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AN ESSAY ON THE FED AND THE U.S. TREASURY:
LENDER OF LAST RESORT AND FISCAL POLICY

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An Essay on The Fed and the U.S. Treasury: Lender of Last Resort and Fiscal Policy

by

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1. Introduction

As set forth in this essay, I have come to believe that risky emergency lending to banks or non-banks should be done by the U.S. Treasury with programs explicitly designed by and owned by the Treasury. These should not be Fed programs, as they have been identified in the past. The role of the Fed should only be to advise Treasury on needed programs and to execute the Treasury's programs in accord with the direction of the Treasury. This is actually the situation today for non-banks despite appearances to the contrary.

The Fed is now, in the Pandemic, engaging in lending with significant credit risk. While it appears these are Fed programs, in fact this lending is controlled by, and may be largely determined, by the Treasury. This is proper but should be clear. Lending with significant credit risk is a fiscal decision and should be made by the elected government not by an independent agency, whether made to banks or non-banks. And it should be the Treasury's role, as advised by the Fed, to determine when there is significant credit risk. When there is no significant credit risk, the Fed should make the lending decision, without control or approval of the Treasury, again whether to banks or non-banks, as part of their role as liquidity supplier and lender of last resort. If there is disagreement as to whether there is significant credit risk the Treasury's view should prevail. This essay explores the evolution of my thinking.

2. The Dodd-Frank Act and Connectedness and Contagion

In my book *Connectedness and Contagion* (MIT 2016), I took the view that the restrictions that Congress, in the Dodd-Frank Act, imposed on the Federal Reserve in lending to non-banks under Section 13(3) of the Federal Reserve Act were ill-advised. The Fed had acted heroically and effectively in stopping the 2008 contagion but Congress wrongly, in my view, believed it had overstepped its bounds. The most important of the congressional restrictions were that the Secretary of the Treasury had to approve the lending and that it had to be part of a broad program with collateral and could not be used for insolvent borrowers. Clearly, the Congress had in mind the loans made during the 2008 crisis to non-bank financial institutions like AIG. Today, this authority is being used to support the real economy, through loans to firms that are not only non-banks but also non-financial institutions.

I believed, at the time of writing my book, that the requirement of Treasury approval was an undesirable infringement on the Fed's independence as lender of last resort. Indeed, my concern was reinforced when it later came to light in an article by Lawrence Ball that then

Secretary of Treasury Hank Paulson, despite having no statutory authority to prevent Fed lending, pressured the then Fed Chairman Ben Bernanke not to loan to Lehman Brothers because, according to Ball, Paulson did not want to be known as Mr. Bailout. In the years since Dodd-Frank, without exception, every Treasury and Fed official with whom I conversed in private, agreed that the Dodd-Frank restrictions on lending to non-banks were undesirable, but that nothing could be done about it. Instead, the Fed concentrated its efforts on resisting further restrictions, publicly saying that the existing ones were acceptable. It was clear, of course, that any government official that questioned this new Dodd-Frank arrangement would be accused of wanting to again bail out Wall Street.

On the other hand, I was torn by the realization that 13(3) loans could be made to non-creditworthy borrowers so that there would be a significant likelihood that the Fed could lose money. This would not bankrupt the Fed since it can create money. Nonetheless, it might tarnish its credibility and reputation if the losses were severe enough. And the Congress and the Treasury would likely, therefore, feel compelled to recapitalize the Fed. Fed losses would also directly impact the taxpayer, since the losses would reduce the amount of profit the Fed annually remits to the Treasury. Repayment of loans would increase the remittances. At their high in 2015, remittances constituted \$117 billion, 3.6% of U.S. general revenue.

To some extent, these concerns with Fed losses were alleviated by the Dodd Frank 13(3) restrictions that the borrower be solvent and that the loan be collateralized. One could argue that if the Fed adhered to these requirements it should still be independent in making loans to non-banks. However, solvency determination is more art than science and very difficult to determine particularly in a crisis due to uncertain asset values. The Fed responded to pressure from Senator Warren and others to define solvency. Its 2015 regulation provided that the borrower could not be in bankruptcy or “generally” in default on undisputed debts in the previous 90 days. This, of course, leaves plenty of room for lending to borrowers with very substantial credit risk

The second potential bulwark against credit loss was the collateral requirement. In 2008, the Fed bought unsecured commercial paper from highly rated issuers without real collateral.¹ While it can be argued that there was little credit risk on these purchases, there obviously was some risk, and I thought that requiring collateral would prevent the Fed from doing what needed to be done in the future. But I was, nonetheless, sympathetic to the idea that collateral generally be required to prevent the Fed from taking on credit risk. Nonetheless, the value of collateral and its ability to cover credit risk, particularly for loans to risky borrowers, leaves the Fed with significant exposure to credit risk.

