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FINANCING WARS

by

Mr. Charles R. Gay,
President, The New York Stock Exchange

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In addressing a sophisticated group such as this, I realize that much of what I say will appear elementary. But the subject upon which I have been asked to speak is a broad one and in developing my theme I will be obliged to cover considerable ground with which you are already thoroughly familiar. War is not only an enterprise that involves men and guns, it also involves money. War produces debt and debt necessitates the exchanging of the surplus savings and the credit of the people for evidences of debt. War also destroys wealth and thus, temporarily, at least, gives great emphasis to industry. The inflationary effect of war on a nation's economy is, of course, well known.

What I say speak of as the financial industry, including banking and the distribution of securities, provides the facilities for the raising of funds required to conduct war. While banks, for a limited time, may contribute directly to the financing of war programs, in the end the huge sums required by modern warfare must be realized through the sale and re-sale of long-term debt to the people.

And since investors preferentially lodge their funds in those evidences of debt for which markets exist, it is obvious why stock exchanges grow as national debts expand and as enterprises are created and enlarged. It is through these exchanges that initial and succeeding distribution of securities is accomplished, furthermore, these exchanges supply investors with the facilities through which they may liquidate their holdings quickly, which is a paramount consideration when they buy securities.

We know that the birth certificates of most of our modern securities markets date back to the creation, or to the time of the original funding, of the debts of the nations which they serve. I draw your attention to the fact that the original brokers' association, which was the forerunner of the present New York Stock Exchange, was formed in 1792, soon after constitutional government became a reality in the United States and directly after Alexander Hamilton first funded the young nation's debt. Also the Stock Exchange of London dates its birth back to the time when the national debt, created by the wars of the Seventeenth Century, first was funded; and in France, the debt created by Louis XIV mainly was responsible for the founding of the Paris Bourse.

When wars are terminated, and the time finally comes to refund or to convert the war loans into longer term securities or into securities with lower coupon rates, again the financial centers provide the facilities by which new bonds are exchanged for old bonds and by maintaining free and open markets, thus generating confidence.

We can call upon England's history for a typical example of early and modern wartime governmental financial operations. We know that during the reign of William III, which began in 1689, there was the first account of regular investment and speculation in securities in England. And at that time Parliament created the British National Debt, which then amounted to 664 thousand pounds. William III, you will remember, was placed on the throne by the Revolution, which also gave Parliament control of the Nation's finances. Previously, so-called governmental borrowings had taken the form of Crown loans, which were secured by pledges of the Crown jewels or particular revenues; and because those loans frequently had been defaulted, they bore high and, at times, usurious interest rates.

The surplus savings of the British people, finally found profitable means of lodgment, during the last quarter of the Seventeenth Century, first in industrial securities and latterly in evidences of governmental debt. For then it was that many public or joint stock companies came into existence, with the East India Company as their nucleus; and with William III on the throne, proper assurances were given and arrangements made, to pay interest regularly on, and to repay, the newly founded National Debt. Previously, investment in governmental bonds was insecure and often had been enforced by the ruling monarch.

Side by side with these important early financial developments we read of brokerage, and of brokers who are known to have conducted business under an Act of Parliament dated as early as 1376. But it was not until the end of the Seventeenth Century that traffic in securities, somewhat resembling our present day business, began.

The brokers of the Fourteenth, Fifteenth and Sixteenth Centuries were, in fact, merchants who, when opportunity offered, also dealt in securities, and stock brokers, as such, appeared later. But when, in 1693, the first British Government Loan was made available for public participation, stock brokers then stood ready to buy and sell, and to distribute it in response to the wishes of the people.

Since the time of the Revolution, when British governmental indebtedness was funded into a national debt of 664 thousand pounds, the debt rose, in successively higher waves, to the enormous total of 7,481 million pounds by the end of the late World War. A review of the course of the British debt, during the 230 intervening years, discloses that, without exception, the amount of the debt rose during war periods and fell while the country was at peace.

For example, Britain's eight years of war with the American Colonies, from 1775 to 1783, increased her national debt 121 million pounds, and thereafter, her debt was decreased about 6 million pounds during the subsequent 10 years of peace. The succeeding 23 years, terminating in 1816, during which the Napoleonic wars were fought, witnessed the addition of about 641 million pounds to the British National Debt; and thereafter, during the following 38 years of peace, the debt diminished by 82 million pounds.

The Boer War added 163 million pounds to the debt during its four years, and throughout the succeeding 11 years of peace, the debt's total was reduced by 92 million pounds. The British National Debt rose from 706 million to 7,481 million pounds, an increase of 6,775 million sterling, during the four years of the World War.

