FINANCIAL CONTROL IN WAR

Control of financial operations during war is only one element in the broad general problem of financing the operations of war. The broad general problem involves the raising of funds for war-time expenditures by the government involved, both for the expenditures of the Government itself, and for advances to its allies, if any, and it also involves many collateral problems such as protection of the financial markets for the Government's own operations, the effect of such operations on the banking system of the country and, as a necessary corollary, some form of financial assistance to private enterprises necessary or contributory to the prosecution of the war, or to the maximum possible maintenance of normal private life on the part of the non-combatant population. Financial control and financial assistance must also look forward to some extent to the problems of peace and reconstruction, though there is danger here in confusing the certain and known needs of war with the uncertain and unknown requirements of the period immediately following the war.

The method of financing a war, and the financial controls and corollary assistances required, of course, depend upon the type and size of the war operations, on the number of nations involved and the extent and character of their inter-relations; and also on the social and economic conditions existing in the belligerent nation at the time. Therefore we can generalize very little with regard to underlying principles, and my
remarks will be devoted largely to a review of finances and financial controls during the participation of the United States in the World War, April 6th, 1917 to November 11th, 1918, with comments on the lessons that have been learned and the inferences that may be drawn, if any, with regard to financial control in any other wars in which this nation might be involved in the future.

**COST OF THE WORLD WAR.**

The World War, commencing almost out of a clear sky in August, 1914, finally drew into the conflict most of the nations of Europe, all of the Americas north of Mexico, nearly all of Africa and more than half of the nearly area and population of Asia. It involved as belligerents probably three-quarters of the world's population, and affected to a profound degree the foreign and domestic commerce, and even the internal affairs and private lives of practically all the peoples of the few neutral nations.

The cost of the World War in money has been estimated at approximately 186 billion dollars. To get some measure of what this colossal sum means, it is interesting to note that the entire value of all property in the United States, i.e., the entire wealth of the United States, was estimated by the Census Bureau at 187 billion dollars in 1912. It is also of interest to note that just prior to the outbreak of the World War the total public debts of all the nations of the world and their subdivisions were estimated as an aggregate total of some $42,300,000,000. If the extent of the World War costs had been foreseen in advance and if the statement had been made that the World War would cost a sum in dollars equal to the then estimated wealth of the United States, the richest nation in the world, and outstanding more than four times the total/public debts of the nations of the world, the
financing of such an operation would have been set down as incredible and impossible.

As a matter of fact, at the beginning of the war, many authorities stated that its duration necessarily would be very brief, because of the impossibility of financing the immense military operations involved. Competent authorities stated that within a comparatively few months the entire financial structures of the governments involved would break down under the strain, yet in the face of the apparent impossibilities, the World War continued for somewhat more than four years, bringing in from time to time additional nations and proceeding on an increasingly larger scale.

The lesson to be learned from this is that the course of war depends upon resources in manpower, supplies and morale, and that finance is only incidental to these; for after all, money is only a medium of exchange and to the extent that men, material and morale are available, some medium of exchange will be available or will be developed so as to permit their continued functioning to the maximum limit, and this limit will not be imposed by any considerations of finance existing at the outbreak of the war.

**METHODS OF FINANCING THE WORLD WAR.**

The financial problems of the World War were met in different ways by the different nations involved, depending upon controlling conditions. The principal European belligerents financed their operations largely through currency inflation in varying degrees.

The methods adopted by the Government of the United States necessarily were based upon the situation of the country as a whole at the time of our entrance into the World War and it is important to review these briefly, for the reason that they bear such an important relation to subsequent financial developments.
It was fortunate that the World War found the United States in a strong economic and financial position. The Federal Reserve Act had been passed in 1913, just in time to be of use in the period of financial disturbance and readjustment following the outbreak of the war in August 1914. Also, the United States entered the World War nearly three years after the War had commenced, and therefore had an adequate period within which to readjust its affairs, its banking structure and its finances to war-time conditions. Furthermore, the citizens of the country, as neutrals, had extensive dealings with the belligerents. By the time of our entry into the World War income and production were at the highest levels that had ever been reached, the banking structure was sound, the condition of the Treasury was good, and the gold supply was at the highest level in history. It is interesting to note, in this connection, that the stock of gold in the United States increased from $1,387,270,000 on August 1st, 1914, to $3,079,784,000 on November 1st, 1918, and was then somewhat over one-third of the entire stock of gold in the world. It is also interesting to note that there had been an immense expansion in our foreign trade, the favorable balance of trade having increased from some $470,000,000 for the fiscal year 1914 to approximately $2,135,000,000 for the fiscal year 1916. With the establishment of the Federal Reserve System, the country had been able to adjust itself with surprising ease and rapidity to all these conditions.

