



The best way to modify the Enhanced Supplementary Leverage Ratio (ESLR)

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June 18, 2025

Recent statements by Trump administration officials indicate that amending banks' Enhanced Supplemental Leverage Ratio (ESLR) [for an explanation of the ESLR, see Box 1] will be the first in what many expect will be a series of direct and indirect reductions in capital requirements to be proposed by federal banking regulators.¹ Unlike other possible changes in capital standards, modification of the ESLR has been favored by many advocates of strong overall capital requirements, myself included. The reason is the potential negative impact of the current ESLR on the effective functioning of markets for U.S. Treasuries, as the amount of U.S. debt continues to balloon.

Supporters of strong overall capital requirements would couple a relaxation of the ESLR with an increase in risk-weighted capital requirements, so as to preserve the level of resiliency of the eight most systemically important U.S. banks (G-SIBs) that has been achieved since the Global Financial Crisis.² There is little chance banking regulators will take a robust form of that approach, though one hopes they will recognize the most glaring vulnerability of some bank Treasury holdings to market risk. Still, there is an important policy choice to be made on the basic route to be taken in relaxing the ESLR in this second- or third-best situation. The banking agencies should not simply exclude Treasuries (and central bank reserves) from the denominator of the ESLR. Instead, they should lower the minimum ESLR to allow significantly more Treasury activity by the largest U.S. banks, while preserving the purpose of the leverage ratio to hedge against unexpected changes in the value of traditionally safe assets.

¹ The Federal Reserve has already indicated its intention to capitulate to the demands of large banks that the models and scenarios used in its annual stress tests be put out for advance notice and comment every year, thereby giving banks an opportunity to argue against model changes or scenarios that would require increases in their capital. At the least, banks would have time to adjust their balance sheets to reduce the impact of the eventual scenario on their capital requirements. The result will be a misleading indicator of banks' actual resilience. Another change long sought after by large banks, and likely to garner favor from the leadership of the Federal Reserve Board, is a reduction in the capital surcharges applicable to the eight most systemically important U.S. banks.

² Group of Thirty Working Group on Treasury Market Liquidity (2021) at 15.

BOX 1

All U.S. banking organizations (commercial banks and bank holding companies) are required to maintain a minimum *leverage ratio* of 4%, or 5% to be considered “well capitalized.” The numerator of this ratio is the bank’s Tier 1 capital, which includes common equity and certain other instruments such as perpetual non-cumulative preferred stock. The denominator is essentially the total assets of the bank.

U.S. banks with over \$250 billion in assets are also required to maintain a minimum *supplementary leverage ratio* of 3%. The numerator of this ratio is also Tier 1 capital, but the denominator includes a bank’s derivatives exposures and many off-balance sheet assets. The broader scope of the denominator explains the lower minimum ratio. This requirement is the U.S. implementation of the first internationally agreed leverage ratio requirement, negotiated as part of the so-called Basel III package of reforms following the Global Financial Crisis.

Finally, the eight U.S. banks designated as of global systemic importance (Bank of America, Bank of New York Mellon, Citigroup, Goldman Sachs, JPMorgan Chase, Morgan Stanley, State Street, and Wells Fargo) are subject to the *enhanced supplementary leverage ratio*, which is 5%, rather than the 3% applicable to other large banks. The insured commercial bank subsidiaries of these firms have a 6% minimum.

The ESLR and the Treasury market

The relationship between the Treasury market and leverage ratios, and the ESLR in particular, is intuitive: Since a leverage ratio requires the same amount of capital for every asset with the same nominal value, it incentivizes banks to move away from low-risk assets like Treasuries and toward higher-risk, higher-yielding assets. Risk-weighted capital requirements incentivize banks in the opposite direction—toward lower-risk assets. But when the minimum required leverage ratio is high enough, it can dominate bank decisions on how to allocate capital among asset classes and activities. This effect is likely to be especially pronounced for banks with relatively higher amounts of trading activity—both because Treasuries are the most traded asset in the world and because of their use as collateral in repo transactions.

