

THE UNDER SECRETARY OF THE TREASURY

WASHINGTON

February 15, 1941

Dear Marriner:

For your information I am enclosing herewith a copy of a memorandum prepared by George Haas which outlines two new savings bonds and a modification of the existing savings bond. This will be discussed at our preliminary meeting on Monday, which I have asked Piser to attend.

Very truly yours,

Dan

Honorable Marriner S. Eccles, Chairman, Board of Governors of the Federal Reserve System, Washington, D. C. Secretary Morgenthau

Mr. Haas

Subject: Proposed New Forms of United States Savings Bonds

I. The Problem of Demand Obligations

From the point of view of the Treasury probably the principal problem reised by United States savings bonds is that these securities may be redeemed at any time at the option of the holders. Thus, the Treasury faces the possibility of demands for redemption on a large scale. The magnitude of this problem, of course, will grow as the volume of savings bonds outstanding increases.

Demands for redemption may arise either in consequence of rising interest rates which lead investors to seek more remunerative investments, or of increased expenditures for consumption by the holders.

The risk of demands occasioned by rising interest rates can be mitigated, but it cannot be avoided entirely. The principal means of reducing this risk is to make the yields on savings bonds low during the earlier portion of their term relative to their yield if held to maturity. The return so withheld during the earlier period is then automatically added to that still to be received in the later period. This makes the bond a more and more attractive instrument to hold as it approaches maturity, and so discourages redemption.

This has been done to a moderate degree under the present savings bond plan. Thus, the yield to maturity of United States savings bonds is 2.90 percent, while the yield if the bonds are held only five years is but 2.28 percent, and the yield for the remaining five years if held to maturity is 3.52 percent. It would be possible, however, to increase the encouragement given to the holders to retain their bonds for the full ten-year period by withholding a larger portion of the ultimate yield than is now the case, until the latter portion of the ten-year term. All of the plans described in the second section of this memorandum employ this principle to a greater degree than does the present plan.

The risk of premature redemption due to rising interest rates would attain importance if the level of interest rates in the bond market should rise above the yield for the remainder of their period to maturity of a considerable portion of the outstanding savings bonds. The holders of these savings bonds would then have a pecuniary insentive for switching from them into market obligations priced to yield a higher return. As this condition has never existed since the issuance of savings bonds commenced in 1935, the redemption experience of the present bonds is a poor guide to what might be expected under higher interest rates.

Although the existence of outstanding demand obligations exposes the Treasury to the risk of large-scale redsmptions if interest rates rise, it should be noted that there would be compensating disadvantages attached to the issuance of term securities designed to attract funds from the same sources. Such securities would fall to a substantial discount if interest rates increased. The Liberty bonds which were issued during the World Nar were securities of the latter type. These bonds fell considerably below par shortly after the end of the War, causing great popular dissatisfaction. (The 4-1/4 percent Second Liberty bonds, for example, fell to a low of 52 on May 20, 1920.)

Demands for redemption for the purpose of increasing consumption expenditures might occur either in periods of depression and unemployment or in periods of full employment. In periods of unemployment, there would be no objection to satisfying such demands freely and raising the necessary funds from other sources, including the sale of securities to banks. In periods of full employment, on the other hand, it would be best to redeem such securities, as far as possible, from tax revenues. To the extent that this should not be possible, it would be necessary to refund them into higher rate securities sold to real savers.

A widespread demand for redemption of United States savings bonds, whether for consumption purposes or because of increased interest rates, would undoubtedly impose a burden on the Treasury. As already pointed out, term securities, such as Liberty bonds, if outstanding under similar circumstances, would suffer substantial depreciation in market value, thereby throwing a corresponding burden on their helders. The real question, therefore, is merely whether the burden should be borne by the Treasury or by the individual holders of the bonds. On balance, it would appear more socially desirable that the Treasury should bear the burden than the individual holders.

The refunding of Government securities through the Treasury would undoubtedly prove less demoralizing than widespread market liquidation, such as occurred after the World War.

