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RE: Evaluation of the effects of too-big-to-fail reforms

September 29, 2020

Dear Sir or Madam:

As requested, this comment letter responds to the consultation report released on June 28 by the Financial Stability Board (FSB) regarding the extent to which too-big-to-fail (TBTF) banking has been affected by post-crisis rules spearheaded by the FSB and the Basel Committee on Banking Supervision (BCBS). These comments reflect the views of Federal Financial Analytics, Inc. (FedFin), an advisory consultancy that, in addition to services for financial institutions, central banks, and financial-sector investors, has also undertaken extensive *pro bono* research on the link between financial policy and economic inequality.**

The FSB is to be commended for its extensive analytical work and the diligence of research demonstrated in the 101 footnotes and 58 figures that dignify this report and its annexes. Our letter focuses most directly on a critical issue included in Question 10: the extent to which the new framework's "social costs" are properly described and estimated by the FSB. Although this question is only one of those posed in the consultative report, it is at least as important as the others on the impact of the new rules on the stability of global systemically-important banks (GSIBs) and other large banks. Simply put, the social costs of post-crisis rules are too high no matter how resilient some big banks may be if the new framework exacerbates economic inequality which then not only sparks financial crises, but also slows growth and exacerbates political discord. Looking narrowly at GSIB capital and liquidity strength and even at resolvability evaluates only the first-order impact of GSIB standards, not second-order results which could well

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¹ Financial Stability Board (FSB), *Evaluation of the effects of too-big-to-fail reforms*, (June 28, 2020), available at https://www.fsb.org/wp-content/uploads/P280620-1.pdf.

^{*} Federal Financial Analytics, Inc. (FedFin) was founded in 1985. It provides analytical and advisory, but not representational, services to financial services firms, industry investors, central banks, and regulatory agencies in the United States and around the world. The views expressed here are solely those of FedFin and were not commissioned or otherwise supported by any private-or public-sector client.

^{**} See for example the firm's <u>EconomicEquality</u> blog and managing partner Karen Petrou's <u>speech</u> before the Federal Reserve Bank of New York in 2018.

reverberate with dangerous implications not only for financial, macroeconomic, and political stability, but also for GSIBs.

As the FSB knows, economic equality and financial inclusion are priority concerns for the Group of Twenty heads of state, expressed most recently at the 2019 Osaka summit.² Thus, an evaluation of post-crisis financial regulation must consider not only endogenous financial-stability results, but also exogenous implications for other critical drivers of financial stability and the social welfare on which it depends. Key points in this letter we hope are of use to the FSB in this regard are:

- The FSB's definition of "social cost" overlooks key variables and thus leads to a
 misleading conclusion about the social benefits of TBTF rules for financial stability.
- Aggregate data on overall credit growth masks significant credit-allocation shifts attributable to post-crisis GSIB regulation. These exacerbate economic inequality and thus increase financial-crisis risk, along with slowing economic growth and increasing political disfunction. As evident in the United States, political systems unable to take appropriate fiscal policy or other actions in crises also stow financial-stability risk.
- Aggregate measures of credit availability and cost that fail to take into account credit
 migration from GSIBs and other banks within the regulated perimeter to unregulated
 nonbank financial intermediaries (NBFIs) mask trends which the FSB and BCBS have
 elsewhere found heighten financial-stability risk. Increased economic inequality may also
 result.
- Aggregate data without regard to national circumstance and the extent to which post-crisis GSIB rules have been meaningfully implemented obscures adverse implications in certain arenas (e.g., emerging market economies) and/or jurisdictions with varying real-world application of post-crisis regulation. As has been frequently learned the hard way, systemic risk in one major market can easily transmit to other nations and even across the global financial system.
- Further, data aggregated to the extent in this consultation may prove of limited value to global and national decision-makers. Divergences in regulatory, fiscal, and epidemiological policies related to the novel coronavirus pandemic may exacerbate jurisdiction-level variation with significant and adverse social cost.
- The FSB should recalibrate its social-cost methodology and issue a second consultation ensuring careful consideration of economic inequality, environmental damage, and other social costs in relation to direct GSIB regulation and its indirect impact on financial-market structure, intermediation, and stability.

