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Implementation Strategies for the Issuance of Federal Reserve Discount Note Obligations

Staff of the Board of Governors of the Federal Reserve System and of the Federal Reserve Bank of New York¹

Introduction

This memo provides an overview of how the Federal Reserve could use the issuance of discount note obligations of Federal Reserve Banks (FDNs) as a tool to manage the consolidated balance sheet of the Federal Reserve Banks. In particular, this memo describes how FDN issuance could be an effective tool for draining excess reserves from the banking system, how FDNs could be incorporated into the FOMC's current toolbox, how FDN issuance would be implemented, and how FDNs may be expected to trade in the secondary market.

The Federal Reserve would need to seek a change in the Federal Reserve Act (FRA) that would allow each Federal Reserve Bank to issue and redeem FDNs. Staff envisions that FDNs would be issued in accordance with the direction of the Federal Open Market Committee and rules and regulations promulgated by the Board of Governors. To attract a broad investor base, FDNs would be guaranteed by the full faith and credit of the United States Government (but would be exempt from the debt ceiling) and would be issued via a mechanism similar to the auctions of Treasury bills. FDN auctions would be conducted over the Federal Reserve Bank of New York's FedTrade system with the primary dealers and their customers. An estimated timeline for building a robust FDN auction module in FedTrade and automating the FDN issuance and accounting process is 9 to 12 months.

FDN issuance as a tool for monetary policy

Issuance of FDNs would be a useful tool for monetary policy implementation, or for managing the FRS's balance sheet more broadly, in an environment with a structural reserve surplus. Although FDNs would be liabilities of the Federal Reserve Banks, they would not be available to meet reserve requirements of depository institutions. When issuing FDNs, the reserve account of the investor's clearing bank would be debited, resulting in a reduction of the aggregate level of reserve balances and an increase in FDNs. This tool would prove most useful at a time when setting the rate of interest paid on reserves alone was deemed to be an inadequate lever to control short-term interest rates. In addition, to date, most of the expansion in the asset side of the Federal Reserve Banks' balance sheets has resulted in an expansion of reserve

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balances on the liability side. Because reserve balances cannot be transferred outside the banking system, the rise in reserve balances has led to an increase in leverage across the banking system. The resulting increased leverage may constrain lending by the banking system at precisely the time that expansionary monetary policy is attempting to boost it. FDNs, by contrast, could be held by any investor, and therefore in draining reserve balances would reduce leverage in the banking system.

Compared with the FOMC's current tools for draining excess reserves, FDN issuance would be more flexible and have a broader investor base.² Given the desire for a somewhat regular and predictable issuance schedule, which the Staff believes would help decrease issuance costs, FDN issuance would likely need to be used in conjunction with other reserve management tools, such as reverse repos and asset sales. Staff views FDN issuance as most helpful for reducing large and reasonably predictable and stable quantities of reserve balances. The ultimate frequency and maturity structure of FDNs would be based on the Desk's reserve draining needs and desire to minimize rollover risk and investors' demand at different maturity points.³

FDNs would likely be issued with maturities shorter than those of Treasury bills similarly to programs at some foreign central banks. The Treasury currently issues bills with maturities of 4-, 13-, 26- and 52-weeks under its regular schedule, as well as cash management bills that may have different maturities. Since the beginning of 2009, total gross issuance per week has averaged about \$130 billion, with a weighted average maturity of about 110 days. Gross issuance has trended upward in recent years from about \$50 billion per week in 2000. Gross issuance spiked at about \$250 billion per week in September 2008, in the initial implementation of the Supplementary Financing Program ("SFP"). The actual maturity structure of FDNs will depend on the overall size of the program, with larger programs generally requiring longer maturities in order to limit weekly gross issuance and possible roll-over risks. In addition, issuing longer-dated FDNs would likely improve their liquidity in the secondary market. Nonetheless, restricting issuance of FDNs to maturities under 4 weeks would limit the interaction of the program with Treasury bill issuance and would likely permit more limited coordination in the two issuance calendars.

Numerous central banks, including the Bank of England, the Swiss National Bank, and the Bank of Japan, currently issue bills that mature within 12 months. Central banks use debt issuance as a means of draining excess liquidity from the banking system, resulting from rapid increases in central bank assets from non-traditional monetary policy measures, or transactions related to the management of exchange rates. Appendix 4 describes in more detail debt issuance programs and their use as monetary policy tools at some foreign central banks.

² FDN issuance does not require collateral and is not limited by the level or types of assets held on the balance sheet. FDN issuance is completely scalable, although investor appetite could be limited at some level of issuance.

³ Additionally, to the extent possible, the Desk would avoid auctioning FDNs on the same day as Treasury bill auctions and avoid issuing FDNs that settle or mature on the same day as a Treasury bill.

FDNs and revised SFP

Last fall, the Treasury agreed to initiate a SFP under which it issues special Treasury bills and maintains the proceeds on deposit at the Federal Reserve, actively draining reserves from the banking system. The effect of the SFP, therefore, is economically equivalent to the issuance of FDN. The outstanding size of the program, which peaked at about \$560 billion in October 2008, has since then shrunk to about \$200 billion, partly reflecting Treasury's concerns about breaching the debt ceiling limit. This constraint, however, illustrates a significant shortcoming of the current SFP in comparison with the proposed FDN program—the Federal Reserve does not have complete control over the size and timing of SFP debt issuance.