II. Three Proposed New Series of United States Savings Bonds

At the present time it would appear to be particularly desirable to encourage holding of United States savings bonds for the full ten-year period, and at the same time to place as large a proportion as possible of future increases in the public debt in the hands of bona fide savers. To attain the first of these objectives, it is recommended that a new series of savings bonds be issued similar to the present bonds, with a maturity yield of 2.90 percent, but with reduced intermediate yields, the limit on individual purchases of such bonds to be \$3,000 in any one calendar year.

In order to attract a large volume of savings without increasing unnecessarily the interest charge on the public debt, it is recommended that there also be issued two new series of bonds with both maturity and intermediate yields lower than those on the bonds proposed above, the limit on individual purchases to be substantially greater than the \$10,000 permitted for the present series. These two bonds would be alike, except that one would be of the appreciation type, while the other would carry a current interest return. It is believed that by thus offering two types of investment security a broader market would be tapped than by the offering of an appreciation bond alone.

Securities of these three types are described below:

(a) Bonds with reduced intermediate yields. The present plan of issuance of United States savings bonds is compared with that proposed in this subsection in Table I and in Charts I and II. It will be seen that under the proposed plan a larger part of the total appreciation in value is withheld until the final years of the period. In consequence, under the proposed plan the increase in yield with the period held lags behind that of outstanding United States savings bonds under the present plan, as is shown in Chart I, but these yields are, nevertheless, higher than those currently available on market issues of Treasury bonds for every regular semiannual redemption date.

The size of the bonus offered under the proposed plan for holding savings bonds until final maturity is indicated in Chart II. This chart shows the yields if held to maturity

from any intermediate date. Under the present plan providing a 2.90 percent over-all yield, this figure reaches a maximum of only 4.31 percent at the end of the fourteenth semiannual period, and thereafter falls back gradually to 4.05 percent at the end of the nineteenth semiannual period. In the proposed plan, on the other hand, this figure rises continuously throughout the whole life of the bond to a level slightly over 10.50 percent at the end of the nineteenth semiannual period.

There would seem to be special justification for thus reducing the return on savings bonds if not held until final maturity. The disparity between the rate of return on savings bonds and that on open market obligations is greater for intermediate periods than for the full ten years. Furthermore, it may be argued that intermediate redemption should be considered as a special privilege, which should be accorded to the holders of the bonds only at some sacrifice below the standard rate of return to maturity. If such a reduction of intermediate redemption values should make savings bonds somewhat less attractive to persons who contemplate holding them only for temporary investment, this would seem to be a positive advantage.

It is also proposed that purchases by any individual during a given year be limited to \$3,000. Subscriptions to this series would be limited to natural persons, as is the case under the present plan. This reduction from the present limit of \$10,000 would not materially impair the availability of the bonds to the lower income classes. It might be pertinent to observe in this connection that the maximum amount of Postal Savings deposits permitted to be held by any one person at any one time is only \$2,500. Thus, it would be possible with a limit of \$3,000 per year for an individual to acquire aggregate holdings of savings bonds (at maturity value) twelve times as great as the maximum Postal Savings deposits.

The low limit on annual purchases should in some degree reenforce the tendency of reduced intermediate yields to mitigate the problem of demand obligations referred to above. This limit would tend to make the bonds relatively more attractive to those persons of moderate means whose investment policies do not tend to change in response to variations in the market rate of interest. These persons would be less likely to switch out of savings bonds into other issues in the event of a future rise of interest rates than would those with larger total means.

(b) Bonds with reduced yield to maturity. It is proposed that, in addition to the bonds just discussed, an issue of savings bonds bearing a maturity yield of 2.00 percent be offered.

The proposed plan is compared with the present plan in Table II and in Charts III and IV.

This plan is based on the underlying thought that the cumulative return for the period held should be equal to 0.20 percent for each year held, working out to an even 2.00 percent yield if held for the full ten-year period. This ideal has had to be departed from slightly, due to rounding. Thus, the issue price as worked out is \$52.00 and the yield, if held to maturity, is 1.99 percent.

Under this plan, it may be seen, the yield during period held rises much more slowly in the early part of the period than it does under the present plan (Chart III), and that in consequence the yield during the remainder of the ten-year period, if held to maturity, builds up more rapidly (Chart IV).