COST OF OUR PARTICIPATION.

The total operating expenses of the United States Government increased from an average of $2,577,000 per day in January, 1917, to a peak of $55,168,000 in November, 1918. It has been estimated that the United States Government spent in round figures $22,978,000,000 on its own account in the World War, and in addition advanced, to July 1919, approximately $9,102,000,000
to its allies in the war, making the total financing involved some $32,080,000,000. This figure does not include advances to the War Finance Corporation and several smaller items. With these items, the total cost, including advances to allies, is said to have been approximately $32,427,000,000.

**METHOD OF FINANCING U. S. EXPENDITURES.**

The program of the Treasury at the commencement of our participation in the war was to finance approximately one-third of the total expenditures, including loans to foreign governments, out of taxation and other current income, and the remainder through loans. After the close of the war, it was estimated that 29% of the total cost had been paid from current revenues and the balance from loans, which under the circumstances represented a fairly close realization of the aims of the Treasury.

The amount raised by loans therefore was approximately $23,000,000,000, of which approximately $21,432,000,000 came from the sale of Liberty Bonds and Victory Notes, nearly $1,000,000,000 from the sale of War Savings Certificates, and the balance from Certificates of Indebtedness and other sources.

**LIBERTY BONDS AND VICTORY NOTES.**

About 95% of the money raised by the United States Government from loans during its participation in the war was through the issue of government obligations known as Liberty Bonds and Victory Notes. In this financing, it had the benefit of European experience and in addition was able to operate under very favorable circumstances, for the reason that the existing government debt was very small and government expenditure was normal. On the other hand, the amounts required to be raised were far beyond any sums which might have seemed probable a few years earlier, for the reason that the United States entered its war finance program at a high level of
prices and in rising labor and commodity markets.

These financing operations commenced in 1917 with the First Liberty Loan, and concluded after the Armistice with the Victory Loan. The interest rates carried by the various issues increased from 3\% in the case of the First Liberty Loan, to 4\% for the Victory Loan.

The drives to place these loans involved propaganda of various sorts, chiefly, however, appeals to patriotism, stimulated by mass meetings, and in general, all of the well-known and widely used devices available for the purpose of increasing public interest and encouraging public participation. The First Liberty Loan was oversubscribed 50\% and the second 54\%, the latter representing the peak of oversubscription. The Third Liberty Loan was oversubscribed 33\%, the Fourth Liberty Loan, which in amount was double any preceding issue, only 16\%, and the Victory Loan 16-2/3\%.

The total subscriptions to Liberty Bonds and Victory Notes aggregated $24,072,000,000, of which $21,435,000,000 was allotted, and $21,432,-000,000 finally paid in.

The War Savings Certificates, aggregating slightly less than $1,000,000,000, were an incidental part of the financing program, representing less than 5\% of the amount raised through Liberty and Victory loans, and were intended to broaden the participation of the public in the program of war finance by providing a means for the investment of comparatively small sums.

The banking system of the country became a very essential part of the financing operations conducted through the sale of Liberty Bonds and Victory Notes, for many purchases of these notes were made on borrowed money. In particular, the drive in connection with the placing of the Third Liberty
Loan issue made use of a slogan, "Borrow to Buy", which resulted in a large increase in bank loans on Liberty Bonds. As an illustration, the loans in the Federal Reserve Banks on war paper rose to $642,429,000 on April 26th, 1918, which at that time represented 71.2% of all paper discounted at the Federal Reserve Banks; these loans increased to $1,467,000,000 by December 1918.