Of the total gross increase in England's National Debt, occasioned by the World War, about 18% or 1,280 million pounds represented borrowings abroad, and the remaining 82%, or 5,928 million pounds, were raised internally. The long-term debt, floated in Great Britain, took the form of five bond issues in the aggregate sum of 2,882 million pounds, and three additional issues, including War Saving Certificates, in the total sum of 2,069 million pounds.

The loans just mentioned were issued at interest rates ranging, at the beginning of the War, from $3\frac{1}{2}\%$ to 5% at its end. By December 31st, 1919, more than 17 million British investors had subscribed to the national war loan program, which, at that particular time, had climbed to its peak amount of 8,078 million pounds, or roughly 40 billion dollars.

While Great Britain's credit fully justified the low rates of interest on the gigantic debt then being created, still, it was necessary to generate and maintain public confidence in it, to distribute it broadly to the people, and to maintain its liquidity in the market.

As we know, war-time financial operations are accomplished under most trying circumstances. For example, as always is the case at the beginning of wars, money firms up and the prices of stock market securities decline. Just so it was near the end of July, 1914, after Austria-Hungary had declared war on Serbia. Then the primary security markets of the world, excepting New York and London, were closed, and the latter markets were flooded with offers to sell international securities to satisfy the enormous demand for funds which then existed. Finally, The London Stock Exchange closed July 31, 1914, and was re-opened, as a "cash" market only, early in January, 1915.

Despite the intermittent reverses suffered by Great Britain during the World War, its people, the subscribers to and holders of its vast war debt, through the market provided by The Stock Exchange of London, were able always to know the value of the securities they held, and to realize funds by liquidating their holdings, as they wished. Without the existence of these facilities, it is possible that the British Government could not have borrowed on such advantageous terms, and so freely, and that abiding confidence could not have been preserved in the integrity of the Government's credit.

Prior to, and during our Revolutionary War, no security market existed on this side of the Atlantic. Then, there were practically no securities in the Colonies. And history reveals the desperate financial plight of the newly and war-born American Government. Previously, the financial facilities of Imperial London were used by the few in the Colonies who had the patience to transact business in a stock market.

Until American independence was won, such capital as then existed mainly was invested in land or goods, for only occasionally in those early days had American cities issued bonds; and company shares were even more exceptional since most business was conducted either by individuals or partnerships.

But those conditions changed with the termination of British sovereignty. The American Revolution had laid a heavy burden of debt on the several States, and this debt was funded by the financial wizardry of Hamilton into an 80 million dollar bond issue, then called "stock." Thus in 1790, there came into existence a new form of property, and in an enormous amount for those days, for which no regular market existed.

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Meanwhile, the necessities of the recently born republic led to the creation of new financial machinery. In 1781 the Bank of North America was incorporated in Philadelphia, in 1784 the merchants of Manhattan organized the Bank of New York, and in 1791 Hamilton prevailed upon Congress to establish the first United States Bank. The scrip of that bank, when offered to the public, was the basis for our first wave of speculation in securities, and the shares of other banks, as well as the recently issued 6% United States Government stock, also became speculative favorites.

The frequent purchases and sales of those early American securities pointed out the need of a regular security market in which investors, who were averse to exchanging their savings for securities which could not be sold readily, could be accommodated.

As was the case in England, securities in New York first sold in the ordinary merchandise markets at the foot of Wall Street. But as the auctions conducted there were one-sided markets, with competition between buyers but not between sellers, the earliest New York stock brokers, so the legend goes, soon adopted the habit of meeting under an old Buttonwood tree, which thrived in Wall Street, to transact their business with each other in a separate two-way market. And in 1792, twenty-four of those brokers signed the original business agreement which formally initiated New York's first organized security market.

Because of lack of time, I may neither dwell on the remarkable growth of our commercial enterprise, which required new capital and tools to develop our national wealth, nor on the successful efforts of our scientists, who rushed to the aid of humanity with their wonderful inventions, which revolutionized the standards of human existence and conduct.

So, in returning to my subject, we shall consider the next war in which the American Government was engaged, that of 1812. Just prior to that war, the debt of the United States had been reduced to about 45 million dollars, but by its end, in 1817, our gross debt exceeded 123 million dollars.

With the beginning of the War of 1812 came the first great increase in the American stock brokerage business. Again it is well to consider that both government and industry had to be supplied with new funds to carry on the war program.

And the effect of those financial engagements quickly made itself apparent in the accelerated pace of stock market operations.

The aftermath of the War of 1812 brought an impaired national currency, resulting from the issuance of worthless and depreciated paper, and many bank failures which ruined shareholders and depositors alike.

During the war, the infant New York stock market was called upon to facilitate the purchase and sale of many new securities, such as New York City and New York State bonds, in addition to the war loans. And by 1817, the volume of stock trading had grown to such proportions that formal organization of the market into an exchange became necessary.