The proposal to introduce this type of savings bond and the type with a current return described in (c) below, in addition to modifying the schedule of redemption values of savings bonds issued under the present plan accords with the sound merchandising principle of offering each type of investor the security best suited to his own individual needs, so far as this can be done without sacrifice of the interest of the Treasury. It also makes it possible in some degree to separate the fiscal aspects of the savings bond scheme from its other aspects, and thus to obtain a large volume of savings from individual savers with a minimum of fiscal diseconomy.

The bonds recommended in this subsection, with both reduced intermediate and maturity yields, would provide an investment outlet for those who will very largely be barred from the regular series by the \$3,000 limit. These persons constitute, for the most part, a group with relatively large individual resources whose principal investment need is a security carrying no risk of market depreciation. These are not the persons whose thrift it was thought to encourage by the issuance of savings bonds. It is unlikely that their purchases would be materially diminished by a reduction in the maturity yield.

It should be possible by the issuance of the two types of savings bonds described in this and the preceding subsection to encourage the investment of small savings in Government securities and, at the same time, to place as large a proportion as possible of future increases in the

public debt in the hands of private investors without paying an unnecessary bonus in the form of excessive interest charges to attain this end. In this connection, it is suggested that the limit on annual subscriptions to this series be considerably larger than the \$10,000 permitted under present savings bond regulations -- possibly \$50,000 a year. Subscriptions would be accepted from all classes of subscribers, except commercial banks. The purpose of a limit is to prevent, as far as possible, switching from market issues of Government securities, and to protect the Treasury from the effects of disparities in the attractiveness of savings bonds and other Treasury securities such as are likely to arise when one security is offered for continuous sale. It should, of course, be independent of that imposed upon purchases of the savings bonds yielding 2.90 percent.

(c) Bonds with a current return. It is further proposed that a special type of savings bond be issued with the same yield to maturity as that just discussed, but with a regular current interest payment.

The proposed new type of savings bond would have an issue price of \$95.50 and would mature at the close of ten years at \$100.00. It would pay a current return of 75 cents each semi-annual period over its entire life, thus giving a uniform current return of 1.57 percent on the issue price. Its redemption value would decrease by 50 cents upon the payment of each of the first six semiannual interest payments of 75 cents each, reaching a low of \$92.50 at the end of the sixth semi-annual period. The redemption value would thereafter increase by 25 cents each semiannual period until it again reached the original issue price of \$95.50 at the end of the eighteenth semiannual period, at which amount it would remain until final redemption at \$100.00. The computed yield for the entire period would be 2.00 percent, compounded semiannually.

The proposed plan is compared in Table III with the previously proposed plan without current return, but with approximately the same maturity yield, in the three respects of (1) yield during period held, (2) yield during remainder of ten-year period if held to maturity, and (3) yield if held one additional period. Ghart V shows the yield during period held for each plan and also compares each of them with the present plan, and with the yields on Treasury bonds and notes on February 6, 1941. Chart VI compares the two plans with each other and with the present plan on the basis of yield during remainder of ten-year period if held to maturity.

This type of savings bond is recommended for the purpose of meeting an important segment of investor demand — the demand for a security which combines protection from market depreciation and a regular income. This demand, it should be noted, is most insistent in the very sector of the market where savings bonds could be placed with best advantage — namely, with investors whose principal is sufficiently large to make income a worthwhile consideration, but who are not so wealthy (nor so possessed of other sources of income) that they can afford to forego income for ten years while awaiting an appreciation of principal. The reality of this demand is well attested by the ingenuity which has been devoted by investment counsellors to the construction of purchase plans designed to make the present series of savings bonds yield a regular income.

Four principles appeared paramount in devising a plan for savings bonds of the type here contemplated. The first two of them appeared desirable in order to maximize the attraction of the security to the investor, and the last two seemed necessary in order to safeguard the interests of the Government. These principles are as follows:

- (1) The current return of the bonds should be as large as possible consistent with the total return allowed over the whole ten-year period.
- (2) The ourrent return should, if possible, begin at once and be level over the whole ten-year period.
- (3) The total return during the first few years should not greatly exceed that available on market securities or on the concurrently offered appreciation series of savings bonds. This is necessary in order that the securities should definitely not be attractive to investors contemplating holding them for a short time only.
- (4) The "yield during remainder of ten-year period if held to maturity" should be built up as rapidly as possible in order to safeguard the Government against premature redemption of the bonds in the event of a rise in interest rates.

