## TREASURY FINANCING

(This memorandum has been prepared at Chairman Eccles' request, and in view of its important bearing on the Board's problems, he has asked me to furnish a copy to each of the Governors.
E. A. G.)

To:
From: L. N. Piser

December 1, 1936
Subject: Treasury financins

Surnary.-- It is believed that about $\$ 400,000,000$ of cash should be raised between December and March. Instead of inclucing this in the December finencinc, it would be preferable to raise the cash by the sale of bills, of which $\$ 200,000,000$ would mature on March 16, $\$ 100,000,000$ on March 17, and $\$ 100,000,000$ on March 18. These meturities would maintain greater stability in the money market. They would also give more flexibility to the financine, since the issues could either be refunded or repaid, dependins on the cash position of the Treasury on March 15.

It is sugcested that the amount of securities issued on December 15 provide for refundine of the December and Februaiy note maturities and the December 15 hill maturities, a total of $\$ 1,200,000,000$. This could be handled entirely by a new bond issue.

It is not recomended that holders of the maturing notes be given a choice of refunding into notes as well as into the new bond issue, because the demand for notes would probably be neglisible; this is indicated by the experience in the March and June financing and by the probability that, since the market is not expectine notes, holders of maturing issues may already have largely completed arrangements for exchanging them in the market for other notes or medium-term bonds already outstanding.

It is sugeested that the December financin\% consist of new $25 / 8$ percent Treasury bonds of 1957-1960. On the basis of Monday's closins bid prices this issue would sell at a premium of about $18 / 32$ points.

A $25 / 8$ percent bond is preferred to a $23 / 4$ percent bond, since even a 30-year bond with the latter coupon would probably sell at over 102. It is preferred to a $21 / 2$ percent bond, partly because maturities are already fairly large for the period where a $21 / 2$ percent bond might be sold. Furthemore, unless the market continues to advance, it might later be necessary to issue a $25 / 8$ percent bond. It mould seen more orderly to use the $25 / 8$ percent coupon before instead of after the $21 / 2$ percent coupon.

It is suegested that the remaining Systen Account maturities be replaced by new bonds.

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Treasury requirements.-- The following table summarizes Treasury cash requirements from November 1, 1936, to June 30, 1937. (In millions of dollars)


From the table it would appear that if the Treasury does not raise any additional new cash before the end of the fiscal year the working balance at that time will be at a lower level than has recently been customary. In addition, there are a number of uncertainties as regards the accuracy of these figures. Receipts include the expected revenues from a number of new taxes .-. the tax on undistributed earnings, the tax on unjust enrichment, taxes on carriers and their employees, and social security taxes -- which aggregate nearly $\$ 900,000,000$. In addition to the question of the accuracy of the estimates of yield of new taxes, there is the further possibility that collection of the taxes may be withheld by injunction and even that the taxes may be invalidated by Supreme Court decision. There is also the possibility that relief expenditures may exceed the $\$ 500,000,000$ additional amount mentioned in the September budget statement and included in the above figures. For these reasons it would appear that the Treasury should keep a relatively strong cash position until these uncertainties are removed.

Or more importance is the question of the timing of receipts. Most of the large increase in receipts for the current fiscal year will occur on and after March 15. The distribution of Treasury cash requirements by financing periods is estimated as follows: (In millions of dollars)

|  | Cash requirements | Working balance at end of period |
| :---: | :---: | :---: |
| October 31. | -- | 1,290 |
| November 1 to December | 500 | 790 |
| December 15 to March 14 | 500 | 290 |
| March 15 to June 30.. | -350 | 640 |

The working balance will fall to about $\$ 800,000,000$ on December 14 , just prior to the quarterly income tax receipts, and to $\$ 300,000,000$ on March 14, even if collection of new taxes during this period reaches the expected amount. If none of the new taxes should be collected the balance would be practically eliminated by March 14. In view of this situation, it is believed that some new cash should be raised between December and March.

A figure of $\$ 400,000,000$ is suggested. This would bring the total of cash raised during the fiscal year through public debt issues, including U. S. Savings bonds, to $\$ 1,220,000,000$, as compared with the September estimate of $\$ 1,250,000,000$. It would leave the working balance at the end of the year at about $\$ 1,000,000,000$, assuming the new taxes are accurately estimated. It would raise the March 14 working balance to $\$ 700,000,000$, which would probably be sufficient in view of the heavy tax recoipts on March 15. If any additional cash should be needod before the end of the fiscal year because of an overestimate of receipts or an underestimate of expenditures it could be raised by new issues between March and June.

Instead of including the suggested $\$ 400,000,000$ in the December financing, it would be preferable to raise the cash by the sale of bills, of which $\$ 200,000,000$ would mature on March $16, \$ 100,000,000$ on March 17 , and $\$ 100,000,000$ on March 18 . These maturities would meintain greater stability in the money market and would increase the flexibility of Treasury financing. At present there are no maturities on March 15 .

