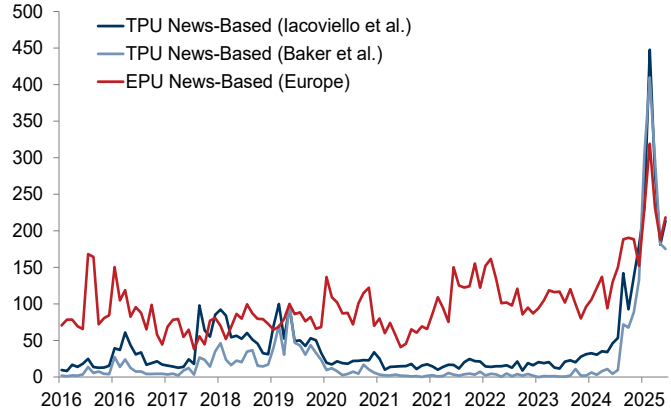
- We recently revised our BoE forecasts after the hawkish policy message delivered at the August meeting and now expect a slower BoE cutting path, with the 3% terminal rate we expect likely to be reached in April rather than March.

Datapoints/trends we're focused on

- Euro area growth; we think the EU obtained the best available trade deal from the US, which should support 2025/2026 real GDP growth of 1.2%/1.3% yoy.
- ECB policy; we believe that the ECB cutting cycle is done, but ongoing trade tensions skew the risks to the downside.
- Euro area inflation, which continues to slow toward target.

EU-US trade deal lowers trade uncertainty

Policy uncertainty indices, % of 2018/2019 peak



Source: Haver Analytics, Goldman Sachs GIR.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

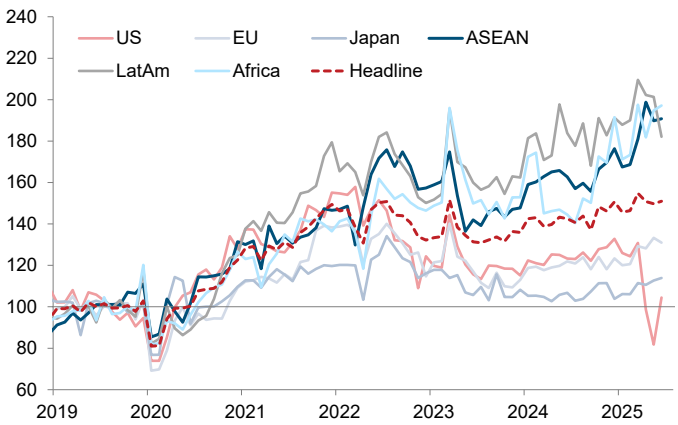
- We lowered our CY2025/2026 India real GDP growth forecasts to 6.5%/6.4% yoy (from 6.6%/6.6%) following the 25% reciprocal US tariff that went into effect on Aug 1.

Datapoints/trends we're focused on

- China growth; despite resilient GDP growth of 5.3% yoy in H1, we expect growth to slow meaningfully in H2 (to 4.3% yoy) as tariff impacts manifest and policymakers remain in no rush to provide more stimulus.
- China inflation; while policymakers have guided against price-cutting and excessive competition, we expect inflation to remain low in 2025 amid overcapacity in many industries.

Chinese exports: surprisingly resilient, for now

Nominal level of Chinese exports by destination, index, 2019=100



Source: Haver Analytics, Goldman Sachs GIR.

Stablecoin summer

It's been the summer of stablecoins. The GENIUS Act that recently became law in the US has created the first-ever federal regulatory system for stablecoins (see pg. 17). Walmart and Amazon as well as major financial institutions are reportedly exploring launching their own stablecoins. And Circle—issuer of USD Coin (USDC), the second-largest stablecoin in the world by market cap (see pg. 11)—recently went public to much fanfare. So, does the stablecoin summer have staying power, and what could that mean for issuers, the existing payment and banking systems, markets, and financial stability more broadly?

But first, what are stablecoins, and how are they used today? In short, stablecoins are digital currencies that operate on blockchains (see pg. 10). Their value is typically pegged on a 1:1 basis to fiat currencies, most often the US Dollar, which differentiates them from other cryptocurrencies whose values are determined by the supply and demand of the coins. The stablecoin market has grown significantly since Circle launched USDC in 2018, with a total market cap of around $270bn today, as stablecoins have gained traction as a means to transfer money across borders and to access dollars outside of the US.

So, will the stablecoin market continue to grow? We speak with Brian Brooks, Former Acting Comptroller of the Currency, who believes so. He expects a stablecoin "gold rush" following the recent passage of the GENIUS Act, which, he says, creates a new sense of safety around stablecoin usage given the regulatory oversight and 1:1 backing with high-quality assets like US Treasuries and bank deposits that the Act requires.

So, what might be the implications of such growth? James Yaro, GS Brokers, Crypto & IBanks analyst, first lays out the business models and commercial opportunity for the entities closest to these digital assets: stablecoin issuers. He sees the opportunity growing as asset tokenization, which is currently in nascent stages, expands.

We then explore what stablecoin proliferation could mean for the entities seemingly most in stablecoins' crosshairs: traditional payment rails. Will Nance, GS Payments and Digital Assets analyst, argues that the risk to existing remittance companies is overstated, noting that most of the costs in cross-border payments are in areas that stablecoins don't directly address, such as on/off-ramp costs and regulatory/compliance-related costs (though Brooks points out that avoiding some of these costs by staying in blockchain-based assets is much easier in many developing countries than many people think given that a number of places accept dollars and cryptocurrencies).

And, Nance says, it's generally underappreciated that traditional consumer payment companies already play an important role in facilitating stablecoin transactions, which he expects to continue. So, Nance sees value in many remittance/consumer payment companies that have underperformed on concerns that stablecoins could disrupt their business models.

What about the implications for Treasuries, the asset most widely used to back stablecoins? Brooks expects stablecoins to provide a meaningful source of Treasury demand, noting that Tether, which didn't exist before 2014, recently disclosed that it's in the top 20 of Treasury debt holders globally.

But GS senior rates strategists William Marshall and Bill Zu find that the impact on Treasury demand will ultimately depend on the timing and scale of stablecoin adoption, the speed of stablecoin turnover, and the source of inflows into stablecoins, with inflows from money market funds likely to have the smallest net impact on Treasury demand while inflows from physical currency holdings, foreigners seeking dollar exposure, and bank deposits could have a larger impact.

Richard Ramsden, GS Head of the Financials Group, then assesses the potential for such migration from US bank deposits to stablecoins, arguing that any significant migration would require stablecoins to offer either better economics than traditional deposits or lower payment frictions—neither of which seems likely anytime soon.

But in today's world of government-issued fiat money, perhaps the most important question is whether the proliferation of private stablecoins could impact financial stability? We speak with Barry Eichengreen, Professor at the University of California, Berkeley, who is concerned that the GENIUS Act will unleash "economic chaos" if it leads to a proliferation of stablecoins that aren't universally accepted and trade at different prices. He doesn't take much comfort from the GENIUS Act's reserve requirements in this regard, arguing that private banknotes during the Free Banking Era—the closest historical parallel to stablecoins in his view—were also meant to be fully backed by high-quality assets but often weren't, fueling bank panics. And while he agrees that stablecoins could be a (marginal) source of Treasury demand, he worries that stablecoins could also fuel greater volatility in the Treasury market should mass redemptions force stablecoin issuers to rapidly liquidate Treasuries in a crisis.

But Brooks adamantly disagrees with the comparison to the Free Banking Era, explaining that during that era—otherwise known as the Wildcat Era—every bank issued its own banknotes and called them dollars, but the underlying reserve assets differed among banks. The whole point of the GENIUS Act, he says, is to require all stablecoins to be backed by the same set of assets, making it instead akin to the National Bank Act of 1863, which enabled an end to the problematic Wildcat Era by requiring all banks to hold Treasuries in a certain ratio to banknotes.

Given the debate around stablecoins' benefits and risks, Zu then compares them to an oft-discussed alternative: central bank digital currencies (CBDCs), which recent US legislation has seemingly closed the door on, but many other countries are pursuing, finding some commonalities but also important differences.

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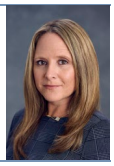


Interview with Brian Brooks

Brian Brooks is former Acting Comptroller of the Currency (2020-21). He is Chairman and CEO of Meridian Capital Group and Board member of Strategy (formerly MicroStrategy). Below, he argues that stablecoins are set to experience a gold rush following the GENIUS Act passage.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: How are stablecoins used today, and how do you expect that to evolve?

Brian Brooks: The killer use case today is Dollar savings products outside of the US. Savers and even institutional investors in countries where Dollar bank accounts aren't widely accessible use stablecoins, a Dollar-equivalent product that expands demand for the Dollar and creates price stability in volatile or inflationary economies. The classic example is Argentina, where many people prefer to hold Circle's USD Coin (USDC) over Pesos. Businesses across Latin America and Africa are built on that premise, and many start-ups in BRICS countries allow retail users to hold Dollar equivalents through stablecoins. This usage is set to grow significantly; on a conservative estimate, two billion adults live outside of the US who would prefer to hold their entire net worth in dollars and currently hold none.

Remittances is another major use case given that stablecoins are digital representations of currencies that can be transferred across borders. If stablecoins did nothing else but save consumers from having to pay a cross-border money transfer fee, that in itself would be enormously valuable given that such fees average around 7%.

But the benefits go beyond that because stablecoins are a convenient way to avoid foreign exchange in many developing economies. In traveling around parts of Latin America, I've found that underdeveloped local financial infrastructure—i.e., few banks that few people actually use—means that almost every place takes dollars, so consumers don't have to convert to local currency to make purchases, and many merchants accept cryptocurrencies. So, natively staying in a blockchain-based asset is much easier in developing economies than people may think, further underscoring the case for stablecoins in cross-border payments.

Last and least important despite all the headlines it attracts is the payments use case. Stablecoins are designed to break down the silos between Dollar-equivalent, non-cash digital payment instruments—for example, Apple Cash, Starbucks cards, and Amex membership rewards—and create universal payment functionality. Most people in developed economies are reasonably well-served by existing payment tools, so this is a relatively small market today. Still, stablecoins will likely gain traction as a payment tool given their speed and lower fees.

Allison Nathan: Don't the higher fees of existing payment rails cover valuable services, like fraud protection? Do you expect stablecoin issuers to eventually do the same?

Brian Brooks: I believe that proper risk management can make this a safe environment. Today's blockchain technology can significantly enhance fraud protection—the inherent transparency and decentralized consensus mechanisms of most blockchains are the security. So, the back-office functions that traditional payment companies perform, and consumers associate with safety today, may eventually become vestigial.