The proposed plan conforms to these criteria reasonably well. It offers:

- (1) A current return of 1.57 percent on the issue price. This is over three-quarters of the total maturity yield of 2.00 percent.
- (2) The current return begins immediately and is level over the entire period.
- (3) The "yield during period held" does not rise above 0.53 percent until after the end of the third year. This compares with a yield of 0.57 percent at the end of the same period on the proposed appreciation series, and with a return of about 0.45 percent (plus an unknown amount of "rights" value) on Treasury notes of three years maturity.
- (4) The "yield during remainder of ten-year period if held to maturity" builds up from 2.00 percent at issuance to 2.91 percent at the end of five years. This safeguards the Treasury against a rise in interest rates of nearly 1 percent during the next five years.

These various advantages can only be obtained by some reduction in redemption value during the first few years. The alternative is a sharp reduction in current return during the early years. The security is meant to appeal, however, primarily to investors who want a generous income return on a long-time basis. If they have to withdraw prematurely, they will receive a fair return on their money for the period invested. In proportion, however, as they are worried over the immediate redemption value, they are not bona fide long-term investors and their purchases of the bonds would prove more a source of embarrassment than of profit to the Treasury.

It is proposed that the limit on purchases by a single subscriber of the 2.00 percent appreciation series be applied to this series also, the subscriber being permitted to distribute his purchases within that limit between the two series as he sees fit. There is no difference in the economic effects of the purchase of the two series, so there would appear to be no reason why the same classes of investors should not be permitted to subscribe to each series and to divide their subscriptions between the two series as they desire.

Attachments

United States Savings Bonds Comparison of Present Plan with Plan for Reduced Intermediate Yields

Number of	Redemption value		Yield duri	ng period held	Yield during remainder of 10-year period	
semi- annual periods held	Present plan	Plan for reduced intermediate yields	Present plan	Plan for reduced intermediate yields	Present plan	Plan for reduced intermediat yields
0	\$75.00	\$75.00	.00%	.00%	2.90%	2.90%
1 2 3 4 5	75.00 76.00 77.00 78.00 79.00	75.00 75.50 76.00 76.50 77.00	.00 1.33 1.76 1.97 2.09	.00 .67 .88 .99	3.05 3.07 3.10 3.13 3.17	3.05 3.15 3.25 3.38 3.52
6 7 8 9	80.00 81.00 82.00 83.00 84.00	78.00 79.00 80.00 81.00 82.00	2.16 2.21 2.24 2.26 2.28	1.31 1.49 1.62 1.72 1.79	3.21 3.27 3.34 3.42 3.52	3.58 3.66 3.75 3.87 4.01
11 12 13 14 15	85.00 86.00 87.00 88.00 90.00	83.00 84.00 85.00 86.00 87.50	2.29 2.29 2.30 2.30 2.45	1.85 1.90 1.93 1.96 2.07	3.64 3.81 4.02 4.31 4.26	4.18 4.41 4.70 5.09 5.41
16 17 18 19 20	92.00 94.00 96.00 98.00	89.00 91.00 93.00 95.00 100.00	2.57 2.67 2.76 2.84 2.90	2.15 2.29 2.40 2.50 2.90	4.21 4.17 4.12 4.08	5.91 6.39 7.39 10.53

Treasury Department, Division of Research and Statistics.

Yields are nominal annual rates compounded semiannually.

United States Savings Bonds Comparison of Present Plan with Proposed 2 Percent Plan