3. The Fiscal Policy Concern

The more basic problem, I came to understand, is the need to define when the Fed as lender of last resort wrongly crosses the line into making fiscal decisions which, in a democracy,

¹ Since the Fed was not authorized by the Federal Reserve Act to buy commercial paper, it set up a SPV to do so, The Fed lent to the SPV and the SPV bought the unsecured commercial paper which was pledged, together with issuer fees, to the Fed. Of course, if issuers defaulted on the commercial paper, this “collateral” would be worthless, and the fees represented a small part of the Fed’s exposure.

rightly belong to elected government officials—the Congress and the Administration, not an independent agency like the Fed. Legitimate concern over the Fed’s involvement as a lender of last resort is not self-evident. After all, there is a broad consensus that the Fed’s independence from the Executive branch, and generally politics, is important for sound monetary policy, and monetary policy has a profound influence on fiscal policy, government spending. So what is the line between monetary policy and fiscal policy when it comes to the Fed’s role as legitimate lender of last resort?

Basically, the line is between relatively riskless **liquidity** provision versus riskier **credit** provision. If firms with strong balance sheets (i.e. strong credit profiles) need Fed lending simply because the financial system has pulled back private liquidity, even to solvent borrowers, then that is a liquidity problem that is more related to central banking constitutes a traditional exercise of lender of last resort that should remain independent. However, if the firms’ problems are a weak balance sheet (or weak credit profile), which contributes to their need for a Fed loan, then that is not only a liquidity problem but also a credit problem (even if there is also a concurrent pullback of private liquidity in general). In that case, the decision to provide risky credit to firms becomes a fiscal decision, given the risk of loss, that should be made by the elected government.

This evolution in my thinking led me to join with Charles Calomiris, Glenn Hubbard, Douglas Holtz-Eakin, and the late Allan Meltzer, a group of conservative economists, in writing a 2017 article in the *Journal of Financial Economic Policy*, entitled “Establishing credible rules for Fed emergency lending.” (Credible Rules). The heart of the article was our recommendation to “Establish specific, observable criteria, that will be used to determine whether emergency lending by the Federal Reserve becomes fiscal policy that should involve the Treasury, either exclusively or in conjunction with the Fed.” We believed that “loans to insolvent institutions or loans to institutions that have a substantial likelihood of becoming insolvent should be regarded as implicating fiscal policy.” Not all loans to non-banks under 13(3) would be fiscal, i.e. loans adequately secured by collateral or highly rated, so the necessity for Treasury approval of all non-bank loans should not be required. If a loan were to be regarded as fiscal, however, it should be approved by the Treasury with indemnification (a guarantee), and possibly backed by a pre-established fund to make the indemnification good. We did not discuss whether the same approach should be applied to lending to banks.

I think a large part of my shift in thinking reflected the fact that the Fed’s willingness to take credit risk and, in effect, to engage in fiscal policy was a lasting problem from 2008, even if the outcome was successful. The Fed may have acted because the fiscal authorities were caught by surprise, and the contagion was a huge threat, but this was not the right approach going forward. The Fed probably thought it was a hero in 2008 for saving the economy, but the Congress thought it needed to be reined in anyway. Imagine what might happen if the Fed failed to rescue the economy, a major threat with COVID.

4. The United Kingdom Approach

The approach we recommended is close to the one currently deployed in the United Kingdom, one that emerged out of a confusion of roles between the Bank of England (BoE) and

HM Treasury (Treasury) in the 2008 financial crisis, particularly as it concerned rescuing Northern Rock. The UK divides central bank lending into two parts. First, normal lending to banks and other borrowers specified by the BoE, which now include primary dealers, broker-dealers, and central counterparties. It appears that BoE, on its own, can further expand this category. Second, there is emergency lending to banks and non-banks. This is different than the U.S. approach of dividing lending authorities between banks, through the discount window, and non-banks through 13(3), whatever the circumstances.