During the succeeding era of peace, which lasted 31 years, our national debt fell to insignificant amounts. In 1835, it was placed at but 34 thousand dollars, when the President of the United States, in his annual message announced: "all the remains of the public debt have been redeemed or deposited for this purpose." The debt rose to about 60 million dollars shortly after the termination, 1848, of the War with Mexico.

The ill effects of the Panic of 1847 had been overcome by the spring of 1858, and from then on, up to the outbreak of the Civil War, the remarkable vigor of the young Republic was displayed in the progressively satisfactory condition of its business.

Prior to the Civil War, canals and railroads first were built. In 1829 the first train was hauled in this country by an American steam locomotive. The securities of those budding American enterprises were listed on the New York Stock Exchange, and almost simultaneously on the Stock Exchange in London. During the early 1850's, the Pennsylvanian petroleum fields were drilled, and the accompanying discovery of deposits of precious metals in the West, resulted in the addition of many new industrial securities to the List of the Exchange.

The Union entered the Civil War, a war of unknown cost and duration, with an empty Treasury, banks prostrated, specie payments suspended, and with its credit so impaired that its gilt-edge 6's were selling as low as 15% discount.

With the outbreak of the Civil War, the New York Stock Exchange pledged its fidelity to the Union in a resolute determination to stand by the Government under all

circumstances. And the Exchange then adopted this resolution: "that in the present condition of the Country, the Board will devote all the money in the treasury to sustain the Government." On May 11th, 1861, members of the Exchange formally bound themselves not to deal in any bonds, stock, or other securities issued by the Seceding States subsequent to the declaration or act of secession, and the penalty of expulsion was imposed for violation of the rule.

At the beginning of the Civil War, in 1861, the national debt amounted to about 90 million dollars, and it rose rapidly to 2,773 million dollars by the middle of 1863.

After the accession of Abraham Lincoln to the Presidency, it became difficult to sell government securities, and their prices declined to such an extent that toward the end of June, 1861, the 6% United States Bonds were quoted at 83 $\frac{1}{4}$, and the 12% Treasury Notes at about 102.

With the declaration of war, the usual slump occurred in the prices of securities; but after the effect of the crisis was dulled, a revival in prices set in, which was quickened by the subsequent issuance of quantities of irredeemable paper money.

Toward the end of 1861, New York banks suspended specie payments and for two weeks thereafter no regular gold market was conducted. The Stock Exchange's gold quotations of the time shown that no material advance occurred, in the paper quotations for gold, for more than a year.

And the financial records of the day reveal that the members of the Exchange checked the rise in the price of gold as much as was humanly possible, for then it was considered unpatriotic to purchase gold except for necessary business purposes. When the members of the Exchange no longer could prevent substantial advances in the specie quotations for gold, a resolution was passed by the Exchange which terminated dealings in gold, and that resolution was continued in effect until the time of the closing of the Gold Room in the 1869 Black Friday crisis.

Despite the artificial restrictions which were imposed on the open gold market, the price of gold rose to 285% of par on July 11th, 1864; but thereafter the price of gold slid down, with Sherman's March to the Sea, and fell to the level of 125 during March 1866.

The wild fluctuations in values, indicated by my previous remarks on the price of gold and occasioned by the issuance of irredeemable paper money, made the conduct of an orderly market for securities a difficult matter. With it all, vast sums of money, greater than the war loans which had been negotiated previously in Europe, had to be raised to support the Union's war program through the distribution, and re-distribution of government securities. And in those distributive processes the Stock Exchange played an important part.

The flood of government obligations, which was being poured upon the market, vied with railroad securities for the spotlight. All through the war, and during the subsequent period of reconstruction, the new and undigested railroad stocks were the target of active speculative forces, which were stimulated by the prevailing fluctuations in the public credit, and by the people's consequent concept of values.

Thus, it is with no small sense of pride that I point to the alignment of the members of the Exchange with the people, as they cheerfully and promptly responded to every successive appeal of the Treasury for taxes and loans, during the Civil War, and as agriculture, manufacturing, and commerce were developed to a marvelous degree.

The post-war or reconstruction period was an unpleasant one, as we all know. The economic aspect of its evils, in large part, had been dissipated by the time specie payments were resumed in January, 1879, but in the interim, the overstrained condition of the public credit precipitated the Panic of 1873, which proved so severe that, for ten days, the Stock Exchange was compelled to close its doors, for the first time in its history.

From 1865 to 1898 the Country was at peace. During that time the National Debt fell to slightly less than a billion dollars but thereafter rose to 1,200 million dollars at the time war was declared with Spain. The Spanish American War, "a little war," succeeded in raising the National Debt only about 200 million dollars.