Before the ESLR was adopted in 2013, Federal Reserve officials (including me) discussed internally whether the new requirement of a 5% SLR for G-SIBs might interfere with monetary policy implementation or the smooth functioning of the Treasury market. Given expected levels of Treasury debt and reserves, they did not anticipate a problem. But many, both inside and outside the Fed, recognized that the ESLR might in some future circumstances adversely affect the Treasury market, especially during a period in which hedge funds and other institutions holding Treasuries needed to monetize them to obtain liquidity. Banks approaching their minimum leverage ratio would not be able to take more Treasuries onto their balance sheets.

Much has changed in the intervening decade. The amount of outstanding Treasuries held by the public has more than doubled, to almost \$25 trillion as of the end of 2024.³ The longer-term trend of growing national debt was exacerbated by the enormous fiscal stimulus enacted during the first stages of the COVID crisis.⁴ As a percentage of GDP, debt held by the public stands close to 100%, nearly triple the level of 20 years ago. Current maneuvering in Congress over the budget does not suggest any reversal of this trend. Meanwhile, with the Federal Reserve unwinding its purchases of Treasuries and foreign central banks continuing to diversify their reserves away from the dollar, the Treasury is increasingly reliant on private actors buying and holding Treasuries.

These developments reinforce the intuitive case for relaxing the ESLR to allow prudentially regulated financial institutions to trade and hold larger volumes of Treasuries. However, those who favor this step must—or at least should—acknowledge that there is some question just how much a lower leverage ratio would improve the functioning of the Treasury market, especially during periods of financial turmoil. Although it is clear that the ESLR has at times been the most binding capital requirement for some G-SIBs, it is less clear how much the ESLR has effectively restricted G-SIBs Treasury activity.⁵ In the face of substantial market uncertainty, banks' own risk management policies usually result in at least a partial retreat from providing liquidity to stressed counterparties, as they reduce participation in repo markets and demand higher margins in the transactions they do enter.⁶

Of course, a less binding ESLR would allow banks to increase their Treasury trading and repo lending in *normal* times, thereby enhancing the liquidity of the market and reducing the chances of Treasury market disruptions. Even here, though, there are questions about the effect such a regulatory change would have. Drawing on confidential supervisory information from the Federal Reserve, a recent paper shows that some large broker-dealers offer negative haircuts to hedge fund borrowers in Treasury markets during normal times.⁷ But when a shock hits the Treasury market, these same dealers ratchet up margins significantly more than dealers who have required higher margins from the outset. If the conclusion reached in the paper is sound, then the dealers offering negative haircuts are enabling hedge funds to increase their leverage during normal times and exacerbating the liquidity challenge for those same hedge funds when a shock hits. With more regulatory room for Treasuries, these dealers might increase their repo activity in a way that eventually *contributes to*, rather than mitigates, market dysfunction.

Unhappy a development as the rise in the U.S. debt to GDP ratio surely is, proponents of strong capital regulation need to acknowledge its impact on the Treasury market and be open to an ESLR adjustment that recognizes the somewhat conflicting policy aims of public debt management and bank resilience. At the same time, those less concerned with maintaining

³ Federal Reserve Bank of St. Louis, Federal Reserve Economic Data (FRED), Federal Debt Held By Private Investors, <https://fred.stlouisfed.org/series/FDHBPIN>. Total outstanding Treasuries, including those held by the Social Security trust fund and other U.S. government accounts, was about \$36 trillion as of the end of 2024. U.S. Department of the Treasury, U.S. Fiscal Service, Treasury Bulletin (June 2025), <https://www.fiscal.treasury.gov/reports-statements/treasury-bulletin/current.html>.

⁴ COVID also contributed to the Fed's creating trillions in new reserves through its quantitative easing beginning in the spring of 2020. At the time the ESLR was adopted, the Fed was expecting its balance sheet—and thus the level of outstanding reserves—to *decline* significantly in the succeeding years.

⁵ Cochran et al. (2024).

⁶ Of course, one factor motivating the banks could be concerns that they may dip below their ESLR minimum as conditions worsen and losses result in declines in their capital. A lower minimum leverage ratio would mitigate this concern. But in periods of stress banks are also motivated by other factors, including hoarding their liquidity in case stress worsens and their own funding is affected, and concerns that some counterparties may be unable to reverse repo transactions because of continued stress on their balance sheets.

