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Abstract

This paper describes the evolution of Federal Reserve participation in public Treasury offerings. It covers the pre-1935 period, when the Fed participated on an equal footing with other investors in exchange offerings priced by Treasury officials, to its present-day practice of reinvesting the proceeds of maturing securities with "add-ons" priced in public auctions in which the Fed does not participate. The paper describes how the Federal Reserve System adapted its operating procedures to comply with the 1935 limitations on its Treasury purchases, how it modified its operating procedures from time to time in response to changes in Treasury funding techniques, and how the Federal Reserve and the Treasury worked together to improve the Treasury's debt management and the Fed's reinvestment operations.

Key words: debt management, open market operations, auctions

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Section 14(b) of the Federal Reserve Act of December 23, 1913, authorized the nascent Reserve Banks "to buy and sell, at home or abroad, bonds and notes of the United States." Coupled with a dramatic expansion of Treasury debt during World War I,[1] that authority provided the foundation for the pro-active reserves management policy that appeared in the 1920s.[2]

In the course of managing aggregate bank reserves with purchases and sales of Treasury securities, the Banks had to reinvest the proceeds of maturing issues if they wanted to avoid shrinking the reserve base. Treasury, for its part, had to refinance part of its maturing debt in the 1920s, and all of it after 1929. Buying whatever Treasury was offering was one way, perhaps the easiest way, for the Banks to reinvest.

In 1935 Congress amended section 14(b) by adding the proviso that "any bonds, notes, or other obligations which are direct obligations of the United States or which are fully guaranteed by the United States as to principal and interest may be bought and sold without regard to maturities *but only in the open market*." [3] The italicized phrase appeared to limit Federal Reserve purchases, including purchases reinvesting the proceeds of maturing issues, to secondary market purchases.

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[1] Treasury debt increased from less than $1 billion at the end of 1916 to more than $25 billion in mid-1919. Financial Statement of the United States, December 31, 1916, and June 30, 1919.

[2] Roosa (1956, pp. 8-9) emphasizes that a "shift-over from a purely defensive to what might be called a *dynamic* conception of Federal Reserve responsibility was evident all through the twenties." Emphasis in the original. Chandler (1958, p. 234) observes that "Before the end of 1924 the [Open Market Investment Committee] was engaging in open-market operations to offset disturbing effects of Treasury operations around tax-payment dates, selling securities to mop up excess funds resulting from net outpayments by the Treasury, and buying securities to offset net Treasury withdrawals of money from the market. In 1925 it began to buy and sell securities to offset net outflows of currency into circulation and net inflows of currency from circulation, especially around Christmas and other holiday periods."

[3] Banking Act of August 23, 1935, section 206. Emphasis added.

This paper describes the evolution of Federal Reserve participation in public Treasury offerings from pre-1935 offerings, where it participated on an equal footing with other investors in exchange offerings priced by Treasury officials, to the present-day practice of reinvesting the proceeds of maturing securities with "add-ons" priced in public auctions in which the Fed does not participate. The paper describes how the Federal Reserve System ("the System") adapted its operating procedures to comply with the 1935 prohibition, how it modified its operating procedures from time to time in response to changes in Treasury funding techniques, and how the System and the Treasury worked together to improve both Treasury debt management and System reinvestment operations.

The Primary Market for Treasury Debt in the Mid-1930s

In the mid-1930s Treasury sold coupon-bearing debt, including certificates of indebtedness ("certificates," maturing in not more than one year), notes (maturing in not more than five years), and bonds (with no maturity limit), in fixed-price subscription offerings for cash and in exchange for maturing debt. There was an important difference between the two types of operations: cash offerings were used to raise new money; maturing securities were routinely refinanced with exchange offerings. The Treasury did not refinance maturing issues with cash offerings, as is the case today. Treasury also sold single-payment bills in cash auction offerings to both raise new money and refinance maturing bills.