Social-Cost Measurement

The FSB report adopts the 2010 BCBS framework for social-cost measurement,³ thereby determining that:

...social benefits are the result of a decrease in the likelihood and severity of a financial crisis, while social costs are those associated with providing financial services at higher cost because of increases in prudential requirements and compliance costs for banks.⁴

This social-cost measurement methodology is problematic on several grounds. Perhaps first and foremost, it is an inherently self-contradictory, apples-versus-oranges equation. If the social

² Japan Ministry of Foreign Affairs, *G20 Osaka Leader's Declaration*, (June, 2019), available at https://www.mofa.go.jp/policy/economy/g20 summit/osaka19/en/documents/final g20 osaka leaders declar ation.html.

³ Basel Committee on Banking Supervision (BCBS), *An assessment of the long-term economic impact of stronger capital and liquidity requirements*, (August, 2010), available at https://www.bis.org/publ/bcbs173.pdf.

⁴ FSB, *Evaluation of the effects of too-big-to-fail reforms*, op. cit. at 67.

benefit is enhanced financial stability, then a like-kind social cost is financial instability, not changes in the cost or availability of "financial services" only from banks. Clearly, more credit from banks – a critical financial service – may on its own lead to the social cost associated with financial instability. Conversely, increased financial stability may be possible regardless of decreases in the cost or availability of bank financial services if alternative and sound sources of financial services are to be had.

The definition also does not make it clear which bank "financial services" pose social costs if they are unduly scarce or costly. One presumes that the BCBS means credit availability and cost, but banks play other critical roles – i.e., as payment-system providers and participants or as non-substitutable core infrastructure – with demonstrable financial-stability implications as well as social benefits and cost. For example, post-crisis rules have clearly led to "de-risking" and thus a sharp diminution in correspondent-banking services for certain nations and/or population groups. As the FSB itself has acknowledged, 5 de-risking has numerous financial-stability costs in key regions, with social-welfare challenges also clearly evident for certain populations (e.g., those dependent on bank remittance services). 6 The rules directly addressed in this TBTF study do not include those related to anti-money laundering and terrorist financing that may play the most direct role in correspondent banking de-risking. However, the impact of TBTF rules lowering risk tolerances and balance-sheet capacity is clearly germane.

Further, relying on this social-cost formulation means that one only knows if social costs are unduly high if there is a crisis. Measurements of financial-crisis likelihood remain speculative and often must be modelled in conjunction with many other factors to provide even a sense of crisis probability.⁷

The FSB's own approach to measuring the social cost of TBTF regulation also overlooks key social-cost indicators. For example, the consultation relies heavily on GDP growth as a positive indicator of social benefit.⁸ However, GDP is by no means an accepted measure of prosperity.⁹ GDP is by definition gross, failing to capture the extent to which growth is sustainable or shared. It also makes judgments about what type of work – paid versus volunteer – contributes to growth or wealth and often seems most robust after a natural disaster or other emergency. GDP's methodology favors the work needed to treat the wounded, bury the dead, and rebuild lost infrastructure as if the individuals involved were incidental costs and as if the obliterated infrastructure never existed. GDP also measures the economic benefits of cutting down virgin forests without capturing the economic costs of barren land, population migration, or environmental damage. It is thus a measure extraordinarily ill-suited for assessments of social cost.

https://oecdobserver.org/news/archivestory.php/aid/1518/Is GDP a satisfactory measure of growth .html.

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⁵ FSB, Press Release "FSB publishes updates on work to address the decline in correspondent banking relationships and remittance firms' access to banking services," (May 29, 2019), available at https://www.fsb.org/wp-content/uploads/R290519.pdf.