In order to address these issues and as an alternative to FDNs, the SFP could be revised to require the Treasury to issue obligations promptly at the request of the Chairman of the Board.⁴ In addition, bills issued under the SFP would be excluded from the debt ceiling.⁵ Although the revised SFP would achieve similar monetary policy objectives, FDN issuance is a preferable instrument as its ultimate decisions would reside within the Federal Reserve, and consequently, there would be a more limited need for coordination on a daily basis with Treasury. In addition, although the legislation would grant control of the SFP to the Federal Reserve, market participants might perceive such a program as not truly being under the control of the Federal Reserve, with possible negative implications in the public perception of Fed independence.

Governance

In the Authorization for Domestic Open Market Operations (“Authorization”), the FOMC would give the System Open Market Account (SOMA) Manager authority to use this tool in achieving the FOMC's policy objectives. Generally, the SOMA Manager is delegated broad authority to use the different OMO policy tools at his/her discretion.⁶ The Committee could choose to impose certain limitations on the use or structure of FDN issuance, which could either be reflected in the Authorization or communicated separately.^{7, 8}

Secondary market trading of FDNs

Secondary market trading in FDNs would likely take time to develop and would depend on the size of the FDN market and its anticipated permanence. Should FDNs outstanding grow to a substantial size (say, \$1.75 trillion, which is the current size of the LSAP programs and 85 percent of the Treasury bill market outstanding as of May 2009), they would likely experience somewhat similar trading dynamics to that of Treasury cash management bills. Trading would

⁴ Similarly, the Federal Reserve would direct any public communications about the direction and size of the SFP program.

⁵ Appendix 2 sets forth a general outline of draft statutory language for a revised SFP.

⁶ A Reserve Bank may raise governance concerns if one Reserve Bank is issuing liabilities in its name, even if it is doing so as SOMA manager. That said, the SOMA or participating model should work; however, it has obviously never been used for issuing liabilities.

⁷ There is precedent for both alternatives.

⁸ Some potential limitations could be the size of FDNs outstanding or the maturity of FDN issuance.

likely take place over similar electronic platforms as Treasury bills and agency discount notes, and at many primary dealer firms the same trader(s) may make markets in all three products.

We anticipate that FDNs would trade at a rate between Treasury bills and agency discount notes, since they would be “full faith and credit” but would likely be less liquid than Thursday-settling Treasury bills, which have an established investor base.^{9, 10} Given their maturity structure, marketability, and “full faith and credit” status, FDNs would be direct competitors for other money market instruments. Therefore, FDN issuance may put upward pressure on money market rates generally. Of course, part of the role of FDN issuance would be to tighten the stance of monetary policy, so some firming in rates other than the federal funds rate may well be desired.

Investors in FDNs would likely be similar to investors in Treasury bills and other money market instruments, including money market mutual funds, foreign central banks, securities lending reinvestment accounts, corporations, and insurance companies. In addition, depending on the attractiveness of FDNs relative to the interest paid on excess reserves, banks may also look to hold FDNs. Though the investor base probably would eventually be broad, it may take time before some of these accounts invest in FDNs. For example, although TLGP debt is backed by “full faith and credit,” some government-only money funds had to take time to alter their prospectuses in order to purchase TLGP debt.

For the countries surveyed in Appendix 4, secondary market trading in central bank debt is extremely limited due to the short maturities of these forms of debt. The securities are, however, often used as repo collateral in central bank operations and in other market transactions.

The Fed’s Authority for FDN Issuance

Issuing Federal Reserve interest-bearing debt obligations would require new statutory authority.¹¹ This section summarizes the Staff’s view on suitable legislation. The FRA could be amended to allow each Federal Reserve Bank to issue and redeem FDNs in accordance with the direction of the FOMC and rules and regulations promulgated by the Board. To achieve the desired objectives of issuing FDNs, the payment of principal and interest on FDNs would be guaranteed by the full faith and credit of the United States Government. The amount of FDNs issued would not, however, be subject to the statutory debt limit of other obligations guaranteed by the United States Government under the provisions of 31 U.S.C. § 3101. The exclusion of FDNs from the debt ceiling would be designed to ensure that the conduct of monetary policy would not be inappropriately constrained.¹²

⁹ Initially, FDNs may trade at rates above those on similar maturity agencies discount notes as investors may take time before investing in a new asset class and secondary market liquidity may be limited.

¹⁰ Most Treasury bills are issued and mature on Thursdays, enabling investors to rollover maturing funds into new issues. Cash management bills that have different maturity dates often trade at a discount.

¹¹ Appendix 1 sets forth a general outline of draft statutory language.

¹² A full faith and credit of FDNs could imply a need for consolidating the Reserve Banks’ financial reporting and accounting with the federal government. This would be at odds with the view that the Reserve Banks are federal instrumentalities but still distinct and separate from the federal government. As an alternative, a federal entity, such

An explicit full faith and credit guarantee should increase investors' demand for FDNs because it should limit perceived differences in credit risk of FDNs with respect to other securities issued by the United States Government. Additionally, an explicit guarantee may also imply that FDNs should carry a zero percent risk weight under current regulatory capital rules for depository institutions. An explicit guarantee would also be expected to broaden the investor base for this new class of security; for example, these obligations would likely be eligible instruments for "government only" investment guidelines.¹³

Interest earned on FDNs would be subject to Federal income taxation but exempt from all other Federal, State, municipal, and local taxation. The tax treatment would therefore be analogous to that of Treasury securities.