⁷ Wallen and Lu (2025).

current levels of bank resilience must acknowledge that a relaxed ESLR will yield limited benefits and carry some costs. In moving forward, regulators should be mindful of both.

Devising an ESLR change

The most frequently mentioned option for relaxing the ESLR has been to remove reserves and Treasuries from the denominator of the SLR and, possibly, the traditional leverage ratio as well. Given the existing holdings of Treasuries by the G-SIBs, that change would instantly increase their leverage ratios significantly (holding constant the amount of capital in the numerator).⁸ More importantly, assuming no other changes to capital requirements, the banks would be able to add unlimited amounts of reserves and Treasuries to their balance sheets with no reduction in their ESLR.⁹ Treasuries in a firm's trading book would remain subject to market risk capital requirements, as they are today. But the substantial holdings of Treasuries designated as held to maturity or available for sale would not be captured by *any* capital requirement.¹⁰

The other frequently mentioned option is to reduce, or even eliminate, the two percentage point add-on to the SLR for G-SIBs that is required by the ESLR. The reduction could either be uniform for all eight G-SIBs, or, like the G-SIB risk-weighted capital surcharge, could differ based on each G-SIB's systemic importance. A readily available alternative of this type is the international standard that came into effect in 2023. This requirement is for an add-on to the 3% ratio applicable to all internationally active banks of one-half the risk-weighted capital surcharge for each G-SIB. So, for example, since Goldman Sachs currently has a G-SIB surcharge of 1.5%, its leverage ratio add-on would be 0.75%, for a total of 3.75%. JPMorgan Chase, with an international G-SIB surcharge of 2.5%, would have an ESLR of 4.25%. The other U.S. G-SIBs would have these minimum ESLRs: Citigroup, 4%; Bank of America, 3.75%; Bank of New York Mellon, Morgan Stanley, State Street, and Wells Fargo, 3.5%.¹¹ Under this international standard, each G-SIB would be able to hold substantially more Treasuries than at present.

Calculating exactly how much relief is somewhat tricky. But one can use the banks' call reports to at least approximate the impact. Taking Goldman Sachs as an example, if one assumes it would maintain the same buffer over its minimum ESLR that it currently does (about half a percentage point) and that its dollar amount of Tier 1 capital would remain constant, then a reduction in its ESLR from 5% to 3.75% would allow it to hold about \$500 billion in additional

⁸ Taking the examples of two G-SIBs with extensive trading activity, based on their latest call reports: Holding constant its Tier 1 capital, total assets, and holdings of Treasuries, Goldman Sachs' SLR would rise almost a full percentage point, from 5.4% to 6.2% (Goldman Sachs Y-9C). JPMorgan Chase's would rise from 6% to roughly 6.7% (JPMorgan Chase Y-9C).

⁹ If Treasuries were still included in the traditional leverage ratio, with its much smaller denominator for firms with complex balance sheets, there would be a limit. But the limit would be still be huge—as much as \$2-3 *trillion* in additional potential holdings for JPMorgan Chase, which would be a 50-75% increase in its already huge \$4 trillion balance sheet.

¹⁰ Again using Goldman Sachs and JPMorgan Chase as examples, only a little over half of Goldman Sachs' current holdings of Treasuries are held in its trading book (Goldman Sachs Y-9C). JPMorgan Chase holds less than 40% of its Treasuries in its trading book (JPMorgan Chase Y-9C). Treasuries held by G-SIBs as available for sale are marked to market, but there is no capital charge for the risk of future decline in value owing to rising interest rates.

¹¹ These figures are based on the use of the international risk-weighted surcharges. The Federal Reserve requires that the risk-weighted surcharge for G-SIBs be the higher of the international standard, or what the Fed calls Method 2, an alternative methodology that generally produces higher risk-weighted surcharges for the U.S. G-SIBs. Using the Method 2 surcharges as the basis for calculating the minimum ESLR would yield significantly less relief or, in the case of JPMorgan Chase, an *increase* in its minimum ESLR since its Method 2 surcharge is now 4.5%.