⁶ World Bank, *The Decline in Access to Correspondent Banking Services in Emerging Markets: Trends, Impacts and Solutions*, (January, 2018), available at <a href="http://documents1.worldbank.org/curated/en/552411525105603327/pdf/The-decline-in-access-to-correspondent-banking-services-in-emerging-markets-trends-impacts-and-solutions-lessons-learned-from-eight-country-case-studies.pdf.

⁷ For an assessment of crisis-probability literature and model considerations, see for example: Jonathan Goldberg, Elizabeth Klee, Edward Simpson Prescott, and Paul Wood, "Monetary Policy Strategies and Tools: Financial Stability Considerations," *Finance and Economic Discussion Series (FEDS) 2020-074*, Board of Governors of the Federal Reserve System (FRB), (August, 2020), available at https://www.federalreserve.gov/econres/feds/files/2020074pap.pdf.

⁸ FSB, Evaluation of the effects of too-big-to-fail reforms, op. cit. at 7.

⁹ OECD Observer, "Is GDP a satisfactory measure of growth?", *OECD Observer No 246/247*, (December, 2004), available at

Still, GDP might be defensible based on the presumed benefits of gross growth to shared prosperity. However, research from the International Monetary Fund (IMF) separates the overall relationship between equality and growth – which often averages out over lengthy periods of time – to determine which countries support the most sustained, stable recoveries. The best performers are the most equal nations. Even when external shocks are added to the duration over which growth is assessed, equality still determines growth, a finding corroborated in a global study of developed countries up to 2014. Another IMF study examining the growth/equality trade-off across many nations over a fifty-year time span finds that, slow or fragile growth and high inequality seem to be two sides of the same coin, and durable growth at a healthy pace will only be possible if growth itself becomes more inclusive. Thus, simple measures of GDP fail to capture not just the critical social cost of inequality associated with post-crisis rules, but also broader macroeconomic and stability considerations.

The Critical Role of Credit Allocation

Given its definition of social cost, it is unclear why the FSB decided not to assess credit allocation in ascertaining the GSIB regime's social cost.

Judgments of the cost of credit on aggregate terms fail to capture sectoral transformations with adverse macroeconomic stability and social-cost implications. For example, the cost of lending in which banks participate may not have increased or may have even dropped since 2008, but this poses no social cost only if replacement sources of credit support sound macroeconomic growth without increased risk also to financial stability or economic equality that then stokes systemic risk. Total credit costs and availability in key sectors may appear unchanged, but this may well be not due to sound regulation but instead to credit-market transformation wrought in part by rules that make GSIBs safer but alter the credit market's construct. As we showed as early as 2014 using publicly-available (not model-driven) data,

GSIBs experienced sharp increases in capital and compliance costs as the U.S. standards became effective. While some of these costs were evident in bank profitability – an impact that may or may not rightly figure into social-cost calculations – significant credit and financial-service market transformation since the GFC is evident.

For example, in many critical markets, banks have in fact ceased to be direct lenders and instead serve as agents for nonbank lenders and secondary credit markets. The FSB's own data on NBFI demonstrates a clear post-crisis trend, showing secular decline in the role of banks since 2009 and the growing dominance of NBFIs. For example, higher-risk corporate finance has been transformed since the 2008 crisis into a more than \$2 trillion leveraged-loan market. Although

¹⁰ Andrew G. Berg and Jonathan D. Ostry, "Inequality and Unsustainable Growth: Two Sides of the Same Coin?," *IMF Staff Discussion Note 11/08*, (April 8, 2011), available at https://www.imf.org/external/pubs/ft/sdn/2011/sdn1108.pdf.

¹¹ Federico Cingano, "Trends in Income Inequality and its Impact on Economic Growth," OECD Social, Employment and Migration Working Paper No. 163, (December, 2014), available at http://www.oecd.org/els/soc/trends-in-income-inequality-and-its-impact-on-economic-growth-SEM-WP163.pdf.