Prior to the amendment to section 14(b), Reserve Banks were free to participate in any of the various offerings on the same basis as other market participants. They were frequent participants in exchange offerings (to roll over maturing investments) but did not participate in cash offerings of coupon-bearing debt.[4]

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[4] Letter from Walter Logan, General Counsel of the Federal Reserve Bank of New York, to J.P. Dreibelbis, Assistant General Counsel, Board of Governors of the Federal Reserve System, January 22, 1937, stating that, prior to the Banking Act of 1935, Reserve Banks "frequently" exchanged maturing debt for new securities offered by the Treasury in public exchange offerings, but that the power to make direct cash purchases from the Treasury "was

Fixed-Price Cash Offerings

In a fixed-price cash offering, Treasury fixed the price, maturity, and coupon rate of the securities it was offering, specified the quantity that it wanted to sell, and invited public subscriptions. For example, on February 13, 1934, the Treasury announced a cash offering at par of about $400 million of a 3 percent 3-year note to be issued on February 19 and to mature on February 15, 1937.[5] Market participants tendered for $2.3 billion of the notes before the subscription books closed. Treasury issued $429 million of the notes, awarding tenders for less than $10,000 the full amount subscribed and larger tenders 16⅔ percent of the amount subscribed (but not less than $10,000).[6]

Fixed-Price Exchange Offerings

In a fixed-price exchange offering, Treasury fixed the maturity and coupon rate of the securities it was offering and announced that it would exchange the new securities for maturing debt on a par-for-par basis, with all tenders to be satisfied in full. For example, on March 8, 1934, officials announced an offering of 3 percent 4-year notes to be issued on March 15 and to mature on March 15, 1938, in exchange for $460 million of certificates maturing on March 15.[7]

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never … exercised." It is unclear how the Reserve Banks reinvested the proceeds from maturing bills.

The Fed's abstinence from direct cash lending may have stemmed from a sour experience at the beginning of World War I. In early March 1917, Treasury Secretary William McAdoo called on the Reserve Banks to purchase $50 million of 90-day certificates at a below-market rate of interest directly from the Treasury. The Banks complied, but made it clear that a second request would not be welcome. The Treasury, they said, should conduct its financing operations in the public credit markets. Garbade (2012, pp. 131-133).

[5] Treasury Circular no. 506, February 13, 1934, reprinted 1934 Treasury Annual Report, p. 165.

[6] 1934 Treasury Annual Report, p. 166. Most fixed-price cash offerings were vastly over-subscribed in the 1930s – see, for example, the distribution of cover ratios in Garbade (2012, p. 304, Figure 20.1) – and subject to severe *pro rata* rationing.

[7] Treasury Circular no. 507, March 8, 1934, reprinted 1934 Treasury Annual Report, p. 167, and Statement of the Public Debt, February 28, 1934.

The offering proved quite attractive – the certificates eligible for exchange traded at more than 101 percent of principal following the announcement, only a week before they were due to mature at par.[8] Market participants subscribed for $455 million of the new notes.[9] The remaining $5 million of maturing certificates, so-called "attrition," was redeemed for cash.[10]

Cash Auction Offerings of Treasury Bills

In late 1934 Treasury officials were auctioning 26-week bills on a regular weekly basis. For example, on November 7, 1934, Treasury solicited bids for $75 million of bills to be issued on Wednesday, November 14 and to mature twenty-six weeks later on Wednesday, May 15, 1935. $50 million of outstanding bills were set to mature on the issue date,[11] so the offering refinanced those bills and raised $25 million of new money. Investors bid for $199 million of the bills before the auction closed at 2 p.m. on Friday, November 9. Accepted bids ranged from a high of 99.914 percent of face amount down to a stop-out price of 99.881 and averaged 99.889 – equivalent to a discount rate of 22 basis points per annum. Tenders above the stop were filled in full; tenders at the stop were subject to *pro-rata* rationing.[12]

The 1935 Limitation to Open Market Purchases

The initial version of what later became the Banking Act of 1935 did not say anything about limiting Reserve Bank purchases of Treasury securities to open market transactions.[13]

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[8] "Treasury Offer is Well Received," *New York Times*, March 9, 1934, p. 29.

[9] 1934 Treasury Annual Report, p. 167.

[10] The risk of unexpectedly high attrition prompted Treasury officials to price exchange offerings relatively cheap to outstanding issues; a practice that led market participants to bid up the price of exchange-eligible issues. See Cecchetti (1988).

[11] 1934 Treasury Annual Report, pp. 180-181.

[12] 1935 Treasury Annual Report, pp. 230-231, and "Big Offer to Treasury," *New York Times*, November 10, 1934, p. 27.

[13] See the discussion of section 207 of H.R. 7617 in Committee on Banking and Currency (April 19, 1935, pp. 11-12).