Allison Nathan: Won't the lack of interoperability between blockchains limit stablecoins' growth as a payment tool?

Brian Brooks: It's true that blockchains aren't currently universally interoperable—the Solana blockchain doesn't communicate with the Avalanche or Ethereum blockchains. But since Circle launched USDC in 2018 on the Ethereum network, significant progress has been made on developing "interoperability layers", which allow different blockchains to communicate. Three major players—Axelar, Wormhole, and LayerZero—are currently competing to win the race for universal interoperability. I expect we will see that world soon, with all blockchains communicating with each other the same way that ATM networks initially didn't but now do.

But universal interoperability is only half the battle. Stablecoins must also be fungible, meaning that every stablecoin must be accepted at full value everywhere. For example, I should be able to deposit a USDC token as a dollar at my bank, which I can't do today. However, akin to the experience of traveler's checks that were initially only accepted at the issuing institution but then became universally accepted, I expect such fungibility will come with ubiquitous consumer demand for stablecoins. And the GENIUS Act will play a crucial role here.

Allison Nathan: How does the GENIUS Act shift the stablecoin outlook?

Brian Brooks: The GENIUS Act establishes a supervisory system for stablecoins that mirrors the supervisory system for national banks, which is critical. More people haven't adopted stablecoins largely because they feel safer at a bank—FDIC insurance signs posted in bank branches let customers know that their cash isn't at risk even if the bank fails. Crypto has never felt safe in that way. But the GENIUS Act changes that by requiring all US stablecoin issuers to be supervised by one of the three national bank regulators—the FRB, the FDIC, and the OCC—or a state banking agency, to maintain reserves backing their coins on at least a 1:1 basis with the reserves comprised of high-quality, liquid assets, and to disclose the composition of their reserves monthly. Such supervision will create a sense of safety in stablecoins, which will drive mass market adoption.

Allison Nathan: How confident can we really be that federal and especially state regulators will be able to supervise this novel technology?

Brian Brooks: I take comfort in the fact that national banks, which many crypto companies are now trying to become by applying for national bank charters, are subject to "continuous supervision", meaning that bank examiners are always on-site

and conducting targeted exams on short notice. The bigger concern is whether bank examiners know enough about stablecoins and the underlying blockchain technology to provide adequate supervision. But regulators have always played catch-up on new technologies, and this is no different. They will learn and know more tomorrow than they do today. The same is true for auditors—virtually none of the Big Four would have audited a crypto firm a decade ago. But now they all have crypto practices, because the space became large enough to warrant the necessary learning. Government agencies will do the same.

Allison Nathan: But will regulators be able to effectively supervise the potentially thousands of stablecoin issuers that could now enter the market?

Brian Brooks: I would disagree on the scale. The crypto-native stablecoins that currently dominate the market—Tether and USDC—are likely to remain overwhelmingly dominant, with Tether set to soon issue a US version of its token that will comply with the GENIUS Act and so allow it to operate in the US. The banks I've spoken to aren't looking to launch a $100bn market cap stablecoin for people to participate in remittances or DeFi. Instead, they view stablecoins as a means to lower their funding costs and create customer stickiness by having a tool through which they can run loyalty programs. They can achieve both by issuing electronic tokens, which will be converted into USDC or Tether for other uses. So, the stablecoin market will likely be bifurcated, consisting of two large global stablecoins and more locally-based tokens that will be far easier for regulators to deal with.

Allison Nathan: The GENIUS Act requires stablecoins to be backed by "safe" collateral, but that includes things like bank deposits, which even recent history has shown aren't always safe. Does that worry you?

Brian Brooks: If US bank deposits aren't considered safe, then we have far bigger problems. Concerns about the $3bn of deposits that Circle held at Silicon Valley Bank (SVB) did lead USDC to briefly depeg during the 2023 banking crisis. But Circle didn't lose a nickel of that $3bn. The market reacted negatively because the FDIC rules aren't well understood. It's true that the FDIC insures deposit accounts only up to $250k. But Circle's funds were covered by FDIC pass-through insurance, which ensured that the underlying customers who owned the funds that Circle deposited at SVB were *each* covered up to $250k. It would take some crazy math for such deposits to not be fully insured in a future crisis. So, I'm not particularly worried—insured bank deposits in the US may not be perfectly safe, but they are safer than almost anything else.

Allison Nathan: Some people compare stablecoins to the Free Banking Era, during which the proliferation of private currencies led to many banking crises. What's your view?

Brian Brooks: I see it differently. Stablecoins are not like what occurred in that era, also known as the Wildcat Banking Era, partly because the binding constraint on stablecoin issuance is the availability of Treasury securities and bank deposits. During the Wildcat Era, every bank issued its own banknotes and called them dollars, but the underlying reserve assets differed among banks. So, a dollar at one bank wasn't worth the same as a dollar at another bank. The whole point of the GENIUS Act is to require all stablecoins to be backed by the same set of assets. In that sense, it's akin to the National Bank Act of 1863, which required all banks to hold Treasury securities in a certain ratio to banknotes and so enabled an end to the problematic Wildcat Era.

Allison Nathan: What could the proliferation of stablecoins mean for commercial banks?

Brian Brooks: Some banks feel threatened by stablecoins, while others feel empowered. Community banks worry that stablecoins could siphon low-cost deposits away from the banking system, which is partly why they supported the GENIUS Act's provision that prohibits stablecoin issuers from paying interest to coinholders. But midsized banks and neobanks—digital-first banks that operate exclusively online—view stablecoins as both a deposit-gathering and customer stickiness tool that could enable other business lines, such as a crypto trading business. So, banks' fortunes could diverge as stablecoins proliferate.

Allison Nathan: What about for Treasury demand?

Brian Brooks: Stablecoins will provide a meaningful source of Treasury demand. Tether didn't exist before 2014, and it recently disclosed that it's in the top 20 of Treasury debt holders globally. As we've discussed, huge demand exists for dollars globally, especially in developing economies, and stablecoins are the digital representation of the Dollar. Now, every time a new stablecoin is issued, a dollar of Treasury securities has to be purchased to back it. So, the GENIUS Act will unleash demand for the Dollar at unprecedented levels, which will increase Treasury demand on the order of percentage points of total outstanding.

Allison Nathan: Would a central bank digital currency (CBDC) provide a better alternative to stablecoins?

Brian Brooks: I view this as a matter of ideology. I don't want the government to have the power to review my transactions; neither public nor private sector officials should be able to deny transactions they consider unsavory or cut people off from the financial system on a whim. The beauty of stablecoins is that nobody has to trust anybody since they are based on decentralized consensus mechanisms. I prefer that world.

Allison Nathan: How soon will the future state of stablecoins that you expect become a reality?

Brian Brooks: With the GENIUS Act's passage, I expect the future state to become reality in two years and exist at scale in five years. So, the next three years will be the gold rush.

Allison Nathan: What, if anything, could derail that future?

Brian Brooks: The Fed could tighten monetary policy, which would constrain the money supply, causing the stablecoin gold rush to end before it ever really began. And, while today's blockchain is hard to hack, I worry that bad actors could crack blockchain networks and manipulate or fraudulently create stablecoins, which isn't inconceivable in a quantum computing future and could destroy confidence. Despite these risks, I expect stablecoins to become ubiquitous because they address real problems, so I am confident that they will overcome any potential obstacles in their path.

Interview with Barry Eichengreen

Barry Eichengreen is George C. Pardee and Helen N. Pardee Chair and Distinguished Professor of Economics and Political Science at the University of California, Berkeley. Below, he argues that the proliferation of stablecoins could undermine the "singleness of money" that is essential for economic stability and introduce greater volatility into the Treasury market.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: You've argued that the GENIUS Act will unleash economic chaos. What about the legislation worries you?

Barry Eichengreen: My main concern is that the proliferation of stablecoins could undermine what economists refer to as the "singleness of money"—the principle that every dollar should trade at the same price and be accepted everywhere—which is essential for economic stability. The GENIUS Act could lead to a proliferation of currencies and quasi-currencies that may not be interoperable and could trade at different prices, forcing merchants to scrutinize the value of each stablecoin they receive. That would introduce additional costs, inefficiencies, and risks into the payment system. It's important to note that the US has experimented with private monies—which is essentially what stablecoins are—in the past, often with disastrous consequences for financial stability. I'm concerned that stablecoins could follow a similar path.

> "The US has experimented with private monies—which is essentially what stablecoins are—in the past, often with disastrous consequences for financial stability. I'm concerned that stablecoins could follow a similar path."

Allison Nathan: Which of these past episodes provide the closest parallels, and what lessons should we learn from them?

Barry Eichengreen: The most direct historical parallel is the Free Banking Era that lasted from the mid-1830s until the early Civil War days, during which individual banks in many states could issue proprietary bank notes. In principle, these banks were obliged to redeem a $1 banknote for a dollar's worth of gold. But, in practice, banks sometimes lacked sufficient collateral to fully redeem their notes, leading different banknotes to trade at different values based on the issuing bank's perceived redemption risks. And in cases where serious worries about a bank's ability to redeem its notes emerged, a rush to the till occurred, leading to runs and banking panics. So, the experience of the Free Banking Era offers a stark warning for stablecoins.

So too do past episodes involving money market funds. In 2008, a large fund broke the buck when its value fell to $0.97 per share, leading to chaos and contagion concerns that ultimately forced the government to intervene and guarantee the value of money market funds. Similarly, in 2023, Silicon Valley Bank's (SVB) collapse—triggered by rising losses in its extensive unhedged bond portfolios as interest rates rose—led to a rush on deposits that required government intervention to prevent much-feared financial contagion. The government could similarly find itself on the hook for stablecoin redemptions, and at the taxpayers' expense. Banks pay into an insurance fund at the FDIC and so pay the price of making depositors whole up to the insured limit. Nothing like this exists for stablecoins. So, taxpayers would be directly implicated.

Allison Nathan: The GENIUS Act requires stablecoin issuers to hold collateral equal to or exceeding the value of the coins they issue, and that collateral must be high-quality, liquid assets. So, does that give you any comfort?

Barry Eichengreen: It offers modest comfort, but history shows that assets considered high quality one day can be lower quality the next. Banknotes in the Free Banking Era and shares in the troubled money market fund Reserve Primary Fund were supposed to be fully collateralized by high-quality assets but weren't in practice. And while US Treasuries account for the majority of stablecoin reserves, issuers are permitted to hold reserves in other forms like deposits at banks, which can face risks. Some of the big stablecoin issuers held reserves as deposits at SVB, which holders feared were uninsured, leading to sharp declines in the value of their coins. That could happen again. And even if stablecoin issuers don't fail to redeem their coins, chaos could still ensue if doubts that they will emerge.