Since the funds raised through the sale of the various government issues came in at varying intervals and the expenditures went on continuously and at a constantly accelerating rate, it was necessary to resort to the issue of temporary certificates of indebtedness in the periods between the funding operations. As an illustration, $4,659,000,000 of certificates of indebtedness were issued in anticipation of the Fourth Liberty Loan, and $6,157,000,000 in anticipation of the Victory Loan. The total issues of certificates of indebtedness during the war aggregated nearly $30,000,000,000. The Treasury placed these certificates of indebtedness through the twelve Federal Reserve Banks as its fiscal agents.

**FINANCIAL CONTROL; CAPITAL ISSUES COMMITTED.**

The immense volume of the financing operations carried on by the United States Government during its participation in the war almost preempted the security markets in the United States, since these issues necessarily had priority over all others. The people throughout the country, having had the benefit of high wages and high prices for commodities, and acquiring the habit of purchasing securities as a result of the various Liberty Loan drives, began to develop an increasing interest in the purchase of securities of other types. Therefore, some measure of financial control was deemed advisable, but it is interesting to note that the only
specific measure of capital control set up was the formation of the Capital Issues Committee.

The Capital Issues Committee was created under Title II of the War Finance Corporation Act of April 5th, 1918. The Committee consisted of seven members appointed by the President of the United States, with the advice and consent of the Senate. The Act provided that "the Committee may, under rules and regulations to be prescribed by it from time to time, investigate, pass upon, and determine whether it is compatible with the national interest that there should be sold or offered for sale or for subscription any issue, or any part of any issue, of securities hereafter issued by any person, firm, corporation, or association, the total or aggregate par or face value of which issue and any other securities issued by the same person, firm, corporation, or association since the passage of this act is in excess of $100,000. Shares of stock of any corporation or association without nominal or par value shall for the purpose of this section be deemed to be of the par value of $100 each. Any securities which upon the date of the passage of this act are in the possession or control of the corporation, association, or obligor issuing the same shall be deemed to have been issued after the passage of this act within the meaning hereof".

The provision above quoted is the sole definition of the Committee's powers and it is of particular interest to note that the Act contained no penalty clause and therefore the regulations were not legally enforceable. The Act as originally drawn contained a suitable penalty clause which would have conferred legal powers on the Committee, but this was eliminated in Congress. Therefore, the Committee found itself with power to investigate
any proposed sale of securities, but without means to compel applicants
to submit such new issues to the Committee. However, the country as a
whole accepted the functions of the Committee in spirit, and proposed issues
were quite generally submitted for its consideration.

The Capital Issues Committee commenced to function on May 17th, 1918
and continued the operations of an informal body which had been constituted
by the Federal Reserve Board earlier in the year. It ceased active opera-
tions on December 31st, 1918 and closed up its affairs, by direction of the
President, on August 30th, 1919. During the life of the Committee it passed
upon applications for new security issues aggregating $3,777,313,000, of
which the total amount disapproved aggregated $917,133,000. This, however,
does not represent the full measure of its activities, for the reason
that numbers of applications were withdrawn voluntarily after being presented
to the Committee, and large numbers of prospective applicants yielded to
informal suggestions made by the Committee and its District Committees that
their enterprises or projects should be postponed until after the war. In
addition, many other proposed issues of securities were no doubt deferred
or discouraged by the knowledge of the existence of the Committee or as a
result of the Committee's public appeals for cooperation.

The function of the Capital Issues Committee was to determine whether
or not proposed issues were sufficiently in the public interest, sufficiently
necessary or contributory to the prosecution of the war, to warrant their
being offered in a market so preempted by the financing operations of the
United States Government. It also carried out a certain measure of public
service by discouraging unsound flotations for which, as a result of the
unusually prosperous economic conditions of the country as a whole, there
was so fertile a field. The members of the Committee were so impressed by the volume of doubtful security issues which were being or might be offered to the public for sale that the first report of the Committee urged the desirability of continuing some form of federal supervision of securities during peace-times. This recommendation, however, was never put into effect.