Following passage by the House, the banking bill moved to the Senate, where it was referred to the Senate Banking Committee. The amended version of the bill reported out of the Banking Committee included the limitation.[14]

Neither Treasury officials nor members of the Federal Reserve Board were happy with the limitation. In a letter to the chairman of the Senate Banking Committee, Under Secretary of the Treasury T.J. Coolidge questioned whether "in times of emergency it might not be important to permit a direct loan. This might have been the case in the bank holiday in 1933 had there been a sizeable note issue coming due when the banks were closed; it might be the case in time of war." [15] Nevertheless, a House-Senate conference committee retained the proviso and the limitation passed into law.[16]

The legislative history of the Banking Act does not reveal why Congress chose to prohibit direct purchases. The sole reference to the prohibition came during the testimony of Winthrop Aldrich, chairman of the Chase National Bank in New York, before the Senate Banking Committee. Aldrich decried the prospective power of the soon-to-be revamped Federal Open Market Committee to compel the Reserve Banks to purchase securities directly from the Treasury:

> The machinery … provided in the bill corresponds closely with the machinery utilized at the time of the German inflation and the French inflation with most serious consequences to business life and the welfare of the people. In each case the central bank bought bills directly from the Treasury, thereby providing funds as and when desired.[17]

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[14] See Committee on Banking and Currency (July 2, 1935, p. 13).

[15] Letter from T.J. Coolidge to Carter Glass, July 30, 1935, Box 46D, Carter Glass papers at the University of Virginia. See also letter from Marriner Eccles, Chairman of the Board of Governors of the Federal Reserve System to Allan Sproul, president of the Federal Reserve Bank of New York, April 1, 1947, stating that "the Board did not want" the limitation.

[16] Committee of Conference (1935, pp. 50-51).

[17] Committee on Banking and Currency (April 19 to June 3, 1935, p. 403).

He recommended that "the direct purchase of Government obligations from the Treasury ... be specifically declared not to be open-market operations within the meaning of the act." [18]

During and shortly after World War II, Marriner Eccles, the chairman of the Federal Reserve Board from November 1934 to January 1948, recalled what he understood had been the reason for prohibiting direct purchases:

> The restriction … was imposed ... on the theory that forcing the Government to borrow on the open market would afford a check on excessive public expenditures ...[19]
>
> Those who inserted this proviso were motivated by the mistaken theory that it would help to prevent deficit financing. According to the theory, Government borrowing should be subject to the "test of the market." [20]
>
> [T]here was a feeling that [the absence of a prohibition] left the door wide open to the Government to borrow directly from the Federal Reserve all that was necessary to finance the Government deficit, and that took off any restraint toward getting a balanced budget.[21]
>
> There was some feeling that [Congress] ought to give the money market more control and influence over what money the Government was going to be able to raise, and that if they stopped the open-market committee from purchasing directly from the Treasury they would thereby deter deficit financing.[22]

Aldrich's warning and Eccles's recollections are hardly dispositive, but they suggest that Congress was primarily concerned with foreclosing the availability of "new money" unmediated by the market.

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18 Committee on Banking and Currency (April 19 to June 3, 1935, p. 409).

19 Committee on the Judiciary (January 30 and February 2, 1942, pp. 44-45).

20 Committee on Banking and Currency (March 3, 4, and 5, 1947, p. 2).

21 Committee on Banking and Currency (March 3, 4, and 5, 1947, p. 8).

22 Committee on Banking and Currency (March 3, 4, and 5, 1947, p. 121).

The Initial Response of the Federal Open Market Committee

Following passage of the Banking Act of 1935, the Federal Open Market Committee directed the Federal Reserve Bank of New York, when acting on behalf of the System Open Market Account, to discontinue its participation in exchange offerings of coupon-bearing debt and to either sell soon-to-mature securities in the secondary market and replace them with other issues not close to maturity or purchase such longer-term issues for forward settlement on the maturity date of a soon-to-mature issue.[23] Both strategies avoided the risk of fluctuations in bank reserves that might occur if the Fed waited until redemption to reinvest and then found the market was not liquid enough to complete the reinvestment program expeditiously.