In the UK, emergency lending is governed by a Memorandum of Understanding between BoE and the Treasury, established after the financial crisis, which permits the BoE to make loans to solvent but “at risk” firms, with the approval of the Treasury. Note that this approval would be required for making loans to at risk banks, as well as non-banks, whereas in the U.S. the Fed is permitted by statute, through its discount window authority, on its own without Treasury approval, to make loans to at risk, and even insolvent, banks, albeit at a premium rate (although it rarely ever does so). While, these loans are not required by statute to have eligible collateral—they only need to be secured to the satisfaction of the Fed—the practice has been to demand such collateral. It appears, despite the absence of published guidance on the point, that UK Treasury approval would come with Treasury indemnity of BoE losses (Connectedness and Contagion, p. 115 and notes).

Completely unlike our system, the U.K. gives the Treasury the further authority, in exceptional circumstances with Parliamentary oversight, to direct the BoE to make risky loans to entities that the BoE does not judge to be solvent on terms the Treasury dictates. In the event of such direction, the BoE is considered to be acting as the Treasury’s agent. The funds are placed in a special purpose vehicle (SPV) that is segmented from the BoE balance sheet, and the SPV and the BoE are indemnified by the Treasury for losses.

While the Fed is certainly in a better position to assess the riskiness of a bank, that it routinely supervises and regulates, than a non-bank (and certainly a non-financial institution), lending to an insolvent or risky bank is as much a fiscal decision as lending to an insolvent or risky non-bank. Like the U.K., I would not treat the two differently.

5. Asset Purchases and Lending

Another aspect of the lender of last resort authority, not dealt with in our article, deals with the Fed’s general ability to purchase obligations rather than loan money. By statute, until the Pandemic, the Fed had only been authorized to buy U.S. treasuries or government guaranteed debt, like mortgage-backed securities of the GSEs. As described above, in the 2008 crisis, the Federal Reserve banks circumvented these restrictions by lending to SPVs of their creation that in turn purchased assets that the Fed could not purchase directly, like commercial paper. Since the purchase of risky paper, as much as the making of risky loans, can lead to Fed losses, such purchases should also be thought of as involving fiscal policy.

6. Lessons from the Pandemic Facilities

The U.S. entered the Pandemic Crisis with the new Dodd-Frank framework, which I believe has been found greatly wanting and needs revision.

a. The First Three Facilities

As previously noted, Dodd-Frank requires the Treasury to approve all loans to non-banks. So when on March 17-18, 2020, the Fed announced its first three facilities to deal with the Pandemic, modeled after similar facilities used in 2008, to buy highly-rated commercial paper (CPFF), to make loans to primary dealers (PDCF), and to make loans to banks to buy money market fund assets (MMMLF) it was required and did obtain the approval of the Secretary of the Treasury. As in 2008, the Fed used the SPV technique to buy commercial paper to circumvent asset purchase restrictions.

There were, however, important differences in the 2020 deployment of the CPFF and MMMLF as compared with 2008. First both facilities in 2020 operate through an SPV backed by \$10 billion in equity from the Treasury, funded out of the Exchange Stabilization Fund. No such backing of these facilities was provided in 2008. Indeed, in 2008, the Fed did not even use the SPV in the MMMLF because it had the authority to loan to banks which in turn could purchase money market fund assets. But now an SPV was needed to structure the Treasury's equity investment.

Why did the Treasury provide this backing? To a large extent, it was required by the Dodd-Frank requirement of collateral. There was no real collateral provided in the CPFF as discussed above. This was also the case for the MMMLF since the Fed only had the assets purchased by the banks from the money market funds as security for their loans to the banks, and the facility further provided there was no recourse back to the banks if the obligors on the purchased paper defaulted. Backing was not needed for PDCF because the dealers provided real collateral to the Fed to secure their loans and there was recourse back to them in the case of default.

More basically, the Treasury regarded the design of these facilities as involving fiscal policy. The backing of these facilities could also be seen as a desire of the Treasury that the Fed should be careful not to lose more than \$10 billion in each facility, or perhaps not lose any money since losses would eat into the Treasury's equity. The amount of purchase or lending the Fed could do through the SPVs was, however, not capped, even though the riskiness of the facility was dependent on their amounts. Such caps would come later for other facilities.