¹² Jonathan D. Ostry, Andrew Berg, and Siddharth Kothari, *Growth-Equity Trade-offs in Structural Reforms*, IMF Working Paper No. 18/5, (January, 2018) available at http://www.imf.org/en/Publications/WP/Issues/2018/01/05/Growth-Equity-Trade-offs-in-Structural-Reforms-45540.

¹³ FSB, Evaluation of the effects of too-big-to-fail reforms, op. cit. at 67.

¹⁴ Federal Financial Analytics, *The Regulatory Price-Tag: Cost Implications of Post-Crisis Regulatory Reform*, (July 30, 2014), available at https://fedfin.com/wp-content/uploads/2020/07/Cost-Implications-of-Post-Crisis-Regulatory-Reform.pdf.

¹⁵ FSB, *Global Monitoring Report on Non-Bank Financial Intermediation 2019*, 11 (January 19, 2020), available at https://www.fsb.org/wp-content/uploads/P190120.pdf.

¹⁶ Sally Bakewell, "Why Leveraged Loans, CLOs Feed Worries in Virus Slump," *Bloomberg News*, Updated April 6, 2020, available at https://www.bloomberg.com/news/articles/2020-04-03/why-leveraged-loans-clos-feed-worries-in-virus-slump-quicktake?sref=BSO3yKhf.

this market existed prior to the great financial crisis and subsequent GSIB regulation, it stood at only \$554 billion in 2007.¹⁷

The case of U.S. mortgage finance also shows the ability of credit markets to appear unchanged in terms of aggregate cost and availability, yet to be transformed in ways with significant financial stability implications. In 2009, banks originated 90 percent and serviced 94 percent of U.S. residential mortgages; by 2019, this was down to 49 percent and 53 percent respectively. ¹⁸ This might sound like a healthy share, but the mortgage business was transformed by post-crisis rules. Banks generally still originated and serviced loans for themselves – keeping the highest-dollar amount, "jumbo" loans that could not be sold to the government. But, where the government was most important and least demanding – loans for Ginnie Mae – nonbanks reigned. In 2013, they had less than 40 percent of this sector; by 2019, it was 85 percent. ¹⁹ By the end of 2019, the U.S. Financial Stability Oversight Council came to fear that unregulated nonbanks would pose systemic risk, ²⁰ and so they may well have done in March of 2020 absent an array of interventions from the U.S. Federal Housing Finance Agency and Department of Housing and Urban Development.

Credit-allocation shifts also directly affect economic equality and thus indirectly affect financial stability. The case of U.S. mortgages – a \$11.2 trillion²¹ market – is again apposite given its macroeconomic, systemic, and equality impact. Right before the COVID crash, the median credit score on newly-originated mortgages was 773,²² a level once reserved for very low risk borrowers on the widely-adopted scoring scale running from 300 to 850.²³ Well-documented challenges to affordable home ownership for minority, first-time, and even millennial borrowers are in part the result of a sharp shift to mortgages originated only for the secondary market where higher credit-score requirements in part reflect the implications of post-crisis GSIB regulation.²⁴ Federal Reserve research found that three U.S. GSIBs that were once the crux of U.S. mortgage finance originated 43 percent of loans for the Federal Housing Administration (FHA) in 2010, but dropped to just five percent in 2016.²⁵ This move away from FHA is found to account for about 75 percent of lost mortgages for low-and moderate-income (LMI) borrowers because these borrowers could not then readily substitute lost credit from large banks with loans from other lenders.

The FSB might wish to attribute these social costs solely to U.S. "gold-plating," but it should be noted that this is not always the case – for example, the U.S. has not adopted the net stable funding ratio (NSFR)²⁶ or internal total loss-absorbing capacity (TLAC) standards.²⁷ Further, those

¹⁷ S&P Global, "Where is the Leveraged Loan Market Now? 10 Years After the Credit Crunch", *Leveraged Loan News*, (May 3, 2018), available at https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/leveraged-loan-news/leveraged-loan-market-now-10-years-credit-crunch.