To improve liquidity in the secondary market for FDNs, the Desk would accept FDNs as collateral in open market operations and could consider maintaining holdings of FDNs in the SOMA portfolio to be lent or sold depending on secondary market trading conditions.^{14, 15} Providing for FRS rulemaking authority over secondary market trading of FDNs would help to protect the liquidity, integrity, and efficiency of the market.

FDNs with the explicit guarantee of the United States Government should be viewed by investors as closely resembling Treasury securities of comparable maturities. Issuance of FDNs would be scheduled, to the extent possible, so as to minimize adverse effects on the auction and issuance of Treasury securities. In addition, the Secretary of the Treasury would be notified in advance, to the fullest extent practicable, of the timing, size, and maturity of a new issuance of FDNs. Finally, FDNs would have a maximum legal term of one year, although in practice FDNs would be issued with maturities shorter than those of Treasury bills.

The statutory authorization could provide for each Federal Reserve Bank to issue its own debt obligation. Under this model, in practice, the Desk would operate a common auction system for obligations. The Staff recommends a common system to eliminate the potential for issuer-related segmentation in the FDN market.¹⁶ The Federal Reserve Bank of New York could issue bills as a consolidated obligation of all Reserve Banks, and the liability would be participated out, as an accounting matter, to the Reserve Banks after the notes are issued, in a

as the Treasury, that carries the full faith and credit of the federal government could guarantee FDNs. These types of guarantees are fairly common, including the FDIC's recent guarantee of bank debt or student loan guarantees. Under this structure, the debt would solely be an obligation of the Reserve Banks, but the guarantee would be an obligation of the federal government; such a treatment would avoid consolidation. It is not clear, however, whether such alternative would be seen by market participants as truly equivalent to the full faith and credit, possibly leading to wider interest rate spreads of FDNs relative to Treasury securities.

¹³ Money market mutual funds are expected to be a significant investor in FDNs.

¹⁴ To do this would require a change to the Authorization for Domestic Open Market Operations.

¹⁵ The Government Securities Dealers Reports, FR2004, which is currently used by the Federal Reserve to monitor conditions in the U.S. government securities market, would be modified to include data on primary dealers' holdings and activities in FDNs.

¹⁶ Alternative models, which would entail each Reserve bank issuing its own obligations as its own liability, were also considered by the Staff. However, these models are more difficult to implement and have the potential for issuer-related segmentations in the FDN market.

manner similar to the procedures for allocating security in the SOMA.^{17, 18} A second, less desirable option would have the Federal Reserve Bank of New York issue all of the debt obligations as its own liability. This option would greatly increase the magnitude of the FRBNY's balance sheet relative to those of other Reserve Banks depending on the amount of FDNs issued, and could require large and permanent transactions in the interdistrict settlement account.

Finally, in order to ease possible longer-term concerns regarding the interaction between FDNs and Treasury bills or other concerns of political nature, the legislation could include a 5-year sunset provision that would limit FDN issuance to such time horizon.

FDN Auction Structure

FDN issuance would be conducted over FedTrade by the Desk.¹⁹ Primary dealers, through whom the Desk traditionally operates, would be eligible to participate and other potential investors could participate indirectly through a primary dealer.^{20, 21} In order to increase the distribution of FDNs, the securities would be marketable; however, they would not be fungible with Treasury bills.²² Furthermore, all FDNs would be zero coupon instruments. Rules and regulations pertaining to FDN auctions would be provided in an offering circular, released in advance of the first FDN auction announcement.^{23, 24}

The auction format would be similar to that of Treasury bill auctions, since this Dutch auction format is viewed as a way for the Federal Reserve to obtain the lowest cost of independent funding. As such, the Desk would announce the auction in advance, by providing

¹⁷ The Procedures for Allocation of Securities in the System Open Market Account, FRRS 8-831, would likely need to be amended to address the participation of obligations. Note that participation of obligations may raise governance concerns among the Reserve Banks and the Board that have not arisen in connection with participation of securities in SOMA.

¹⁸ Operationally, it would be very difficult to participate FDNs in a different manner from the participation rules for the System Open Market Account.

¹⁹ Conducting FDN auctions through the Treasury's TAAPS system was also investigated. Although this alternative would provide a broader distribution mechanism, the operational obstacles were deemed too costly. Furthermore, use of the Treasury's TAAPS system may further intertwine the Federal Reserve and the Treasury Department, thereby compromising the central bank's independence.

²⁰ Consistent with this, the majority of foreign central banks that issue debt also limit debt auction participation to OMO counterparties.

²¹ It is possible for the Desk to expand its current list of dealers.

²² The Banco de Mexico is one of the few central banks whose debt is fungible with that of the fiscal authority. The bank's issuance program in some ways resembles the U.S. Treasury and Federal Reserve's SFP.