For these three facilities, modeled after the 2008 facilities, it may have appeared that the Fed designed the facilities and that the Treasury approval was nominal, except for Treasury's concern with losses signaled by its investments. So, if these facilities failed or were successful, blame or approval would go to the Fed. But the reality was that the Treasury, due to its approval power, ultimately called the tune. Treasury might decide to defer entirely to Fed design of the facilities, but it had the sole power to approve them, and as a result of the approval power, the power to also dictate their terms.

b. The CARES Act Facilities

The relationship between the Treasury and the Fed, with respect to Fed facilities, changed significantly with the enactment of the CARES Act on March 19, 2020. Section 4003 of the Act appropriated \$454 billion to the Secretary of the Treasury to make loans, investments or guarantees to the Fed to support Fed lending to eligible businesses, states or municipalities by purchasing obligations or making loans. The bill specifically ordered the Treasury to endeavor to seek Fed programs for such borrowers. The bill further stated that if there was any doubt the provisions of 13(3) should apply to any Fed facilities created under CARES.

1. The Structure of the Facilities

Since the enactment of CARES, the Fed has announced, with the required Treasury approval, four principal facilities: (1) to purchase asset-backed securities (TALF); (2) to purchase corporate bonds and ETFs in the primary and secondary markets (PMCCF and SMCCF); (3) to purchase bank loans to small businesses (MSNLF, MSELF and MSPLF) and (4) to purchase state and municipal obligations (MLF). Each of these facilities has a similar structure, an SPV with a Treasury investment and a cap on what it can lend. So for example, the two corporate-ETF facilities have a combined Treasury investment of \$75 billion and a combined cap of \$750 billion, and the three small business facilities have a Treasury investment of \$75 billion and a combined cap of \$600 billion. The cap/investment ratio represents the leverage of the facility, 10 times for the corporate-ETF facilities, and 8 times for the small business facilities.

In addition, the facilities have detailed requirements with respect to the qualifications and riskiness of the assets purchased or eligible borrowers, not set by the Congress but by either the Treasury or Fed, or some combination of each. Thus, for example, the corporate facilities specify the minimum credit ratings of the issuers. Issuers must have been rated at least BBB-/Baa3 as of March 22, 2020 and an issuer that was subsequently downgraded must be rated at least BB-/Ba3 as of the date of purchase.

The most detailed requirements come in the three small business facilities, as revised on April 30, 2020. The MSELF which permits existing bank customers to increase their loans, can serve as an example.

MSELF allows a business borrower with up to 15,000 employees or revenue of \$5 billion or less, whose existing loans to the bank are rated "Pass" by supervisors (the highest rating), to borrow a minimum of \$10 million and a maximum of the lesser of \$200 million, 6 times EBITDA or 35% of the borrower's existing debt. The Fed then buys 95% of the loan.

Interest rates are specified as adjustable LIBOR plus 300 basis points. The loans also include 200 basis points of origination fees and have a maturity of 4 years. The borrower cannot use the proceeds to repay or reduce existing debt but can make mandatory principal and interest payments. The lender is specifically required to do a credit assessment of the borrower's financial condition, although the lender would do so anyway since it will be on the hook for 5% of the loan. The borrower must certify it will make reasonable efforts to keep its employees and

that it has the ability (with the loan) to meet its financial obligations and does not anticipate going into bankruptcy in the next 90 days.

2. Priorities: Minimize Credit Loss over Broader Help to Business

A major driving force behind the structure and terms of all the CARES Act facilities is the desire of the Treasury to minimize losses on its investments funded by Congress. To begin with, this can be clearly seen in Treasury's desire to not fully use the entire \$454 billion Congress appropriated. As of May 2, Treasury had only invested \$195 billion of the CARES Act appropriation, together with \$20 billion from the ESF that it had before passage of the CARES Act. So the Treasury was sitting on \$259 billion of CARES Act funding that has not even been put at risk. It is always good to have a reserve but more than half seems excessive.

Second, all the investments made by Treasury, after CARES, have been structured through SPVs with Treasury investment and a cap on lending. The leverage of each facility is set based on its perceived riskiness. Thus, the corporate facilities are leveraged at 10 times compared to the riskier small business facilities at 8 times. The limit on leverage permitted by Treasury protects its investment.

Third, in the case of the small business facilities, the banks share in the risk, from 5% in MSELF to 15% in MSPLF that permits bigger loans. The banks are directed to make creditworthy judgements, and under all three facilities can only increase loans to customers with highly rated ("Pass") loans outstanding as of the end of 2019. And each borrower must certify that in the next 90 days he can service other debt and does not anticipate going into bankruptcy. Again, these credit requirements protect the Treasury's investment, as part of its view of what constitutes needed fiscal policy.