¹⁸ Financial Stability Oversight Council (FSOC), *2019 Annual Report*, 42 (December 4, 2019), available at https://home.treasury.gov/system/files/261/FSOC2019AnnualReport.pdf.

¹⁹ Housing Finance Policy Center, "Housing Finance At a Glance: August 2019," *Urban Institute*, (August 27, 2019), available at

https://www.urban.org/sites/default/files/publication/100866/august chartbook 2019 0.pdf.

²⁰ FSOC, 2019 Annual Report, op. cit. at 44.

²¹ Housing Finance Policy Center, "Housing Finance at a Glance: August 2020," *Urban Institute*, 6 (August 27, 2020), available at https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-august-2020/view/full report.

²² FRB-NY, Quarterly Report on Household Debt and Credit 2020:Q1, op. cit.

²³ Tom Quinn, "The 850 FICO Score," *FICO Blog*, September 17, 2019, available at https://www.fico.com/blogs/850-fico-score.

²⁴ Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing 2019 Report*, (June 25, 2019), available at

https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_State_of_the_Nations_Housing_2019.pdf.

 $^{^{25}}$ Neil Bhutta, Steven Laufer, and Daniel R. Ringo, "The Decline in Lending to Lower-Income Borrowers by the Biggest Banks," *FEDS Notes*, September 28, 2017, available at

 $[\]underline{https://www.federalreserve.gov/econres/notes/feds-notes/the-decline-in-lending-to-lower-income-borrowers-\underline{by-the-biggest-banks-20170928.htm}.$

²⁶ BCBS, *Basel III: the net stable funding ratio*, (October, 2014), available at https://www.bis.org/bcbs/publ/d295.pdf.

rules where the U.S. has been more stringent usually provide expressly for national standards above global minimums. Thus, the FSB would need to define the precise point at which global TBTF rules have positive social benefit on a spectrum of implementation options consistent with the global framework before attributing U.S.-specific social costs to idiosyncratic U.S. requirements. The FSB would also need to assess the extent to which social costs and benefits are found in many nations which are non-compliant with global standards either in formulation, implementation, or both.

The Role of Economic Inequality

As noted, much post-2008 research demonstrates that financial stability does not depend solely on the extent to which very large banks are resilient under stress and resolvable without taxpayer bailouts. To the extent GSIB strength is won by virtue of realigned functionality to enhance profitability in spite of the cost of new rules, banks may appear stronger and indeed even be stronger, but the financial system becomes weaker or even dangerously fragile. For example, nations with the household leverage seen by the BCBS as a social benefit that are also unequal in terms of income or wealth are far more likely to have devastating financial crises. The credit-supply assumption in the BCBS social-cost indicator – i.e., that more credit stokes beneficial growth and thus social benefit evidenced by financial stability – misses the fact that nations with high levels of income and wealth inequality along with large amounts of readily-available consumer credit are at grave risk.

There is credit used for sustainable growth as well as credit used by vulnerable households to fund consumption; knowing which is which is critical to anticipating the impact of rules on credit availability and cost in relation to financial stability.²⁸ Further, to the extent that credit supply is sustained by NBFIs instead of regulated banks, systemic risk is likely even more acute due to the absence of loss-absorbing capital and liquidity buffers or resolvability requirements.