²³ The offering circular may also include descriptions of the Fed's mandate, the Fed's authority to issue debt, and the U.S. government guarantee. The Fed is exempt from registering securities with the SEC under the Securities Act of 1933 and, therefore, would not have to file financial statements.

²⁴ While the Staff proposes issuing FDNs in a similar fashion to Treasury bills, the broad authority to issue FDNs could be used to structure and issue them in any number of ways, depending on exact circumstances. Alternative methodologies could include the issuance of non-marketable debt, the use of a window instead of an auction process, predetermining discount rates at FDN auctions, and/or issuing exclusively to a narrower class of investors. However, in this note, we focus exclusively on approaches that offer the greatest potential for maximizing total issuance.

the market with identifying information, including the auction date, CUSIP, auction size, issue date, and maturity date. These details will enable the security to trade in a when-issued market, which would help improve price transparency, the early distribution of supply, and potentially increase investor participation at auction. The Desk would aim to be as regular and predictable as possible in its issuance, including the possibility of releasing a tentative auction schedule that would encompass the period between regularly scheduled FOMC meetings. FDN settlement and maturity dates would typically occur on the same day of the calendar week, except Thursdays.²⁵ Therefore, if desired, the Desk could have regular reopenings of outstanding FDNs.²⁶ Additionally, investors would be able to roll over maturing funds into new FDNs.

FDN auctions would be single price, so all accepted bids would be awarded at the stop-out rate. In the event of a “failed” auction or unattractive propositions, the Desk could allocate at a fixed rate up to some pre-determined maximum rate.²⁷ The remainder of the issuance could either be held by SOMA or the issuing Reserve Bank and be available to borrow through SOMA’s securities lending facility or be auctioned as part of a reopening at a later date. The minimum bid and award sizes would be set above those set at Treasury auctions, since FDNs will not be marketed directly to retail investors and primary dealers are unlikely to enter propositions at the auction in very small lots.²⁸ Similar to Treasury, the Federal Reserve could impose an award limit in FDN auctions.²⁹ Award limits would prevent any one participant from holding a significant share of an FDN on issuance date. Large long positions have the potential to hinder secondary market liquidity, which may increase the Federal Reserve’s issuance costs. On the other hand, such a rule may increase the resources needed to set-up and run the operation, particularly if a security is re-opened.

The FedTrade system is not currently designed to handle the sale, settlement, accounting, and reporting associated with FDNs. FRBNY systems development staff estimates that it would take approximately 9 to 12 months to develop and implement a robust FDN auction module within FedTrade, including automating part of the settlement process (discussed in more detail below).³⁰ For ease of implementation, it would be critical that only one auction of debt take place per day. The development of a less robust FDN auction system, which would entail manual steps, could be brought to production in a shorter time horizon, albeit with greater operational risks.

²⁵ FDN issuance and maturity dates would seek to avoid Thursdays, to avoid overlapping with the Treasury’s bill schedule. This may help reduce direct competition between FDN and Treasury bill issuance.

²⁶ The potential reopening of FDNs may also serve as a backstop liquidity facility to prevent systemic fails in FDNs, should they occur.

²⁷ The implications of a “failed” auction are significantly different for the Federal Reserve and the Treasury Department. If the Federal Reserve does not receive enough bids to cover an FDN auction, the end result is that the Federal Reserve drains fewer reserves than it had originally planned. However, a “failed” auction could pose a reputational risk for the Federal Reserve. In contrast, a failed Treasury auction may result in the Treasury Department not being able to finance itself and could be a signal about investors’ willingness to finance the U.S. government.

²⁸ However, the Fed could allow secondary market trading in increments as low as \$100.

²⁹ The Treasury has a 35 percent award limit.

³⁰ FedTrade and OPICS, along with other systems, will be migrated in Q2 2010 as part of the Data Center Relocation project. As a result, between January and April 2010, there will be no FedTrade code changes. For a robust FDN auction system to be running before May 2010, project work should be started in June or July, 2009.

FDN Settlement, Accounting and Reporting

The settlement, accounting, and reporting for FDN issuance would be different from current OMOs. The settlement process entails issuing new securities through the National Book Entry System (“NBES”) and, depending on the legal structure of FDNs, the issuance may not be accounted for in a similar fashion to SOMA’s assets.

FDN Settlement

Several steps need to be taken for the Federal Reserve to issue FDNs.

1. CUSIPs - Standard & Poor’s (S&P) is the major provider of CUSIPs and is able to turn around requests as fast as 24 hours. The Desk would work with S&P to develop a unique four character issuer code, along with the nine-character CUSIP. CUSIP requests are public.
2. Issuer Rating – The new securities may need to be rated by an outside agency.
3. NBES – Electronic payments would enter the CUSIPs on the payment system.³¹
4. OPICS – OPICS, the Markets Group accounting system, will need to be enhanced to account for FDNs. These changes are estimated to take 2 to 3 months to implement. Once the enhancements are in place, OPICS will feed IAS, the FRS’s general ledger accounting system.
5. Autocharge and FICC Agreements – To facilitate FDN settlement, autocharge agreements³² would be set up between the Fed, Fedwire, primary dealers, and depository institutions and FICC agreements³⁴ would be set up with the FICC, primary dealers, and the FRBNY.