Furthermore, the terms of the facilities made it unlikely that less creditworthy small businesses would borrow even if qualified due to high interest rates of LIBOR plus 300 basis points, high origination fees of 200 basis points, and short maturities of 4 years.

Indeed, the Congressional Budget Office in its April 16, 2020 report on the CARES Act estimated that the Fed facilities would be profitable.

Glenn Hubbard and I, in a Wall Street oped of April 16, 2020, "Main Street Needs More Fed Help," criticized an earlier version of the Main Street facilities, in which the credit protections for the Treasury were weaker, for prioritizing credit risk limits over getting funds to needy but risky borrowers. The desire to avoid loss became even stronger when the Main Street facilities were revised. MSELF, for example, originally contained no Pass requirement for existing loans, did not direct the bank to make creditworthy judgements, and did not include any borrower solvency requirements. The Wall Street Journal Editorial Board, in its own editorial on the April 30 revision, "The Main Street Fakeout," criticized the Fed and the Treasury for doubling down on credit risk limits.

3. Collateral and Solvency Considerations.

As discussed, Treasury backing was in part necessitated by the Dodd-Frank collateral requirement. The actual 13(3) requirement is:

The policies and procedures established by the Board shall require that a Federal reserve bank assign, consistent with sound risk management practices and to ensure protection for the taxpayer, a lendable value to all collateral for a loan executed by a Federal reserve bank under this paragraph in determining whether the loan is secured satisfactorily for purposes of this paragraph.

Since many small business borrowers do not have any collateral, backing by the Treasury could serve as a substitute. The Congress recognized this problem in the CARES Act by giving the Treasury \$454 billion to back Fed lending. But the collateral requirement would obviously permit the Treasury to use all of the appropriated funds and allows significant judgment about the adequacy of collateral in relation to permissible leverage, again a matter of fiscal policy.

So the collateral requirement does constrain Treasury policy but there is still lots of room for more risk taking than the Treasury has undertaken.

Section 13(3) also requires borrower solvency:

The Board shall establish procedures to prohibit borrowing from programs and facilities by borrowers that are insolvent. Such procedures may include a certification from the chief executive officer (or other authorized officer) of the borrower, at the time the borrower initially borrows under the program or facility (with a duty by the borrower to update the certification if the information in the certification materially changes), that the borrower is not insolvent. A borrower shall be considered insolvent for purposes of this subparagraph, if the borrower is in bankruptcy, resolution under title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act, or any other Federal or State insolvency proceeding.

As previously discussed, the Fed issued a regulation in 2015, 12 C.F.R. 201.4(d)(5)(iii), setting forth its solvency test: that the borrower is not (A) the subject of any bankruptcy or insolvency proceeding and (B) “is not generally not paying its undisputed debts as they become due during the 90 days preceding the date of borrowing under the program or facility (emphasis added).” The Fed regulation, 201.4(d)(iv), also allows the borrower to self-certify based on his reasonable belief his solvency as defined in the regulation.

The revised Main Street facilities change this certification, to make it tougher. All three facilities require the borrower to certify that after giving effect to the loan, the borrower reasonably believes “it has the ability to meet its financial obligations for at least the next 90 days and does not expect to file for bankruptcy during this time period.” The Fed’s existing regulation looked to the past and only required the borrower to “generally” meet its obligations. Further, the borrower under the Fed’s regulation knows whether or not it is in bankruptcy, whereas under Main Street it must certify as to a more uncertain future. This appears to be the

work of the Treasury. Why would the Fed otherwise insist—indeed could it even do so lawfully—on a tougher and different standard than set forth in its own regulation, which by its terms applies to any 13(3) lending Secretary Mnuchin revealed his desire to avoid losses when he told the Wall Street Journal, in response to a question about my oped with Glenn Hubbard: “If Congress wanted me to lose all the money, that money would have been designed as subsidies and grants as opposed to credit support.” He further stated: “We’re looking at it in a base case scenario that we recover our money.”

4, Who is Responsible?

Currently, responsibility for the success and failure of Fed facilities designed and approved by the Treasury is murky. If these programs fail and we are plunged into a Depression who will be held responsible afterwards? I fear that given that these are “Fed” programs, the Fed will unfairly take what may be brutal criticism, with the result that its future independence for monetary policy may even be threatened.

On the other hand, the Fed may itself agree with the program design, being willing to step into fiscal territory as it has in the past. Vice-Chair Quarles testified before the Senate Banking Committee: “we are required by law that we structure these facilities so that they are loans to entities that we expect to be repaid and that the various measures and metrics that we have included in the Main Street facility are designed to try to balance as broad a reach as we can while maintaining fidelity to the statutory requirements.”

