

# GSIB Method 2 Fixed Coefficients Must Be Adjusted for Economic Growth

Francisco Covas and Brett Waxman | Dec. 4, 2020

On November 11, the Financial Stability Board (FSB) in consultation with the Basel Committee on Banking Supervision (BCBS) [published](#) its annual updated list of banks identified as global systemically important banks (GSIBs) and their corresponding capital buffer surcharge. Most notably, the updated list of GSIBs showed that *three* U.S. banks had moved to a lower surcharge bucket under the methodology developed by the BCBS. The Federal Reserve’s own GSIB methodology, however, shows the opposite trend. As of 3Q20, *five* U.S. GSIBs are in a *higher* surcharge bucket, in large part because of the effect of the pandemic on the systemic footprint of U.S. banks. To relieve some of the upward pressure on systemic scores of domestic GSIBs, which is due in part to the expansion of the Fed’s balance sheet, the Federal Reserve could deflate the score of each GSIB by the amount of trend economic growth that has occurred since the surcharges were initiated. We show that undertaking such an adjustment would lower GSIB scores approximately 15 percent. This adjustment would reduce year-end pressures, lessen the need for banks to take actions to lower their scores this year or next, and allow them to deploy their excess capital to support lending to businesses and households during the recovery.

## A QUICK PRIMER ON THE GSIB SURCHARGE METHODOLOGY

The GSIB surcharge is another capital buffer that U.S. GSIBs are required to hold, over and above their risk-based capital requirements and other capital buffers. Under the BCBS methodology (“Method 1”), banks are identified as GSIBs based on their “systemic indicator” scores across five categories: (i) size, (ii) interconnectedness, (iii) substitutability, (iv) complexity, and (v) cross-jurisdictional activity. The score of each indicator is calculated by dividing each bank’s indicator score by the contemporaneous aggregate amount of that indicator across all banks in the GSIB sample.<sup>1</sup> Each indicator score is then given an equal weight, and they are summed to create the aggregate score. Both in the U.S. and abroad, banks with an aggregate score of 130 points or greater under this methodology would be identified as a GSIB. The minimum capital surcharge is 1 percent of risk-weighted assets and increases in increments of 0.5 percent for each 100-point increase in the score.

In addition to the BCBS methodology, the Federal Reserve Board developed its own methodology (“Method 2”) to calibrate the capital surcharge of domestic GSIBs. Specifically, U.S. GSIBs are required to calculate their applicable surcharge under both Method 1 and Method 2, and a bank must hold capital based on the higher of the two results. Currently, all U.S. GSIBs have Method 2 surcharges greater than or equal to their Method 1 surcharge and are therefore bound by Method 2, which departs in several important ways from Method 1:

- Method 2 relies on fixed aggregate global indicators instead of using indicators that are updated annually.

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<sup>1</sup> This sample includes the 75 largest global banks.

- Method 2 replaces the substitutability indicator with a measure of a bank's use of weighted short-term wholesale funding (wSTWF) out of financial stability concerns from reliance on wSTWF during periods of stress.
- The calibration of Method 2 is intentionally higher than Method 1, based on the mapping of aggregate indicator scores to surcharge buckets.

In this post, we highlight issues related to Method 2's use of fixed aggregate global indicators to determine a GSIB's capital surcharge. The use of fixed indicators was implemented by the Federal Reserve to address concerns about Method 1's use of a relative measure to determine a bank's GSIB surcharge. Since Method 1 computes a bank's GSIB capital surcharge by dividing the systemic indicator of each GSIB to an aggregate indicator amount summed across the largest 75 global banks, if all banks reduced their systemic footprint by the same percentage amount, no bank would experience a reduction in their GSIB surcharge. This is because all banks would then have the same relative systemic indicator scores. Method 2 addresses this concern by using fixed aggregate global indicator amounts that represent averages from 2012 and 2013. As a result, GSIBs can better calculate the impacts of their activities on their GSIB surcharge, without regard to actions taken by other global banks.

