

CONFIDENTIAL (FR)  
CLASS II - FOMC

September 11, 1979

TO: Federal Open Market Committee  
FROM: Peter D. Sternlight (PDS)  
SUBJECT: Questions on Market Value and Average Maturity of System Portfolio

The attached memorandum by Fred Levin provides comments on questions raised by Governor Wallich at the August 14 meeting of the Federal Open Market Committee. The first question concerned the effects of marking to market value for the System portfolio. As would be expected in a period of rising interest rates, such a calculation would show a considerable decline in value for the last couple of years. While the Manager's annual reports to the Committee have reported regularly on these changes in market value, I would like to point out that calculations of this kind, if given wide publicity, could mislead more than they enlighten. The System's portfolio, I believe, is more appropriately regarded as an "investment account" than a "trading account"; thus publication of a mark-to-market valuation change is no more appropriate for the System's portfolio of securities than it is for commercial bank investment portfolio accounts. Indeed, such publication may be considered even less appropriate for the Fed than for commercial banks, since I would not think of our portfolio as a basket of assets that we must go out and finance, in part through borrowed funds, as might be said of a commercial bank portfolio.

The second question raised by Governor Wallich, and commented upon in the attached memo, concerns the average maturity of the System portfolio. The Account Management has been aware that the average maturity has increased substantially in recent

years, as we have sought to provide a portion of long-term reserve needs through coupon purchases of varying maturities, and as the Treasury has populated the longer maturity area with more numerous and larger issues. In part, too, the lengthening has reflected the relatively limited availability of bills in periods when the U.S. payments deficit was large and foreign central banks were major investors in bills.

I believe our purchases of longer Treasury issues have helped improve liquidity in the longer market. Thus even though, as pointed out in the attached memo, it could be said in an "other things equal" sense that Fed purchases of longer issues in the market tend to shorten the maturity of privately held Treasury debt, those purchases in a broader sense have facilitated Treasury issuance of longer securities and hence contributed to a lengthening of average Treasury debt outstanding.

At the same time, we have been a little concerned in the past year or so with the more rapid increase in the average maturity of System holdings compared with the overall average maturity of Treasury debt. Accordingly, in recent Treasury quarterly financings we have distributed our choice among new issues with relatively greater emphasis on the shorter options as compared with the intermediate and longer options. And in our market purchases of coupon issues, we have likewise sought to emphasize the shorter maturities a bit more than in the past. As indicated in Table 2 of Mr. Levin's memorandum, the average maturity of System holdings of Treasury issues increased by only two months in the first half of 1979--the same increase as that

in the average maturity of total marketable Treasury debt outstanding. In the months ahead, while we should continue to keep contact with the Treasury coupon market, we think it would probably be appropriate if the average maturity of our portfolio rose by a little less than the average maturity of all Treasury debt, at least until our average maturity was no longer than the average for all holders. We will, of course, be guided by Committee preferences on this matter.

Attachment

FEDERAL RESERVE BANK  
OF NEW YORK

**OFFICE CORRESPONDENCE**

**DATE** September 11, 1979

**TO** Mr. Sternlight  
**FROM** Fred J. Levin

**SUBJECT:** Response to Questions Raised  
at the August FOMC Meeting Regarding  
the System's Securities Portfolio

Governor Wallich posed two questions at the August FOMC meeting regarding the System's securities portfolio. First, in connection with the report of examination of the System Open Market Account, he asked whether there was an accounting of unrealized gains and losses sustained in conducting domestic open market operations similar to that currently provided for operations conducted in the foreign exchange markets. The Board examiners replied that such a calculation had not been made. Second, following the observation that the average maturity of System holdings of Treasury securities has grown rapidly in recent years, he asked what impact this has had on the maturity of the Treasury's outstanding debt. Mr. Sternlight replied that the effect would depend on how the debt was measured--i.e. as total or privately held debt. In any case, however, the potential impact would be small. The purpose of this memorandum is to provide some recent figures on unrealized gains and losses sustained on System holdings of Treasury coupon and Federal Agency securities and to expand upon Mr. Sternlight's remarks on the implications of changes in the System's securities portfolio for the maturity of the Treasury's debt.

Unrealized Gains and Losses on System Holdings of Treasury  
Coupon and Federal Agency Securities.

The accounting records of the securities portfolio of the Open Market Account are maintained on a regular basis in terms of both par and book value. (The latter reflects the original purchase price of securities adjusted for accrual of discount or amortization of premium from par.) At the end of each year, holdings of Treasury notes and bonds and Federal agency securities are also valued at prevailing market prices. The difference between market and book value of these holdings provides a measure of the unrealized appreciation (or depreciation) in their value since the securities were purchased. The change in this difference from the end of one year to the next provides a measure of the unrealized capital gain (or loss) on these securities incurred in that year.<sup>1/</sup>

There are no comparable figures readily available for System holdings of Treasury bills, although these could be constructed from available records. Given the short maturity of bills, capital gains or losses on the System's bill portfolio would be relatively small.

Table 1 shows the unrealized gains and losses on System holdings of Treasury notes and bonds and Federal agency securities over recent years. The pattern largely reflects the movement in interest rates over the period, although it has also

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<sup>1/</sup> These data are provided regularly in the statistical summary of the Manager's annual reports prepared for the Federal Open Market Committee.