Table II

Number of semi- annual periods held	Redemption value		Yield duri	ng period held	Yield during remainder of 10-year period	
	Present plan	2 Percent plan	Present plan	2 Percent plan	Present plan	2 Percent plan
0	\$75.00	\$82.00	.00%	.00%	2.90%	1.99%
1	75.00	82.00	•00	.00	3.05	2.10
2	76.00	82.20	1.33	. 24	3.07	2.19
1 2 3 4 5	77.00	82.40	1.76	.32	3.10	2.29
4	78.00	82.60	1.97	• 36	3.13	2.40
5	79.00	83.00	2.09	•36 •49	3.17	2.50
6 7 8 9	80.00	83.40	2.16	.57	3.21	2.61
7	81.00	84.00	2.21	. 69	3.27	2.70
8	82.00	84.60	2.24	. 78	3.34	2.81
9	83.00	85.40	2.26	•90	3.42	2.89
10	84.00	86.20	2.28	1.00	3.52	2.99
11	85.00	87.20	2.29	1.12	3.64	3.07
12	86.00	88.20	2.29	1.22	3.81	3.16
13 14	87.00	89.20	2.30	1.30	4.02	3.29
14	88.00	90.40	2.30	1.40	4.31	3.39
15	90.00	91.80	2.45	1.51	4.26	3.45
16	92.00	93.20	2.57	1.61	4.21	3.55
17	94.00	94.60	2.67	1.69	4.17	3.74
18	96.00	96.40	2.76	1.81	4.12	3.70
19	98.00	98.20	2.84	1.91	4.08	3.67
20	100.00	100.00	2.90	1.99	-	_

Treasury Department, Division of Research and Statistics.

Yields are nominal annual rates compounded semiannually.

Table III

United States Savings Bonds

Comparison of 2 Percent Plans with and without Current Return

Number of semi- annual periods held	Plan without Current Return				Plan with Current Return of 75 cents each Semiannual Period			
	Redemp- tion Value	Yield during:			Redemp-	Yield during:		
		Period held	Remainder of 10-yr period	One add'l period	tion Value	Period held	Remainder of 10-yr period	One add'l period
0	\$82.00	.00%	1.99%	.00%	\$95.50	.00%	2.00%	.52%
1 2 3 4 5	82.00 82.20 82.40 82.60 83.00	.00 .24 .32 .36 .49	2.10 2.19 2.29 2.40 2.50	.49 .49 .49 .97	95.00 94.50 94.00 93.50 93.00	•52 •52 •53 •53	2.08 2.18 2.28 2.40 2.53	•53 •53 •53 •54
6 7 8 9	83.40 84.00 84.60 85.40 86.20	.57 .69 .78 .90	2.61 2.70 2.81 2.89 2.99	1.44 1.43 1.89 1.87 2.32	92.50 92.75 93.00 93.25 93.50	.53 .76 .93 1.06 1.16	2.68 2.72 2.77 2.83 2.91	2.16 2.16 2.15 2.14 2.14
11 12 13 14 15	87.20 88.20 89.20 90.40 91.80	1.12 1.22 1.30 1.40 1.51	3.07 3.16 3.29 3.39 3.45	2.29 2.27 2.69 3.10 3.05	93.75 94.00 94.25 94.50 94.75	1.25 1.32 1.38 1.43 1.47	2.99 3.11 3.25 3.45 3.72	2.13 2.13 2.12 2.12 2.11
16 17 18 19 20	93.20 94.60 96.40 98.20 100.00	1.61 1.69 1.81 1.91 1.99	3.55 3.74 3.70 3.67	3.00 3.81 3.73 3.67	95.00 95.25 95.50 95.50	1.51 1.54 1.57 1.57 2.00	4.13 4.82 6.21 10.99	2.11 2.10 1.57 10.99

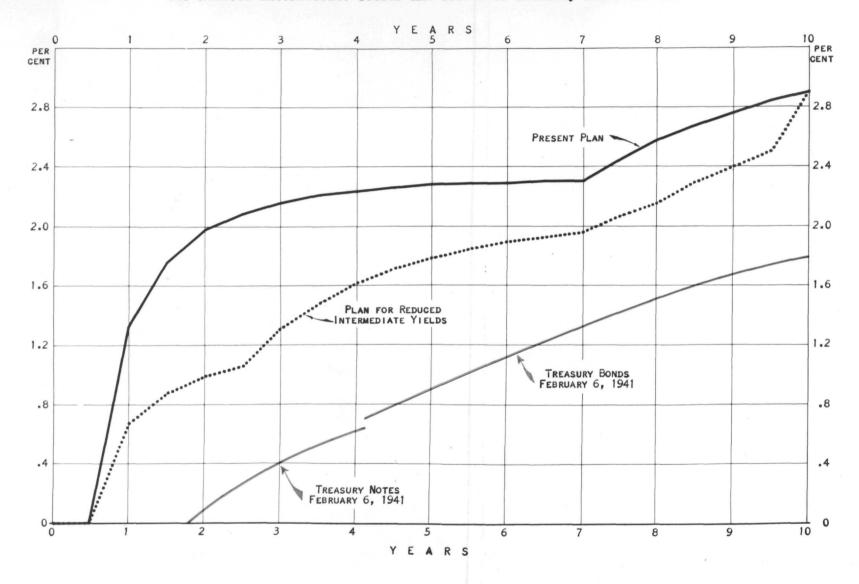
Division of Research and Statistics.

