United States Government Bonds as Investments

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Government Bondholders

UNTIL the spring of 1917 the average American citizen of this generation was very little interested in the investment features of his country's bonds. There have been, however, three or four previous periods of our national history during which government securities attained considerable significance in the lives and calculations of a comparatively large proportion of our citizens. In the intervals of these periods of national emergency United States bonds have been almost exclusively an investment for financial institutions and persons of wealth.

Aside from the general fact that the great mass of Americans did not acquire the habit of investing in securities of any sort, there are two chief reasons why government bonds ordinarily have been attractive to only a certain small group of institutions and wealthy investors. (1) The denominations of the bonds have been too large to be conveniently handled by small investors and the "circulation" privilege attached to many issues has operated to keep the interest rate, or at least the yield, so low as to make their purchase profitable only to national banks or those persons seeking the advantage of a tax-exempt investment. (2) The tax exemption feature, as a practical matter, has been much more valuable in the past to the wealthy person than to the individual of moderate means. These conditions, and some others of lesser force, have operated to keep the average citizen from concerning himself in ordinary times, with the investment possibilities of government securities.

Bondholders During War Periods

The financial exigencies of war have, during several periods in the past, made it imperative to raise such large sums that a comparatively wide distribution of the government's obligations became absolutely essential. In attempting to borrow money for war purposes any government is ordinarily confronted by numerous financial obstacles peculiar to war time, as well as by the increased difficulty accompanying the demands at any time for unusually great sums. These conditions make it necessary for the war-time administration to materially increase the attractiveness of its securities, not only to special groups but to the entire citizenry of the nation as well as to foreign investors, when the international situation so permits. This increased attractiveness of the securities offered, plus the promptings of patriotism and whatever coercive measures are possible, has resulted during every war period in making government bondholders of large groups of American citizens who, under ordinary circumstances, would never have seen or handled the stamped paper of their country.

The proportion of citizens who were incorporated in the bond purchasing class during our past wars has varied according to the government's comparative need for money and its ability at the time to touch the mass of its people

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with inviting terms and coercive measures.

The financing of the Mexican War in 1846 and the Spanish-American struggle in 1898 called for comparatively small sums at times when the national financial conditions were so good that few persons were added to the then existing class of government security holders. On the other hand, the War of 1812 and the Civil War were prosecuted under conditions which strained the financial resources of the nation and forced a comparatively wide distribution of government bonds.

An analysis of conditions under which these war bonds were purchased and of their post-war prices on the stock exchanges will determine whether or not United States bonds issued to finance the War of 1812, the Mexican War, the Civil War, and the Spanish-American War were a good investment for the original subscribers who retained these securities or, in fact, for anyone who purchased during or immediately following the war period. Because of the present wide distribution of our Liberty Bonds and Victory Notes such an analysis should be of interest and value to the large group of persons who are concerned with the question of the probable future value of their present holdings of war bonds as well as those who are turning over in their minds the desirability of investing in Liberty Bonds[1] at present market prices.

CIVIL WAR BONDS

During the period of the war the national debt increased from about 90 millions in 1861 to over 2,700 millions in 1865. As the war went on there was a steady shifting of the national credit to a higher interest rate basis. In 1861 36 per cent of the debt was paying 5 per cent interest and 64 per cent was at 6 per cent. By 1865 only 11 per cent of our debt was on a 5 per cent basis. Fifty-four per cent was at 6 per cent and 36 per cent of the total debt was paying 7.3 per cent interest. These were the nominal interest rates, but it has been estimated that, because of the depreciated state of the currency and the fact that interest was paid in coin, the average interest being paid on the public debt amounted to about 8 per cent. Our national debt at the termination of the war was represented by approximately twenty miscellaneous varieties of securities, ranging from 5 per cent long-time bonds to 6 per cent three-year compound interest notes. The story of the conditions of issue and the subsequent market price of a few of the larger and more typical of these issues indicates that investors in Civil War bonds not only received a very profitable rate of interest, but also, in practically every instance, a substantial increase in their capital investment.

Loan of July and August, 1861.—The U. S. 6's of 1881, as they were called, were marketed at par. The bonds ran for twenty years and matured in 1881. This issue sold slowly and was placed with difficulty. On October 1, 1861, approximately 189 millions of the U. S. 6's of 1881 were outstanding. By 1866 they were quoted on the market at $106\frac{7}{8}$ currency and continued to rise steadily thereafter until approaching maturity brought about a gradual decline to par. The increase in value of these bonds was even more rapid than is indicated by market quotations in currency. All during this period the currency in which the bonds were quoted was approaching parity with

[1] The term Liberty Bond is used throughout this paper in its popular sense, *i.e.*, to include both Liberty Bonds and Victory Notes.

