The FSOC's Looming Challenge: Un-Ringing a Very Large Bell

Greg Baer | Jan. 28, 2021

The incoming Financial Stability Oversight Council will face an extraordinary challenge: a large and growing shortage of market liquidity that has necessitated unprecedented government intervention in fixed-income capital markets, and threatens to undermine the future vitality of those markets.

U.S. regulators confronted a similar problem in the wake of the 2008-09 Global Financial Crisis, with surprising success. This new challenge is far more daunting, however, and the stakes much higher.

Flashback and Prologue

A central policy challenge that emerged from the Global Financial Crisis was the problem of "Too Big to Fail." Bailouts of AIG and Bear Stearns and equity injections into over 900 U.S. companies under the TARP program were not only politically unpopular but also raised serious questions about moral hazard. In particular, the concern was that large firms, particularly the large banks that survived the crisis, would receive preference in debt markets because investors believed that they would be insulated from loss, and that this belief could prove self-fulfilling in practice.

Extraordinary legislative and regulatory attention was paid to prevent this outcome. Congress, under Titles I and II of the Dodd-Frank Act, and the banking regulators through their implementation of the law, revolutionized how large financial institutions were financed in order to ensure that losses could be absorbed by their shareholders and creditors without creating systemic risk. Regulators more than doubled capital requirements; imposed new liquidity requirements that dramatically increased bank holdings of cash and cash equivalents; and required large U.S. banks to issue more than a trillion dollars of long-term, bail-in debt that could be converted to equity in the event of failure.[1] Regulators required those firms to prepare so-called living wills, including plans for recovery and a pre-packaged bankruptcy, and established a massive regulatory apparatus for ensuring that those plans were credible. The FDIC was given new authority to resolve bank holding companies in the event that a traditional bankruptcy was deemed a risk to financial stability – preventing a repeat of the Lehman Brothers incident, where policymakers lacked the legal tools to conduct an orderly resolution.

Overall, these changes not only made large banks more resilient but also composed a fundamentally new approach to resolving large firms, known as single-point-of-entry resolution, for use under either the Bankruptcy Code or through an FDIC resolution under Title II of Dodd-Frank. It is difficult to overestimate the amount of regulatory and banking resources devoted to this task over the period 2010-17, when the effort was effectively completed, as the resolution plans for all relevant U.S. banks were deemed acceptable.[2]

[1] Regulators also generally prohibited such bank holding companies from issuing short-term debt that could complicate such a bail-in at the holding company level.

[2] *See* Federal Reserve Board, "Agencies announce joint determinations for living wills," Dec. 19, 2017: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20171219a.htm; and Federal Reserve Board, "Agency Feedback Letters for 2019," https://www.federalreserve.gov/supervisionreg/agency-feedback-letters-2019.htm.

Market reaction has consistently signaled the success of these efforts. Studies analyzing post-2010 data have found that large banks are not receiving any material benefit in the pricing of their debt over smaller firms.[3] This has held true not only in stable times but also during the recent COVID crisis, when some had suggested that differences in debt spreads would reemerge.[4] This result is remarkable, as it is difficult to correct moral hazard. The regulatory and legal community deserves extraordinary credit for this achievement, as does the Congress for prioritizing it in the first two titles of Dodd-Frank. They achieved a metaphoric miracle: they un-rang a bell.

The New Challenge

Now, post-COVID, Congress and the regulatory community face a far greater challenge. Over the past six months, the Federal Reserve has intervened to backstop most of the fixed-income markets in the United States – Treasuries, investment-grade and some high-yield corporate debt, municipal debt, and asset-backed securities of every type, from mortgage to credit card to floorplan loans.[5] In addition to purchasing a total of $2.2 trillion in Treasuries and $650 billion in agency MBS, the Fed has established a raft of market support programs. Some were repeat performances from 2009 – which, notably, were implemented immediately, almost reflexively -- and new programs were established to support the municipal market and to purchase corporate securities directly from the issuer or on the secondary market; these programs were a dramatic extension of previous authority, as was the purchase of exchange-traded funds – equities – that invest in fixed-income assets. The March 2020 interventions followed an incident in September 2019, when the Federal Reserve was required to backstop the Treasury repo market – the most liquid market in the world.