Thus it appears that the only specific financial control exercised during the war, using the words in their narrowest sense, was comparatively limited in scope and without legal authority to enforce any measure of control. The real control was incidental to other operations; such control resulted from the inability of any new enterprise, or proposed expansion on the part of existing enterprises, to secure without government approval the men and materials required for construction or operation. Obviously the control of manpower was primarily in the War Department through the draft, and the control of material was largely with the War Industries Board as far as domestic allocations were concerned, and with the War Trade Board as far as imported materials were concerned.
Due to the formation of the Federal Reserve System at the beginning of the World War, the specie problems were by no means as important as they would have been under our earlier banking system. Neither did the United States find it necessary to resort to the various methods for collecting coin, particularly gold, used by the other belligerents. The reason for this is obvious, in that the United States had approximately one-third of the monetary gold supply of the world in its treasury, and through its immense volume of export balances in the years immediately preceding our entry into the war, we had been accumulating currency whereas other nations were on the whole being drained of currency or bullion to pay for outside purchases. However, the Treasury as far as practicable discouraged the circulation of gold coin and also, under powers given to the President by the Espionage Act and enforced under regulations administered by the Secretary of the Treasury, took control of the export of coin, bullion or currency from the United States. These regulations were abolished by proclamation of the President on June 26th, 1912, except as to export of bullion, or currency or coin to parts of Russia. The Treasury appointed a Gold Export Committee of three members to control the movement of gold. Before the operations of this Committee had proceeded very far, it was apparent that the control of gold movement was quite definitely tied up with problems of foreign exchange. Consequently, the Treasury, acting through the Federal Reserve Board as its Agent, set up a division for foreign exchange in New York.
It became necessary to assist the currency exchange of France, Great Britain and Italy, and, as war restrictions prevented settlement of trade balances by gold export, everything possible was done that war limitations on tonnage would permit to settle balances by the export of non-essential commodities. The whole question of foreign exchange transactions and settlements involved numerous transactions, and the material available is too voluminous to permit more than passing mention here.

Certain specific problems were presented in connection with silver. There was a large volume of trade with the Orient involving jute, hides and many other essential war materials. In particular, there was a very urgent demand for additional currency for India on account of the large volume of necessary war supplies being purchased there, such as mica, jute, shellac, and graphite. The use of silver as currency was general in the Orient, and it was necessary to make payments there in silver. The amount of silver required was far in excess of the available stocks or production outside of the monetary reserves of the United States. Consequently the Pitmann Act was passed, on April 23rd, 1918, which authorized the retirement of silver certificates and melting down the silver dollars held against those, in amounts up to 350,000,000 ounces. The Act provided that any silver sold must be repurchased later in corresponding amounts at $1 per ounce.

The United States Government, acting under these provisions, melted down 300,000,000 ounces of silver dollars held under the silver certificates and sold this amount to the Government of Great Britain, for the use of the Government of India, at $1 per ounce. The silver
certificates retired were replaced by Federal Reserve notes secured by United States certificates of indebtedness or United States two-year gold notes. As the silver was repurchased from time to time later, the Federal Reserve notes were retired.

**COROLLARIES TO FINANCIAL CONTROL.**

Because of the fact that the Government preempted the security markets, and further because of the fact that it exercised some measure on control on private finance through the Capital Issues Committee, and a very definite control on private operation through the control of men and material, as previously mentioned, it became necessary for the Government to set up various bodies which could aid directly or indirectly in private, or combined public and private, financing of operations necessary or contributory to the prosecution of the war. Such bodies included the War Credits Board and the War Finance Corporation. The War Trade Board, while functioning primarily for the purpose of regulating import and export of commodities and preventing trade with the enemy, had an incidental relation to financial control because of the bearing of foreign trade on foreign exchange. Various auxiliaries of the Government were also empowered to make advances of Government funds in the form of loans for the purpose of assisting private enterprise in specific cases, as, for example, the Emergency Fleet Corporation.

