

Modifications to the Enhanced Supplementary Leverage Ratio Standards for U.S. Global Systemically Important Bank Holding Companies and Their Subsidiary Depository Institutions

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Abstract

This report discusses the implications for banks of the proposed rules modifying the enhanced supplementary leverage ratio (e-SLR) standards applicable to US systemically important banks (GSIBs). Leverage ratios are risk insensitive, and they were designed to be a backstop to risk-based capital requirements to limit the level of leverage the bank can undertake. In this sense, they were designed to be a second line of defence (on top of risk-based capital requirements) to preserve financial stability. However, over the last years, and after the market disruption due to the COVID-19 shock, the e-SLR has become a binding constraint on banks' capital allocation, rather than a backstop as it was intended. This report discusses some unintended consequences of the new proposed rules modification for the e-SRL.

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1. The e-SLR

US Treasury securities are key benchmarks in capital markets given their credit and liquidity status. In March 2020, for the first time, the highest status attached to the US Treasury market was questioned, leading to a significant sell-off of these securities, Duffie et al (2023). The liquidity in the US Treasury market led the FED to launch a significant and unprecedented asset purchase program to restore market functioning (Vissing-Jorgensen 2021). The FED also provided temporarily relief to banks by allowing them to exclude from the computation of the supplementary leverage ratio Treasuries and central bank reserves. The combination of these programs helped to restore Treasury market liquidity.

In April 2025, the US Treasury market was, once again, on the verge of collapse. This time following President Donald Trump's tariffs' announcement.

Why did intermediaries not accommodate the sell-off of Treasuries? The empirical literature in the Treasury (repo) market has blamed the leverage ratio (risk insensitive regulatory metric). It becomes a binding constraint in allocating (scarce) capital from the holding company level, down to business lines (particularly affiliated broker-dealer arm of the bank), particularly in times of severe market disruption (He et al, 2021; Breckenfelder and Ivashina, 2021, and many others).

Another strand of the recent literature, points, in a more general sense, to the limited intermediation capacity of dealers in the market (Duffie et al, 2023ab). Tobias Adrian, Michael Fleming and Kleopatra Nikolaou (2025) offer an excellent review of the US Treasury market structure and factors that have affected intermediaries post 2008.

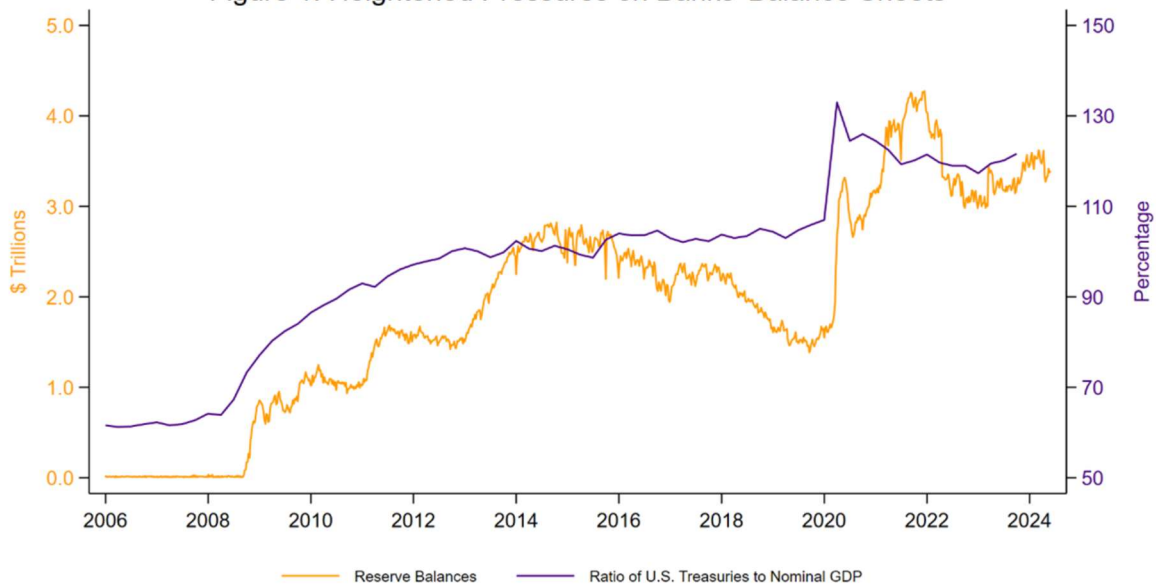
Recently the US Federal Reserve's response is a set of proposals with the aim of cutting the leverage ratio for banks, to enhance balance sheet capacity, mainly for Treasury trading. But the FED proposal is already controversial, even within the industry.