The FDN settlement process would be similar to the method used for settling Treasury securities.³⁵ FICC would clear securities purchased directly by the primary dealers and all indirect awards would be settled through primary dealers’ accounts at their clearing banks. Dealers would then pass on the securities to their clients.

Following an FDN auction, FedTrade would generate a settlement file, listing the details and awards for each participant, including delivery instructions and par cash amounts. This

³¹ As part of this procedure, Electronic Payments would need the ABA account number which would receive the funds on issue date and pay the funds on maturity date. Only one ABA account can be used to both receive funds on issue date and pay funds at maturity.

³² The autocharge agreements would enable the Federal Reserve to automatically charge a primary dealer’s depository institution’s account at a Federal Reserve Bank for all FDNs delivered on the issue date.

³³ Autocharge agreements would be made between the primary dealers and the depository institutions whose funds accounts at Federal Reserve Banks will be charged for all FDNs delivered. This agreement would be similar to the one used for Treasury auctions, <http://www.treasurydirect.gov/forms/ofsec05b.pdf>.

³⁴ FICC agreements would authorize the delivery of, and payment for, securities delivered to the FICC on behalf of primary dealers at an FDN auction.

³⁵ See Appendix 3 for a settlement and accounting workflow diagram.

settlement file would be uploaded into Fedline Payments Manager, NBES’ front-end application, and the securities would then be released into NBES at the designated settlement time.

Accounting and Reporting for FDNs

Accounting for FDNs, whether they are participated or issued by only one Federal Reserve Bank, would require limited changes to the Integrated Accounting System (“IAS”). A simple model for participation of the debt could follow the investments made in foreign currencies, which are allocated to each Reserve Bank based on the ratio of its capital and surplus to aggregate capital and surplus at the preceding December 31.

IAS would create a new liability account, Federal Reserve Debt Obligations, a new asset account, Discount on Federal Reserve Debt Obligations, and an Expense Account. OPICS would be modified to relay any changes in these accounts to IAS. The table below provides an example of the accounting:

**Accounting Details for \$100 Billion Par Auction of a 100-day FDN at a Price of \$99.000000
On Issue Date**

Debit		Credit	
Deposits of Depository Institutions	\$99 billion	FDNs	\$100 billion
Discount on FDNs	\$1 billion		

On a Daily Basis

Debit		Credit	
Expense**	\$0.01 billion	Discount on FDNs**	\$0.01 billion

** Daily Expense = \$1 billion / 100

At Maturity Date

Debit		Credit	
FDNs	\$100 billion	Deposits of Depository Institutions	\$100 billion

In addition to providing details about FDNs outstanding in the Federal Reserve’s balance sheet statement, including the H.4.1, the Federal Reserve may also choose to publish the daily rates on FDNs for select maturity points in the H.15 statistical release, “Selected Interest Rates.” Including this information would complement the Fed’s current communication of other money market rates, including the federal funds effective rate, Treasury bill rates, and CP rates (including the rate for CPFF), among others.

Appendix 1. FDN Draft Statutory Legislation

SEC. 1. ISSUANCE OF OBLIGATIONS.

Insert a new subparagraph (h) in section 14 of the Federal Reserve Act:

14. OPEN MARKET OPERATIONS

* * *

(h) (1) Any Federal reserve bank may issue and redeem obligations, in accordance with the rules and regulations prescribed by the Board, in order to facilitate the goals of section 2A of this Act.

(2) No Federal reserve bank shall engage or decline to engage in the issuance or redemption of obligations under this subsection except in accordance with the direction of and regulations adopted by the Federal Open Market Committee.

(3) Obligations issued under this subsection shall have a term to maturity not exceeding one year and the issuance of obligations under this subsection shall be scheduled, to the fullest extent possible, so as to minimize any adverse impact on an issuance of Treasury obligations. The Secretary of the Treasury shall be notified in advance, to the fullest extent possible, regarding the timing, size, and maturity of any obligations issued under this subsection.

(4) Obligations authorized and issued under this subsection shall not be subject to the provisions of 31 U.S.C. § 3101.

(5) The full faith and credit of the United States is pledged to the payment, with respect to both principal and interest, of any obligation issued by a Federal reserve bank under this subsection if--

(A) the principal amount of such obligation is stated in the obligation; and

(B) the term of the maturity or the date of maturity of such obligation is stated in the obligation.

(6) Obligations authorized and issued under this subsection are exempt from all Federal, State, municipal and local taxation other than--

(A) Federal income tax liability of the holder thereof under the Public Debt Act of 1941 (31 USC 3124);

(B) a nondiscriminatory franchise tax or other non-property tax instead of a franchise tax, imposed on a corporation; and

(C) an estate or inheritance tax.

Appendix 2. Revised SFP Draft Statutory Legislation

SEC. 1. SUPPLEMENTAL FINANCING PROGRAM.