> "I'm not confident that the government agencies licensing potentially hundreds of stablecoins can reliably oversee such a novel and complex financial technology."

Allison Nathan: The GENIUS Act only allows federally-insured banks to issue stablecoins while non-bank entities must obtain special permission. Shouldn't that act as a safeguard against the reckless proliferation of stablecoins?

Barry Eichengreen: It isn't enough. A variety of entities, including big tech firms and major retailers, will likely be involved in stablecoin issuance despite lacking the necessary expertise and protection mechanisms to manage such a consequential financial instrument. And I'm not confident that the government agencies licensing potentially hundreds of stablecoins can reliably oversee such a novel and complex financial technology. If regulators fall short, we will—at best—be stuck with many stablecoins all worth different amounts and—at worst—face a crisis that could destabilize financial markets and the broader economy.

Allison Nathan: Could giving stablecoin issuers access to Fed master accounts solve some of these concerns?

Barry Eichengreen: It's possible, but the GENIUS Act doesn't grant issuers such access. The lax regulatory oversight outlined in the bill of only monthly self-reporting of reserves and annual third-party audits likely isn't sufficient to ensure the system's infallibility.

> "The lax regulatory oversight outlined in the bill of only monthly self-reporting of reserves and annual third-party audits likely isn't sufficient to ensure the system's infallibility."

Allison Nathan: Do you see *any* potential benefits from stablecoins?

Barry Eichengreen: I see little, if any, benefit in the US context. Stablecoins potentially offer some value through their ability to provide financial services to the unbanked. But only around 4% of the US population is unbanked and those that are face barriers that make adoption of digital assets unlikely.

For the vast majority of the US population, existing banking and payment systems are already fairly efficient and reliable, offering few incentives to switch to stablecoins. And while stablecoins could lower the cost of transactions by eliminating credit card interchange fees and freeing consumers from having to accept artificially low bank interest rates, credit card companies and banks provide consumers with a package of services. Card companies provide fraud protection and deferred payment options, and bank deposits up to a sizable amount are insured, none of which will be the case with a stablecoin. So, any potential savings will likely be outweighed by the loss of these valuable protections and services.

Stablecoins may hold more promise in countries outside of the US with larger unbanked populations, but they're far from the only solution to such problems. India, for instance, passed a set of laws in 2005 that requires banks to provide no-frills, no-cost bank accounts to the unbanked. All that said, stablecoins may offer more compelling benefits in the cross-border payments space, where transaction fees can total 5-7%. In such cases, the cost savings may justify their use.

Allison Nathan: Could stablecoins increase demand for Treasuries, thereby helping finance the US' growing debt burden?

Barry Eichengreen: Stablecoins may provide a marginal source of demand for Treasuries but will likely have a limited overall impact on the market. Treasury Secretary Scott Bessent has said that the US stablecoin market could grow to $2tn by the end of 2028 with legislative support—a small but significant fraction of the roughly $30tn in outstanding Treasuries. That said, Bessent's forecast may well be overly optimistic.

On top of that, stablecoins could fuel greater volatility in the Treasury market. In a crisis precipitated by a lack of faith in the collateral backing stablecoins, mass redemptions could force stablecoin issuers to rapidly liquidate Treasuries, driving down bond prices, sharply increasing interest rates, and potentially triggering broader financial market turmoil.

Allison Nathan: What could the proliferation of stablecoins mean for the Dollar?

Barry Eichengreen: Stablecoins are unlikely to have any meaningful impact on the Dollar for the foreseeable future. Stablecoin capitalization will be small potatoes relative to the daily turnover in foreign exchange markets, which the Dollar dominates. While stablecoins could very modestly supplement other Dollar-denominated forms of payment and provide another set of payment rails, I doubt they will displace the already well-established international interbank market, the correspondent banking system, and the SWIFT network. Meanwhile, these systems are already using much of the same encryption technology as stablecoins to enhance their existing payments and support faster and cheaper transactions. So, that provides even less incentive for users to turn to stablecoins.

Allison Nathan: What about the potential implications for the banking system?

Barry Eichengreen: Stablecoins are unlikely to challenge the traditional banking system for two key reasons. First, if widespread demand for stablecoins as a payment mechanism emerges, established banks are well-positioned to respond by issuing their own coins, likely dominating the market given their size and existing customer networks. Second, as we've discussed, banks offer a comprehensive range of services beyond mere payment facilitation—including FDIC-backed deposits and preferential mortgage treatment for long-standing customers—that stablecoin issuers cannot easily replicate. So, while stablecoins may offer some benefits, they probably won't be able to out-compete banks.

> "Stablecoins are unlikely to challenge the traditional banking system."

Allison Nathan: Would central bank digital currencies (CBDCs) provide a better alternative to private stablecoins?

Barry Eichengreen: CBDCs are more promising because they wouldn't threaten the singleness of money. Unlike with private stablecoins, there would be no questions around a Fed-issued CBDC's value, just as there is no doubt that a commercial bank's dollar deposits at the Fed are worth their full weight. And the Fed can fully back a CBDC in the same way it backs the deposits parked at it, mitigating the risk of bank runs.

However, a CBDC seems unlikely in the current US political environment. Congress is reluctant to cede more power to the central bank owing to a deep and abiding mistrust of concentrated financial power that can be traced back to President Andrew Jackson in the 1830s. And the American public shares these concerns. So, while some other countries are actively pursuing CBDCs as the answer to a world in which digital currencies run on a blockchain, the US has chosen to do so via stablecoins, which are second best.

Stablecoins: implications for USTs

William Marshall and Bill Zu assess the impact of an expanding stablecoin footprint on the US Treasury market

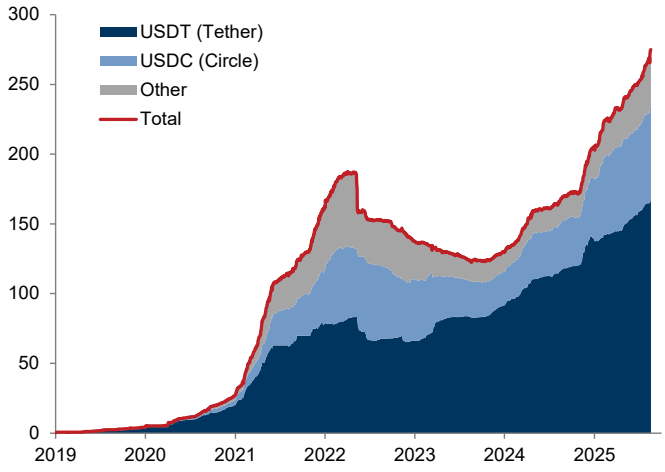
The GENIUS Act's requirement for stablecoin issuers to maintain full reserve backing of payment stablecoins has raised questions about the implications of an expanding stablecoin footprint for the Treasury market. The spread of stablecoins should result in increased demand for safe assets including Treasuries, although the ultimate impact will depend heavily on the timing and scale of stablecoin adoption, the velocity of turnover, and the source of outflow from traditional channels. We expect the US Treasury will allow the share of bills in overall Treasury issuance to rise gradually over the coming years. But we caution that basing issuance decisions too heavily on potentially volatile stablecoin demand could complicate Treasury's debt management and contribute to higher term premia over time.

Demand is all about adoption…

The impact of payment stablecoins on safe asset demand hinges on the scope and speed of adoption, which has so far been limited. Stablecoin usage remains largely confined to crypto-asset trading, with minimal uptake in consumer payments. While adoption may grow with regulatory and technological maturity, the outlook remains highly uncertain. In principle, stablecoins offer consumers potential incentives over traditional money, including through merchant rewards programs. However, similar benefits already exist for gift cards and credit card payments, limiting the value proposition that would incentivize widespread consumer adoption for now. However, any significant increase in stablecoin usage could result in significant demand for safe assets.

The size of the stablecoin market currently sits at around $270bn, dominated by two leading issuers

USD stablecoins in circulation, by market cap, $bn



Source: DefiLlama, Goldman Sachs GIR.

…the velocity of turnover…

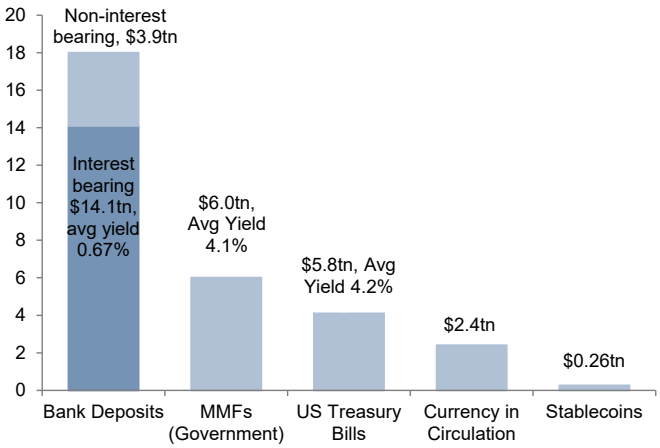
The speed of turnover will also affect the amount of safe assets required to support the amount of outstanding stablecoins. For a given level of transaction volume, faster turnover velocity requires a lower stock of stablecoins and, accordingly, less safe asset demand. By contrast, lower trading volumes requires a larger stock of reserves (i.e. safe assets). Early evidence indicates that trading volumes in USDC as a share of total supply have been relatively low, implying a potentially large required stock of reserves. However, it's reasonable to expect that turnover would rise as the use case shifts toward payments not linked to crypto trading.

…and, crucially, the money flow

Lastly, and crucially, the impact on safe asset demand depends on the source of inflows that stablecoin growth pulls from—in other words, what users are holding stablecoins in lieu of—and the composition of stablecoin reserves. Payment stablecoin inflows should largely come via shifts from four traditional channels: money market funds (MMFs), bank deposits, physical cash, and foreign demand for dollars.

The net implications for safe asset demand from stablecoins adoption will largely depend on the source of inflows

Stablecoin market cap versus safe assets currently outstanding and average yield, $tn



Source: FDIC, Federal Reserve, US Treasury, Crane Data, GS GIR.