The leverage ratio was introduced as a backstop to excessive leverage build-up of low risk-weight assets and to preserve financial stability caused by fire sales during times of negative shock. The supplementary leverage ratio (SLR) is set at 3% for all US banks with more than \$250 billion of assets. The e-SLR requires an extra 2% (at holding level) which only applies to G-Sibs banks, while for depository institutions is set at 3%. To calculate the ratio, one takes Tier 1 capital (numerator) and divide it by total leverage (this also includes Treasury securities, banks' reserves held at the central bank).

Figure 1 shows the growth of U.S. Treasury securities and deposits held at FED (or reserves) over the period 2008-2024. Given the significant growth of Treasury, clearly this has considerably outpaced the growth of banks' intermediation capacity (Duffie, 2025).

Trump recently signed a law spending bill –the One Big Beautiful Bill – aiming to add more than \$3 trillion to the national debt over the next few years, adding pressure to the Treasury market in the next months and years.

Figure 1: Heightened Pressures on Banks' Balance Sheets



Source: FRED, Federal Reserve Economic Data.

Can dealers accommodate this significant increase of volume of Treasury in normal times? Handling Treasury volumes on a regular basis is not a big problem for the industry. Risk net (2025) shows that in 2025 only two dealers out of eight were leverage constrained, the rest were risk-based capital constrained. In general dealers will retain Treasuries on their balance sheets (inventories) for very short period before handling them to their clients (Fleming et al, 2024).

Even in April 2025, following the tariff's announcement, and when volatility in the Treasury market increased sharply, dealers were able to accommodate large part of the liquidity in the market without very significant market disruption. Therefore, when funding market conditions do not pose excessive treat, dealers can increase their inventories and provide sufficient liquidity. In sum, it is in the presence of market dysfunction that dealers withdraw from the market. Will the current FED proposal help dealers to step in a provide (significant) liquidity in the presence of market dysfunction?

3. Bank Internal Capital Allocation

This section discusses how banks allocate capital to their business lines. Understanding the internal capital allocation of banks is important to understand the effectiveness of FED proposal on changing the e-SLR as the capital allocation framework plays an important role in providing a financial service, in our case, intermediation of Treasury (or repo) that are low margin, low risk assets.

In general, the bank global strategy is set at holding level where the management also sets the return on equity (it's a widely used measure of bank performance) that shareholders of the bank would expect. The equity capital employed to finance activities is Tier 1 equity, which is generally combined with debt to achieve the (expected) performance.

Some banks will generally allocate the capital using a risk weighed based allocation. That is based on the risk weigh asset (RWA) usage (Bajaj et al, 2018). Others add stress test capital, leverage capital in many different and distinct ways. But the general rule is that the capital allocated is regulatory capital and it is based on RWA usage at a business unit level. Figure 2 shows this example.

Figure 2: Internal Capital Allocation



The bank capital allocation is calculated based on risk weighed assets (these are calculated by the bank regularly), in our example this is \$5 billion. Assuming a regulatory capital target by 10% (generally banks will keep it higher than the regulatory benchmark), this implies a capital allocation by \$500 million. This is the capital allocated to a specific business unit.

The return is generally set in line with the return on equity expected by shareholders. If the business unit generates a profit, say, \$100 million, its profitability is 20%. This is expected to be in line with the return on equity defined by the bank. This approach is used across the business units for consistence. However, if the CET1 target is higher than 10%, the business unit will have to adjust its profitability to achieve the 20% target set by the management. In this context business units with lower RWAs will be allocated less capital.