One might indeed argue that if these Fed facilities are in reality those of the Treasury, and the Fed is fearful that that they will not work or not consistent with the intent of Congress to take more risk, then the Fed could just refuse to adopt them, and that their failure to do so indicates their support.

Expecting such action is unrealistic—one can just imagine the blowback by the Treasury and the President if the Fed resisted implementing the Administration’s program in the midst of a crisis. It is one thing to resist direction from the government on monetary policy, where the government has no approval power, it is another to resist direction where it is no longer independent.

7. Facilities with Credit Risk Should Be Treasury’s and not the Fed’s, and be so Identified

I have expressed my disagreement with the Secretary’s policy of not taking credit risk, and the Fed’s possible agreement with it, if that is the case. I believe Congress authorized the Secretary to risk all of the \$454 billion to save the economy from even greater loss. Whether the Treasury is following the intent of Congress is a matter to be resolved between those two government branches. But I want to make clear that this decision, as between the Treasury and the Federal Reserve, should be the Treasury’s given the inevitable losses from loaning to small businesses, the extent to which should be a matter of fiscal policy. Whatever the line between normal lender of last resort and fiscal policy, lending to small businesses, especially in a crisis involving their widespread collapse, is on the fiscal side. Whether the Secretary’s no loss

approach is the right one, or whether it is consistent with the intent of Congress, is an entirely separate matter.

This brings me to the punch line of this piece. Since all of these facilities probably are already designed by the Treasury, the Treasury should be given the credit risk, while the Federal Reserve should have no responsibility for them. These fiscal programs should be labeled as Treasury and not Federal Reserve facilities, and responsibility for their success or failure should lay squarely with the Treasury and the Congress that authorized them. The Fed should only be responsible for informing the Treasury of market conditions and the need for action, but then only serve as an agent of the programs devised by the Treasury. Under the existing 13(3) structure, where the Fed asks approval for a program, it looks like the Fed's program even though the right of approval gives Treasury the actual power to ultimately dictate the program's terms. I would, thus, dispense with the misleading requirement of the Fed to request approval for a program. Instead, the Treasury should be responsible for adopting any lending program whenever there is a significant risk of loss (emergency lending) if such program is authorized by Congress and deemed necessary by the Treasury. Something very close to this procedure as noted above already exists in the UK.

a. Determining Whether There is a Significant Risk of Loss: Real and Adequate Borrower Collateral

An important and difficult question concerns when a facility does not involve a significant risk of loss and thus should not be the responsibility of the Treasury. This is a difficult issue to resolve. A first criterion should be whether the lending takes place in an economic turndown or crisis where there are serious questions about the ability of borrowers to repay. Possible objective criteria can be used to determine whether this is the case.

A second consideration is whether there is adequate collateral, while recognizing that the existence of collateral does not necessarily ensure lack of credit risk. In all of the Pandemic crisis facilities only one meets this requirement, the Primary Dealer Credit Facility where the dealers' being financed are required to post collateral and there is recourse back against them in the event the collateral is insufficient to cover Fed losses. The lack of credit risk in this facility is underscored by the fact that one must meet high standards to qualify as a primary dealer. The fact that there is no Treasury backing of this facility indicates that Treasury believes the dealer collateral is adequate to protect against credit risk. So, although this facility has been rolled out as part of the crisis response, this kind of facility could be part of the Fed's independent responsibility in the future. All the other Pandemic facilities lack real collateral—CPFF, PMCCF, SMCCF, TALF, and MLF, since the loans to the SPV are merely backed by the assets purchased by the SPV and there is only recourse back to the SPV (which holds the purchased assets) and no recourse back to the actual sellers of the assets. In the case of the MMMLF, where no SPV is involved, and the Fed makes loans directly to banks to purchase money market assets, there is also no collateral and there is no recourse back to the banks in the event the banks default on these loans. So those loans to banks also lack collateral.

It follows from this analysis that the Treasury need not require collateral for programs it undertakes as fiscal policy, unless so directed by Congress as part of its authorization. This should also be true of a solvency requirement. In the CARES Act Congress required both to avoid what it considered a bailout, but neither requirement was part of TARP in 2008.

b. Funding and Leverage

The Treasury's own programs could still take advantage of the Fed's leverage, permitting such leverage as Treasury deems compatible with its willingness to take risk, as it has done with the Pandemic facilities (however much I might disagree with its risk appetite). But the Treasury must fully guarantee the Fed against all losses, either during the operation or the unwinding of its programs.