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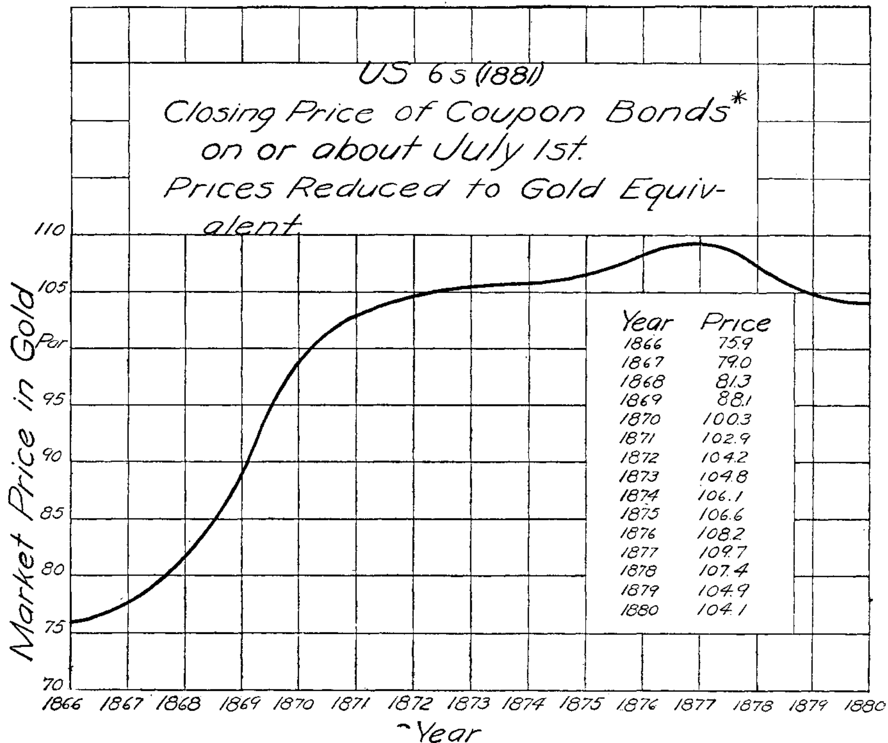

* Based on New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

gold. The chart given above shows the gold equivalent of the New York Stock Exchange quotations on this issue from 1866 to maturity.

It will be noted that by 1870, only five years after the termination of the conflict, the U. S. 6's of 1881 were quoted above par in gold and that they continued to rise in market value until 1877 when they were selling for the equivalent of approximately 110 gold.

Loan of February, 1862.—The securities issued under this act were the first of the famous "Five-Twenties." This title came from the fact that the bonds were redeemable in five years and due in twenty years. Interest was payable in coin at 6 per cent. The average selling price was 100.35 currency—the equivalent at the time of about 88 gold. On October 1, 1865, nearly 515 millions of the issue were outstanding.

The chart following shows that within three years after the end of the conflict, "Five-Twenties" were selling on the market at considerably more than their issue price in gold. By 1871 the gold equivalent of their market price was nearly two points above par,—an increase in capital value to the original subscribers of approximately 16 per cent. In addition to this substantial increase in the value of their invested capital, the holders of these bonds had been regularly receiving their interest in coin during a period when currency fluctuations caused the actual rate of interest to amount to much more than the nominal 6 per cent. During certain periods the actual value of the interest received was at least double the nominal rate.