Thus, going forward, financial market participants are likely to operate on the assumption that the Fed will be a buyer in the event of significant upset in any fixed-income market. And moral hazard traditionally serves as a self-fulfilling prophesy. If the Fed is expected to buy a given asset whenever illiquidity combined with heavy sales results in a rapid decline in price, then investors will anticipate lower price volatility and demand lower compensation for risk, thereby increasing demand for the asset. Investors also will finance their asset purchases with greater leverage. If the Fed ever made it clear that it would not backstop the asset, the result would be a dramatic price decline with knock-on effects as levered institutions were forced to unwind all at once – the definition of financial instability. Experience with the government sponsored enterprises -- Fannie Mae and

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[3] *See, e.g.*, General Accountability Office, "Large Bank Holding Companies: Expectations of Government Support," July 31, 2014; https://www.gao.gov/products/GAO-14-621. *See* Antje Berndt et al., "The Decline of Too Big to Fail," Dec. 1, 2019: https://www.gsb.stanford.edu/gsb-cmis/gsb-cmis-download-auth/491216?pid=. In an article in the Bank Policy Review of the Philadelphia Fed, Ryan Johnston (2016) reviews the recent empirical literature on TBTF and concludes, "The weight of the evidence is that, while there may have been significant TBTF subsidies prior to and during the financial crisis, following the crisis any subsidies are small." (p.19). Atkeson et al. (2018) conclude that variation in the perceptions of an implicit government guarantee account for substantial variation in the market-to-book ratios of U.S. banks, and that from 2011-17 such perceptions no longer account for a material part of bank value. Further, Minton et al. (2017) find that the Tobin's q (the ratio of the market value of assets to the book value of assets) and the market-to-book ratio of bank equity decrease with bank size rather than increase as would be expected if larger banks benefitted from a perception of being TBTF. In "The Decline of Too Big to Fail", Berndt et al. (2018) compare credit default swap spreads and estimates of "distance to default" for 800 U.S. firms to estimate implied market perception of bailout probabilities and the impact on the cost of debt. They conclude that there has been a "dramatic and persistent reduction in market-implied probabilities of government bailouts of U.S. GSIB holding companies…[and]…similar but smaller effects for domestically important non GSIB banks…" (p.2). They also find that the decline in bailout probability has reduced the market value of banks by nearly one-third. (They are unable to determine if the reduction is the result of post-crisis reforms or a shift in market perception owing to the fact that the government allowed Lehman to fail.)

[4] *See* Covas, Francisco and Fernandez Dionis, Gonzalo, "Putting 'Too Big to Fail' to Rest: Evidence from Market Behavior in the COVID-19 Pandemic," (Sept. 9, 2020): https://bpi.com/putting-too-big-to-fail-to-rest-evidence-from-market-behavior-in-the-covid-19-pandemic/

[5] *See* Federal Reserve Board, "Primary Market Corporate Credit Facility," (July 28, 2020): https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20200728a9.pdf and "Secondary Market Corporate Credit Facility," (July 28, 2020): https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20200728a1.pdf (while newly issued high-yield corporate debt is not generally eligible for purchase, debt previously rated BBB and subsequently downgraded is eligible, and that debt is a substantial part of the market).

Freddie Mac -- provides a disturbing precedent. Implied backing became actual backing in 2009, and that bell continues to ring more than a decade later.