The Congress can limit the guarantee however it sees fit. It could, in principle, appropriate funds to back Fed losses, as it did in the Pandemic. But this is a balance sheet expenditure that can count as part of the deficit. In the event, this has not yet been the case since the CBO has opined that Treasury will not lose (regretfully in my view) any of the \$454 billion that was appropriated in the CARES Act through the Fed programs established pursuant to the Act. Whatever action Congress takes, it should be done in advance, as a crisis can quickly materialize requiring immediate action. This was more the case in 2008 with the contagious run following the Lehman bankruptcy than it was in the gradually evolving economic impact of the Pandemic. If action is taken in advance, it is far more likely that it would be in the form of a guarantee, likely with a cap, rather than an appropriation that might never be used and could be scored as part of the deficit. There are established budget procedures to determine the effect of such guarantees and where the effect is unknown the impact is likely to be scored as zero.

To the extent, the Treasury permits the Fed to leverage its credit protection it must be careful to limit leverage to its best conservative estimate of losses that would be within the limits set by Congress. If, nonetheless, the losses did exceed the guarantee limit, there would still be an implicit guarantee, as under the deposit insurance system, to cover excess losses, with the firm expectation that Congress would cover the overrun.

The Treasury could decide to provide its own funding (up to the congressional guarantee limit) rather than backing the Fed's leverage. It could do so by merely issuing debt as funding was needed so that there would not be a massive increase in debt. Any undesirable impact on Treasury rates could be offset by Fed purchases. Such purchases would be part of monetary policy and thus solely within the discretion of the Fed. This approach would have worked in the rather slow unfolding Pandemic. If there was an immediate need of substantial funding, as was more the case in 2008 due to the run on the financial system, Treasury might seek to use backing and Fed leverage to avoid any rate impact and the possible uncertainty as to the Fed's monetary policy response. In principal there should be no difference in budgetary impact. Budgetary scoring would be the same whether losses were predicted as a percentage of the Treasury's own spending or as a percentage of the Fed's spending.

c. Fed as executing agent of Treasury's pre-prepared programs

Whether or not Fed leverage is used, the Fed will likely be needed to execute Treasury programs, due to its connection to the bank distribution channels. The Fed would only be responsible for its failure to execute in accord with Treasury directions. The Fed should rightly insist that it be operationally equipped to run a program it is being required to administer. This, of course, has been a problem for the Small Business Administration in operating the Paycheck Protection Program authorized by the CARES Act.

It is essential that Treasury design its crisis game plan so that it can be quickly rolled out when crisis strikes. The roll out time under a system of sole Treasury responsibility could actually be reduced compared to what it is today. In the Pandemic, unlike 2008, the Fed had to get Treasury approval, which probably caused some delay as the Fed formulated the programs which were reviewed by Treasury, with perhaps several iterations. The current system where the Fed requires Treasury approval slows down the response time.

The Treasury can act just as quickly as the Fed to implement a program, if so authorized by the Congress, as long as it prepares its programs in advance. Of course, the Treasury should fully utilize the expertise of the Fed in implementing the program, but the responsibility of the program should be with the Treasury.

d. Danger to the Fed of Picking Winners and Losers

Apart from being blamed for the failure of a program that it did not design, there is a further potential risk to the Fed when it operates programs where the demand exceeds supply, even when the Treasury designs them: the risk of picking winners and losers. Even with Treasury programs, the Treasury could grant some discretion to the Fed as to eligibility. As of May 12 2020, this was not yet a problem with the Pandemic facilities. The activated programs, CPFF, the PDCF and MMMLF, were not capped and the demand has been relatively small, in all \$75 billion. Indeed, the readiness of the Fed to supply funds through the CPFF and MMMLF has steadied the markets so that funding can be obtained in private markets. This may also occur with the yet to be rolled out corporate facilities—their mere announcement has steadied the bond and ETF markets, so that demand for Fed's support, depending on pricing, may be low. However, there could well be different results for other facilities like Main Street, if they were actually made attractive to needy borrowers. The Fed can try to minimize the risk of picking winners and loser by outsourcing administration, as it has to PIMCO for CPFF and Blackrock for the corporate facilities. However, the Fed will still be held responsible for the actions of its agents.