**WAR CREDITS BOARD.**

Previous to the war, the law provided that payments on Government contracts could not exceed the value of services rendered or goods
delivered prior to such payment. In the early stages of the war, this situation was met temporarily by furnishing contractors raw materials and facilities. However, it became obvious that private finance could not be depended upon for the facilities, supplies and working capital required in so large a volume for the manufacture of munitions under government contracts. This was partly for the reason that the markets for private issues were so largely preempted by the Government's own operations, and partly for the reason that a considerable measure of risk was necessarily involved in financing the construction and operation of plants intended primarily, and often solely, for war purposes. The situation was met by an Act passed October 6th, 1917, which authorized the Secretary of War and the Secretary of the Navy to make advance payments to contractors in amounts not exceeding 30% of the contract price of supplies purchased "during the period of the existing emergency". This authority in effect suspended the provisions of existing law, with respect to advances against contracts by the Navy or War Departments, for the period of the war.

In order to make possible the necessary control of advances under the authority thus conferred, the War Department organized the War advances of Credits Board, which, during the period of its active existence, approved approximately $248,000,000, and collected all but about $1,000,000. As this sum represents only about 1% of the total expenditures of the United States Government in its own operations during the war, it is obvious that the resources of the contracting firms, together with such assistance as they were able to obtain from private sources, were sufficient to cover the greater part of their requirements. However, a large part of
the money expended by the Government was for operations under its own control and ownership, so that the percentage is not the full measure of the importance of the transactions of this financing agency.

The War Credits Board found itself involved rather unexpectedly in the broad general problems of financial control on account of interest rates, in that in the beginning advances were made at 5% interest, whereas in time the interest rates through ordinary banking channels became much higher. There was therefore a tendency for contractors to draw away from well established banking credit channels and resort to loans from the War Credits Board as a matter of monetary saving rather than war emergency. This situation later was met by monthly revision of interest rates in consultation with the Treasury.

Looking back over the history of our participation in the war, it would appear that the War Credits Board performed a necessary function and that a similar organization is perhaps fundamental to the successful financing and financial control of large-scale war operations. The activities of the War Credits Board, and the volume of advances handled by it, would have increased progressively with the further duration of the war, and no doubt there would have arisen many new problems to face.

WAR FINANCE CORPORATION.

With the operations of the Government itself financed by Government funds, and with munitions contractors assisted by the advances of the War Credits Board, it became necessary to consider some of the increasing problems of finance encountered by private enterprise necessary or contributory to the prosecution of the war, whose capital requirements
were being met by sale of securities to the public, in a market becoming increasingly narrower as a result of the preemption of such markets for Government issues. It was thought that this might be accomplished by setting up facilities through which banks could, in effect, rediscount the longer term issues of private enterprises through a Government-owned corporation, just as the short-term obligations of commerce were rediscounted through the Federal Reserve Banks. It was also realized that in certain cases direct assistance might have to be given to private enterprise.

Therefore, by act of April 5th, 1918, the War Finance Corporation was created. It was empowered and authorized (Section 7) to make advances for periods not exceeding five years to banks, bankers or trust companies in the United States which after the entry of the United States into the war had made, and had outstanding, loans to persons, firms, corporations or associations conducting established and going businesses in the United States, and whose operations were necessary or contributory to the prosecution of the war, such advances to be limited to 75\% of the face value of the loans made by the bank. Similar loans could also be made to banks, bankers, or trust companies on bonds purchased from customers engaged in necessary or contributory operations, also limited to 75\%. There was, however, a provision authorizing loans to banks, bankers or trust companies up to 100\% of the face value of loans made by them if at least 33\% additional security was provided, the corporation to retain power to require additional security at any time.

There was a further provision (Section 8) permitting advances to savings banks and to building and loan associations, this on the theory
that savings banks might otherwise find it necessary to realize on their investments in a depressed bond market.

A further section (Section 9) provided that the corporation should be empowered in exceptional cases to make advances directly to any person, firm, corporation or association conducting an established and going business in the United States whose operations were necessary or contributory to the prosecution of the war, for periods not exceeding five years from the date of such advances, but only for the purpose of conducting such business in the United States, and only when in the opinion of the Board of Directors of the Corporation, such person, firm, corporation or association was unable to obtain funds upon reasonable terms through banking channels or from the general public.