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It is estimated that the unusually large tax collections around that date will result in the payment of about $\$ 500,000,000$ to the Treasury. Unless - there are maturities around that date, excess reserves would decline by $\$ 500,000,000$. Should $\$ 400,000,000$ of bills mature around March 15 , however, this decline in excess reserves would be largely eliminated. Another advantage of issuing bills over issuing longer-term securities is that the bills could be refunded or repaid depending on the cash position of the Treasury on March 15.

It is suggested that the amount of securitios issued on Decomber 15 provide for refunding of the December and February note maturities and the December 15 bill maturities, a total of $\$ 1,200,000,000$. This could be handled entirely by a nev bond issue, Such a program would be well within the magnitude of transactions to which the narket has been accustomed.

It is not recommended that holders of the naturing notes be given a choice of refunding into motes as well as into the ner bond issue. The arguments in favor of such an option are that a large portion of the maturing notes are held by banks and by the System Open Market Account. In viev of the aversion of banks to increasing further their portfolio of long-term Government's and the difficulty of replacing maturitios by purchasing notes in the narket, there would be some advantage to giving holders of the maturing notes the option of refundine into other notes. This might be an aiditional issue of the June 1941 notes at 101. The

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argunents in favor of such an issue appear to be overbalanced, hovever, by a probable negligible demand, baser on experience in the March and June financing. The demand might be even smaller than was the case in these earlier periods, since the market is not expecting notes, and holders of maturing issues may already have largely completed arrangements for exchanging them in the market for other notes or medium-term bonds already outstanding. It would not seen desirable, therefore, to include an additional issue of notes in the new financing.

The Government security market. -- The Govemment security market has been exceptionally strong since the first of November, and the yields on Treasury securities have reached new low levels. As compared with the levels of early November the larest declines in yields have occurred in the medium-term bonds. The yields on Treasury bonds callable in 5 to 10 years are dow on the average about 0.27 percent. Treasury notes are dow about 0.20 percent. Treasury bonds maturing and callable within 5 years and Treasury bonds callable in 10 to 15 years are dowm 0.17 percent, and Treasury bonds callable in more than 15 years are down 0.11 percent.

The buying has been widely cistributed and has incluced commercial banks both in and out of New York, savinss banks, insurance companies, and individuals, Purchases have been largest for commercial banks. As is indicated by the leclne in yields, the largest demand has been for medium-term bonds. Offerings have continued relatively small, particularly for medium-term

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bonds. Holdings of New York City banks have shom irregular movements in connection with switching operations.

Govemment security dealers, after increasing their net position to about $\$ 220,000,000$ at the time of the September financing, reduced their position early this month to $\$ 110,000,000$, the lovest level since August. Nore recently the dealers' position has increased slichtly as they have purchased the "rights", but holdings of "rights" are relatively small for a date as near the financing as the present

In view of the strength of the Government security market, the continued purchases by banks and other investors, and the substantial amount of funds still available for investment, there is no question as to the ability of the market to absorb a longherm Treasury bond, provided, of course, it were attractively priced. Such an issue would aid the Treasury in its future refinancing by the greater spreaing of maturities and the consequent lessening of the refunding problen. The market, although preferrin; a medium-term bond issue, is expecting a lons-term issue.

Financing recommendations.-- It is suggested that the December financing consist of new $25 / 8$ percent Treasury bonds of 1957-1960. A $25 / 8$ percent bond is preferred to a $23 / 4$ percent bond, since even a 30-year bond with the latter coupon rould probably sell at over 102. It is preferred to a $21 / 2$ percent bond, partly bocause maturities are already fairly large for the period where a $21 / 2$ percent bond might be sold. This would be about 1949. There is a steady stream of issues becomins

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callable from 1943 to 1949 and a large amount of maturities from 1945 to 1949. Under such circumstances it would seem desirable to leave this. period open against a time in the future when it may be desirable to sell a short-term issue. For example, it may not be possible to refund $\cdots$ all of the large maturities up to 1949 into long-term securities as they come due and consequently it may be of considerable help to the Treasury to have available an open period around 1949 which could be used for refunding these maturities into short-term issues.

Furthermore, if a $21 / 2$ percent issue were floated on December 15 and the market remained at present levels, it might be necessary in subsequent financing to raise the coupon rate in fillins the open periods of later before years. It would seem more orderly to use the $25 / 8$ percent coupon/instead of after the $21 / 2$ percent coupon. A call period of three years is suggested for the new issue, since that would be accordance with previous practice as regards an issue of this size.

From the yields on outstanding securities based on Monday's closing bid prices, there is calculated in the following table the estimated yield and price on the suggested issue and also on other possible issues. It will be noted that on the basis of the current market an issue callable in 1957 would sell to yield approximately 2.59 percent. If this issue were given a coupon rate of $25 / 8$ percent it would sell at a premium of about 18/32 points.