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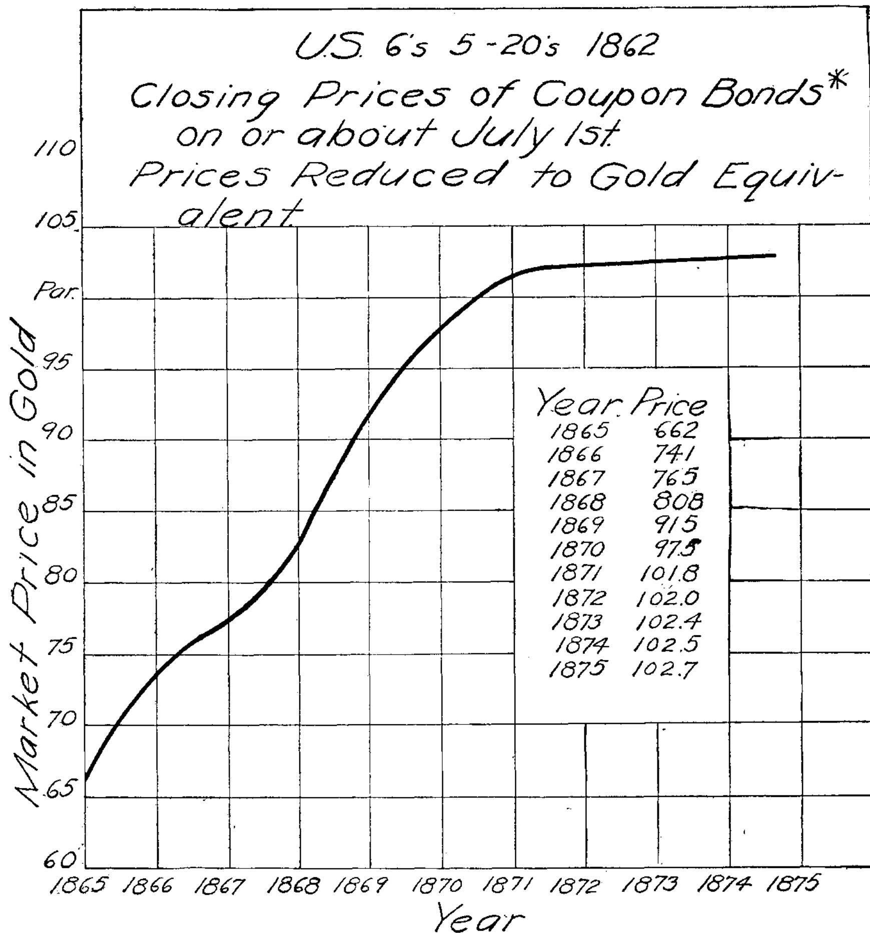

*Based on New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

Loan of March 3, 1864.—Because these bonds were payable in ten years and due in forty they were popularly known as "Ten-Forties." They drew interest at 5 per cent payable in coin. On October 31, 1865, approximately 173 millions of this issue were outstanding. These bonds were marketed at from 100 to 107 currency. The currency dollar during this period averaged in value 49.2 gold. Thus the investors who paid 107 currency for this issue gave less than 53 gold for a security that by the end of the war had risen approximately ten points (to 62.2) in value.

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By 1872 "Ten-Forties" were quoted on the exchange at the equivalent of 100 gold. The high point was reached in 1878 when the issue was selling on the New York Exchange for 108 gold—over twice the price paid by the original subscribers. In addition to having their capital doubled the original purchasers of "Ten-Forties" were receiving interest in coin amounting to over 9 per cent on their investment.

These facts make it clear that those who subscribed for obligations issued by the United States government to finance the Civil War secured an investment that gave very high returns.

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While the nominal rate of interest on all Civil War issues was high, the real return was still higher because of interest payment in coin on obligations purchased with depreciated currency. In addition, holders of nearly all Civil War issues benefited by substantial increases in capital investment through purchasing the government's obligations with more or less depreciated currency and later having them redeemed in gold. Between 1869 and 1873 the government used its surplus revenue to retire its unmatured bonds by purchase at the market price in currency. These securities had so improved in the public estimation that the difference between what the government had originally received for them and what it was required to pay to get them back was, in every instance, a very substantial amount. The average price paid for United States bonds by the Treasury Department during this period was 112.27 currency.

U. S. 5's 10–40's
MARKET PRICE IN GOLD EQUIVALENT ON OR ABOUT JULY 1

Year	*Market Price**
1865	62.2
1866	69.
1867	72.9
1868	76.6
1869	81.2
1870	94.8
1871	99.3
1872	100.
1873	100.5
1874	102.5
1875	103.5
1876	106.7
1877	107.7
1878	108.1

* Based on New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

WAR LOANS OF 1812

In 1830 the House Ways and Means Committee estimated that for over 80 million dollars worth of government obligations issued from 1812 to 1816, the Treasury received but 34 millions specie value. Many of the issues were marketed at large discounts—the first departure from the usual American policy of issues at par. The specie value of the returns from loans was still further reduced by the acceptance of depreciated state bank notes in payment. The difficulty in raising money was to a large extent due to the unpopularity of the war in New England and the Eastern States. These centers of capital furnished only an insignificant share of the funds raised.