In considering the broad problems of war finance and financial control, it is interesting to note how clearly the operations of the War Finance Corporation show the impossibility of foreseeing even for the immediate future just what the needs of the country and its business will be, and just how they will be distributed. For example, the underlying theory of the Act, as stated above, was that the Corporation would be used primarily to serve as a rediscounting medium for the longer term obligations of banks, presumable secondarily to protect savings banks, and finally, in exceptional cases, to make direct advances.

However, the Corporation loaned, either before the Armistice or on commitments made prior to the Armistice, a total of $205,537,506, of which total only $4,718,377 was to banks, bankers and trust companies under Section 7, and only $5,268,377 to savings banks or building and loan associations under Section 8. The balance, $196,550,502, or about 93% of the total, was loaned under the exceptional case clause, Section 9.
It appears that developments differed from the fundamental theory of the Act, and that the exceptional case was the rule, and the basic case the exception. As to this, however, it should be noted that the operations of the war ended comparatively soon after the establishment of the Corporation, and a continuance of war operations for several years might have made a very different picture.

The advances made during the war, or on commitments made during the war, under the exceptional case clause, directly to persons, firms or corporations, included $39,797,400 to public utilities, $23,814,674 to industrial corporations, $25,311,500 on warehouse receipts, and $7,827,278 in cattle loans. This illustrates the division of the Corporation's activities under the war-time provisions.

After the Armistice, the Corporation made advances aggregating $204,794,520 to railroads under federal control. Its powers were also extended to permit it to render aid to agriculture for some years following the war. It also, during the war period and for more than a year thereafter, acted as the agent for the Treasury in the purchase of Government bonds for the sinking fund or for the purpose of steadying Government bond markets. At one time, the Corporation had in use its entire capital stock issue of $500,000,000 subscribed by the United States Government, also the proceeds of the $200,000,000 of bonds, the latter having been issued in April, 1919 and redeemed on maturity, April 1st, 1920.

The accomplishments of the War Finance Corporation, both during the war and in the period of reconstruction immediately following, are not to be measured alone by the actual number of dollars advanced in
loans. The psychological value of its operations was even greater than the dollar value involved; for the knowledge that funds were available in an emergency from this Government-owned corporation gave a greater confidence to private finance and made possible the placing of loans through private channels to an extent, and on terms, which would have been impossible otherwise.

WAR TRADE BOARD

The operations of the War Trade Board bear on the subject only very slightly. The essential functions of this Board were the commercial isolation of the enemy by control of United States exports to border neutral nations, the financial isolation of the enemy by control of enemy goods or credits in or with the United States or its citizens, the provision of essential supplies by conservation of domestic resources and maintenance of essential imports and the conservation of ocean tonnage through import and export restrictions and bunker control.

In addition, it served indirectly as a price fixing agency, in that price agreements or Government options were often attached to import licenses.

It is obvious that the operations of the War Trade Board had an important bearing on financial control in that import and export movements are directly involved in considerations of foreign exchange. The isolation of the enemy from a financial standpoint also formed a part of financial control. However, the problems involved in the import and export of coin, bullion or currency, were handled by the Treasury and not by the War Trade Board.
OTHER AGENCIES.

While many Government agencies other than the War Department or the Navy Department made large expenditures of Government funds, such as the Shipping Board, Emergency Fleet Corporation, Housing Corporation and Grain Corporation, a review of their operations goes too far afield for the scope of this discussion.

CONCLUSIONS.

The principal conclusions to be drawn from the experiences of the United States Government in the World War, from the standpoint of finance and financial control, can be summarized very briefly:

To begin with, it is obvious that finance is not the controlling factor in war. To the extent that men, material and morale are available, the operations of war will be financed to the utmost limit of these fundamental resources in one way or another and the limit will not be imposed by any financial considerations.

The details of financing and financial control cannot be planned in advance, for the reason that it will depend upon the kind and scope of the war and the economic, social and political conditions of the nation involved, and at the time, and furthermore, financial problems do not function like automatic machines under the hand of any operator, but even more than any other phase of the war problem, their successful solution is dependent upon the men available to operate the financial agencies. Therefore, to a considerable measure, financial agencies and controls must be adjusted to the men who are available to operate them.