Inflows from **money market funds** would have the smallest net impact on safe asset demand, as both MMFs and stablecoins are fully backed by safe assets (assuming it's a government MMF, which represent >80% of the universe). While stablecoins and MMF shares appear to be close substitutes—both are not covered by deposit insurance, are fully backed by short maturity assets, and can be tokenized—MMF shares pay interest while stablecoins do not. This may limit how much demand stablecoins can ultimately pull away from MMFs, though stablecoin issuers can potentially offer non-monetary rewards to incentivize adoption and partially mitigate the yield disadvantage.

Since MMFs are already fully backed by safe assets, any outflows into stablecoins merely transfer safe asset demand from MMFs to stablecoin issuers, leaving overall safe asset demand unchanged. That said, demand preferences within the safe asset pool (e.g., Treasury bills vs. repo) may differ between stablecoin issuers and MMFs, influencing the relative pricing of these assets.

Inflows from **bank deposits** could increase demand for safe assets, similar to a shift from deposits to MMFs. While bank deposits are tokenizable, unlike stablecoins, they generally offer interest, are typically insured (up to $250k), and, importantly, are not fully backed by safe assets. The extent of incremental

demand would depend on the size of deposit outflows and how banks manage their asset pools in response. In a frictionless world, a deposit that an individual withdraws to buy a stablecoin should end up back in the banking system as a deposit or other source of funding, with the net effect being an increase in safe asset demand from the stablecoin issuer. But, at scale, the characteristics of that bank funding would likely shift, which, combined with heterogeneity across banks (i.e., different levels of perceived liquidity and safety), could prompt adjustments if, for example, the overall cost of bank funding becomes more expensive. In the event that flows to stablecoins result in banks selling safe assets, it would represent a transfer of ownership to stablecoin issuers with little incremental demand over the status quo. However, larger scale deposit migration could risk potentially negative implications for credit intermediation.

Inflows from **physical currency holdings** would initially boost demand for safe assets given the immediate transition from currency in circulation to reserves (via stablecoin issuance), although the longer-term implications are less clear. When a stablecoin issuer receives cash, the subsequent flow through the financial system should reduce currency in circulation and increase reserves on the central bank balance sheet, creating additional demand for safe assets akin to depositing cash into a money market fund. However, over the longer term, a drop in demand for physical currency that boosts reserves could allow for a smaller central bank balance sheet, potentially undoing the extra safe asset demand depending on the degree of reserve drain. That said, the reserve reduction might not align one-for-one with stablecoin migration, potentially leading to a net long-term increase in safe asset demand.

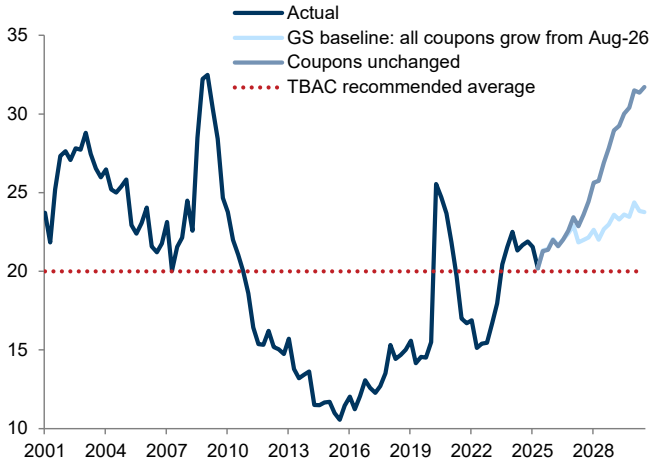
Inflows from **foreigners seeking USD exposure** could generate a net increase in demand for US safe assets. Mechanically, foreigners acquiring USD stablecoins would be similar to an FX transaction that buys USD, followed by a USD transaction that buys USD stablecoins (with the issuer in turn buying USD safe assets). This would increase the overall demand for USD safe assets by the amount of the stablecoin transaction. But we are somewhat skeptical that stablecoins will unlock a significant pool of previously inaccessible foreign capital given potential capital flow constraints—if capital controls effectively limit access to conventional USD, they might also apply to USD stablecoins.

A potentially shifting Treasury supply mix

Widespread adoption of payment stablecoins could also influence issuance decisions regarding the *supply* of safe assets. Increased demand for safe assets can be accommodated through either higher prices (lower short-term interest rates), increased front-end supply, or both. Early evidence indicates that commercial paper (CP) issuers are already expanding supply to meet stablecoin-driven demand, leaving CP rates relatively little changed. While evidence for other safe assets, including Treasuries, is limited in this regard, the Treasury could similarly decide to meet stablecoin-driven safe asset demand by skewing issuance toward the short-end. This could reduce the expected cost of debt, but at the expense of greater funding cost variability over the business cycle. So, any moves toward such a supply mix shift must be weighed against the potential for more rate sensitive financing needs and fiscal uncertainty (which could boost term premia).

Our baseline expectation is for coupon size increases beginning August 2026, allowing for a controlled rise in the bill share…

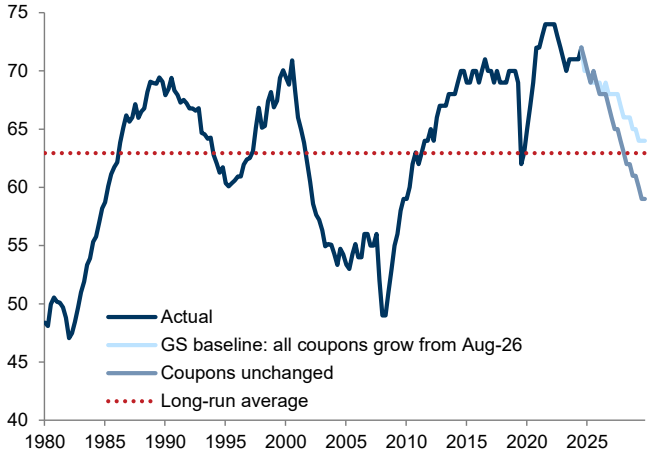
Treasury bills as a share of total Treasuries outstanding, %



Source: Haver Analytics, Goldman Sachs GIR.

…which would lower the weighted average maturity of total outstanding US debt

Total outstanding marketable debt average maturity, months



Source: Haver Analytics, Goldman Sachs GIR.

Basing issuance decisions on stablecoin-driven safe asset demand also strengthens the link between public sector borrowing costs and private sector demand for stablecoin liquidity. This differs from a fiat money system or CBDC, where the central bank can smooth private sector liquidity demand by adjusting liability costs without adjusting the asset side of the balance sheet (see pg. 16). Such a link may be undesirable if stablecoin demand is highly volatile, potentially complicating Treasury's debt management and contributing to higher term premia over time. All told, we expect Treasury will allow the bill share to rise over the coming years, but continue to think that a controlled approach to this adjustment is prudent given the risks and uncertainty around eventual stablecoin demand.

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Stablecoins: an overview

What are stablecoins?

- Stablecoins are a form of tokenized digital money using **blockchain technology** and are designed to maintain a stable value, typically **pegged** one-to-one with conventional fiat currencies, most commonly the US Dollar. This differentiates stablecoins from bitcoin and other cryptocurrencies whose values are determined by supply and demand of the coin. Their primary purpose is to serve as a medium of exchange in digital assets or for payment settlement.
- Stablecoins maintain their fiat currency peg either through market-based mechanisms that adjust supply (**algorithmic stablecoins**) or through explicit asset backing by issuers (**reserve-backed stablecoins**). The latter is significantly larger by market capitalization and more integrated with the existing financial system due to issuers' holdings of financial assets. Issuers typically hold safe, cash-equivalent assets like bank deposits, US Treasuries, repurchase agreements, and commercial paper, though some also hold precious metals and cryptocurrencies. The GENIUS Act requires stablecoins to be fully backed by 'permitted reserves' (primarily safe assets like US Dollars and short-term Treasuries) after a grace period.
- The overall size of the stablecoin market is around $268bn, with **USDT** (~$166bn in circulation, issued by Tether) and **USDC** (~$68bn in circulation, issued by Circle) commanding the vast majority of market share (see pg. 11). The remaining stablecoins outstanding are split across a variety of much smaller issuers.

How are stablecoins used?

- Today, stablecoins are primarily used within the **cryptocurrency ecosystem for trading**, providing a stable asset to move in and out of positions without having to convert to fiat currency.
- The other major use case is providing **access to dollars** outside of the US, especially in devaluation-prone regions, as well as for **cross-border payments** and **remittances.**
- Stablecoins can also be used for **consumer payments**, though this usage remains limited so far as consumers continue to rely on traditional payment systems.
- **Business-to-business payments (B2B)** could be another use case for stablecoins, although B2B payments have historically been very slow to adopt new payment rails.

How do stablecoins work?

1

A customer deposits an underlying asset, typically US Dollars, with a stablecoin issuer and in return the issuer **mints**, or creates, an equivalent amount of stablecoin on a **blockchain** and delivers it to the customer. The US Dollar cash given to the issuer is parked in what are called **reserves**, which are typically high-quality liquid assets like US Treasuries. Stablecoins can also trade on the secondary market, where prices can fluctuate with supply and demand.

2

Stablecoins are typically stored in cryptocurrency **wallets**. These wallets hold the stablecoins as digital assets on the blockchain—which records who owns the coin and any transactions they make with it—allowing users to send, receive, and manage their stablecoins.

3

Customers can use their stablecoins to transact in a variety of ways. When a customer initiates a transaction, they send a request to the blockchain network that includes the recipient's wallet address and the amount of stablecoins to be transferred. The transaction is verified and recorded on the blockchain. The transaction is then reflected in the recipient's wallet balance.