However, the use of fixed aggregate indicators is also subject to pitfalls, since it causes Method 2 scores to increase over time, driven by economic growth and other factors unrelated to systemic risk. Consider the size factor: If the economy and everything in it grows 10 percent, then a bank that got 10 percent bigger would not be more systemic. While the Federal Reserve acknowledged these concerns in the U.S. GSIB surcharge final rule,<sup>2</sup> it decided not to include an automatic mechanism to adjust the fixed aggregate global indicators over time. Instead, the Fed stated that it "will periodically reevaluate the framework to ensure that factors unrelated to systemic risk do not have an unintended effect on a bank holding company's systemic indicator scores."<sup>3</sup>

The unwarranted upward trend in Method 2 scores has been exacerbated by the current expansion of bank balance sheets caused by the COVID-19 pandemic. Under the BCBS methodology, if the expansion caused by the pandemic affected all bank balance sheets by the same relative amount, it would not result in an increase in the GSIB scores. In contrast, the expansion of bank balance sheets would lead to an increase in their Method 2 scores, since the aggregate global reference amounts are fixed.

## PANDEMIC-DRIVEN EXPANSION: A HEADWIND UNDER METHOD 2

As of the third quarter of 2020, the aggregate Method 2 score of U.S. GSIBs rose 228 points (Exhibit 1). As a result of the increase in Method 2 scores so far in 2020, five of the eight GSIBs would be in a higher capital surcharge bucket relative to their year-end 2019 figures if the surcharge were based on 3Q data. Another GSIB is moving rapidly to the next highest surcharge bucket. By contrast, one GSIB would have moved to a lower surcharge bucket, but that is part driven by size constraints imposed by the Federal Reserve which has led that firm to prioritize its more traditional lending business and reduce the size of its trading business.

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<sup>2</sup> See 80 Fed. Reg. 49082 (August 14, 2015).

<sup>3</sup> 80 Fed. Reg. 49082 at 49085.