Renewed System Participation in Exchange Offerings of Coupon-Bearing Debt

By the beginning of 1937, Committee members had become distinctly unhappy with the cost of abstaining from exchange offerings. They noted, in particular, some $25,000 in commission expenses paid in 1936 to complete the secondary market transactions undertaken in lieu of direct exchanges.[24]

When asked by the Committee "whether it would be possible to make direct exchanges with the Treasury of maturing securities for new issues," the Assistant General Counsel to the Committee, J.P. Dreibelbis, opined that, in light of the legislative history of the amendment to section 14(b), direct exchanges could, in fact, be effected if they were undertaken on terms specified in Treasury circulars, i.e., on terms available to the general public.[25] At least with respect to coupon-bearing securities, the opinion restored the Fed's ability to reinvest the proceeds of maturing securities efficiently. At its January 1937 meeting the Committee directed the Federal Reserve Bank of New York to "exchange directly with the Treasury Department

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[23] Minutes of the Federal Open Market Committee, December 17-18, 1935, p. 10, February 26, 1936, p. 1, November 19, 1936, p. 3, and January 26, 1937, p. 11.

[24] Minutes of the Federal Open Market Committee, January 26, 1937, p. 11.

[25] Minutes of the Federal Open Market Committee, January 26, 1937, p. 11.

maturing securities held in the [System Open Market Account] for securities of an issue being offered to the public under terms which permit the tender of the maturing securities in exchange." [26]

System Participation in Cash Auction Offerings of Treasury Bills

The 1937 FOMC directive did not address Federal Reserve participation in cash auction offerings of bills, even when the Open Market Account held bills maturing on the issue date of the new bills, because Treasury offering circulars did not provide for the direct exchange of maturing bills for new bills. An investor who was awarded new bills had to pay cash for the bills, even if it held maturing bills and received a cash redemption payment on the same day. This was not a significant problem for the Open Market Account in early 1937 because the Account held only $625 million of bills that were issued, at that time, on a regular and predictable basis with a 39-week maturity.[27] Reinvesting the proceeds of maturing bills required secondary market purchases of only about $16 million of new bills every week.

Treasury and Federal Reserve policy decisions on financing United States participation in World War II led to a huge increase in the quantity of bills held in the Open Market Account. Bill yields were capped at ⅜ percent, 1-year certificates at ⅞ percent, 10-year bonds at 2 percent, and long-term bonds at 2½ percent. Investors soon realized that bonds yielding 2½ percent were not going to fall in price and were, therefore, a much better buy than bills yielding ⅜ percent. As a result, the Fed had to purchase, in secondary market transactions, virtually all of the bills issued by the Treasury during the war and in the first few years after the war.[28]

By the beginning of 1947 the Open Market Account owned $16 billion of bills, now issued on a regular and predictable basis with a 13-week maturity, so the Fed had to purchase

[26] Minutes of the Federal Open Market Committee, January 26, 1937, p. 12.

[27] Board of Governors of the Federal Reserve System (1943, p. 343) and Garbade (2012, Figure 19.9 on p. 299).

[28] See Garbade (forthcoming, chapter 2).

about $1.2 billion of bills in the secondary market every week.[29] Since total bills outstanding amounted to $17 billion,[30] the Fed was buying about 90 percent of the Treasury's weekly offerings of about $1.3 billion of bills from dealers who received auction awards. To simplify its task, the Open Market Trading Desk entered into an agreement with its primary dealers whereby the dealers agreed to tender for at least the amount of bills offered by the Treasury and the Desk agreed to buy from the dealers whatever they were unable to sell.[31]

In an effort to further simplify the Fed's bill operations, in April 1947 the Treasury provided that payment for new bills could be made with an equal face amount of bills maturing on the issue date of the new bills (the discount on the new bills to be refunded in cash) as well as with cash.[32] The new payment option allowed the System Open Market Account to participate in bill auctions up to the amount of maturing bills that it held. (The Account could not bid for bills in excess of that amount, because any excess would constitute "new money.") The Account still had to bid in bill auctions, and it might end up reinvesting less than it would like – if it bid below the stop-out price it would get nothing, and if it bid at the stop-out price it would be subject to *pro-rata* rationing – but reinvesting the proceeds from maturing bills was certainly simpler after the change.

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[29] Board of Governors of the Federal Reserve System (1976, p. 485). Treasury switched to offering 13-week bills on a regular and predictable basis in late 1937. Garbade (2012, pp. 298-302).

[30] Board of Governors of the Federal Reserve System (1976, p. 869).

[31] Minutes of the Executive Committee of the Federal Open Market Committee, February 29, 1944, p. 2.

[32] See Federal Reserve Bank of New York Circular no. 3207, April 25, 1947, and compare the payment provision for the April 18, 1947, bill offering (Federal Reserve Bank of New York Circular no. 3204, April 18, 1947) with the payment provision for the April 25, 1947, offering (Federal Reserve Bank of New York Circular no. 3206, April 25, 1947).