As demonstrated in a 2020 IMF study, ²⁹ increased inequality is generally accompanied by higher credit growth that creates leverage leading to financial instability. Thus, greater amounts of credit either fueled by GSIB regulation or unaffected by it are likely to be risky absent effective macroprudential regulation to ensure that corporate and/or household leverage is sustainable. A 2020 study from the Federal Reserve Bank of San Francisco finds not only the links between credit growth in unequal economies and systemic risk, but also that inequality is the leading cause of financial crises across many decades and seventeen nations. ³⁰ A literature survey of the link between inequality and financial crises uncovered extensive empirical and theoretical research demonstrating a clear linkage that is not only a result of correlation, but also causation – crises are often directly attributable to inequality. ³¹

²⁷ FSB, *Principles on Loss-absorbing and Recapitalisation Capacity of G-SIBs in Resolution: Total Loss-absorbing Capacity (TLAC) Term Sheet*, (November 9, 2015), available at https://www.fsb.org/wp-content/uploads/TLAC-Principles-and-Term-Sheet-for-publication-final.pdf.

²⁸ Alina K. Bartscher, Moritz Kuhn, Moritz Schularick, and Ulrike I. Steins, "Modigliani Meets Minsky: Inequality, Debt, and Financial Fragility in America, 1950-2016," *Federal Reserve Bank of New York (FRB-NY) Staff Report No. 924*, (May, 2020), available at https://www.newyorkfed.org/medialibrary/media/research/staff reports/sr924.pdf.

²⁹ Martin Čihák and Ratna Sahay, "Finance and Inequality," *IMF Staff Discussion Note 20/01*, (January 17, 2020) available at https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2020/01/16/Finance-and-Inequality-45129.

³⁰ Pascal Paul, "Historical Patterns of Inequality and Productivity around Financial Crises," *Federal Reserve Bank of San Francisco (FRB-SF) Working Paper 2017-23*, (March, 2020), available at https://www.frbsf.org/economic-research/files/wp2017-23.pdf.

³¹ Pierre Monnin, "Monetary Policy, Macroprudential Regulation and Inequality," *CEP Discussion Note* 2017/2, (April, 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2970459.

Most of these studies are posited on the instability resulting from large populations of low-income households who must sustain consumption with debt. Notably, this paper also found that the length and depth of recessions after financial crashes are also worse than more run-of-the-mill recessions over the business cycle.

Additional Social-Cost Considerations

To be sure, not all of these social costs are clearly attributable only to GSIB regulation. Swift advances in financial technology (fintech) may also be transforming the manner in which GSIBs originate and allocate credit with resulting social costs due to implications for financial inclusion and market concentration, issues the FSB itself rightly highlighted in a recent report.³² The BCBS has also noted that fintech advances may confine banks, including GSIBs, to distributional or even only to limited core-infrastructure roles.³³ As these and many other reports also make clear, nonbank tech-finance firms are rapidly gaining market share not just due to speed and efficiency, but also to sweeping regulatory exemptions. The FSB's consultative report on TBTF is largely retrospective and thus does not account for the extent to which the changes described above that are already evident in capital cost and allocation could be exacerbated and joined with other social costs if GSIB rules leave large financial segments un- or under-served by banks.

The changing pace of financial innovation is not the only external reality of which the FSB report fails to take full account. Some recent changes in GSIB activity may well be due to monetary policy as well as to the combination of post-crisis monetary policy and GSIB regulation. For example, it is likely that the shift by banks from business models based principally on lending to those favoring fee-based businesses is due not only to the capital and liquidity costs associated with holding assets on GSIB balance sheets, but also to the ultra-low rates of interest prevailing since 2008 in most, if not all, advanced economies. GSIBs might well have been able to continue lending to core macroeconomic sectors (e.g., small and medium sized businesses) under even ultra-low interest rates if the cost of capital combined with higher requirements did not make this difficult, if not impossible. At a time in which monetary policy crushes a key source of earnings – net interest margin – even otherwise-modest regulatory costs may be unaffordable.

The aggregate credit data assessed in the consultation does not make conclusions about GSIB impact with regard to post-crisis policy, nor does it permit still more crucial forecasts of how GSIBs may behave under the still lower rates now in place in many economies. Significant social costs may well ensue if rules remain unchanged.