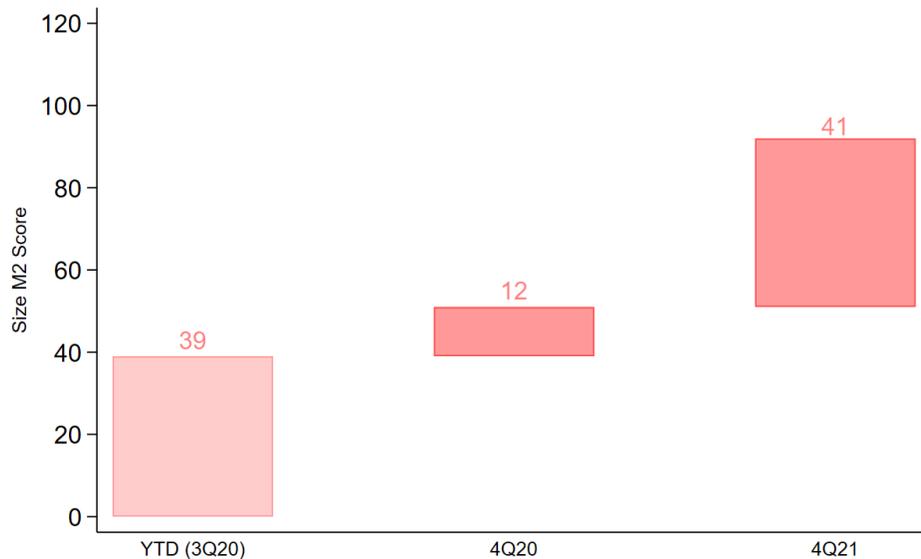


The increase in GSIB score over the first three quarters of 2020 was in part due to the expansion of the Federal Reserve’s balance sheet and to substantial purchases of Treasury securities by banks. For example, reserves have increased about \$1.2 trillion since March 2020. We estimate that extending the temporary exclusion of reserves and U.S. Treasuries included in the SLR interim final rule to the size indicator of the GSIB surcharge would reduce the size component by approximately \$2.3 trillion, or 100 points.<sup>4</sup> As of the third quarter of 2020, the five banks that would have moved to a higher surcharge bucket because of pandemic-driven expansion are 138 points above the upper bound of the systemic indicator scores for their current GSIB surcharge bucket. Thus, excluding reserves and U.S. Treasuries would account for most of the reduction in scores needed by these institutions to avoid moving to a higher surcharge bucket by year end.

The pandemic-driven expansion and the corresponding headwind to bank Method 2 scores will continue until the end of 2020 and carry over into 2021. While the emergency lending facilities are currently scheduled to expire by early 2021, market analysts expect reserves and therefore banks’ size indicator scores to continue to increase over the rest of 2020 and 2021 due to the Fed’s actions to stimulate the economy. For instance, Wrightson projects deposits at the Fed will increase from \$2.7 trillion in 3Q to \$3.4 trillion by the end of 2020 and \$5.2 trillion by the end of 2021. In addition, they also expect U.S. Treasuries held by the public (excluding Federal Reserve holdings) to rise from \$15.9 trillion in 3Q to \$16.2 trillion by the end of 2020 and \$18.5 trillion by the end of 2021.

<sup>4</sup> Almost all eight U.S. GSIBs reported the size of the exclusion of deposits at Federal Reserve Banks and U.S. Treasuries from total leverage exposure in their 10-Qs.

Exhibit 2: Projected Increase in Size Score Due to Increase in Reserves and U.S. Treasuries



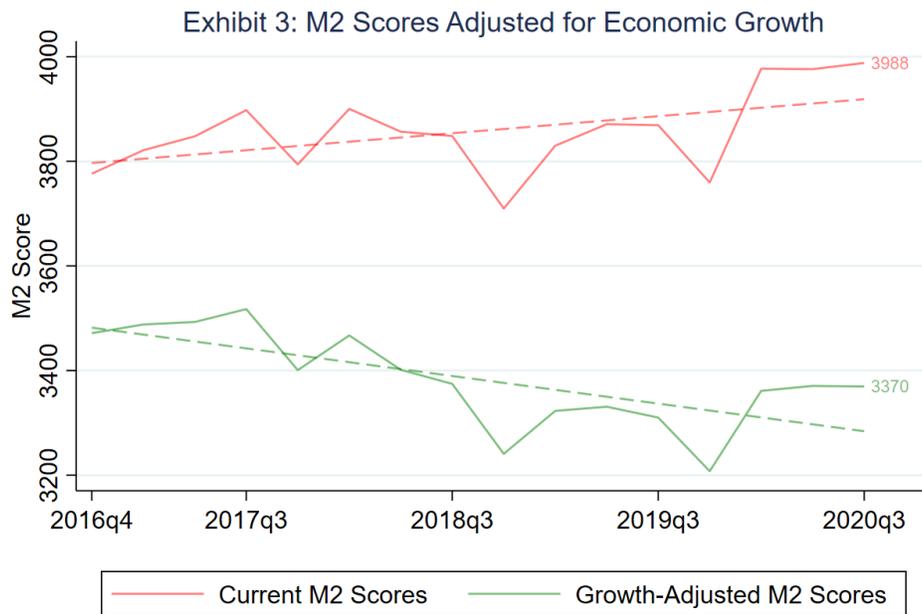
Source: Federal Reserve Board, FR Y-15, Wrightson, BPI calculations.