Of course, the societal benefits of what is colloquially known as "the Fed put" were substantial at the height of the COVID crisis, as the economy struggled to recover, and corporates and municipalities were having difficulty funding themselves. Indeed, it is universally agreed that the Federal Reserve's actions were appropriate at the time, and saved the economy from a tragic outcome. But most also agreed that the bailouts of AIG and Bear Stearns in 2009 were appropriate at the time; nonetheless, strong, concerted action was universally deemed imperative in order to prevent such benefits from being appropriate ever again.

So, now, the question is what happens next. And that concern should be large, as the collective moral hazard from the Fed's corporate and municipal debt facilities dwarfs any bank TBTF considerations that arose after 2009. Consider that a primary TBTF concern was that a handful of large banks would over time be able to issue debt at yields slightly lower than regional banks. Compare that to almost all fixed income instruments in the United States being issued at rates that do not fully reflect their underlying risk because the market believes that there is a put to the Fed. Or, put another way, the Fed serving as a market maker of last resort in almost every fixed income market in this country. [6] And charging nothing for the service.[7] Thus, the taxpayer is not being compensated for the subsidy provided to issuers and investors by implicit backing or the risk of that backing becoming real; furthermore, since the recipients are effectively unregulated, there is no other way to mitigate the resulting incentives to issue additional debt.

And this view of the problem may be far too narrow. It presumes that a post-GFC rise in issuance of fixed-income debt, which increases *demand* for market liquidity, is organic – and thus, that the policy question is how to provide the necessary *supply* of capital-at-risk market making for that large but natural level of demand. In the *Rise of Carry*, a book published at the end of 2019, the authors describe a broader concern: that Federal Reserve monetary policy has caused fixed-income instruments to trade like money-like instruments backed by the government. Thus, corporates have an incentive to leverage beyond their business needs in order to earn an arbitrage profit by buying higher yielding securities – what they call a carry bubble.[8] As the authors explain:

> In the bubble that emerged from 2009, the new feature was the more direct involvement of the corporate sector in the carry bubble, combined with the nonbank financial sector (sometimes called "shadow banks"). Given that the banking sector had faced a near-death experience in 2008, hugely increased regulation and the banks' own more cautious approaches prevented them from being at the center of the new carry bubble. But with the Federal Reserve cutting interest rates to close to zero and longer-term rates ratcheting down as global trend economic growth decayed further, other sectors of the US economy (and global economy) ramped up leverage in carry-type activities. Foremost in this development was the corporate sector. It was well known that corporates increased debt to finance share buybacks, thus raising earnings per share. But much less well understood is that it must have been also true that corporates were using financial engineering in ways that increased aggregate earnings; basically generating profits from carry trade activities….[9]

[6] There is one type of investment-grade security that the Federal Reserve will not purchase: one issued by a bank holding company. *See* previously cited Fed term sheets here: https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20200728a9.pdf and here: https://www.federalreserve.gov/newsevents/pressreleases/files/monetary20200728a1.pdf ("Eligible broad market index bonds are bonds that, at the time of purchase… (iii) are issued by an issuer that is not an insured depository institution, depository institution holding company, or subsidiary of a depository institution holding company….") One could argue that the Fed is not a true market maker in the sense that it only bids, but if there were a wave of disruptive buying, one presumes that it would begin to offer.

[7] Note the contrast with TARP financial assistance in 2008-09, which was priced to earn substantial returns for taxpayers; similarly, traditional lender of last resort support is done at a penalty rate.

[8] Lee, J. Coldiron, K., and Lee, T., *The Rise of Carry: The Dangerous Consequences of Volatility Suppression and the New Financial Order of Decaying Growth and Recurring Crisis* (2019). It is worth noting that tax policy also incentivizes the issuance of debt.

[9] *Id.* at 137.