4

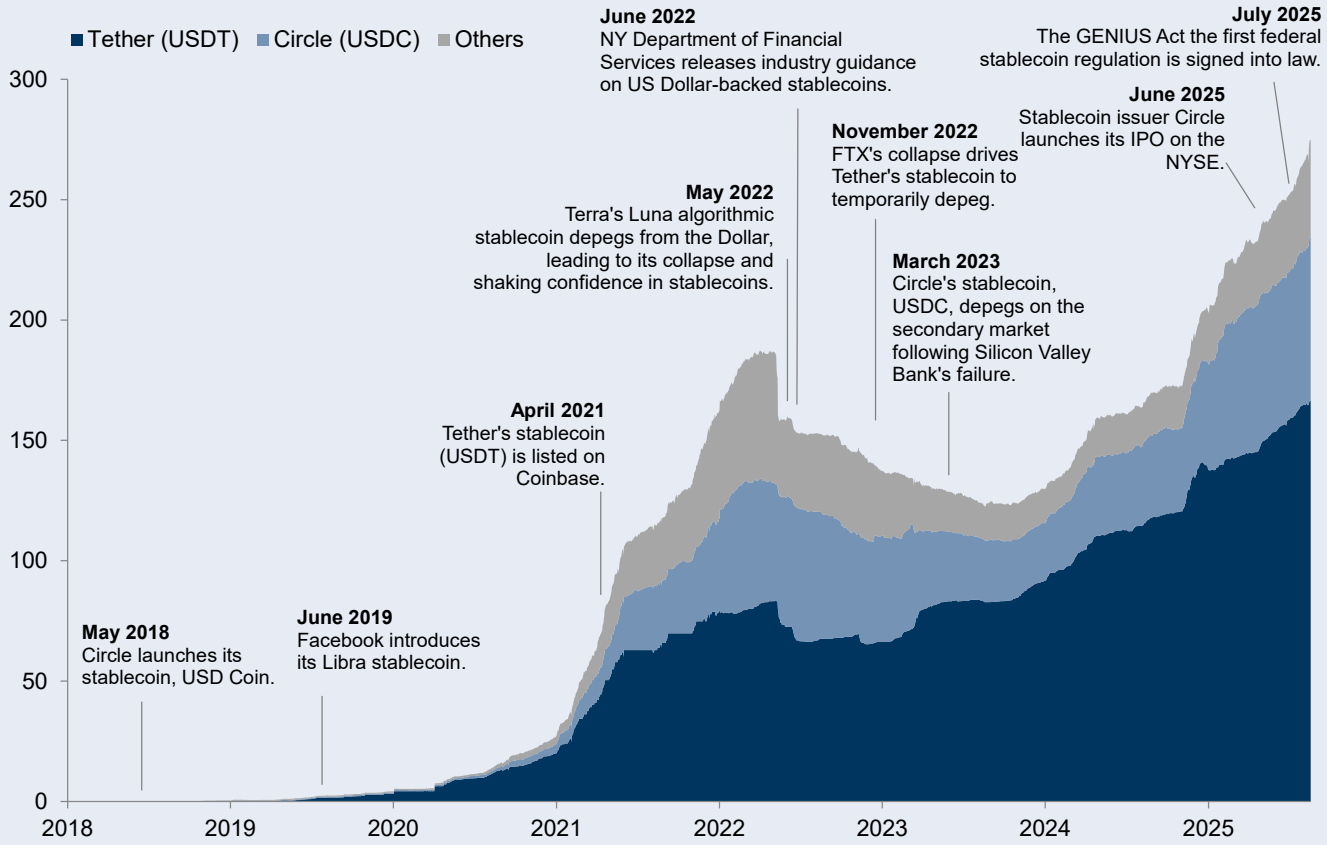
When a user wants to **redeem** their stablecoin for the underlying asset, they send the stablecoin back to the issuer. The issuer then **burns**, or destroys, the stablecoin, removing it from circulation, and releases the equivalent amount of the reserve asset back to the customer.

Source: CoinGecko, DefiLlama, US Treasury, Brookings, Goldman Sachs GIR.

Sizing the stablecoin market

The size of the stablecoin market currently sits at around $270bn, dominated by two leading issuers: Tether and Circle

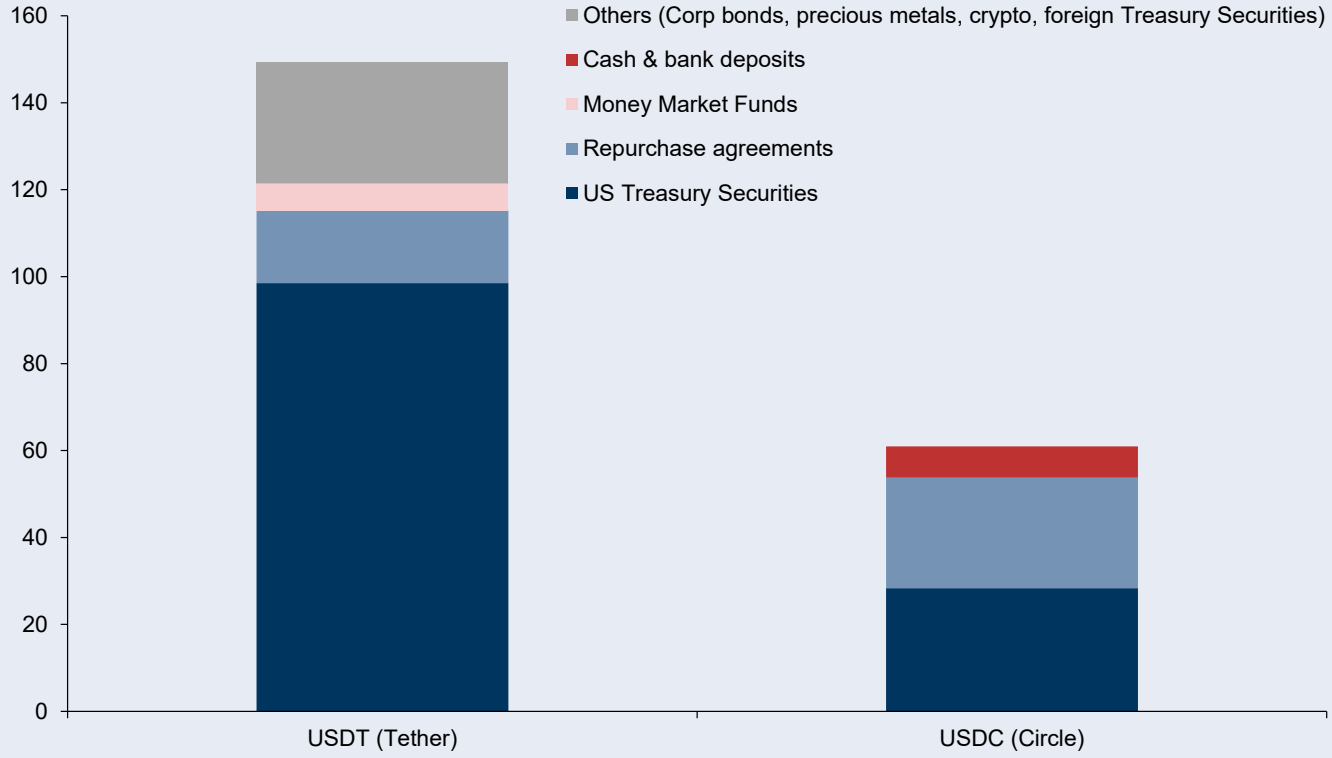
USD stablecoins in circulation by market cap, $bn



Source: DefiLlama, CoinGecko, Moody's, various news sources, Goldman Sachs GIR.

The vast majority of stablecoin reserves are currently held in USD safe assets, including Treasury securities, repos, money funds, and deposits, though the GENIUS Act now requires payment stablecoins to be *fully backed* by safe assets after a grace period

Reserve composition of the largest two USD stablecoin issuers, latest reported (1Q25 for Tether, May 2025 for Circle), $bn



Source: Tether, Circle, Goldman Sachs GIR.

Special thanks to GS Rates Research team and GS equity analyst Ben Lund for charts.

Stablecoins: the commercial opportunity

James Yaro discusses the business model and opportunity for stablecoin issuers

A surge in interest in stablecoins on the back of rising adoption and a friendlier regulatory landscape has raised questions about the commercial opportunity for stablecoin issuers. While business models differ, issuers of fiat-backed stablecoins—those whose value is pegged to a fiat currency, most often the US Dollar—generate revenue primarily by earning interest on their reserve assets. We believe the commercial opportunity for stablecoin issuers could grow as real-world assets are tokenized.

The business model: a guide

Stablecoin issuers employ one of two primary business models: (1) outright issuance and creation of stablecoins and (2) "white label" stablecoins (see adjacent page for a visual guide).

In the outright issuance model, an issuer "mints" their own stablecoin. Minting is the process of creating a new coin. Customers deliver dollars to the issuer, who then creates an equivalent amount of stablecoins and delivers them to the customer. The proceeds of minting are deployed into high-quality liquid assets, which, in the case of some stablecoins, are assets without credit, market, or interest rate risk. These assets, or reserves, typically consist of a mix of US Treasuries, US Treasury repo, and bank deposits, often at globally systemically important banks. The high quality of such reserves means that stablecoin issuers can easily liquidate them to provide dollars to customers who wish to sell their stablecoins, a process known as "redemption". Tether (which issues USDT) and Circle are the two largest direct stablecoin issuers, with market caps of ~$166bn and ~$68bn out of a total Dollar stablecoin market cap of ~$268bn.

In the white label stablecoin issuance model, an issuer mints and redeems stablecoins on behalf of a partner, who delivers its customers' dollars to the issuer for minting and delivers the newly-minted stablecoins to customers. The reserve structure and composition in this issuance model resemble that of the outright issuance model. The largest market participant among white label stablecoins, whose usage has recently risen owing to recent expansion of its Global Dollar stablecoin (USDG) across several partners, including Robinhood and Kraken, is Paxos, which issues PayPal Coin (PYUSD) and USDG on behalf of the Global Dollar Network.

Making money: all about interest

One of the main ways that stablecoin issuers make money is by earning higher returns on their assets than they pay out in expenses to commercial partners. Issuers collect the interest income on reserves ("reserve income"). The GENIUS Act that recently became law doesn't permit issuers to pay interest directly to coin holders, as stablecoins are intended to be used for payments. However, stablecoin issuers can and often do remit some reserve income as distribution expenses to partners who, in turn, can choose to distribute rewards to customers, with these rewards bearing some similarities to interest. Circle pays distribution expenses to Coinbase through its commercial contract, and Coinbase offers rewards to USDC holders on its platform. Different stablecoins have different models of how much reserve income they pay partners to incentivize use or pay rewards. Some, like Paxos' USDG, pay out nearly all of the reserve income to partners, less a small management fee that Paxos retains. Others, like USDT, retain all reserve income. Circle's USDC lies in between these two, with ~60% of reserve income distributed to partners in 2024.

Use cases: the tokenization opportunity

Stablecoins are currently primarily used as a means to access dollars outside of the US and within the crypto ecosystem for trading.

Tokenized real-world assets—which are physical or digital assets whose rights have been converted into a digital token on a blockchain—are a small market today, with a market cap totaling ~$295bn, or $27bn ex-stablecoins—by far the largest tokenized asset. However, more real-world assets could be tokenized, which could enhance the use cases of stablecoins. Such tokenization would be especially beneficial for assets that are hard to track and involve onerous and costly settlement processes, e.g., residential mortgages (a ~$13tn market in the US), which involve the costly and time-consuming appraisal process, costly title insurance, and culminate with a wet signing in person of closing docs, the latter two especially of which could potentially be made more efficient and less costly on the blockchain.