Post-Pandemic Financial Policy

It is understandable that the FSB released its TBTF consultation to gather views in June of this year, but this timing also makes potentially misleading any conclusions from the research presented as a guide to future global financial policy. This is not only due to the definitional, structural, and functional issues discussed briefly above, but also to the implications the COVID-19 pandemic may well have on global macroeconomic, financial, and regulatory structure.

GSIBs in the United States were critical lynch-pins to the ability of the Federal Reserve to structure a series of emergency liquidity and lending windows beginning in March of this year.³⁴ The same

³² FSB, *BigTech in finance: Market developments and potential financial stability implications,* (December 9, 2019), available at https://www.fsb.org/wp-content/uploads/P091219-1.pdf.

³³ BCBS, Sound Practices: Implications of fintech developments for banks and bank supervisors, (February 19, 2018), available at https://www.bis.org/bcbs/publ/d431.pdf.

³⁴ FRB Chair Jerome Powell, "Coronavirus and CARES Act," *Testimony before the Committee on Financial Services, U.S. House of Representatives*, (June 30, 2020), available at https://www.federalreserve.gov/newsevents/testimony/powell20200630a.htm.

is true for facilities established by the European Central Bank,³⁵ the Swiss National Bank,³⁶ and many other nations. One can reasonably conclude from this that GSIBs and other large banks were resilient enough not to need financial support and indeed to provide it.³⁷ However, the fact that financial stability proved so fragile under stress suggests that financial stability is considerably more fragile than the FSB's consultation recognizes. To the extent this fragility is due to structural and credit-allocation transformation due to GSIB rules, the post-2008 framework clearly has significant social cost.

Further, an array of substantive waivers of capital and liquidity rules applicable to GSIBs and large banks was necessary to ensure both systemic stability and GSIB compliance.³⁸ The Basel Committee has in fact been clear that capital and liquidity buffers should be drawn down during this crisis and further that nations need not advance full implementation or enforcement of capital, liquidity, and resolvability rules.³⁹

Are post-crisis rules just right because GSIBs and other large banks played a critical stabilizing role? Conversely, did some facilities also provide urgently-needed backstops to weaker banks, some of which are also GSIBs? Could GSIBs have played a still stronger role supporting lending to individuals and small businesses beyond the scope of government guarantees if their rules, perhaps most importantly their risk-based rules, were different? Would financial systems have been more resilient and thus required less central-bank and fiscal support if key markets had not migrated to NBFIs in the decade during which the GSIB framework was instituted? Was the 2019 shock in the U.S. repurchase-agreement market prompting Fed support unprecedented after the 2008 crisis until 2020 a warning indicator of precisely these vulnerabilities?⁴⁰ This is certainly a case in which GSIBs were strong and resilient but also far less significant in an arena posing systemic risk.⁴¹

An additional post-pandemic concern derives from the extent to which pandemic costs drain public resources. As an IMF study of the United States makes clear,⁴² large fiscal deficits significantly reduce the public wealth with which nations can address other strains, including economic

³⁵ European Central Bank (ECB), *ECB announces* €750 billion Pandemic Emergency Purchase Programme (PEPP), (March 18, 2020), available at https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318 1~3949d6f266.en.html.

³⁶ Thomas Rühl, "COVID-19 loans mainly granted to small enterprises," *Swiss Bankers Association*, (May 29, 2020), available at https://www.swissbanking.org/en/media/news/covid-19-loans-mainly-granted-to-small-enterprises.

³⁷ FRB Chair Jerome Powell, "Coronavirus and CARES Act," op. cit.