Table 1

Net Appreciation or Depreciation of  
System Open Market Account Holdings  
of Treasury Notes and Bonds and  
Federal Agency Securities  
(Thousands of \$)

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<u>End of Year</u>	<u>Market Value</u>	<u>Book Value</u>	<u>Cumulative Appreciation (Depreciation)</u>	<u>Appreciation (Depreciation) From Previous Year</u>
1973	\$42,596,564	\$43,326,352	\$ (729,788)	\$ (749,562)
1974	47,388,960	47,795,404	(406,444)	323,344
1975	55,443,028	55,363,069	79,959	486,403
1976	63,750,664	61,385,631	2,365,033	2,285,074
1977	66,852,521	67,284,037	(431,516)	(2,796,549)
1978	71,533,384	74,998,028	(3,464,644)	(3,033,128)

been influenced by the lengthening of maturity in the System's securities holdings. In 1977 and 1978, for example, the System sustained sizable losses (about \$2.8 and \$3 billion, respectively) as market rates rose sharply.

The Maturity of the System's Securities Portfolio and the Maturity of the Treasury's Outstanding Debt.

The average maturity of Federal Reserve Bank holdings of Treasury securities has risen significantly in recent years, as the System has taken on coupon issues with longer maturities while also increasing its holdings of coupon issues relative to bills. Part of the System's increased emphasis on longer term securities reflects the greater availability of coupon issues in the market as the Treasury, beginning in the mid-1970s, sought to lengthen the maturity of its outstanding debt. However, the lengthening in the maturity of the System's securities portfolio began earlier in the 1970s, before the start of the Treasury's debt-lengthening program, and has continued in recent years at a faster pace than increases in the average maturity of the total Treasury debt.

For example, at the end of 1972 Treasury securities held by the Federal Reserve had an average maturity of 23 months, as compared to an average of 37 months for all Treasury marketable debt outstanding, including securities held by the Reserve Banks, private investors and Government accounts (see Table 2). By the end of 1977, the average maturity of the System's Treasury holdings had increased to 38 months, just equal to the average maturity of the total debt. Since then the System's average maturity has

Table 2

Amount and Average Length of Marketable  
Interest-Bearing Public Debt by Class of Investors

<u>End of Month</u>	<u>Total</u>		<u>Held by Federal Reserve Banks</u>		<u>Held by Government Accounts</u>		<u>Held by Private Investors</u>	
	<u>Outstanding (millions of \$)</u>	<u>Maturity (months)</u>	<u>Outstanding (millions of \$)</u>	<u>Maturity (months)</u>	<u>Outstanding (millions of \$)</u>	<u>Maturity (months)</u>	<u>Outstanding (millions of \$)</u>	<u>Maturity (months)</u>
Dec. 1972	\$269,509	37	\$69,906	23	\$19,360	97	\$180,243	36
Dec. 1973	270,224	36	78,516	23	20,962	96	170,746	35
Dec. 1974	282,891	35	80,501	25	21,391	101	180,999	33
Dec. 1975	363,191	33	87,934	31	19,397	101	255,860	29
Dec. 1976	421,276	36	96,971	33	16,485	104	307,820	33
Dec. 1977	459,927	38	101,191	38	14,420	110	344,315	35
Dec. 1978	487,546	44	109,616	48	12,694	120	365,235	40
June 1979	499,343	46	109,241	50	12,452	116	377,650	42



moved somewhat above the average for the total--as of June 1979 it was 50 months for the System's holdings, compared to 46 months for the total debt.

The potential impact of changes in the System's securities portfolio on the maturity of the Treasury's outstanding debt depends on several factors, most important of which is how the debt is measured. In this context, it is most common to refer to the privately-held debt--that is, excluding holdings of the Federal Reserve Banks and Government accounts. (Indeed, this is how the maturity figures are provided in the Treasury Bulletin.) On this definition, the rise in the average maturity of the System's Treasury securities holdings could be said in an arithmetic or mechanical sense to have shortened the average maturity of outstanding (privately-held) debt from what it otherwise would have been. The magnitude of the impact would depend on the time period considered, and what assumptions are made regarding Treasury issuance. If, for example, the average maturity of Federal Reserve holdings of Treasury securities had grown over the December 1972 - June 1979 period at the same rate as the average maturity of total Treasury securities outstanding<sup>2/</sup> and the composition of Treasury issuance was unaffected, the average maturity of the privately-held debt at the end of June 1979 would have been about 6 months higher than its actual level

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<sup>2/</sup> That is, assuming the December 1972 ratio of 23 months to 37 months for the average maturity of System holdings and of the total debt outstanding was maintained over the period. This would result in an average maturity for the System's Treasury portfolio at the end of June 1979 of about 29 months, instead of its actual level of 50 months.

of 42 months. Starting with a later base period, say December 1977, and making the same assumptions, the potential impact on the average maturity of privately-held debt in June 1979 would be modest--in this case about 1 month.

However, there is some reason for believing that these examples at least overstate the effects and may even be misleading as to the direction of impact. Presumably, the System's purchases of Treasury coupon issues provided some support to the long-term sector. Had the System not been a buyer of intermediate and longer issue maturities, the liquidity of that market might have been significantly less, and yields somewhat higher than they actually were. In those circumstances, the Treasury might not have lengthened its debt as much as it did.

FJL:PDS/lc