Such asset tokenization has already started. Robinhood and private crypto exchange Kraken recently began offering tokenized equities, with the goal of opening up new markets for the product (i.e. offering US stock trading to European investors), facilitating 24/7 trading (not possible under traditional stock trading rules), and providing access in places without robust brokerage markets (anyone with a smartphone could theoretically buy a digital asset). And the more assets that are tokenized, the more useful stablecoins become, since they are the natural way to pay for real-world assets on blockchains.

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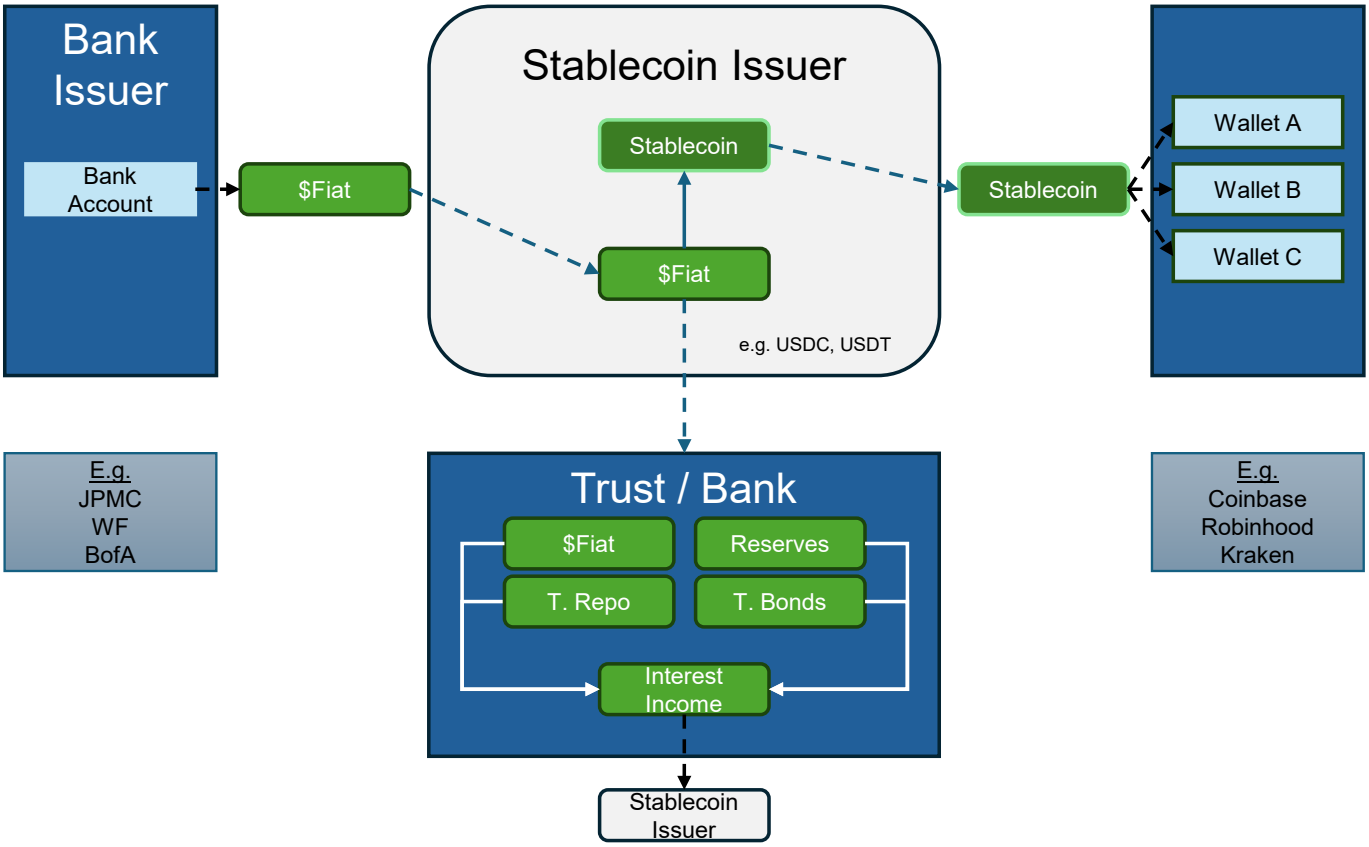
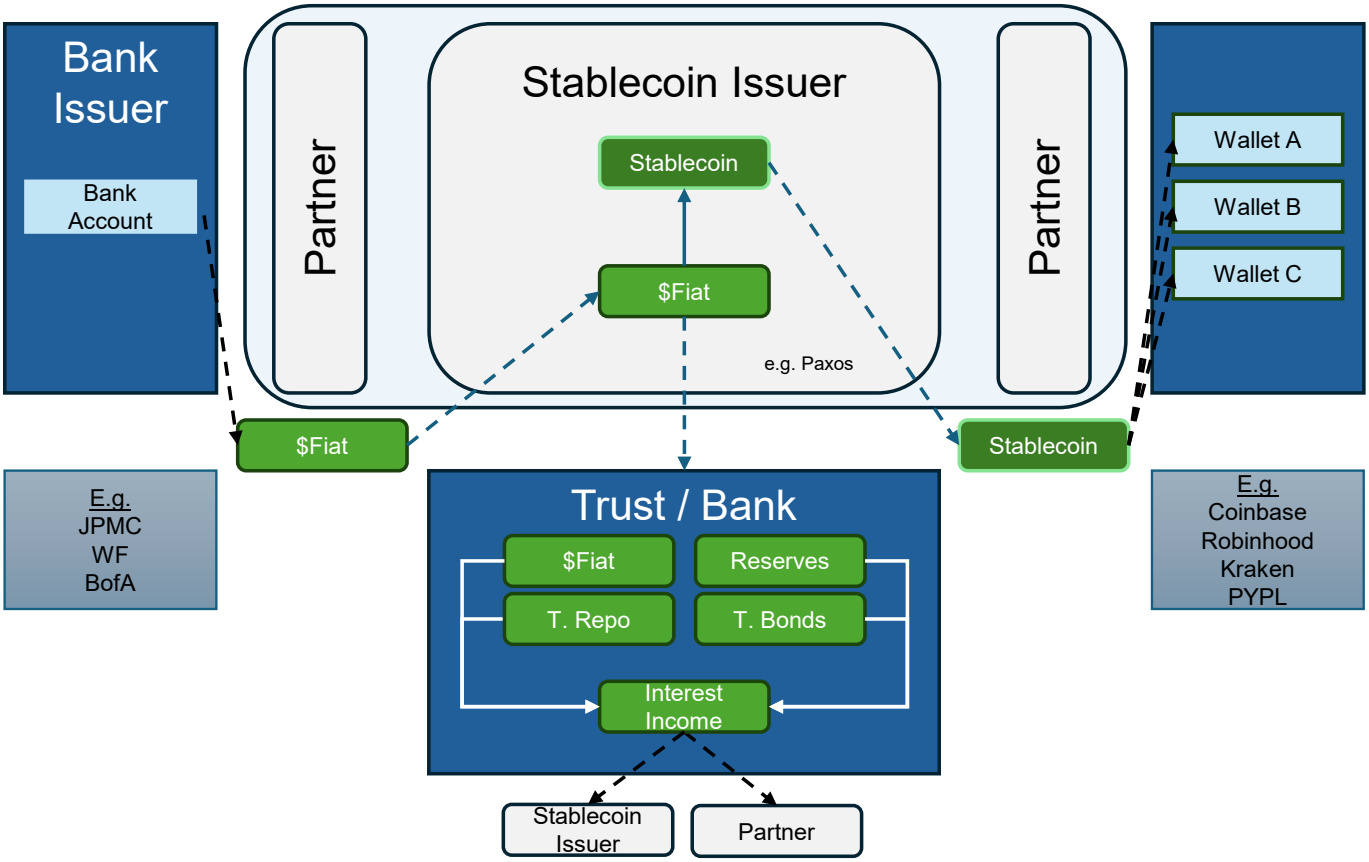
In a direct issuer model, an issuer mints and redeems stablecoins on their own behalf...



...while in a white label issuer model, an issuer performs these tasks on behalf of a partner



Source: Goldman Sachs GIR.

Q&A: stablecoins' impacts on payments

Will Nance answers key questions about the disruptive potential of stablecoins for traditional payment rails

As the passage of the GENIUS Act opens a path for stablecoins to become more ubiquitous, a debate has emerged about how disruptive this may be for traditional payment rails. We address the key questions, concluding that traditional payment companies will likely still play a big role in distribution, fraud prevention, and regulatory compliance, even if stablecoins see broader adoption.

Q: With remittance companies seemingly in the crosshairs of stablecoin disruption, could stablecoins make existing cross-border rails extinct?

A: We believe the risk to remittance companies is overstated. We see few areas where the cost of transfer is intrinsically lower for stablecoin-based payments versus traditional remittance payments given most of the costs in the remittance space lie in on-ramp/off-ramp costs, regulatory licensing, and onboarding/KYC/ compliance-related costs, which stablecoins don't directly address.

To gauge the potential cost savings from stablecoins, investors should compare costs on an apples-to-apples basis in each individual corridor (the specific pathway money takes when moving from one country to another) and include on-ramp/off-ramp costs, FX conversion fees, KYC and AML costs, and fraud and fraud prevention costs, which add substantially to the very low headline costs of conducting a blockchain transaction.

To the extent that some of the highest cost corridors tend to be correlated with less liquid currency markets and higher settlement costs, cost savings could emerge if stablecoins can step in and add financial infrastructure and improve the liquidity of these currencies. But such corridors don't represent the majority of remittances, and government regulations may limit the extent to which stablecoin-based payments could scale in these geographies. Without widespread dollarization or unless the global economy goes fully "on-chain" by moving to blockchains, stablecoin-based remittances would likely incur similar transaction costs to traditional remittances, resulting in little to no consumer savings. However, we do see opportunities to improve the working capital efficiency for remittance companies by leveraging stablecoins for 24/7 settlement, resulting in less need to pre-fund weekend activity.

Q: How are consumer payment companies responding to the risks/opportunities that stablecoins present?

A: An underappreciated fact is that Visa and Mastercard already play an important role in facilitating payments and transactions for stablecoins, building off their early partnership with Coinbase to facilitate the settlement of crypto-based payments. Visa expects to settle over $1bn in stablecoin transaction volumes over the next 12-18 months. As with any new payment method, stablecoins are unlikely to scale without a distribution network. The significant distribution hurdles for widespread acceptance will likely limit consumer adoption of stablecoin-based payments to emerging markets where card-based payments haven't taken root in the economy. We see limited risk to existing consumer payment volumes given the significant network effects reinforcing the carded ecosystem globally.