The Advent of Fixed-Price Cash Refinancings of Coupon-Bearing Debt

The 1937 decision to effect exchanges of coupon-bearing debt directly with the Treasury, coupled with the 1947 change in bill auction settlements, allowed the Fed to do most of what it had been doing before 1935 consistent with the intent of Congress that it should not provide private financing to the Treasury.[33] Federal Reserve participation in public Treasury offerings remained unchanged for more than a decade as the Open Market Account regularly bid for 13-week bills when it wanted to reinvest the proceeds of maturing bills and participated in fixed-price exchange offerings when it wanted to reinvest the proceeds of maturing coupon-bearing debt.

Following a disastrous pair of exchange offerings in the summer of 1958,[34] Treasury officials began to contemplate the possibility of refinancing maturing certificates, notes, and bonds with fixed-price cash (instead of exchange) offerings. In particular, they wanted to expand public access to refinancing operations, to include investors other than those who happened to own maturing debt.[35]

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[33] The exception was short-term cash management loans that, since World War I, the Reserve Banks had made directly to the Treasury from time to time to bridge temporary cash flow shortfalls. See Hollander (1919, pp. 25-26), Hendricks (1933, pp. 271-272), 1918 Treasury Annual Report, pp. 24-27, 1919 Treasury Annual Report, pp. 55 and 260, 1917 Federal Reserve Board Annual Report, p. 265, 1917 Federal Reserve Bank of New York Annual Report, p. 60, 1918 Federal Reserve Bank of New York Annual Report, p. 13, 1919 Federal Reserve Bank of New York, pp. 16 and 65, 1920 Federal Reserve Bank of New York Annual Report, pp. 31 and 76-77, 1921 Federal Reserve Bank of New York, p. 22, 1922 Federal Reserve Bank of New York, p. 24, and 1923 Federal Reserve Bank of New York, pp. 23-24. Aldrich specifically excluded such loans from his critique of direct lending. Committee on Banking and Currency (April 19 to June 3, 1935, p. 403). Cash management loans were allowed under a limited wartime exemption in 1942 that was renewed from time to time and ultimately allowed to expire in 1981. See Garbade (2014).

[34] See Garbade (forthcoming, chapters 15 and 16).

[35] Market turmoil in the summer of 1958 led to a wide variety of changes in Treasury debt management. In addition to cash refinancings, officials introduced 26-week and 1-year bills to further regularize offerings of short-term securities and they began to develop advance refundings as a more flexible way to issue long-term debt. See Garbade (forthcoming, chapter2 16 and 20).

The prospective introduction of fixed-price cash refinancings posed a potential problem for Federal Reserve officials because the FOMC had limited direct dealings with the Treasury to security-for-security exchanges on terms that were available to the general public. Treasury could have provided that investors (including the Open Market Account) could settle awards of new coupon-bearing securities with maturing securities on a par-for-par basis as well as with cash, as was the case with Treasury bills, but that would have left the Account exposed to the risk of *pro-rata* rationing and receiving unwanted redemption payments that would at least temporarily drain reserves from the banking system. (*Pro-rata* rationing in bill auctions was not an important problem for the Fed because it was limited to bids at what turned out to be the stop-out price in an auction. Tenders in excess of the stop-out price were filled in full.) The Fed wanted to be able to reinvest, with certainty, 100 percent of its maturing coupon-bearing debt. Arriving at a mutually satisfactory *modus vivendi* took the better part of a decade.

Identifying a "Specially Designated" Class of Buyers

Treasury officials initially suggested two ways for the Open Market Account to participate in fixed-price cash refinancings of coupon-bearing debt.[36] Under "Alternative A," in a refinancing of, say, $5 billion of securities, of which the Account held $3 billion and the general public $2 billion, officials would offer to the public $2 billion of new securities with a specified maturity and coupon rate for cash settlement at par, and they would separately offer $3 billion of the same securities to the Open Market Account on a direct exchange basis. Awards to public subscribers would be subject to *pro-rata* rationing; the subscription of the Open Market Account would be filled in full. Under "Alternative B" the Treasury would make the same offers to the public and the Account, but would allow members of the public to tender maturing securities as well as cash, with the stipulation that it would fill in full all such subscriptions.

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[36] Minutes of the Federal Open Market Committee, October 21, 1958, pp. 4-6.

Howard Hackley, the General Counsel to the FOMC, opined that the Open Market Account could participate in either type of offering, reasoning that both alternatives met "the test of the open market." [37] However, both alternatives had drawbacks.