Yields are nominal annual rates compounded semiannually.



UNITED STATES SAVINGS BONDS

Yield During Period Held, Present Plan and Proposed Plan for Reduced Intermediate Yields and Yields of Treasury Bonds and Notes

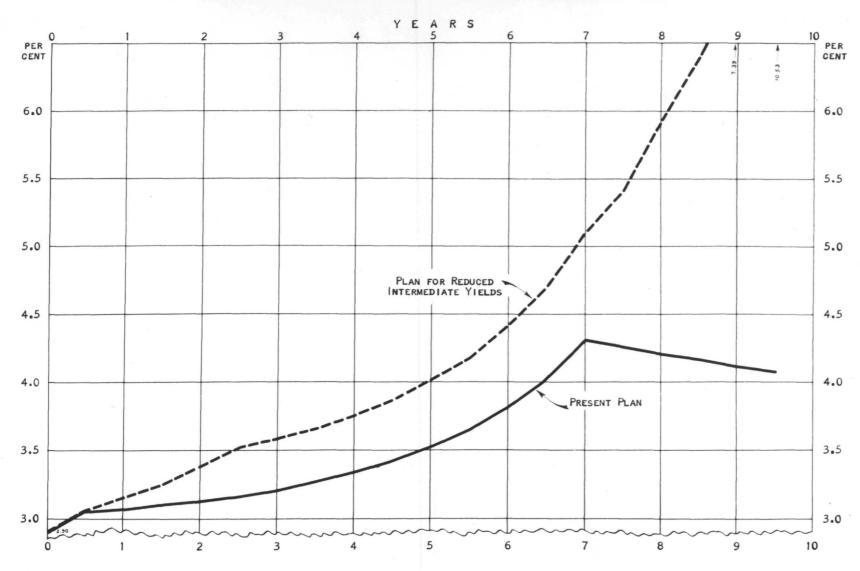


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UNITED STATES SAVINGS BONDS
Yield During Remainder of 10 Year Period if Held to Maturity,
Present Plan and Proposed Plan for Reduced Intermediate Yields





UNITED STATES SAVINGS BONDS Yield During Period Held, Proposed 2% Plan Compared with Present Plan and Yields of Treasury Bonds and Notes

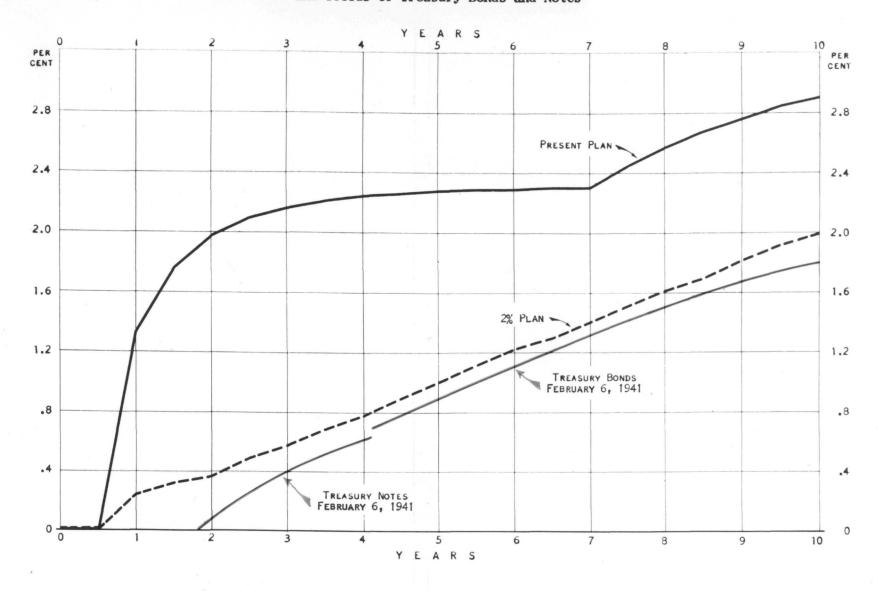


Chart IV

UNITED STATES SAVINGS BONDS
Yield During Remainder of 10 Year Period if Held to Maturity, Present Plan and Proposed 2% Plan