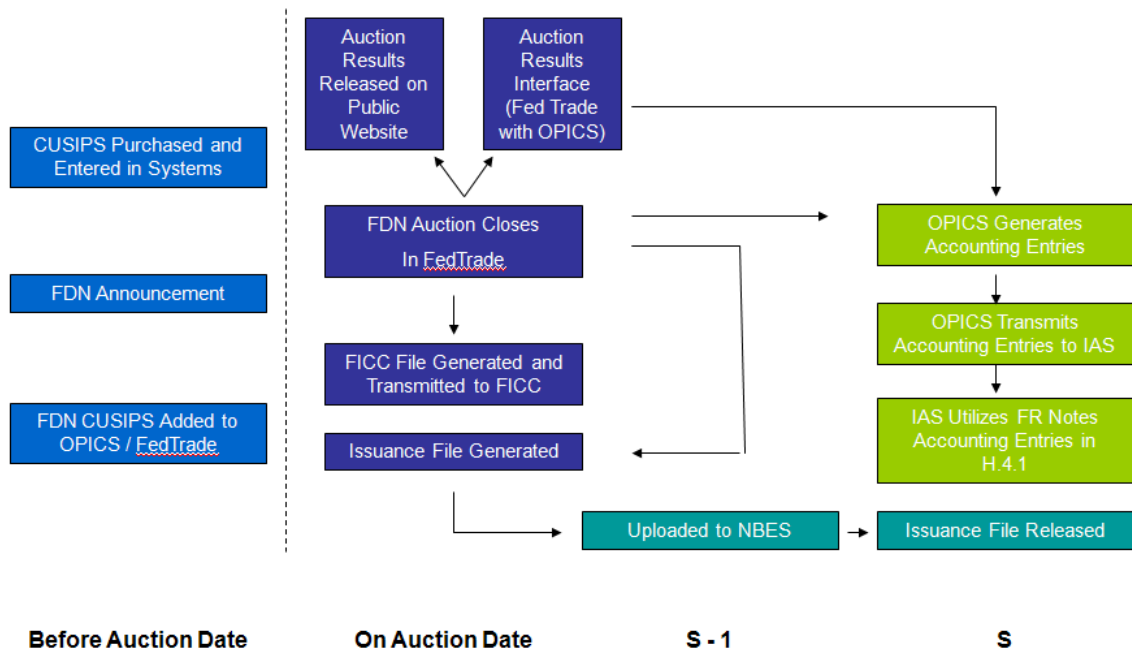
(a) **IN GENERAL.**—The Chairman of the Board of Governors of the Federal Reserve System, at the direction of the Federal Open Market Committee, may request that the Secretary of the Treasury authorize the issuance of Treasury obligations under this section in such amounts and with such terms and conditions as may be appropriate in order to facilitate the goals of section 2A of the Federal Reserve Act. The Secretary shall authorize the prompt issuance of Treasury obligations as requested by the Chairman in such manner and subject to such schedule as is appropriate so as not to interfere unduly with the issuance of Treasury obligations in accordance with Chapter 31 of Subtitle III of Title 31 of the United States Code.

(b) **PROCEEDS OF ISSUANCE OF OBLIGATIONS.**—The Treasury shall maintain all proceeds from obligations issued under this section in an account at a Federal Reserve Bank designated by the Federal Open Market Committee until such time as the Federal Open Market Committee determines that such balances maintained by the Treasury are no longer necessary to facilitate the goals of Section 2A of the Federal Reserve Act.

(c) **DEBT LIMIT.**— [ALT. A - Obligations authorized and issued under this section shall not be subject to the provisions of 31 U.S.C. § 3101.]

[ALT. B – Proceeds from the issuance of obligations issued under this section shall be deducted from public debt outstanding in determining the total public debt subject to limit under the provisions of 31 U.S.C. § 3101.]

Appendix 3. Settlement and Accounting Workflow



Appendix 4. Global Experience with Central Bank Debt

This appendix summarizes some of the key features of several central bank debt issuance programs, focusing primarily on the reasons these programs were introduced, their scale, and finally a comparison with sovereign debt and typical tensions with fiscal authorities. A tabular summary with more detailed information on the nine central banks' debt issuance programs is also included at the end of this appendix.

Why do central banks issue debt?

Several central banks use or have recently introduced debt issuance as a means of draining liquidity from the banking system. In many cases, a structural excess of liquidity has encouraged central banks to issue debt. The main sources of this liquidity have varied by country, but can be broadly summarized within two classes:

Sterilization of foreign exchange operations. Central banks in countries that more actively manage the level of exchange rates often sterilize their purchases of foreign currency to offset the simultaneous increase in domestic liquidity. Emerging market countries most often have this structural excess liquidity as a result of their foreign exchange operations. For example, Hungary's Magyar Nemzeti Bank (MNB) has made extensive use of regular bill issuance to offset its foreign exchange operations. Conversely, Mexico engaged in bill issuance to offset flows related to rebuilding its foreign exchange reserves.

Rapid increase in the assets of the central bank as a result of the introduction of non-traditional policy measures. This has been the main impetus of the Swiss National Bank (SNB) and the Bank of England (BOE) in their recent issuance of debt. The Bank of Japan (BOJ) also utilized its long-held ability to issue debt in managing down the size of its balance sheet after exiting its "quantitative easing" policy.

In most cases, central banks have chosen to introduce or have regularly used their own debt issuance to address potential shortcomings of some of their other options for draining liquidity. A few of the key considerations that the use of bills address are:

Collateral constraints of the central bank. The central banks that have recently introduced bills have generally faced large amounts of excess liquidity and dwindling amounts of government debt on their balance sheets. The lack of government debt collateral has limited the ability of the central bank to conduct large repo operations or outright sales of securities to drain excess liquidity. For example, the Bank of England's holdings of government debt are less than 2 percent of its balance sheet, down from about 11 percent earlier in the year.