Alternative B gave a preference to public investors seeking to reinvest maturing securities and was therefore unappealing to the Treasury. Alternative A, on the other hand, would treat the Open Market Account differently than other subscribers. The difference discomforted some FOMC members. Carl Allen, president of the Federal Reserve Bank of Cleveland, thought that Reserve Banks "should be treated and should seek to be treated exactly like any other purchaser." [38] In the event, the Committee decided that it would be "unwise" for the Treasury to proceed with Alternative A.[39]

The problem of facilitating Federal Reserve participation in fixed-price cash refinancings was resolved when Treasury proposed a third alternative: it would make a single conventional fixed-price offering to the general public and the Fed, allowing payment in either cash or maturing securities, but it would guarantee full allotments only for members of a specially designated class, including state and local governments, foreign governments, international institutions, public pension funds, and the System Open Market Account.[40] All other participants would be subject to *pro-rata* rationing, regardless of whether they paid with cash or maturing

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[37] Minutes of the Federal Open Market Committee, October 21, 1958, pp. 5-6.

[38] Minutes of the Federal Open Market Committee, October 21, p. 7. Similarly, William Treiber, First Vice President of the Federal Reserve Bank of New York, felt "there was a question of policy as to whether the Federal Reserve should concur in a proposal calling for special treatment for the Reserve Banks as compared with other holders of the same maturing securities."

[39] Minutes of the Federal Open Market Committee, October 21, pp. 12-13. "Special treatment" of Federal Reserve subscriptions was not an issue in the 1937 decision to allow Federal Reserve participation in exchange offerings, and was not an issue in the 1947 change in bill auction settlements, exactly because the Fed did not, in either case, receive any special treatment.

[40] Minutes of the Federal Open Market Committee, May 3, 1960, pp. 46-49.

securities. The specially designated class of subscribers was small enough to satisfy the Treasury's desire to expand public access to refinancings but large enough that the Federal Reserve was not a conspicuous exception. In a letter to Under Secretary of the Treasury Julian Baird, William McChesney Martin, the chairman of the Board of Governors since April 1951, stated that "since it is contemplated that a substantial group of other investors would be eligible to refund on the same basis as the Federal Reserve Banks, the objection to [Alternative A] … would not seem to apply." [41]

The first fixed-price cash refinancing came in August 1960, when the Treasury offered \$7¾ billion of 3⅛ percent 11½-month certificates at par, for payment in cash or maturing securities. The offering statement provided that "all subscriptions from States, political subdivisions or instrumentalities thereof, public ... funds, international organizations in which the United States holds membership, foreign central banks and foreign States, Government Investment Accounts, and the Federal Reserve Banks, will be allotted in full." [42] All other subscribers would be subject to *pro rata* rationing.

Treasury received \$6.3 billion of tenders from specially-designated subscribers and \$11.1 billion of tenders from other market participants. The former were filled in full; the latter received 13 percent of the amount subscribed.[43]

The new method for refinancing coupon-bearing debt was not popular with holders of the debt that was being refinanced and that, in previous years, would have been eligible to exchange their maturing debt for new debt on a par-for-par basis. Robert Rouse, the manager of the Open Market Account observed that,

> There were a good number of complaints from large corporations and other investors who held the maturing issue and who were unable to continue their

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[41] Minutes of the Federal Open Market Committee, May 3, 1960, p. 49.

[42] Federal Reserve Bank of New York Circular no. 4919, August 1, 1960. See also Federal Reserve Bank of New York Circular no. 4921, August 5, 1960.

[43] Federal Reserve Bank of New York, Circular no. 4926, August 12, 1960.

> investment as they desired. The Treasury has received quite a number of objecting letters … A number of these complaints have to do with the 100 per cent allotment to the Federal Reserve System and to foreign central banks and foreign governments.[44]

The fundamental problem with giving an allotment preference to the reinvestment demands of some, but not all, subscribers was that less-favored subscribers did not know how much of an offering would be available. The matter was important because, *ceteris paribus*, the market price of a new security was likely to be lower the larger the amount they would be called upon to purchase. This was especially important for dealers, who purchased with a view to distribution rather than as a long-term investment. The push-back from less-favored subscribers led the Treasury first to limit the preference available to specially designated parties, then to accommodate Federal Reserve reinvestment requirements with additions to the publicly offered amount of a new security (rather than out of the publicly offered amount), and finally to eliminate the preference available to specially designated parties other than the Federal Reserve. The successive modifications leveled the playing field for investors other than the Fed but did not affect the Fed's ability to reinvest the proceeds from its maturing securities.