The example does not consider leverage ratio metrics. Some banks also include this metric on top of the RWAs metric described above. But, in this case, a blended weighed average is used to compute the capital allocation. The weigh allocated to each metric depends on the metric itself. If the leverage ratio is binding for the bank most of the times, it is allocated a higher weight (for example 40% RWAs and 60% leverage ratio).

The Appendix shows and discusses the implications of capital internal allocation using a few stylised simple examples.

4. Changing the e-SLR

The proposed modifications to the Enhanced Supplementary Leverage Ratio Standards for U.S. GSIBs Bank Holding Companies and their subsidiary depository institutions will impact the holding company and the affiliated depository division in different ways, with a significant higher (capital) impact on the latter than the former. However, the overall impact (i.e. reduction) on Tier 1 capital of the bank is significant although difficult to obtain a reliable number. The FED estimates that, based on their own calculation, the reduction in capital will translate into an increase in the capacity of affiliated broker-dealer balance sheet by \$2.1 trillion (see Appendix). This raises several important questions, first: 1. why are dealers unable to support the liquidity in Treasury market (particularly in times of negative shocks)? 2. will the broker-dealer arm use this extra balance sheet capacity to support the Treasury (repo) market? 3. Will this extra capacity be available in times of market turmoil? 4. How do we know that the extra capital will be allocated to the broker-dealer arm?

1. Treasuries are no longer rewardable for shareholders, for several reasons. Some are related to renting costs (i.e. balance sheet costs) of holding these assets until the position can be novated, funding costs. Other costs are unrelated to that, but to (the well documented) internal capital frictions between shareholders and creditors of the bank. This cost has been largely underestimated and very little researched.

I shall discuss further the former. Treasuries trading is a very low margin business, especially if business units are expected to achieve a (fixed) return on equity (20% in my example above). Given the bid and ask spreads on Treasuries, their intermediation margin is extremely small. This suggests that because the issuance of Treasuries has increased exponentially in the last 15 years (see figure 1), the significant increase in volume is difficult to be accommodated by very few dealers. This is particularly relevant in times of market dysfunction. In sum, Treasuries are still very expensive, in general, as their prices are unlikely to be aligned to their (discounted) cash flows because of the significant increase in (current and expected) supply due to higher US public deficit. A similar story is in Roberto Gómez-Cram Howard Kung Hanno Lustig (2023).

The recent discussion on clearing mandate for Treasury (repo) moves in the right direction to expand balance sheet capacity of dealers. However, one should combine clearing mandate with an all-to-all trading, where hedge funds (or others) can directly trade Treasuries²

Additionally, to the costs cited above, trading Treasuries (at least at the current prices) is very expensive for shareholders of the bank (debt overhang). This (shadow) cost is unrelated to the risk profile of the bank. It emerges because of internal frictions. Buying Treasuries makes the bank safer, increasing the value of legacy debt and decreasing that of legacy equity (see Mei and Cerrato, 2025). This problem (debt overhang) becomes even more severe, the higher the leverage of the bank (Admati, et al, 2018). This cost cannot be reduced by lowering the equity of the bank.

² It's not clear if hedge funds want to be part of this. There has been already a recent (policy) discussion that hedge funds (or others) trading Treasuries in large volume were supposed to register as dealers with the FED. The hedge fund industry opposed to this proposal

2. Internal bank capital markets are very important for the day-by-day functioning of the bank. The Tier 1 capital is allocated across the different business units but, crucially, using a unique metric, generally that is based on RWAs usage (see above). Banks which incorporate leverage into their capital allocation, following our discussion above, and assuming a fix return on equity across the business units, might be encouraged to game the (new) regulatory system and push RWAs slightly higher (achieving higher returns) to meet the expected return on equity (remember this is generally set at holding level by the management not at business unit).

In an economic environment with lower interest rates, following the next FED directorate, Treasuries (or repo) will be even less appetible to the dealer, and the extra capital (or intermediation capacity) generated by the current proposal could be allocated to other (higher yield) fixed income assets. In a context of lower interest rates, regulatory risk weighed capital is likely to be the binding constraint. (see discussion above and my example in Figure 2). Thus, one should think about reforming the full regulatory framework, rather than just one piece of it.

3/4. from my discussion above, it follows that the extra capacity is unlikely to be available in times of negative shocks as it can be allocated to more profitable business units (remember the fixed return on equity in my example equal to 20%).