Treasuries. That compares to its current combined Treasury holdings of about \$289 billion.¹² Even JPMorgan Chase, which in relative terms would gain the least because it has the highest risk-weighted surcharge, would be able to hold nearly \$750 billion in additional Treasuries under the same assumptions, compared to its current combined holdings of about \$530 billion.

In considering the best approach to relaxing the ESLR, it is important to focus on the premise that either explicitly or implicitly underlies more dramatic proposals, such as removing Treasuries entirely from the denominator. The premise is that there is “no risk” associated with Treasuries. A somewhat more careful formulation is that there is no *credit* risk. The former statement is clearly wrong, and even the latter needs to be qualified.

There is surely market risk in holding even the most creditworthy of assets, as Silicon Valley Bank painfully learned in early 2023. As interest rates rise, the current market value of a recently issued fixed income obligation declines, even if there is minimal concern about it eventually being repaid. Unlike SVB, for purposes of their capital calculations, G-SIBs are required to reflect any decline in market value that has already occurred in their available for sale securities. But available for sale Treasuries do not incur a market risk charge to reflect the possibility of future interest rate increases and consequent declines in bond prices. As a matter of sensible risk management, this is not a defensible feature of the capital rules. But it will become vastly more troubling if banks take advantage of relaxation in the ESLR (and possibly the traditional leverage ratio) to increase substantially their available for sale holdings.

As an ongoing matter, the prospect of significantly increased interest rates on Treasuries is not a far-fetched one. This could of course result from an expectation of persistent higher inflation or, more benignly, of robust future growth that leads the Fed to conclude that the neutral rate of interest has increased materially. But higher rates, especially on longer-duration Treasuries, could also result from continued fiscal deficits that result in the country’s debt/GDP ratio increasing further. Market forces will push up yields in response to an increased supply of Treasuries in the face of what is not likely to be equally increasing demand. Thus there is really no excuse for not subjecting available for sale Treasuries to market risk capital requirements as a part of any initiative to relax leverage ratio requirements.

While the characterization of Treasuries as having no *credit* risk is somewhat more defensible, it is important to remember the purpose of a leverage ratio. As advocates of changes to the ESLR often point out, minimum regulatory leverage ratios are generally intended as a kind of contingent capital requirement, rather than as the principal binding capital measure. That is, they are meant to limit possible vulnerabilities of banks to future, unexpected deterioration in the value of assets that have heretofore been considered safe and thus have low or zero weights in risk-based capital measures—highly-rated mortgage-backed securities in 2005, for example. Treasuries, of course, have a long history of being the exemplary safe asset. But the continuation of this state of affairs into the indefinite future is by no means certain. The recent Moody’s downgrade of U.S. sovereign debt is a tangible indication that large, growing fiscal deficits and diminishing attractiveness of the dollar as a reserve asset present at least a tail possibility of a future disruption in full, timely payments to holders of U.S. debt.

The need for regulators to address unlikely but plausible tail risks is one of the key lessons of the Global Financial Crisis. The implosion of mortgage-backed securities was caused by developments both within and external to the financial sector that undermined longstanding assumptions about housing prices and risk spreading. I don’t expect the U.S. banking agencies to entertain the idea raised by some European regulators of assigning non-zero risk weights to

¹² The longer the duration of additional Treasuries in the trading book, however, the less capital benefit would be potentially available. That is because they would incur a market-risk charge.

sovereign debt.¹³ But, at a minimum, they should heed what financial markets are telling them about risks ticking up. The leverage ratio, albeit one less restrictive than at present, is a low-cost way to gain at least a modest hedge on a possibility that will hopefully never be realized.¹⁴

The appeal to banks of removing Treasuries from the denominator of leverage ratios is obvious. It may also be the more attractive option to the Treasury Department, which faces the near-term challenges of rapidly rising debt servicing costs in the face of continuing large budget deficits. From that department's perspective, the more Treasuries banks are willing to hold or lend against, the better. But here is where the short-term interests of the administration and the longer-term national interest in financial stability may diverge somewhat.