Limiting the Preference Available to Specially Designated Parties Other than the Federal Reserve

Treasury officials took the first step in limiting allotment preferences for specially designated parties in a November 1963 refunding. The refunding provided that such preferences would be available only to specially designated parties reinvesting the proceeds of maturing debt; allotment preferences would not be available to specially designated parties who wanted to pay cash. A specially designated subscriber seeking an allotment preference had to submit a "written certification … that the amount of the subscription does not exceed the amount of the [maturing]

[44] Minutes of the Federal Open Market Committee, August 16, 1960, p. 4.

securities owned or contracted for purchase … at 4 p.m." on the day the offering was announced.[45]

Accommodating Federal Reserve Reinvestment Requirements with "Add-Ons"

In 1968 the Treasury further revised the terms of its fixed-price cash refinancings by providing that Federal Reserve reinvestments would be accommodated with "add-ons" to the amount publicly offered. The revision sharply reduced the volume of specially designated subscriptions that had to be accommodated out of the publicly offered amount, thus making the amount available to less-favored investors more predictable.

In an August 1968 refunding, Treasury wanted to refinance $8.6 billion of securities maturing on August 15 and to raise new money. It offered $5.1 billion of 6-year notes to market participants other than the Federal Reserve and concurrently announced that it would accommodate, with additional securities, the Fed's decision to reinvest up to $5 billion of maturing securities held in the Open Market Account.[46] The Treasury received $28.4 billion of subscriptions for the new notes and sold a total of $10.3 billion. Investors other than the Federal Reserve received $5.5 billion, $122 million of which went to specially designated subscribers whose subscriptions were filled in full. The Open Market Account reinvested $4.8 billion of its maturing notes.[47]

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[45] Federal Reserve Bank of New York Circular no. 5406 and Circular no. 5407, October 23, 1963, and Circular no. 5411, October 31, 1963.

[46] Federal Reserve Bank of New York Circular no. 6194, July 31, 1968, and Circular no. 6196, August 2, 1968.

[47] Federal Reserve Bank of New York Circular no. 6199, August 7, 1968, and Circular no. 6202, August 15, 1968.

The End of Preferential Allotments for Specially Designated Parties Other than the Federal Reserve

In the spring of 1970 Treasury officials eliminated the preferential treatment of specially designated subscribers other than the Federal Reserve while continuing to accommodate Federal Reserve reinvestment requirements. Members of the FOMC did not express concern that the now unique accommodation of the Fed's requirements might expose the System to criticism.

In a May 1970 refunding, Treasury offered $3.5 billion of 18-month notes to the general public. Investors could pay for their awards with cash or notes maturing on May 15, but no subscriber was eligible to receive preferential treatment. Concurrently, Treasury announced that it would accommodate whatever the Reserve Banks wanted to reinvest from their $11.7 billion of maturing notes.[48] The Treasury sold $3.7 billion of the new notes to the general public and exchanged $7.0 billion of notes with the Open Market Account.[49]

The Introduction of Auction Offerings of Coupon-Bearing Debt

Shortly after the announcement of the terms of the May 1970 refunding, President Richard Nixon disclosed that U.S. troops had crossed over from South Viet Nam into Cambodia in a large-scale operation aimed at eliminating Communist sanctuaries.[50] Anti-war protests broke out at dozens of colleges, four students were killed by National Guard troops at Kent State University in Ohio, and (in the words of the *Wall Street Journal*) "the bond markets were battered." [51] Treasury yields rose 25 basis points. The refunding would have failed but for Federal Reserve purchases of $1.5 billion of bills and the execution of $1.2 billion of repurchase

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48 Federal Reserve Bank of New York Circular no. 6531, April 29, 1970, and Circular no. 6533, May 1, 1970.

49 Federal Reserve Bank of New York Circular no. 6548, May 22, 1970.

50 "Nixon Sends Combat Forces to Cambodia to Drive Communists from Staging Zone," *New York Times*, May 1, 1970, p. 1.