Q: What are investors underappreciating about the potential impact of stablecoins on traditional payments?

A: We believe the most common misunderstanding is around the perception of massive cost benefits over traditional cross-border payments. In our view, stablecoins are an incomplete medium for cross-border payments, and still require much of the same on/off-ramp infrastructure. They also are just as susceptible to fraud and still require licensing and compliance with local government regulations.

We see this as part of a broader misconception in payments: the value-add of most payments companies is not in the actual movement of money, but in the coordination at scale of payments in a regulatory-compliant way, with minimal fraud costs and efficient, user-friendly distribution. While stablecoins are a payment rail, we see them operating at the infrastructure layer of payments, alongside domestic ACH schemes and central bank rails (i.e. SWIFT/correspondent banking) in cross-border, whereas most payments companies operate at the services layer, where the transaction monetization is correlated to value add on top of the base transaction.

Q: What looks most mispriced in the payments universe and who is best/worst positioned in a world of greater stablecoin proliferation?

A: We think digital-first remittance providers that have less exposure to esoteric corridors with unstable and/or illiquid currencies are the best positioned companies in the space. Providers that are in a good position to potentially implement stablecoins into their networks are also relatively well positioned. The worst-positioned companies are legacy remittance providers, which have significant exposure to cash-heavy corridors. However, the proliferation of stablecoins could provide an opportunity if stablecoin adoption in these corridors reduces transaction costs and working capital needs.

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Could stablecoins reduce bank deposits?

The growth of stablecoins could have major implications for bank deposit bases if customers migrate deposits into stablecoins. However, we believe that any significant migration would require stablecoins to offer either better economics than traditional deposits or lower payment frictions for goods and services, both of which may be challenging to achieve in the near term. Moreover, we believe that banks plan to—and already have begun to—integrate both stablecoins and other blockchain products in their infrastructure, which could drive efficiency over time.

Four preconditions for deposit migration…

1. Interest paid (or an equivalent) on stablecoins must significantly exceed bank deposit rates.
2. Stablecoins must provide a more efficient mechanism for payments.
3. Stablecoins must offer customers a similar level of safety/protections as bank deposits.
4. Regulators and policymakers must believe that the migration of bank deposits to stablecoins will result in greater diversification and competition among non-bank lending options.

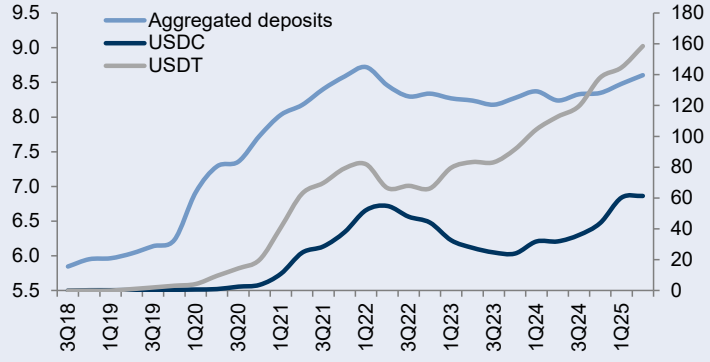
…that may be challenging to meet

We see several challenges to meeting these preconditions. Under the GENIUS Act, stablecoin issuers are not permitted to pay interest on stablecoins. While issuers can offer rewards through affiliates (e.g., Coinbase (COIN) receives income from Circle, and in turn offers USDC customers rewards), the interest prohibition limits their ability to compete with banks, who have greater flexibility over the rate paid to depositors and could increase rates to remain competitive. While this would be negative for margins, it would reduce the incentive for customers to migrate deposits outside of the banking system. So, market convention and the law would need to evolve substantially for stablecoins to offer better economics versus bank deposits. Stablecoins would also likely need to gain greater utility beyond their current use cases (i.e., within crypto and providing access to dollar funding for non-US clients) for depositors to forgo interest from deposits (at least on interest-bearing deposits, which account for ~80% of all deposits).

The fact that banks offer customers FDIC deposit insurance protection while stablecoins are uninsured likely also presents a high bar for insured deposits to migrate outside of the banking system into stablecoins. And if banks were to lose significant operational deposits (which are typically low cost), borrowing costs for consumers may increase as banks look to offset higher funding costs by increasing lending rates, which policymakers may view negatively.

Both bank deposits and USDC market cap have grown

Bank deposits* (lhs, $tn) and stablecoin market cap (rhs, $bn)

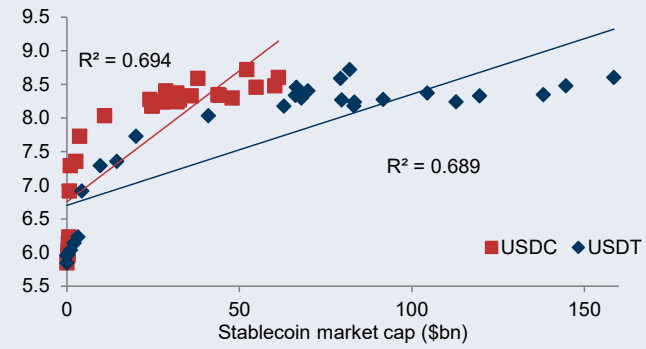


*Deposits of top 7 banks under our coverage.

Source: Company data, The Block, Goldman Sachs GIR.

Bank deposits and USDC are positively correlated, suggesting USDC growth has not come at the expense of bank deposits

Bank deposits* ($tn) vs. stablecoin market cap ($bn)



*Deposits of top 7 banks under our coverage.

Source: Company data, The Block, Goldman Sachs GIR.

Tokenization could change the equation

We believe the most obvious bull case for stablecoins disintermediating banks would be much broader tokenization of the US economy. In a tokenized economy, goods and services would all be fungible across the blockchain, with one tokenized asset (e.g., tokenized stocks, bonds, or homes) exchangeable for tokenized dollars (i.e., stablecoins). In such a world, stablecoins would become an important means of payment, resulting in a significant shift from bank deposits to stablecoins. However, very few assets have been tokenized so far, and other digital means of payment could emerge (e.g., tokenized money market funds, which have recently been launched by some financial institutions, and banks offering their own digital currencies) to compete with stablecoins, limiting the impact on bank deposits.

Finally, banks are focused on accelerating integrating stablecoins and blockchain technology into their infrastructure, which could improve efficiency, offer a better client experience given faster settlements, and potentially lower costs. Banks have already begun to integrate payments and blockchain technologies. For example, JPM recently announced that it will offer tokenized deposit tokens to institutional clients that, over time, would become an alternative to holding stablecoins. JPM and COIN also announced a partnership to link JPM deposit accounts to COIN wallets, transfer JPM credit card points to COIN, and allow the use of JPM credit cards on COIN. We expect additional partnerships and blockchain products to be announced by the banking industry over time.

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Stablecoin vs. CBDC

Bill Zu explores the financial system design and stability considerations of payment stablecoins vs. central bank digital currencies

Recent US legislation has opened the door for greater stablecoin adoption while closing the door—at least for now—to a central bank digital currency (CBDC). But many other countries continue to explore CBDCs as the world increasingly moves toward digital currencies. Below, we explore the financial system design and financial stability considerations of payment stablecoins versus CBDCs.

Private sector vs. public sector

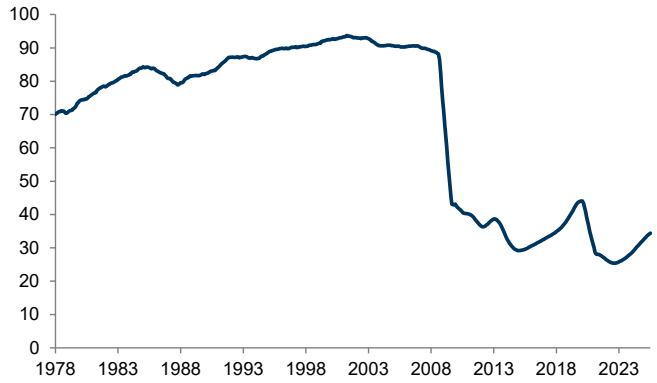
Stablecoins and CBDCs are both forms of tokenized digital money utilizing blockchain technology. They share many commonalities, including faster and cheaper transactions, the potential to displace physical currency, and implicit backing by safe assets. Stablecoins, though, are issued by private entities and operate on a decentralized system, while CBDCs are issued and controlled by a single entity: the central bank.

Shifting seigniorage

The fact that private entities, not the central bank, issue stablecoins means that private issuers capture seigniorage—the difference between the face value of money and its production cost—which has historically been a central bank revenue. Stablecoin issuers may share this seigniorage with merchants through operational efficiencies and with end-users via rewards paid by commercial partners. By contrast, a CBDC would keep seigniorage at the central bank.

The large asset purchase programs over the past couple of decades have seen currency in circulation fall as a share of the Fed's balance sheet

Currency in circulation as a share of Fed balance sheet, %, 12m rolling



Source: Haver Analytics, Goldman Sachs GIR.

To the extent stablecoins erode demand for physical currency, the shift of seigniorage to the private sector means that a larger share of central bank liabilities would become interest-bearing, increasing total public sector interest expenses relative to a CBDC framework. A shift from physical currency to stablecoins could allow the central bank to run a smaller balance sheet over time as it aims to maintain desirable reserve levels.

The singleness of money

A major benefit of traditional forms of money as a medium of exchange is their ability to solve the 'double coincidence of wants'. While distinct from physical cash, a CBDC largely maintains this property as it is issued by a single entity—the central bank. Some have argued that stablecoins, which involve multiple issuers and coins, could erode the singleness of money (see pgs. 6-7) and slow the adoption process. Having multiple private issuers of money also raises financial stability risks if there is uncertainty surrounding the financial soundness of issuers. But others take comfort from the fact that all stablecoins will be fully backed by the same near-risk-free assets (see pgs. 4-5).

Safe asset volatility

Stablecoin issuers buy reserve assets when coins are created and sell reserve assets when coins are redeemed. This process has the potential to amplify price volatility in reserve assets, especially during periods of low liquidity or supply/demand imbalances. Empirical evidence suggests that stablecoin flows generate price pressures in Treasury bill markets, with redemption generating a greater impact than creation. CBDC creation and redemption, by contrast, would simply alter the composition of central bank liabilities (e.g., CBDCs to currency or reserves) without affecting the central bank's asset holdings, so is unlikely to amplify safe asset price fluctuations.