|  | $\begin{gathered} \text { Estimated } \\ \text { yield } \\ \hline \end{gathered}$ | Coupon rate | Estimated $\qquad$ price |
| :---: | :---: | :---: | :---: |
| Notes maturing December 15 , <br> 1941.................................. | 1.05 | $11 / 4$ | $10031 / 32$ |
| Bonds callable December 15, 1949........ . . . . . . . . . . . . . . . . . . | 2.40 | $21 / 2$ | 101 4/32 |
| 1354. | 2.55 | $25 / 8$ | $1013 / 32$ |
| 1955......................... . . . . | 2.57 | $25 / 8$ | 100 26/32 |
| 1956...... . . . . . . . . . . . . . . . . . | 2.58 | $25 / 8$ | 100 22/32 |
| 1957.............................. | 2.59 | $25 / 8$ | 100 18/32 |
| 1958.... . . . . . . . . . . . . . . . . . . | 2.59 | 2 5/8 | 100 19/32 |
| 1963...... . . . . . . . . . . . . . . . . . | 2.62 | $23 / 4$ | 102. 16/32 |

In calculating the data in the precedins table the coupon rate was place3 so as to give a premium of about $1 / 2$ to $11 / 2$ points. The lower limit is Jetemined by the price on the "rimhts", $1019 / 32$ on the December and February issues. These quotations represent interest payable to December 15 in the amount of $3 / 32$ and $4 / 32$ respectively, plus $16 / 32$ and $15 / 32$, an amount which represents the market valuation of the conversion price. Until the first of November these issues sold at only about $3 / 4$ of a point above a no-yield basis, and the September 1936 notes just before the September financing was announced similarly sold at about that level. It is not necessary to place the price of a new issue at above $3 / 4$ of a point, since some of the recent purchases are probably of a speculative nature. If a new issue should be put out which would sell at a price materially below the level of $3 / 4$ of a point it would unsettle the narket. The lover

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amount in the range, $1 / 2$ of a point, also şives the Treasury a margin of safety for changes in the market between the time of the announcement and the time the books are closed and gives dealers a reasonable profit for in effect underwriting the issue. If an issue were floated at above the upper level, $I$ I/2 points, an exorbitant profit to the market would result.

System Open Market Account. -- There is now held in the System Open Market Account approximately $\$ 74,000,000$ of the notes maturing in December and $\$ 85,000,000$ of the notes maturing in February, which till be refunded in December. If the Treasury should offer a new bond issue in exchange for these notes, it seems likely that the notes should be sold in the market and should be replaced by the new bonds, raising to $\$ 495,000,000$ total holdings of bonds in the Account maturing in more than five years. This is probably the maximum that should be held by the System Account in view of the possibility that the Account may to a considerable extent be liquilated over the next few years. As an indication of the policy of commercial banks concerning the distribution of their holdings of Govermment securities, New York City banks hold about 14 percent of their direct obligations in the form of bonds maturing before 1949 and 17 percent after 1949. These banks hold a smaller proportion of bonds than member banks in any other reserve classification, in view of the fact that they also hold the largest proportion of demand to total deposits, 95 percent.

The System Account should probably hold a smaller proportion of bonds than do New York City banks, since a much larger proportion of the System portfolio is likely to be liquidated in the future. If all of the maturing notes should be exchanced for a new lons-term bond, bonds maturing before December 31, 1949, would represent 7 percent of total holdings in the Account and those maturing after 1949 would represent 15 percent. The figure of $\$ 495,000,000$ suggested above for bonds maturing in more than five years would leave a margin of $\$ 105,000,000$ for possible purchases of Treasury bonds in the market in periods of temporary realmess.

Consideration might also be given to the question of disposing of the System's holdings of some of the issues nov selling on a lov-yield basis in relation to their maturiter and jurchasing issues nor sellins on a relatively high-yield basis. For examle, part of the $\$ 85,000,000$ of December 1939 notes, which yield 0.78 percent, misht be exchanged for March 1940 notes, which yield 0.89 percent, and the $\$ 631,000$ of Treasury bonds of 1947-1952, which yield 2.02 percent, nisht be exchanced for bonds of 1946-1949, which yield 2.08 percent, or for bonds of 1948-1951, which yield 2.29 percent.

A sugrestion has been nade by the manaser of the System Open Market Account that a chenge should be made in the method of handing profits on sales of securities. Under the present method the System does not exchange its maturine issues directly with the Treasury for new issues, but sells

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maturing issues and purchases new or other issues in the market. This method results in a profit on maturing issues and the purchase of new issues at about a point premium, which gives the System an immediate profit and reduces the future yield. It would appear to be sounder practice, as suggested by the manager of the Account, to use the realized profits to write down the book value of new securities purchased. Such a procedure would give the same results as would be realized by a direct exchange of maturing issues with the Treasury and the same results as obtained prior to enactment of the Banking Act of 1935 .

YIELDS ON GOVERNMENT OBLIGATIONS


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## YIELDS ON TREASURY NOTES AND BONDS




## UNITED STATES GOVERNMENT SECURITIES HELD BY FEDERAL• RESERVE BANKS



SYSTEM OPEN MARKET ACCOUNT
MATURITY DISTRIBUTION OF UNITED STATES GOVERNMENT SECURITIES BY YEARS
NOV. 25 , 1936

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MILLIONS OF
DOLLARS
    800
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SYSTEM OPEN MARKET ACCOUNT MATURITY DISTRIBUTION OF UNITED STATES GOVERNMENT SECURITIES BY ISSUES