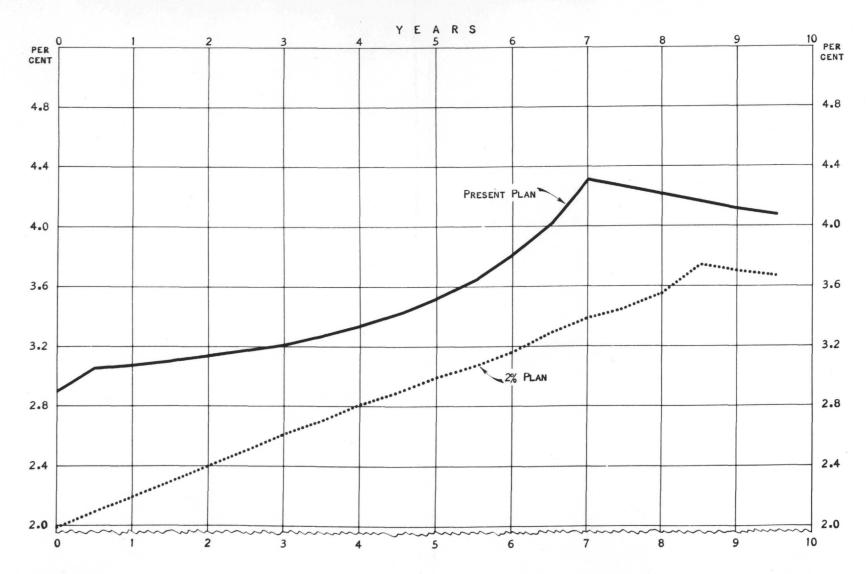
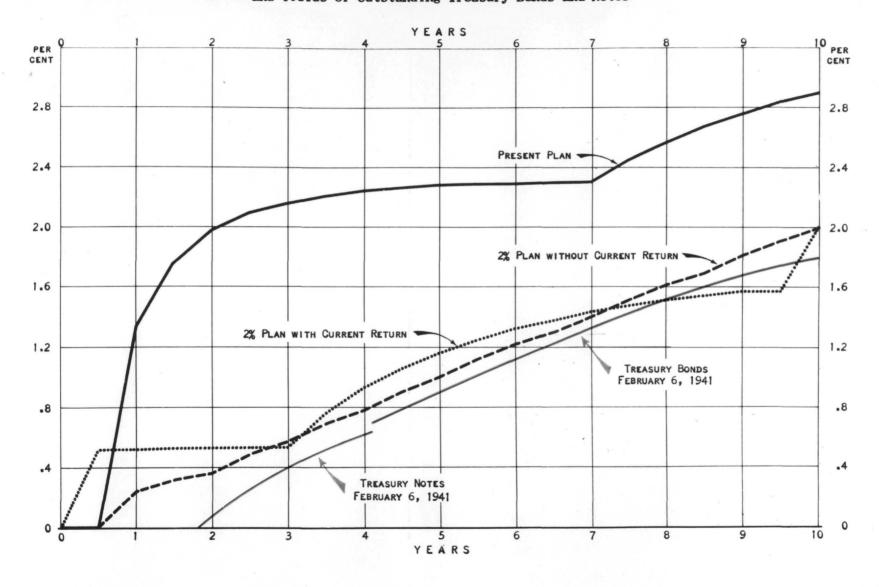


Chart V

UNITED STATES SAVINGS BONDS Yield During Period Held, Proposed 2% Plans Compared with Present Plan and Yields of Outstanding Treasury Bonds and Notes





UNITED STATES SAVINGS BONDS Yield During Remainder of 10-Year Period if Held to Maturity, Present Plan and Proposed 2% Plans