The authors noted – again, before the COVID crisis – that central banks not only must intervene to prevent the collapse of carry bubbles but also are rewarded politically for doing so:

> When central banks make these types of announcements, they are usually greeted with approval by the media and the financial industry generally…. No one, at least no "sensible person," likes market volatility, so what could be bad about that? [The] potential contagion aspects of, for example, a squeeze in global funding markets – which may not always seem based in fundamentals – makes a particularly compelling case for central bank actions to underwrite the markets in circumstances of financial stress, via liquidity swaps or other tools.[10]

As predicted, in March 2020, central banks around the world intervened to support fixed-income markets, not only for U.S. government debt but also for corporate and state and local debt. The resulting moral hazard is extreme but intangible and deferred, whereas the lift to markets from that intervention was immediate and clear, as were the kudos predictably received by the central banks for "decisive" and "forceful," even "heroic,"[11] action.

In sum, private sector markets are becoming accustomed to central bank support; those markets are likely growing inorganically large on the assumption of that support; private sector market making continues to be discouraged by regulation; and thus the need for future central bank support continues to grow. If for any reason that support were ever withheld, the results would be devastating. And, so, on our present course, it never will be withheld.

The Task for FSOC: Un-ringing the Largest Bell in the History of the Financial World

Correcting this moral hazard will be far more difficult than correcting a TBTF impression: the bell is much larger, and it has rung much louder and longer. In essence, it will require convincing investors that there is sufficient liquidity in all the relevant markets and therefore that the Fed will no longer be required or inclined to intervene when demand shocks occur. Only then must investors assess the credit risk of each corporate or governmental issuer on its own merits, both absolute and relative to other issuers. It is difficult to imagine a more important task for the incoming Financial Stability Oversight Council, or one better suited to its mandate.

There are effectively three basic options.

1. REDUCE THE PRIVATE SECTOR DEMAND FOR MARKET LIQUIDITY

Here, demand could be reduced in two ways, directly or indirectly.

Directly. Significant demand for market liquidity comes from open-end mutual funds, including money market funds at shorter tenors, and hedge funds. Money market fund reform seems most obvious, as two crises appear to have demonstrated its problems. More broadly, the liquidity that open-end mutual funds offer their investors is mismatched with the liquidity of their underlying assets; regulation in theory could restrict how quickly mutual fund shares could be redeemed or require those funds to hold more liquid assets.[12] For hedge funds and other leveraged investors in debt, demand for market liquidity could be suppressed through broad application of margin requirements. All such rules, however, come with significant costs – lower returns for investors or higher funding costs for businesses, and in some cases other types of financial instability. There is also the potential for

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[10] *Id.* at 198

[11] *See* Ullmann, Owen, "An Unsung Hero of the Coronavirus Crisis: The Federal Reserve," *USA Today* (March 24, 2020): https://www.usatoday.com/story/opinion/2020/03/24/unsung-hero-coronavirus-crisis-federal-reserve/2902681001/

[12] Liang, J. Nellie, "Corporate Bond Market Dysfunction During COVID-19 and Lessons from the Fed's Response," *Brookings Institution, Hutchins Center Working Paper #69*, (October 2020) 10.

unintended consequences: gates intended to slow fund withdrawals have shown rather to accelerate them, as investors wish to leave before the gates come down – the so-called concrete airbag. [13]

Indirectly. Demand for liquidity by funds could be reduced by reducing the supply of fixed-income instruments being issued, and therefore the size of funds that hold them and their demand for liquidity. This would require significant changes to fiscal and monetary policy – reduced Treasury and municipal issuance, and a change to a Fed monetary policy regime that has encouraged high levels of corporate borrowing to fulfill the demand of investors reaching for yield. For reasons too obvious to state, this option appears dead for the foreseeable future.