At the outbreak of the World War in 1914, our total gross debt amounted to about 1,200 million dollars, but in the year 1919, it had risen to 25,482 million dollars, an increase of $24\frac{1}{4}$ billion dollars.

The events following the opening of hostilities in Europe, and subsequently resulting from our participation in

the World War, I believe, still are pictured in the minds of many of you.

The tremendous wave of liquidation of their American securities by Europeans, in our market, compelled the New York Stock Exchange to close its doors for the second time in its history, on July 31, 1914; but this step was taken only after all the other great world stock exchanges had closed. Then we were in debt to Europe, and European demand for immediate liquidation of that debt resulted in the security liquidation to which I just referred.

Late in the Autumn of 1914, trading was resumed on the Stock Exchange in a restricted list of securities; and gradually thereafter, as restrictions were removed, the market was thrown open step by step, until on December 15th, 1914, normal market operations were in force.

In 1917, the first of the series of gigantic United States War Loans was floated. These loans, you may remember, were offered directly to the public throughout the Nation. The high-water mark of public holding of the Liberty and other loans was reached in the case of the Four Liberties, for which there were 2,800,000 subscribers.

All told, the public subscribed 24,072 million dollars to our 5 war loans; and the Treasury accepted all but 1,844 millions of it, or a net of 22,228 million dollars.

The participation of the Stock Exchange in the endeavors which were made to raise these new and vast sums of money was outlined by Governor Benjamin Strong, of the Federal Reserve Bank of New York, in his testimony at the Hearing before the Joint Commission of Agricultural Inquiry, of the 67th Congress, during August, 1921. In response to the questions of Representative Summers, Governor Strong stated. "The Stock exchange as a body was organized to sell the (Liberty) bonds both to their customers and to the public generally. The entire Exchange was organized to do that. It was a part of the Liberty Loan machinery."

And again, in response to Representative Summers' direct question, "Those sales were not on the Floor?", Governor Strong testified: "Yes, they had sales right on the Floor. They had very big sales and sold many millions of dollars of bonds right on the Floor. Of course, those were the original sales of the bonds at par. And when we were given word from the United States Government, at the direction of the

Treasury, that trading in the bonds was permitted on the Exchange - whenever the arrangement was made that it should be permitted - trading was done in those bonds. That, after each loan, was arranged after conference with the Secretary of the Treasury."

In my opening remarks I reminded you that war periods are abnormal. In the wake of war, inflation and speculation always are found, and during the course of the World War some complained, as some always do, of fluctuations in values. But it is pleasant to realize that "Wall Street," the common phrase for its bankers and brokers, had its supporters then, exemplified by ex-President Taft, who, in October, 1917, paid a tribute to the patriotism of "Wall Street" in the address he made on the Floor of the Stock Exchange, during the course of a Liberty Loan rally.

Mr. Taft then reminded the bankers and brokers of New York, "who have been much abused, but whose patriotism was unequalled anywhere in the Country," that the ultimate responsibility for the success of the loan rested with them.

I wish to quote him again on the topic of patriotism as follows: "It is a little bit like the old Puritan doctrine in reference to salvation. You have got to be damned before you are saved, and you gentlemen in "Wall Street, whether you are willing or not, have been through that test."

Consequently, we members of the Exchange, who lived and worked through those trying days, look back with pardonable pride on the results of our handiwork. More than 22 billion dollars in war loans were floated at unusually low cost to the Government. The public credit, in which confidence never was shaken, was maintained sufficiently strong to enable the Treasury to offer the bonds at coupon rates of $3\frac{1}{4}\%$ to $4\frac{5}{8}\%$ and mainly at 4%. The separate issues were distributed among from 4 million to 23 million subscribers.

Orderly markets were made available to the public, not only as a means of liquidating the bonds at will, and at fair prices, but also to inspire day-to-day confidence in them, through publicizing their quoted market prices. Redistribution of the bonds, when it became necessary, was effected smoothly and without cost to the Government. War industries were supplied with vitally necessary capital, which also was rendered mobile and liquid, through the stock market. And when the time approached to refund the war loans, to the advantage of the Government, the Stock Exchange as a part of the Country's financial machinery, facilitated those operations as only a free and open, primary world market can.

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The Stock Exchange is prepared today, as before, to provide the facilities that may be required in an emergency but, gentlemen, I fear I have spoken too much of the functions of stock exchanges in war-time. We would much prefer that their essential service be confined to peacetime activity. As a man of peace, I would like to express the fervent hope that the last word has been written to that chapter of stock exchange relationships to which I have been alluding, as I hope that the last American war has been fought.

Discussion

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