Conclusions

In the last 10 years we have witnessed a significant supply of Treasury securities. This significant supply has emerged jointly with the evolution of the new Basel framework post 2008. The introduction of the e-SLR has been one of the key pieces of the new regulatory framework. The empirical evidence on the effectiveness of the e-SLR has clearly showed that this has acted as a binding constraint rather than a backstop to higher leverage. It has refrained dealers from providing sufficient liquidity, in the Treasury (repo) market, in times of market turmoil.

Recently, changes of the current e-SLR have been proposed. This document discusses whether these are likely to achieve the main goal: supporting the Treasury (repo) market in times of market dysfunction. In short, the proposed changes, per se, are unlikely to make a significant difference to the liquidity of the Treasury (repo) market in times of market disruption, without a balanced revision of the current regulatory system and without understanding what can be done to a mitigate debt overhang cost, related to funding costs, within the banking sector.

Put it in another way: banks' shareholders do not like Treasuries (repo) if debt overhang is high (Cerrato and Mai, 2025). Policy makers seem to suggest more a medicine, rather than a proper cure (reducing the supply of Treasuries). In the meantime, we agree on the cure, to support the Treasury market disease, the FED could use the option of suspending the SLR in the presence of severe market dysfunctions. This has already been done successfully during the COVID-19 shock.

Appendix: The effects of the new proposal

If the e-SLR is reduced (say from 5.0% to 4.8%), banks, in principle, can accommodate a larger total balance sheet with the same amount of Tier-1 capital. But, as we explained, this does not mean that they will expand assets, it only increases regulatory headroom.

We report (in Table 1) a few examples below using Tier-1 (aggregate) capital for large US banks and consider two scenarios before and after the implementation of the proposal. We calculate the changes under the two scenarios and finally the exposure under the new proposal.

Table 1: Initial Scenario

Variable	After	Before	Change	Source / Note
Tier-1 Capital (GSIB, \$bn)	1,250	1,250	—	Fed Y-9C
Leverage Exposure (\$bn)	36,000	38,000	-2,000	Fed Y-9C (observed)
e-SLR (%)	4.8	5.0	-0.2 pp	Fed Proposal 2025
Implied Allowed Exposure (\$bn)	26,042	25,000	+1,042	Tier-1 / e-SLR (decimal)
Estimated Dealer Capacity (\$trn)	—	—	+2.1	(illustrative)

A 20-basis-point reduction in the e-SLR (5.0% → 4.8%) increases regulatory leverage capacity by about \$1.0 trillion.

In Table 2, we assess the policy rule under different scenarios for the e-SRL and calculate the dealer implied capacity given that scenario. Under a 20bp easing of the e-SRL, one would obtain (in aggregate) \$625bn in additional capacity to be allocated from the holding to the dealer.

Table 2: Scenarios under this draft

Scenario	e-SLR (%)	Allowed Exposure (\$bn)	Change vs Baseline (\$bn)	Estimated Dealer Capacity (50%) (\$bn)	Estimated Dealer Capacity (60%) (\$bn)
Current Rule	5.0	25,000	—	—	—
20 bp Easing	4.8	26,042	+1,042	+521	+625
50 bp Easing	4.5	27,778	+2,778	+1,389	+1,667

Notes:

- Allowed Exposure = Tier-1 Capital / (e-SLR / 100).
- 'Change vs Baseline' shows the additional regulatory capacity created by the lower e-SLR.
- Dealer Capacity assumes either 50% (baseline allocation) or 60% (policy-draft rule) of freed capacity is allocated to dealer and market-making activities.
- Figures do not reflect other capital or liquidity constraints.. Dealer Capacity= $s \times \Delta(\text{Allowed system})$, where $s = 50\%$

Note that there are important differences between the Fed estimates and the ones reported in the tables above. The Fed's \$2.1tn is an aggregate of firm-level model outputs for GSIB broker-dealers under a particular proposal scenario. Therefore, calculations are at a dealer level. The estimate in the table (\$521bn) is a simple share allocation of a consolidated allowed-exposure delta, and exposure is estimated at holding level.

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