³⁸ See for example: Office of the Comptroller of the Currency (OCC), FRB, and Federal Deposit Insurance Corporation (FDIC) Regulatory Capital Interim Final Rule: Temporary Exclusion of U.S. Treasury Securities and Deposits at Federal Reserve Banks From the Supplementary Leverage Ratio for Depository Institutions, 12 C.F.R. §§ 3, 6, 208, 217, & 324, 85 Fed. Reg. 32980 (June 1, 2020), available at https://www.govinfo.gov/content/pkg/FR-2020-06-01/pdf/2020-10962.pdf; FRB Interim Final Rule on Total Loss-Absorbing Capacity, Long-Term Debt, and Clean Holding Company Requirements for Systemically Important U.S. Bank Holding Companies and Intermediate Holding Companies of Systemically Important Foreign Banking Organizations: Eligible Retained Income, 12 C.F.R. § 252, 85 Fed. Reg. 17003 (March 26, 2020), available at https://www.govinfo.gov/content/pkg/FR-2020-03-26/pdf/2020-06371.pdf; and OCC, FRB, FDIC Regulatory Capital Interim Final Rule: Eligible Retained Income, 12 C.F.R. 3, 217 & 324), 85 Fed. Reg. 15909 (March 20, 2020), available at <a href="https://www.govinfo.gov/content/pkg/FR-2020-03-20/pdf/2020-06-20/pdf/

³⁹ See for example: BCBS, *Basel Committee meets; discusses impact of Covid-19; reiterates guidance on buffers*, (June 17, 2020), available at https://www.bis.org/press/p200617.htm.

⁴⁰ Liz Hoffman and Sam Goldfarb, "Fed's Repo Rescue Leaves Many Searching for Answers," *Wall Street Journal*, September 17, 2019, available at https://www.wsj.com/articles/feds-repo-rescue-leaves-many-searching-for-answers-11568747574.

⁴¹ Karen Petrou, "Repo ructions highlight failure of post-crisis policymaking," *Financial Times*, (November 5, 2019), available at https://www.ft.com/content/fe562cbe-feee-11e9-b7bc-f3fa4e77dd47.

⁴² IMF, "Public Wealth in the United States," *Working Paper No. 19/139*, (July 2, 2019), available at https://www.imf.org/en/Publications/WP/Issues/2019/07/02/Public-Wealth-in-the-United-States-46834.

downturns. The FSB has acknowledged that not all nations have ensured that GSIB resolutions will not resort to public funds. ⁴³ Although commenters to this consultation may well concur that many GSIBs are likely resolvable without resorting to public funds due to post-crisis reforms, this may not be the case where implicit "national-champion" assumptions are factored into resolvability reviews, or in which public support is otherwise provided. A jurisdiction-specific assessment would be required to conclude not only that GSIBs are indeed resolvable without resorting to public funds, but also that public wealth after the pandemic is sufficient to ensure orderly resolution in any such case.

Conclusion

Because the FSB relies on a problematic definition of social cost, its conclusion that GSIB rules had no adverse social cost requires recalibration. This should take into account not only offsetting benefits of financial stability and aggregate bank financial-service data, but also careful consideration of heterogeneous data reflecting the implications of the GSIB regime. Social cost can and should be measured also to take account of implications on income and wealth inequality, credit allocation, and the transformation of financial markets to far greater reliance on NBFIs, with these institutions increasingly including fintech and "big-tech" companies that pose financial equality, stability, and market-concentration concerns with demonstrable social cost. Aggregate data may not only hide these implications on a global basis, but also lead the FSB to overlook sharp divergences in national policy and results with adverse systemic and social-cost impact.

All of these considerations warrant considerable caution accepting the FSB's preliminary conclusion that the post-crisis TBTF regime for GSIBs has been almost entirely beneficial. They combine with developments in the course of the pandemic also to raise such fundamental questions about future policy as to warrant another, more comprehensive consultation prior to presentation of any report to the Group of Twenty. Given the importance of equality, market structure, and systemic risk to heads of state, finance ministers, and central bankers, the truly holistic assessment the FSB intends would prove an important contribution to global policy.

I shall be pleased to answer any questions or provide more information on the analysis presented herein.

Sincerely,

Karen Shaw Petrou

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⁴³ FSB, *Thematic Peer Review on Bank Resolution Planning*, (April 29, 2019), available at https://www.fsb.org/wp-content/uploads/P290419.pdf.