2. INCREASING THE PRIVATE SECTOR SUPPLY OF MARKET LIQUIDITY

Since the GFC, the supply of capital devoted to principal-at-risk market making has declined, in part because capital, liquidity and other regulations have made it far more expensive for bank-affiliated broker-dealers to support those markets.[14] (Also, since the failure of all the major monoline investment banks in 2008-09, most principal-at-risk market making now occurs in bank-affiliated dealers.) The primary taxes on such activity are leverage ratio requirements that require uneconomic levels of capital to be held against Treasury securities and low-risk corporate debt; a stress testing regime that continues to assume massive losses in these securities under stress, and therefore inflates the capital cost of holding those securities in dealer inventory; a GSIB surcharge that requires still higher levels of capital based primarily on the level of a firm's capital markets activity; and a Volcker rule that, at least until recently amended, blurred the line between prohibited proprietary trading and permissible market making, inadvertently disincentivizing the latter – which Congress specifically sought to preserve.

At the time the rules were adopted, there was an acknowledgement that market liquidity would be reduced; this cost, however, was considered worth the benefit in terms of reducing the probability of a disorderly failure of a bank-affiliated firm. But it seems the cost was underestimated, and the marginal benefits appear to have diminished with the adoption of numerous other reforms having the same goal.[15] There is general agreement among both policymakers and market participants that partly as a result of these rules, broker-dealers simply could not and would not expand their balance sheets in order to meet demand for liquidity in March 2020.[16] Hence the need for the Fed to make unprecedented interventions in these markets.

Notably, collectively, these rules not only diminish the amount of capital that existing broker-dealers are able to supply but also operate as a formidable barrier to entry or expansion by any other bank-affiliated firm, and as an incentive for existing players to exit.[17]

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[13] Report of the President's Working Group on Financial Markets: Overview of Recent Events and Potential Reform Options for Mutual Market Funds (December 2020) at 16 https://home.treasury.gov/system/files/136/PWG-MMF-report-final-Dec-2020.pdf

[14] BlackRock, "Lessons From COVID-19: Market Structure Underlies Interconnectedness of the Financial Market Ecosystem," November 2020: https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-lessons-from-covid-19-market-structure-november-2020.pdf.

[15] *See* Nelson, Bill and Parkinson, Pat, "Have Banking Regulations Reduced Market Liquidity?" (June 9, 2020): https://bpi.com/have-banking-regulations-reduced-market-liquidity/

[16] *See, e.g.*, "Why the bond market might keep America's next president awake at night," Nov. 4, 2020, *The Economist*. https://www.economist.com/finance-and-economics/2020/11/04/why-the-bond-market-might-keep-americas-next-presidentawake-at-night. *See also* BlackRock, "Lessons From COVID-19: Market Structure Underlies Interconnectedness of the Financial Market Ecosystem," November 2020: https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-lessons-from-covid-19-market-structure-november-2020.pdf and and Nelson, Bill and Parkinson, Pat, "Have Banking Regulations Reduced Market Liquidity?" (June 9, 2020): https://bpi.com/have-banking-regulations-reduced-market-liquidity/ (Quote from Vikram Rao, head bond trader at Capital Group: "[T]hey had the same refrain: There was no room to buy bonds and other assets and still remain in compliance with tougher guidelines imposed by regulators after the previous financial crisis. In other words, capital rules intended to make the financial system safer were, at least in this instance, draining liquidity from the markets. One senior bank executive leveled with him: 'We can't bid on anything that adds to the balance sheet right now.'")

[17] Several banks have exited or significantly scaled back their broker-dealer activities in the U.S., including Deutsche Bank, Credit Suisse, UBS and Barclays. *See* "SIFMA Insights: The Importance of FBOs to US Capital Markets," (April 2019): https://www.sifma.org/wp-content/uploads/2019/04/SIFMA-Insights-The-Importance-of-FBOs-to-US-Capital-Markets.pdf.

Rationalization of these rules would likely restore significant liquidity to fixed-income markets. Such benefit would have to be balanced against any perceived increase in the chances of a disorderly failure of a bank-affiliated broker-dealer. Such a cost-benefit analysis – that is, a determination of the net marginal benefit of the rules that most disincentivize principal-at-risk market making – would need to include consideration of the resolution processes described earlier, as well as other capital and liquidity rules that would remain in place, and other relevant market developments such as central clearing.