As shown in Exhibit 2, the additional reserves and U.S. Treasuries would lead the size score to increase another 53 (12 + 41) points over the next five quarters (assuming GSIBs would continue to hold the proportion of reserves available in the system and of U.S. Treasuries outstanding as of 3Q20). In aggregate, we estimate that the increase in reserves and U.S. Treasuries during 2020 and 2021 will increase the size score of domestic GSIBs by more than 90 points, or approximately 13 percent of the aggregate size score. This estimate is likely understated since, as noted in a recently published New York Fed [post](#), there is a positive correlation between the share of reserves held by the largest banks and the level of aggregate reserves.

### ADJUSTING M2 COEFFICIENTS FOR ECONOMIC GROWTH

As noted earlier, the systemic scores calculated under the Method 2 approach would be influenced by factors unrelated to systemic risk, such as general economic growth. More precisely, four of the five bank categories in the systemic indicator score—complexity, interconnectedness, cross-jurisdictional activity, and size—will trend up over time with both inflation and economic growth. The fifth systemic indicator, wSTWF, is calculated as the ratio of the GSIB’s wSTWF divided by its average risk-weighted assets over the previous four quarters. Because the wSTWF measure is divided by a balance sheet variable that also grows over time, there is no need to deflate the STWF score.

Although the Fed noted that the factors computing the score should be adjusted for economic growth, it also expressed some concern that doing so could make the capital surcharge procyclical. Namely, when nominal GDP falls, the scores would be adjusted upward and capital requirements would go up. To address this concern, we use the Congressional Budget Office’s estimate of [potential nominal GDP](#) rather than actual nominal GDP as our measure of economic activity. For instance, potential nominal GDP in the fourth quarter of 2019 was 26.6 percent higher than the average of its level in 2012 and 2013. Similarly, it was 22.3 percent higher at the end of 2018, and 17.4 percent higher at the end of 2017. Exhibit 3 displays the growth-adjusted aggregate Method 2 score since the fourth quarter of 2016.



Source: Federal Reserve Board Y-15 reports and BPI calculations.

As of the third quarter of 2020, the growth-adjusted aggregate Method 2 score would have declined by more than 600 points, or 15 percent. Making the growth adjustment to the Method 2 score would then more than offset the increase in scores due to the COVID-19 expansion. Therefore, simply applying the growth adjustment to Method 2 scores would eliminate the need for GSIBs to reduce certain activities in 2021. This would also ensure that the largest banks could deploy the maximum amount of capital to support the economic recovery. In addition, Exhibit 3 also shows a downward trend in the *adjusted* Method 2 score, which implies that, controlling for economic growth, the systemic footprint of U.S. GSIBs has declined over the past four years.

An alternative approach would be to directly adjust the Method 2 score of the reference bank. The Federal Reserve has calibrated the GSIB surcharge using the so called “[expected impact](#)” framework, which equates the expected loss from a GSIB’s failure to the expected loss of a non-GSIB reference bank. Under those assumptions, the higher the score of the non-GSIB reference bank, the lower the GSIB surcharge. Since the score of a large non-GSIB bank has also increased over the last few years, simply updating the score of the reference bank would also yield a reduction in GSIB scores similar to the one obtained by adjusting the Method 2 score coefficients for economic growth.

### FINAL THOUGHTS

We will continue to see an upward pressure on the Method 2 scores of U.S. GSIBs through 2021. The pressure in GSIB scores is in part driven by the increase in the Fed’s balance sheet and banks’ own responses to the pandemic. The procyclicality of the GSIB surcharge and capital requirements more broadly could impair banks’ ability to expand lending to businesses and households in the middle of a serious second wave of COVID-19 and in a period of renewed economic stress. As shown in this post, the Federal Reserve could mitigate the effect of the COVID-19 crisis on bank balance sheets by adjusting the fixed coefficients of Method 2 to account for economic growth—as the Fed said it would when the U.S. [GSIB surcharge final rule](#) was issued in 2015. Lastly, it would be important to communicate any changes to the GSIB surcharge to market participants as soon as possible. Adjustments in bank

balance sheets take some time to implement, and banks may have already started making those adjustments with their projected scores at the end of 2021 in mind.

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