Underdeveloped repo and government securities markets. The Bank of Japan has relied on bill issuance as one of its primary tools for draining liquidity since infrastructure and trading in the repo market remains underdeveloped. The Bank of Korea (BOK) began issuing its own debt in the 1960s in part because government debt markets were not yet well developed.

Control over operations. This is one of the primary shortcomings of standing deposit facilities, in which the size of deposits is decided by the individual depository institutions. The central bank has limited direct control over the size and frequency of usage at standing deposit facilities.

Constraints on participation. Some central banks, in particular the BoJ, noted that the distribution of central bank bills can go beyond those institutions generally eligible to participate in open market operations or use deposit facilities. While most central banks limit participation at debt auctions to the same counterparties as most of their other operations, these participants can sell these securities to other investors as well.

Potential Source of Liquidity. As opposed to the collection of fixed-term deposits, central bank debt can also be a potential source of liquidity for banks that participate in the operations. Banks can pledge the securities as collateral in a repurchase agreement, as is common practice in most of the countries surveyed, or raise funds by selling the securities in the secondary market. Several central banks suggested that the lack of this ability was a constraint of other options to drain liquidity such as deposits.

Size of Issuance

The scale and size of issuance across the nine central banks surveyed was fairly broad, and seemed to depend largely on why the instruments were introduced and how they fit within the monetary policy framework.

The scale of issuance has grown rapidly for central banks that are offsetting significant provisions of additional term liquidity. This is consistent with the flexibility these securities provide and the concurrent need to execute large draining operations. For example, their own debt recently accounts for about 25, 12, and 10 percent of the BOE, SNB, and Sveriges Riksbank's liabilities, respectively, up from zero less than one year ago.

The emerging market central banks included in this survey – Banco de Mexico (BdM), BOK, and the MNB - also have sizable debt outstanding. The economies of these central banks have generally been in a state of structural surplus due to capital inflows, requiring large and regular draining operations.

Since bills are used primarily as a fine tuning instrument by the BOJ, bills outstanding are less than one percent of the BOJ's liabilities.

The amount of central bank bills outstanding relative to comparable central government securities also varies significantly across countries. In the case of the BOE and SNB, outstanding central bank bills are roughly twice that of the government's bills outstanding. In contrast, both the Sveriges Riksbank's and the BOJ's bills outstanding are dwarfed by their respective government bill markets. In Sweden, the central bank's debt (CDs) are only one-third the amount of government bills outstanding.

Central Bank vs. Sovereign Debt

Nearly all of the countries surveyed for this appendix cited some degree of tension with the fiscal authority in issuing debt. Much of the tension arises due to the potential competition that central bank debt poses to that of the government as an alternate risk-free security.

Despite the tensions, all emphasized that their day-to-day decisions to use debt as a monetary policy tool are made independently of the fiscal authority. Important to this independence is that in nearly all of the countries surveyed, central bank issuance is solely the obligation of the central bank, without explicit support from the sovereign. However, this seems to have a minimal impact on the perception of credit risk inherent in the securities given the short-term nature of most issuance and the central bank's ability to create reserves. Some central bank counterparts suggested though that their debt was perceived differently from government debt issuance because of its role as a monetary policy tool.

Over the longer term, central banks generally assuage tensions with the fiscal authority by concentrating debt issuance in maturities shorter than that issued by the government. As such, the debt issued by the central banks included in this survey is largely concentrated in tenors of less than one month, generally the shortest maturity of most regular government issuance, despite most central banks' authority to issue at longer tenors. This minimizes the competition between the two issuers and also provides a more complete maturity spectrum for investors in short-term, low-risk securities. For example, the Sveriges Riskbank's issuance is linked directly with their main monetary policy operation and is therefore concentrated in the 1-week tenor, while government issuance is primarily in tenors longer than 3 months. Similarly, the SNB has the authority to issue at maturities up to 1 year, but has thus far issued only 1-week and 1-month tenors, compared to the government's shortest tenor at 3-months. Though further out the curve, the Bank of Korea focuses predominantly on the 2-year sector, while the government's issuance focuses on the 3-year tenor.

Central bank debt is generally issued at yields higher than government debt, though by varying degrees. However, the securities and the pricing mechanisms are not always comparable across countries. One factor that makes this comparison difficult is that there are not always securities issued at comparable tenors, with the central bank's debt often for shorter terms than the government's. Rates on the SNB's bills, which are typically issued at tenors up to 1-month, are 2 to 3 basis points higher than the government bills, which trade close to 0 percent. Further, central banks that issue debt for much shorter tenors, usually one week or less, often issue the securities via fixed-rate tenders at the policy rate. In these cases, the difference in rates between the central bank's debt can be wider than the government's debt by significant amounts. In the case of the U.K., rates on the BOE's debt, which are issued at tenors of only up to 1-week, are approximately 57 basis points above the government's 1-month securities. In other cases, such as Denmark, the government's securities trade at over 100 basis points higher than that fixed by the central banks on its debt. Price discovery in the secondary market is also hindered by the lack of trading liquidity in nearly all the countries we surveyed.