3. FURTHER NATIONALIZING U.S. CAPITAL MARKETS.

Perhaps the defining quotation of the Vietnam War came from an anonymous U.S. Army major to a journalist in an after-action interview: “It became necessary to destroy the town in order to save it.” Thus, some are already proposing to further expand and make permanent the reach of the Federal Reserve and other central banks in order to stabilize capital markets. In other words, the puzzling idea is this: *in order to prevent the taxpayer from ever having to bail out a bank-affiliated, private sector broker-dealer under any circumstances, the taxpayer instead should bear directly and continually, through the central bank, the risks currently borne by those firms.*

These proposals come in various forms. One idea is for the Federal Reserve to operate a standing repo facility for Treasury and agency repo markets; thus, the heretofore most liquid market in the world would require permanent government support. More significantly, a senior official at the Bank of England (among others) has recently proposed a permanent market maker of last resort function for central banks, with details –continuous or intermittent operation, rates, scope of securities covered – to be worked out after study.[18] Some have further proposed – albeit not for financial stability reasons – to have the Fed offer deposit accounts to anyone, and to offer a central bank digital currency, or CBDC. Thus, in a crisis, investors would be able to withdraw their money from funds and banks and place them at the Fed as a safe haven.[19]

Collectively, and in some cases individually, these steps would mark a significant abandonment of U.S. market capitalism in favor of a system with significantly greater government control. Before starting down that road, it might be advisable for policymakers to explore other ways of saving the village.

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[18] *See* Hauser, Andrew, “From Lender of Last Resort to Market Maker of Last Resort via the Dash for Cash; Why Central Banks Need New Tools for Dealing with Market Dysfunction” (2021). https://www.bankofengland.co.uk/-/media/boe/files/speech/2021/january/why-central-banks-need-new-tools-for-dealing-with-market-dysfunction-speech-by-andrew-hauser.pdf?la=en&hash=A02A833632782A87D97A1F9EFEB26205B4E8DF13. Neither the term nor the concept are new. *See, e.g.*, Davies, Gavyn, “Central Banks Expand Their Role to Address the Crisis,” *Financial Times* (July 12, 2020) (“[T] he Fed has gone much further than the ECB in developing new instruments to restore financial stability and promote credit flows, leveraging government money in the process. Some of these programmes fall into the category of serving as market-maker-of-last-resort, a type of intervention that barely existed before 2007.”) https://www.ft.com/content/641e8142-4943-4d25-a7f7-f1e08678f7e0; King, Darryl et al. “IMF Working Paper 17/152: Central Bank Emergency Support to Securities Markets” (2017).

[19] It also seems quite possible that the Fed would need to become a lender as well, at least during a period of stress that saw a flight to the safety of Fed accounts. As Agustin Carstens, General Manager of the Bank for International Settlements, has explained, “If bank deposits shift to the central bank, lending would need to shift as well. So, in addition to the deposit business, the central bank would be taking on the lending business. The central bank would need to meet business owners, interview them about why they need a loan, and decide on how much each should receive. We can ask ourselves whether this is the kind of financial system that we would like to have as the ultimate set-up….” Carstens, Agustin, “Increasing Innovation and the Future and of Money and Payments,” column in the *Frankfurter Allgemeine Zeitung* (June 14, 2019), translated and republished at https://www.bis.org/speeches/sp190617.htm For a more recent and comprehensive review of the issues raised by CBDCs, *see* Carstens, Agustin, “Digital Currencies and the Future of the Monetary System,” *Bank for International Settlements* (January 27, 2021) https://www.bis.org/speeches/sp210127.pdf; *see also* Fanusie, Yaya and Jin, Emily, “China’s Digital Currency: Adding Financial Data to Digital Authoritarianism” *Center for a New American Security* (January 26, 2021), https://www.cnas.org/publications/reports/chinas-digital-currency

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