MARKET QUOTATIONS 6 PER CENT LOAN
WAR OF 1812
(ON OR ABOUT JULY 1)

Year	*Market Price* *
1815	$92\frac{1}{2}$
1816	89
1817	103
1818	103
1819	$101\frac{1}{2}$
1820	$106\frac{1}{2}$
1821	$109\frac{5}{8}$
1822	$104\frac{1}{4}$
1823	$102\frac{3}{8}$
1824	$105\frac{7}{8}$
1825	$101\frac{1}{8}$
1826	$102\frac{5}{8}$

* Prices on the New York Exchange from contemporary issues of the *New York Shipping and Commercial List.* Only consolidated quotations on War Loan 6's are available up to 1821. Prices for the loans of 1813 and of 1814 were quoted separately, beginning with 1821. Since these prices vary less than a point, the average has been used for the sake of simplifying the table.

16 Million Loan of 1813.—When this loan was marketed public credit was falling rapidly and it became necessary to accept bids below par. In order to raise the full amount the subscription books were opened a second time and new conditions, imposed by subscribers, accepted. This issue matured in

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thirteen years, bore interest at 6 per cent, and sold at about 88 currency.

6 per cent Loan of 1814.—In borrowing the first installment of this 25 million dollar loan the government was forced to agree that if more favorable terms were extended to later subscribers the more favorable conditions should be retroactive as regards purchasers of the first installments. Under these circumstances the bonds were marketed at from 12 to 20 per cent discount and some payments accepted in state bank notes worth 65 specie.

It will be noted that these securities, which were issued at from 80 to 88, were selling at par within four years and at a considerable premium thereafter. The high point was reached in 1821 when the average price for the year on the New York Exchange was over 109. This was a nominal rise of some 28 points, but the real increase in the value of the investment was, in many cases, approximately 100 per cent. This, of course, was due to the fact that payment was accepted in depreciated currency and the securities redeemed when the monetary situation had improved. Much of the debt, in fact, was redeemed at more than par. Surplus revenue accumulated after the war and as no provision had been made for redemption before maturity the Treasury Department found it necessary to pay full market price in order to retire these obligations which were drawing a much higher rate of interest than was justified by the post-war condition of the national credit.

MEXICAN WAR BONDS

The prosecution of this war created a net debt of 49 million dollars. Due to the strong financial condition of the country, the excellent credit of the nation, and the comparatively small amount of money required, all of the loans were placed at par or above. The aggregate premium on all the loans amounted to approximately a half million dollars. Nearly all offerings were oversubscribed. Eighteen millions were asked for in one case and nearly 58 millions were subscribed. The following table shows that the post-war market value of these bonds was always high, up to the outbreak of the Civil War when they met the temporary fate of all securities during that period.

U. S. 6's of 1867.—These bonds were due in twenty years and paid 6 per cent interest. They were marketed in 1847 at prices ranging from 101 to 102.

U. S. 6's OF 1867

MARKET QUOTATIONS ON OR ABOUT JULY 1 *

Year	*Price*
1849	116⅞
1850	115
1851	116½
1852	118
1853	121¼
1854	120
1855	119¾
1856	117
1857	109
1858	114¾
1859	108

* New York Exchange quotations from contemporary issues of the *New York Shipping and Commercial List.*

It will be noted that by 1853 the U. S. 6's of 1867 had reached a high point of 121¼.

Other Mexican War Bonds.—In 1848 16 millions of another 6 per cent loan were sold at 103 to 104. These bonds were known as the U. S. 6's of 1868.

Their post-war market value ran very closely with that of the U. S. 6's of 1867 as given in the above table.

In 1846 about 5 millions of ten-year 6 per cent bonds were marketed at par.

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These securities were quoted at between 106 and 107 until they approached maturity. Comparison with the twenty-year 6's described above shows that the longer term of the twenty-year bonds gave them a consistent advantage on the market of approximately ten points over this ten-year loan of otherwise similar securities.

In spite of the fact that all Mexican War Loans sold above par they almost immediately went still higher on the market—indicating a strong demand for these securities at prices that gave a yield much smaller than the nominal rate of 6 per cent.