Retaining Treasuries in the denominator while decreasing the minimum ESLR requirement will allow G-SIBs to take significantly more, but not unlimited, Treasuries onto their balance sheets. Following the Basel standard of an ESLR add-on of one-half a bank's G-SIB surcharge would align the ESLR with the sound principle underlying those surcharges—that the more systemically important a bank is, the higher its capital requirement should be. The recalibration option also has the virtue of keeping the United States compliant with the new Basel rules on leverage ratios.¹⁵ Those rules allow for temporary exclusion of central bank reserves, but not sovereign obligations, from the denominator of the leverage ratio surcharge.¹⁶ Treasury officials have recently suggested that the U.S. should adopt only those Basel Committee standards that, considered in isolation, are optimal for the U.S. financial system. This view overlooks the benefits to U.S. financial stability and to U.S. banks of having all major financial centers conforming to the minimum standards that emerge from a Basel process that is disproportionately influenced by the United States. Specifically, the addition of leverage ratio requirements to international capital standards was a key negotiating aim of the U.S. banking agencies following the Global Financial Crisis. In any case, though, even taken in isolation, the Basel approach is the most appropriate for the U.S. financial system.

The prudent path forward

Relaxing capital requirements—and, for that matter, other prescriptions such as greater central clearing, broadly available standing Fed facilities for monetizing Treasuries, and universal minimum margins on Treasury backed repo—can be helpful in limiting incidents of market dysfunction. Ultimately, though, the greatest risks to an efficient, liquid Treasury market come not from regulation, but from fiscal and other government policies that threaten the status of

¹³ There have also been proposals to eliminate the leverage ratio entirely and to depend instead on adaptation of risk-weighted capital requirements to capture any growing risk in assets previously regarded as safe. For a discussion of this option, see Greenwood et al (2017). Those who favor retention of a leverage ratio generally disagree less with the conceptual point that a leverage ratio can distort bank decisions than with the assumption that regulators can be sufficiently astute to see changes in the riskiness of assets and, even if they are, sufficiently nimble to adjust capital requirements in a timely and effective fashion.

¹⁴ At present, the leverage ratio is also the only capital requirement for held-to-maturity Treasuries, since they are not subject to the market risk capital requirements and are not even marked-to-market for capital calculation purposes.

¹⁵ The Basel requirement for an add-on to the minimum leverage ratios of G-SIBs may be found at https://www.bis.org/basel_framework/chapter/LEV/40.htm?inforce=20230101&published=20200327.

¹⁶ At the height of financial market disruptions at the onset of the COVID crisis in early 2020, the Federal Reserve temporarily excluded Treasuries and reserves from the denominator of the SLR/ESLR. The exclusion of sovereign debt from the denominator, even in periods of financial stress, is technically inconsistent with the Basel leverage ratio requirements. However, during the unprecedented economic and financial turmoil of that early stage of the COVID crisis, there was no impulse on the part of other countries to question the United States. The Federal Reserve ended the temporary exclusion and returned to the normal SLR/ESLR in March 2021.

Treasuries as the ultimate safe asset. The benefits from a stand-alone regulatory relaxation of the ESLR will be at most moderate, and perhaps only modest.

Assuming continuity in the safe asset status of Treasuries, the costs of regulatory relaxation would also likely be modest to moderate: some loss of resilience in G-SIBs whose current binding capital requirement is the ESLR, and perhaps an unintended facilitation of an increase in hedge fund leverage. The latter, at least, could be addressed through other means, such as minimum margin requirements. But it is precisely the assumption of continuity in the completely risk-free attribute of Treasuries that is at odds with the rationale for a leverage ratio as a complement to risk-weighted capital requirements.

The prudent path forward is one that takes account of the enormous increase in the volume of outstanding Treasuries, while staying faithful to the regulatory function of a leverage ratio. Subjecting Treasuries that banks classify as available for sale to market risk capital requirements and recalibrating the ESLR minimum in a manner that reflects the systemic importance of each G-SIB is the best way to do just that.

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