51 "Prices Take Battering from the Shockwaves of Cambodian Invasion," *Wall Street Journal*, May 5, 1970, p. 31.

agreements.[52] Treasury officials decided to abandon fixed-price offerings of coupon-bearing debt in favor of an auction process.[53]

The first Federal Reserve participation in an auction of coupon-bearing debt came in the November 1971 mid-quarter refunding. Treasury offered $2¾ billion of 4⅞ percent 15-month notes to the general public and provided that additional notes would be issued to the Fed. Since the offering was by auction rather than at a fixed price, the Treasury further provided that securities sold to the Fed would be invoiced at the average accepted auction price.[54] The Fed tendered $1.5 billion of maturing securities in exchange for the new notes and received the difference between the par value of the maturing securities and the average accepted auction price of the new notes, 99.96 percent of principal, in cash.[55]

Convergence

After February 1973, the Treasury regularly sold both bills and coupon-bearing securities in competitive auctions. There were, however, several significant differences between the Fed's participation in bill auctions and its participation in note and bond auctions.

In a bill auction the Open Market Account had to bid for what it wanted (although it could not bid for more than what was maturing in the Account). If it bid below what turned out to be the stop-out price it did not receive any bills. If it bid at the stop it was subject to *pro rata* rationing. The Reserve Banks were accommodated out of the total amount offered, rather than with an add-on.

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[52] 1970 Annual Report of Open Market Operations, pp. A-15 to A-16.

[53] See Garbade (forthcoming, chapter 28).

[54] Federal Reserve Bank of New York Circular no. 6831, November 4, 1971, and Circular no. 6832, November 5, 1971.

[55] Federal Reserve Bank of New York, Circular no. 6835, November 10, 1971.

Federal Reserve participation in note and bond auctions was tidier. The Open Market Account simply indicated what it wanted (although, again, it could not purchase more than what was maturing in the Account); allotments were in addition to the amount publicly offered.

In view of the greater ease of reinvesting maturing coupon-bearing issues and the absence of uncertainty related to the displacement of public investors by the Fed, it is not surprising that the FOMC and the Treasury ultimately agreed to extend the terms of participation in coupon auctions to bill auctions. Treasury began invoicing System reinvestments in bills at the average accepted auction price in April 1974,[56] and began accommodating System requirements out of add-ons, rather than from what was publicly offered, in March 1997.[57]

Summary

The 1913 Federal Reserve Act focused on the prospective role of the Reserve Banks in buffering seasonal fluctuations in demand for currency and short-term bank loans (and hence bank reserves) with discount window loans on real bills. Congress did not feel any need to limit Bank activity in the small and illiquid market for Treasury securities.

The volume of Treasury debt sold to finance U.S. participation in World War I changed all that. The development of a liquid market in Treasury debt, and the relatively slow pay-down of that debt during the 1920s, facilitated the development of a pro-active reserves management policy. The new policy required the reinvestment of the proceeds of maturing securities to avoid contracting the quantity of reserves available to the banking system.

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56 "Treasury to Let Fed Swap Maturing Bills for New Ones at their Average Sale Price," *Wall Street Journal*, April 24, 1974, p. 32. Compare also the offering announcement for the bills auctioned on Monday, April 29, 1974 (Federal Reserve Bank of New York Circular no. 7379, April 24, 1979) with the announcement for the bills auctioned on April 22, 1974 (Federal Reserve Bank of New York Circular no. 7377, April 16, 1974). The change to the average accepted auction price was discussed at length by the FOMC. See minutes of the Federal Open Market Committee, March 18-19, 1974, pp. 31-40, and April 15-16, 1974, pp. 4-8.

57 "Treasury Announces Bill Auction Change," Treasury press release, March 18, 1997.

Congressional concern with the prospective consequences of the 1935 shift in the center of power within the System from New York to Washington led Congress to restrict the ability of the System to purchase securities directly from the Treasury. The limitation was initially applied to exchanges for new debt as well as to cash purchases, but was soon interpreted as applying only to the latter.

By 1947 the System had recovered its ability to reinvest maturing Treasury debt efficiently. Recovery did not require modification of Treasury's existing primary market offering processes, other than to allow the tender of maturing bills in exchange for new bills, and did not require special treatment of the Reserve Banks.

Two changes in Treasury debt management, one in 1960 and the other in 1970, precipitated change in how the Fed's reinvestment requirements were accommodated. The introduction of fixed-price cash refinancings of coupon-bearing debt led to accommodating the Fed with add-ons to the amount offered to the general public. The introduction of auction sales of coupon-bearing securities led to invoicing System purchases at a price determined by the general public. Both changes were subsequently extended to bill offerings. At the end of the twentieth century the System was regularly satisfying its reinvestment requirements as a passive participant in public offerings of Treasury debt.

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