SPANISH-AMERICAN WAR BONDS

U. S. 3's 10-20's (1918)
(COUPON)
LOW MARKET PRICE FOR THE YEAR*

Year	*Price*
1898	104
1899	$106\frac{3}{4}$
1900	$108\frac{3}{4}$
1901	$108\frac{1}{4}$
1902	$105\frac{3}{4}$
1903	$106\frac{1}{2}$
1904	$104\frac{1}{2}$
1905	$102\frac{3}{4}$
1906	$102\frac{5}{8}$
1907	$100\frac{1}{4}$
1908	$100\frac{3}{4}$
1909	$100\frac{3}{4}$
1910	$101\frac{1}{4}$
1911	$101\frac{3}{4}$
1912	$101\frac{1}{2}$
1913	$101\frac{3}{4}$
1914	100
1915	$100\frac{1}{2}$
1916	100
1917	$98\frac{5}{8}$

* New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

To finance the war with Spain the government in 1898 asked for subscriptions at par for an issue of 200 millions of 3 per cent bonds—interest and principal payable in coin. These bonds were redeemable in ten years and due in twenty years. The issue was seven times oversubscribed. The annual market price of this issue is shown by the preceding table:

A considerable enhancement of the market value of this issue was due to the fact that they were available to secure national bank note circulation. In 1900 over 132 millions of this issue were refunded into the 2's of 1830 (consols), also available to secure circulation and with a longer time to run.

SUMMARY AND CONCLUSIONS

War Bonds Profitable Investments.—The above analysis makes it clear that, without exception, the war bonds of the United States government have been, from our earliest history, very profitable investments. The post-war market price has in every instance exceeded the price received by the government at the time of issue. Interest always has been promptly paid at the rate promised and in the medium specified. During the War of 1812 and the Civil War, when currency depreciation existed, the variations in the relative value of gold and currency at all times operated to the substantial advantage of subscribers to government loans. Civil War bonds originally paid for in depreciated paper and technically payable in "lawful money" were redeemed in coin or its equivalent.

How far the analogy between the post-war market value of previous war loans and Liberty Loans can be carried depends upon a number of factors which demand very careful consideration. For obvious reasons even the strongest nations are invariably required to give very good bargains in order to raise large sums of money during war times. In marketing Liberty Bonds the Treasury Department

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could perhaps drive a harder bargain than it could during previous war periods, because of the existence of an established national credit, because of the greater possibility of an appeal to patriotism, and because of the existence of highly developed machinery for advertising and distribution. On the other hand, it was handicapped by the absolute and comparative hugeness of the amounts needed, the lack of a foreign market, and the high earning power of capital in industry. The credit of our government undoubtedly was better in the eyes of its citizens in 1917 than at the beginning of any other war. Our past record in dealing with purchasers of government obligations and our increased financial and political strength had operated to perfect confidence in the financial undertakings of the nation. During previous war periods the interest rates and other conditions were necessarily more favorable to bond subscribers than would have been necessary if more efficient means of reaching the mass of citizens had existed.

During the Civil War Jay Cooke demonstrated, on a small scale, the great value of a comprehensive system of advertising and distributing machinery in government bond selling. Political considerations prevented the Treasury Department from making the fullest possible use of his ideas and organization at that time.

The establishment of the National Banking System in 1863 was a somewhat belated attempt to improve the situation in this respect. Each great war in which this government has been engaged has called for much greater sums of money than preceding conflicts. In every instance the unexampled amounts of money required have appalled the people and caused them to doubt the nation's ability to stand the financial strain.

In 1862 the United States government was having considerable difficulty in raising what at that time seemed like huge sums necessary to prosecute the Civil War. During this period the *London Economist* expressed its opinion of our financial future in these words:

> It is utterly out of the question, in our judgment, that the Americans can obtain, either at home or in Europe, anything like the extravagant sums they are asking—for Europe will not lend them; America cannot.

The *Times* expressed conservative British opinion as follows:

> No pressure that has ever threatened is equal to that that now hangs over the United States, and it may safely be said that if in future generations they faithfully meet their liabilities, they will fairly earn a fame which will shine throughout the world.

In spite of these weighty and honest opinions to the contrary we did succeed in financing the war for three more years until victory was won, and within five years after the end of the war the United States had either paid off or refunded on better terms all its obligations which were redeemable at that time.