Indeed, one might take the view that the Fed did not object strongly to the Treasury's unwillingness to make the Main Street facilities more attractive because it believed that high credit standards would dampen demand and therefore protect it against the need to pick winners and losers. I do not think that is likely. First, the Fed has a lot more to lose in the future by failing to rescue the economy than it does from the winners and losers problem. Second, more importantly, the Fed does not really have to pick winners and losers in the Main Street facilities; it should just buy loans on a first come, first-served basis. The Paycheck Protection Program of

the Small Business Administration (SBA) has been vastly oversubscribed but the SBA has operated on first come, first-served basis and has not, like the banks making the loans, been accused of favoritism. Obviously SBA has had operational issues, in terms of bad computer systems and poor guidance, but that is another matter.

Any Treasury program that delegates user eligibility to the Fed, should make its terms clear and transparent. The Fed should then seek to operate the program to reduce the need to pick winners and losers by delegating authority to do so or operating on a strict first come first serve basis.

e. Implications for Fed Regulatory Authority

One final point, albeit minor in the big picture of this essay. The Fed is the most important bank regulator. In order to incentivize banks to use some of its facilities, the MMMLF and its financing of bank loans under the Paycheck Protection Program (PPP), it has specified that banks need not maintain risk-weighted capital or leverage capital to support assets the banks acquire pursuant to these programs. In addition, it has exempted these assets from normal liquidity requirements under the Liquidity Coverage Ratio.

Theoretically, relaxation of these requirements increases exposure of the Fed to losses from riskier banks. While this is quite unlikely in present circumstances, given what appears to be the strong capital and liquidity positions of the banks, together with the relative small share of bank assets generated by these programs, there is the conceptual concern that such actions do increase Fed credit risk. However, these are actions clearly within the Fed's general regulatory responsibility. While one could argue that the Treasury should call the shots on regulatory relief to accompany its own programs, I would leave regulatory decisions where they normally lie, with the Fed.

So going forward, when we have hopefully moved on from the Pandemic, what would I recommend?

1. We should adopt the UK dichotomy between normal and risky lending, whether to non-banks or banks. Lending to potentially insolvent banks should be as much of a fiscal decision as lending to potentially insolvent non-banks. Non-risky lending to borrowers, non-banks as well as banks, should not require Treasury approval and should be entirely decided upon and administered by the Fed—there is little fiscal exposure there.
2. Lending involving significant credit risk to banks and non-banks should be done by the Treasury through its own programs identified as such. All Fed losses should be covered by the Treasury (whether incurred during or the unwinding of the risky lending).
3. The determination of whether there is significant credit risk should depend on the economic circumstances and the availability of adequate borrower collateral. The Treasury should have the ultimate responsibility to determine when there is significant credit risk.

4. The Fed would not seek approval for risky lending. Such lending would be the sole purview of the Treasury and identified as such. The Fed's role would be limited to advising the Treasury of the need for such lending and implementing any programs that the Treasury adopted. Nonetheless, if Treasury believes that Fed lending was risky, even though the Fed did not, Treasury should have the authority to prevent or stop such lending.
5. Treasury facilities should be generally authorized by Congress in advance in the form of a guarantee to speed the response.
6. Normal lending by the Fed should be fully collateralized and made only to solvent borrowers, as best defined. Rated borrowers should be at least investment grade.

Conclusion

When lending to the financial system involves significant risk of loss, it should be a fiscal decision made by elected officials, Congress and the Administration, not by an independent agency, the Fed.

This is already the reality for lending to non-banks since the Treasury's approval right of such loans, given to it by Dodd-Frank, effectively gives it the power to design the terms, as it has apparently done in the Pandemic. However, to the world at large the programs are identified as the Fed's. This puts the Fed at risk for the failure of programs it does not control and thus endangers its independence generally, including its power over monetary policy and normal provision of liquidity as lender of last resort.

Treasury responsibility for risky lending to banks should be no different, since like lending to non-banks, the risk involved demands that it too be regarded as fiscal policy. The role of the Fed for risky lending should only be to advise the Treasury and carry out the orders given to it by the Treasury.

I reach this conclusion with a certain amount of regret. If I were to choose which party, as between Congress, Treasury and the Fed, would be likely to adopt the best policies in an emergency, it would be the Fed because they are independent and expert. Indeed, that is why I was critical in my book of the of the restrictions imposed on the Fed by Dodd-Frank. But we do not have a government entrusting action to experts or philosopher kings. Nor should we.