Secondary market trading in central bank debt is largely non-existent in the countries we surveyed, though it is often used as repo collateral in central bank operations and in the market. This is predominantly a function of the much shorter maturities of central bank bills. Without a liquid secondary market, the primary investors in central bank bills are usually those institutions eligible to participate in the central bank's operations. More active secondary markets have developed in some instances where central banks issue longer-dated securities. For example, a more active secondary market has arisen in BOK debt since issuance is predominantly in the 2-year sector. Still, the securities are less liquid than similar government debt. BOK officials have suggested that the existence of a government securities futures market has bolstered the liquidity of the government debt market compared to that of the BOK.

*In contrast, the Banco de Mexico (BdM) issues debt securities that are completely fungible with the government's debt, making it unique among the central banks we surveyed. The BdM has an agreement with the fiscal authority that is in some ways akin to the U.S. Treasury and Federal Reserve's use of the Supplementary Financing Program (SFP) bills. The BdM has the authority to issue, as needed for monetary policy purposes, 3- and 5-year floating-rate securities (*bondes D*). The proceeds are kept on deposit at the BdM, which ultimately takes responsibility for repayment. According to the BdM, these securities are priced similarly to those issued for fiscal purposes since they are completely fungible, and will have the same security identifier or ISIN. Both the BdM and the government issue these securities on a weekly basis, and usually consult on a quarterly basis to discuss issuance plans.*

OVERVIEW OF CENTRAL BANK DEBT ISSUANCE

General	Euro area		England		Switzerland		Japan		Denmark		Sweden		Hungary		Korea		Mexico	
purpose	structural liquidity mgmt		offset recent large, term provisions of liquidity, sometimes used for fine-		offset recent large, term provisions of liquidity		fine tuning operation to drain liquidity		liquidity management		standard instrument for draining liquidity		offset surplus liquidity position of banks due to capital inflows		offset surplus liquidity position of banks due to capital inflows		offset surplus liquidity position of banks due to capital inflows	
introduction	not currently used		Oct-08		re-introduced in 10/15/2008, previously used in '70s		1971		1992		1997/1998		early 1990s		1960s		2000	
obligation name	debt certificates		bills		bills		bills		certificates of deposit		certificates of deposit		bills		monetary stabilization bonds (MSBs)		<i>bondes D</i>	
eligible collateral in bank operations	yes		yes		yes		yes		yes		yes		yes		yes		yes	
Frequency of issue	n/a		weekly		weekly		regularly, often daily		weekly		weekly		primary policy instrument since 2007, issued weekly		weekly issuance of two different tenors a) > 6-months and b) less < 3 months		Issue approx. MXN 2 bn each week, evenly split between 3- and 5-yr tenors	
Amount outstanding	€0, 0%		£60.5 bn, 25% of liabilities as of 11/08		CHF 24 bn, 12% of liabilities as of 11/08		¥0- 2.5 trillion, up to 2% of liabilities		DKK 140 bn, 23% of liabilities		SEK 70 bn, 10% of liabilities		HUF 1.2 trillion, 16% of liabilities		KRW 127 trillion, 47% of liabilities		MXN 238 bn, 14% of liabilities	
Pricing mechanism	most likely competitive		priced at bank rate, allocated pro-rata, most auctions uncovered		competitive auction		competitive auction		fixed rate tenders		competitive auction		full allotment, fixed rate decided		competitive auction		competitive auction	
Eligible Participants	same as OMOs		same as OMOs		same as OMOs		similar to OMOs		same as OMOs		same as OMOs		same as other OMOs		different than other OMOs, overlaps with gov't primary dealers		banks, mutual funds, and pension funds	
Secondary market liquidity	n/a		no secondary market liquidity, actively used as repo collateral		no secondary market liquidity, but actively used as repo collateral		no secondary market liquidity		very limited		none		no secondary market liquidity, but actively used as repo collateral		yes, but less liquid than government debt due to futures market.		yes, because fungible with government-issued <i>bondes</i>	
Compared to Sovereign Debt	ECB	Gov't	BOE	Gov't	SNB	Gov't	BOJ	Gov't	DNB	Gov't	SRB	Gov't	MNB	Gov't	BOK	Gov't	BdM	Gov't
Typical tenor & shortest gov't tenor	can issue up to 12-months	n/a	1- to 7 days	1-month	7- and 28-days	3-month	typically overnight	3-month	7 days	no bill issuance	7-days, though can issue up to 360 days	3-months usually shortest	2-week bills	3-months	2yrs (80%), <1 yr (~11%); range is from 14-days to 2-years		3 yrs and 5 yrs	3 yrs and 5 yrs
Price	n/a		fixed priced at bank rate, currently 1.5%	0.93% for 1-month bills	0.02 to 0.03%	0%	-0.10%, close to policy rate	0.20% for 3-month bills	fixed price at the policy rate, currently 3%	4.3% for 3-month bills			Fixed price at policy rate, currently 9.5%	9.05% for 3-month bills	3.2% for 2-year MSBs, historically average 10-20 bps higher than gov't det	3.2% for 2-year debt	same as <i>bondes</i> due to fungibility	same as <i>bondes D</i> due to fungibility

Updated 1/21/2009