As the people of Civil War days were appalled by a debt which after five years of fighting amounted to less than three billions, even so was there an element of doubt and distrust among the plain people of this country when in 1917 we began to figure war costs in units of ten, fifteen and even twenty billions per year. As is usual in times of stress and emergency, national financial strength was underestimated. This feeling naturally increased to some extent the difficulties of borrowing money, and the necessity for offering especially favorable terms to lenders.

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It is probably true that the demand for capital in industry was stronger during the World War than during any previous war. The proportionate amount of material supplies of all kinds required was much greater than during any previous conflict and with practically the entire world at war the effective demand for products of industry was much greater than at any other period of the world's history. This industrial competition for funds would necessarily be reflected in the terms of loans offered by the government.

Post-War Value.—All these things would indicate that the terms which would secure takers for government securities during the war would be considered very favorable indeed in the post-war period. During all previous war periods the United States, as well as other great nations, has found it necessary to borrow money on terms which soon after the war were reflected in a high market price for their war-time issues. The above brief analysis of the conditions surrounding our national borrowings to finance the latest war make it seem probable that history will repeat itself in this respect.

In 1890 the average interest rate being paid on United States bonds was 4.08 per cent. By 1915 the average rate of interest had dropped to 2.37 per cent. There are two main reasons that make it seem probable that Liberty Bonds will never attain a market price which will reduce their yield as low as that paid in 1915 by the long-time obligations of our government. First, the terms of the "old" issues are, with the exception of the rate of interest, in several respects more favorable to investors than are the conditions attached to the various issues of Liberty Bonds; second, it is possible that post-war conditions of the security market will be somewhat less favorable to government bonds than was the pre-war market. The "old" bonds have the advantage of complete tax exemption while the Liberties are subject to certain forms of national taxes if held in large blocks. The Liberty Bonds do not bear the "circulation" privilege which has given the somewhat artificial value to many earlier issues of United States bonds. In this connection it is interesting to note that an issue of 50 millions of 3 per cent Panama Canal bonds, which were not available to secure bank note circulation, was marketed in 1911 at an average price of 102.58. With the decline in importance of National Bank Note circulation it is probable that the "circulation" privilege will also decrease in importance and value.

Supply and demand effects the price of investment securities just as it controls the price of the more concrete commodities. The vast increase in the supply of investment securities, because of the huge government issues, has undoubtedly had the effect of increasing the supply of this commodity beyond the effective demand. This results in the presence of large amounts of so-called "undigested" securities. The period required for this investment demand to catch up with the present oversupply will probably be lengthened by excessive industrial competition for funds demanded by the great amount of after-the-war industrial and commercial readjustment necessary. While these conditions, and perhaps some others of lesser importance, make it seem unlikely that Liberties will completely attain the favor of the "old" issues of government securities, it should be pointed out that Liberty Bonds, because of

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their higher interest rate may sell at a very substantial premium indeed, before their yield is reduced to that paid by the older issues in 1915 and previously.

A very real, if seldom realized source of profit in the purchase of government bonds, may well be expected through the operation of buying with inflated currency and taking payment of interest and capital after this war-time inflation has decreased. It is a commonly appreciated fact that the dollar today will purchase only approximately half as much in goods and service as it would in 1913–14. This, of course, means that the 1919 dollar is worth in reality only about 50 per cent as much as the 1913–14 dollar. If we exchange these "cheap" dollars for government securities now, and hold them until our currency has resumed its former value in exchange for goods, it is clear that our capital investment will be approximately doubled in real value. The possibility of profit from this source is, of course, contingent upon post-war deflation of the currency and a consequent increase of the purchasing power of the dollar. While the question of deflation is still a subject for argument we believe that it is safe to state that the weight of intelligent opinion holds that while the purchasing power of the dollar may never return to the before-the-war basis, nevertheless, we may expect a substantial increase in the value of our currency in its relation to other commodities as industrial conditions approach to normal. The greater this deflation the greater will be the increase in the real value of the capital now invested in long-time securities.

Using as a guide, the experience of the past, modified by the changed-conditions of the present, it would appear very probable that the obligations issued by the United States to finance the World War will be sufficiently attractive to cause them to sell at a substantial premium as soon as the security market is entirely adjusted to a peace-time basis. This fact combined with the probability of an increase in the purchasing power of our currency, point to a yield considerably in excess of the nominal rate of interest to those who now hold United States bonds of the recent issues.

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