Financial stability considerations

Bank deposits are backed by fewer safe assets than stablecoins are. If the pull on deposits from stablecoins is sufficiently large at the system-wide level, this has the potential to reshape the asset and funding mix of the banking sector, with implications for the provision of credit and financial stability. If stablecoins were to compete with low cost deposits, it could raise the pressure on banks either to compete on price or to increase reliance on more expensive, non-deposit funding sources. Over time this could raise the overall cost of credit intermediation in the economy.

Heterogeneity across banks is also an important consideration. If the distribution of liquidity amongst banks is uneven, significant deposit migration away from banks with tighter liquidity constraints could result in greater reallocation frictions within the banking system, akin to the risk of deposit flight into money market funds catalyzing bank runs. These risks are greater for banks with concentrated or flight-prone deposit bases (e.g., banks with more corporate versus retail deposits) and when the perceived benefit of deposits over stablecoins is smaller. While it is less clear that the existence of stablecoins would amplify this risk any more than money market funds already do, it is nonetheless another source of potential friction and disruption to broader banking activity.

While these considerations are also relevant under a CBDC framework, policymakers can minimize these risks through the design of CBDCs, for example by aiming to only displace demand for cash rather than deposits (as in the case of China). Central banks also have the ability to replace lost deposit funding by lending directly to banks, although this could entail the central bank taking on some credit risk.

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The GENIUS Act: an overview

What is it?

- The GENIUS (Guiding and Establishing National Innovation for U.S. Stablecoins) Act is a piece of US stablecoin legislation introduced by Senators Hagerty (R-TN), Scott (R-SC), Gillibrand (D-NY), and Lummis (R-WY).
- The Act provides a regulatory framework for **payment stablecoins**, which it defines as a digital asset designed to be used as a means of payment or settlement (see pg. 10 for a more detailed explanation).
- The Act was signed into law by President Trump on July 18 after passing the Senate on June 17 on a 68-30 vote and the House of Representatives on July 17 on a 308-122 vote. Two other crypto bills passed in the House alongside it: the Digital Asset Market Clarity Act (also known as the **CLARITY Act**), which would provide a regulatory framework for digital assets more broadly, as well as the **Anti-CBDC Surveillance State Act**, which aims to prevent the Federal Reserve from issuing a central bank digital currency (CBDC) directly to individuals without explicit congressional authorization. Both bills are now before the Senate.

What does it do?

The GENIUS Act:

Defines stablecoin issuers. Stablecoins can be issued by subsidiaries of insured depository institutions, federally-licensed non-bank entities provided they obtain a special license from the Office of the Comptroller of the Currency (OCC), and state-chartered issuers provided their issuance is capped at $10 billion. So, banks would be permitted to issue their own stablecoins, while non-financial companies would be restricted unless they meet certain standards (which have yet to be established).

Establishes a framework for regulating reserves. Issuers are required to maintain reserves backing stablecoins on an at least 1:1 basis. Reserves must be comprised of US currency, funds held as demand deposits at depository institutions, Treasury bills, notes, or bonds with a maturity of 93 days or less, repo or reverse repo agreements with a maturity of seven days or less, money market funds, or central bank reserve deposits.

Sets out a framework for reserve audits. Stablecoin issuers must disclosure the composition of their reserves monthly on their websites, and issuers with more than $50 billion in stablecoins outstanding are required to publicly disclose annual financial statements, which must be audited by a registered public accounting firm.

Prohibits interest payments. Stablecoin issuers are prohibited from paying interest to coin holders. However, the bill says nothing about whether third parties or affiliates can pay interest, and issuers can distribute reserve income to affiliates, who can offer rewards to stablecoin holders on their platforms. (Example: Circle can pay reserve income to Coinbase, which can offer rewards to holders of USDC on its platform).

Sets out compliance requirements. Issuers are subject to the Bank Secrecy Act, anti-money laundering compliance, and sanctions requirements. They are also required to conduct transaction monitoring, recordkeeping, and suspicious activity reporting.

Remains neutral on Fed master account access. The Act does not alter who is currently legally eligible for Federal Reserve services or deposit access (see interview on pgs. 6-7 to understand why this is important).

Note: An original version of this exhibit was published as part of GS equity analyst James Yaro's Circle Internet Group initiation note.

Source: Congress.gov, United States House Committee on Financial Services, United States Senate Committee on Banking, Housing, & Urban Affairs, Goldman Sachs GIR.

GS GIR: Macro at a glance

Watching

- **Globally,** we expect real GDP growth to slow to 2.5% yoy in 2025, reflecting headwinds from higher US tariffs. We expect global core inflation to remain relatively steady this year and end the year at around 2.7% as the tariff-driven boost to inflation in the US is largely offset by disinflationary impulses from declines in shelter inflation and wage inflation.
- **In the US,** we expect real GDP growth to slow to 1.3% in 2025 on a Q4/Q4 basis as higher tariffs weigh on disposable income, consumer spending, and business investment and job growth slows. We expect core PCE inflation to rise to 3.3% yoy by end-2025, reflecting a boost from higher tariffs. We expect the unemployment rate to rise to 4.4% by end-2025.
- **We expect the Fed** to deliver three 25bp rate cuts this year in September, October, and December followed by two more 25bp cuts in 2026 for a terminal rate range of 3-3.25%.
- **In the Euro area,** we expect real GDP growth of 1.2% yoy in 2025 amid higher US tariffs, although a likely reduction in trade policy uncertainty following the EU-US trade deal and better-than-expected activity should provide some support. We expect core inflation to fall to 2.0% by end-2025, reflecting a further cooling in services inflation, lower demand, as well as a modest disinflationary impulse from excess supply amid higher US tariffs.
- **We believe the ECB's** cutting cycle is now finished, although ongoing trade tensions continue to skew the risks around our baseline to the downside.
- **In China,** we expect real GDP growth of 4.7% yoy in 2025, roughly in line with the government's "around 5%" target. Despite resilient real GDP growth of 5.3% in H1, we expect growth to slow in H2 as the tariff impact fully materializes and policymakers remain in no rush to announce major easing measures. On the inflation front, we believe China's overcapacity problem will take time and effort to solve and expect CPI/PPI inflation of 0%/-2.8% this year.
- **WATCH US POLICY AND GEOPOLITICAL DEVELOPMENTS.** Uncertainty about US policy and especially tariff policy remains elevated, presenting risk to the US and global economies. Geopolitical developments also remain important to watch as conflict in the Middle East continues, US-China relations remain fraught, and a potential resolution to the Russia-Ukraine war remains highly uncertain.

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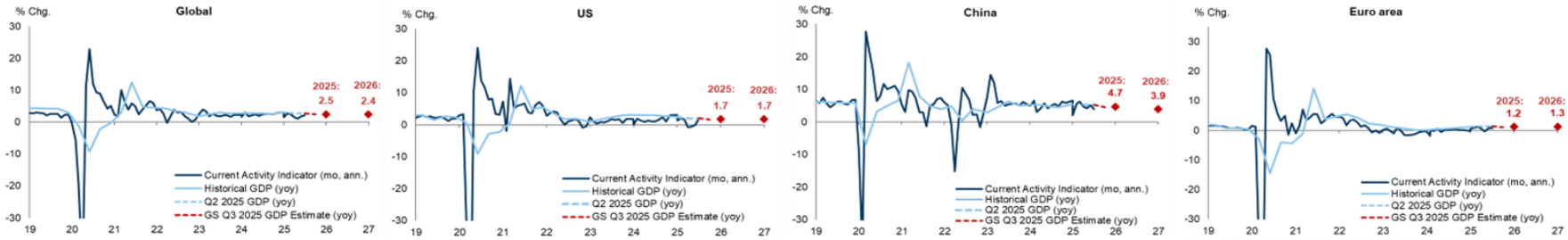
Growth



Source: Haver Analytics, Goldman Sachs Global Investment Research.
Note: GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Improving Our Within-Month CAI Forecasts," Global Economics Comment, Mar. 06, 2023.

Forecasts

Economics							Markets								Equities									
GDP growth (%)	2025				2026		Interest rates 10Yr (%)	Last	E2025	E2026	FX	Last	3m	12m	S&P 500	E2025		E2026		Returns (%)	12m	YTD	E2025 P/E
	GS (Q4/Q4)	Cons. (Q4/Q4)	GS (CY)	Cons. (CY)	GS (CY)	Cons. (CY)										GS	Cons.	GS	Cons.				
Global	2.0	--	2.5	2.4	2.4	2.4	US	4.34	4.20	4.20	EUR/$	1.17	1.17	1.25	Price	6,600				S&P 500	7.0	9.6	24.6x
US	1.3	1.0	1.7	1.6	1.7	1.7	Germany	2.73	3.00	3.25	GBP/$	1.35	1.35	1.39	EPS	$262	$268	$280	$304	MXAPJ	6.2	17.4	16.1x
China	4.0	4.0	4.7	4.8	3.9	4.2	Japan	1.57	1.70	1.90	$/JPY	148	142	135	Growth	7%	9%	7%	13%	Topix	2.6	12.1	16.6x
Euro area	1.0	0.8	1.2	1.1	1.3	1.1	UK	4.67	4.25	4.25	$/CNY	7.16	7.10	6.90						STOXX 600	2.9	9.1	15.6x

Policy rates (%)	2025		2026		Commodities	Last	3m	12m	Credit (bp)		Last	2Q25	4Q25	Consumer	2025		2026		Wage Tracker 2025 (%)			
	GS	Mkt.	GS	Mkt.											CPI (%, yoy)	Unemp. Rate	CPI (%, yoy)	Unemp. Rate	Q1	Q2	Q3	Q4
US	3.63	3.80	3.13	3.08	Nat Gas, NYMEX ($/mmBtu)	2.89	3.90	4.50	USD	IG	73	88	85	US	2.7	4.4	2.8	4.2	3.9	3.9	4.0	--
Euro area	2.00	1.81	2.00	1.84	Nat Gas, TTF (EUR/MWh)	31.10	39	29		HY	282	303	300	Euro area	2.1	6.4	1.8	6.5	--	--	--	--
China	1.30	1.40	1.10	--	Copper ($/mt)	9,636	9,650	10,025	EUR	IG	89	102	100	China	0.0	--	1.0	--	--	--	--	--
Japan	0.50	0.98	1.00	1.10	Gold ($/troy oz)	3,332	3,370	3,920		HY	263	310	307									

Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as of August 18, 2025

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our CAI page and Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our GSDEER page, Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016, and Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our FCI page, Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017, and Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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