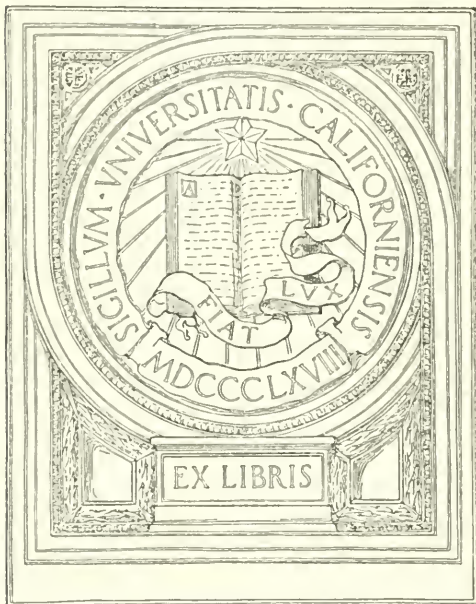


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The Credit of Nations

BY

FRANCIS W. HIRST

Editor of *The Economist*

AND

The Trade Balance of the United States

BY

GEORGE PAISH

Editor of *The Statist*



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The Credit of Nations

With special reference to the debts of
Great Britain, Germany, France,
and the United States

BY

FRANCIS W. HIRST
Editor of *The Economist*

THE CREDIT OF NATIONS.

A COMPARATIVE STUDY OF RECENT DEVELOPMENTS
IN EUROPE AND THE UNITED STATES.

INTRODUCTION

Many and diverse are the causes affecting the international money market. Local conditions still account for strong variations and cross currents; but the tendency is always toward sameness or parallelism, for the money markets of the world under the influence of the telegraph and the telephone are taking on a more and more international character. By common admission when trade is good, when speculation and enterprise are active and prices rising, a higher rate of interest is obtainable for loans, whereas when trade is declining and prices falling lenders of money have to be content (other things being equal) with lower rates of interest. But among those who actually deal in money—bankers, brokers, etc.—and especially among speculators on the stock exchange many peculiar notions and superstitions are entertained on this subject, more particularly as regards the influence of gold movements and gold production upon the money market. Even in the ranks of those who make a scientific study of the problem room has been found for many differences of opinion. One fact generally admitted both by practical and theoretical financiers is that the money market and the loan market have important bearings upon one another. The most propitious time for issuing a new loan is when the money market is easy, and financial anglers with a big flotation in hand will watch and wait anxiously for the psychological moment to strike. On the

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other hand the rates for "short money" and for "long money" may frequently diverge. Their fluctuations are mutually influential without being strictly parallel, for demand and supply may differ widely according as they are concerned with days or years. Supplies of money for weekly or monthly loans and for the discounting of bills which mature in two or three months may be abundant at times when there is very little capital available for investment in new issues of government loans, railroads, or industrial stocks.

These general questions it is not the writer's purpose to investigate. His object is the much humbler and narrower one of examining the different degrees of credit which attach to a number of different nations or governments, and of measuring some striking alterations in the relationship between national securities which have occurred in recent times and are brought to light by statistical comparisons carried over a series of years. For this purpose there is at hand a mass of material recently accumulated by the treasury officials of the German Government in 1908 for the purpose of forwarding a project of financial reform. The statistics cover a period of thirty years from 1877 to 1907.

It may be remarked first of all that the debt of any important government can usually be bought on all the leading stock exchanges at pretty much the same price. But some governments—Russia and Brazil, for example—do not like the market for their securities to be too international or the prices to be too fluid. They fear that the whole level of their credit may be unduly lowered by a sudden panic or prejudice occurring in a single market. Hence, while allowing the coupons to be cashed anywhere they will divide an issue between perhaps Paris, London, Berlin, and New York, making the bonds issued for French or German consumption nontransferable to England or New York, and vice versa. In other words, for-

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eign loans are often international as to the coupons but local as to the scrip. Thus it happened that at one time, when the revolutionary movement in Russia was regarded in London with great apprehension but with comparative composure in Paris, the market price of Russian bonds fell in London some 10 per cent below the market price for the parallel issue in Paris. This no doubt was an extraordinary occurrence; but it may be important, and is always useful, in comparing the credit of different countries to state in each case the stock exchange or bourse from which the quotations are taken. The following list shows the nature of the stocks compared and the stock exchange from which the quotations are taken for the twenty years, 1887-1907:

1. British consols—3 per cent to April 6, 1889; $2\frac{3}{4}$ per cent to April 6, 1903; and $2\frac{1}{2}$ per cent since that time; London Stock Exchange.

2. French rentes—3 per cents; Paris Bourse.

3. German $3\frac{1}{2}$ per cents; Berlin Bourse.

4. United States bonds—1887 to 1894, 4 per cent bonds falling due in 1907; and 1895 to 1907, 4 per cent bonds falling due in 1925; New York Stock Exchange.

5. Dutch $3\frac{1}{2}$ per cent loan 1887 to 1896 and 3 per cent since; Amsterdam Stock Exchange.

6. Swedish 4 per cents 1887 to 1895; $3\frac{1}{2}$ per cents from 1895; Hamburg Bourse.

7. Austrian 4.2 per cent note rentes; Vienna Bourse.

8. Russian fives 1887 to 1889; fours from 1889; Paris Bourse.

9. Italian 5 per cent rentes subject to an income tax of 13.2 per cent up to 1894 and of 20 per cent from July 1, 1894, to December, 1906; $3\frac{3}{4}$ per cent rentes from January 1, 1907, to December, 1911, and $3\frac{1}{2}$ per cent (tax free) after 1911; Paris Bourse.

10. Spanish exterior 4 per cents; Paris Bourse.

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Average price of the public loans of Great Britain, France, Germany, United States, and Holland from 1887 to 1907.

Year.	Britain (2¾ per cent. bill 1902).	France (3 per cent).	Germany (3¼ per cent).	United States (4 per cent).	Holland (3½ per cent. bill 1896).
1887.....	95.5	80.1	99.7	127.2	98.8
1888.....	99.0	81.6	102.4	126.7	100.5
1889.....	98.0	84.9	103.7	127.8	102.3
1890.....	96.4	90.7	100.4	122.7	101.6
1891.....	95.7	94.2	98.3	118.6	101.4
1892.....	96.6	97.3	99.9	115.6	101.4
1893.....	98.3	97.2	100.3	111.9	101.6
1894.....	101.0	100.0	102.3	114.0	102.4
1895.....	106.2	102.0	104.4	121.5	101.3
1896.....	110.8	102.1	104.5	116.2	^a 100.6
1897.....	112.4	103.3	103.5	124.5	^b 99.7
1898.....	110.9	102.8	102.6	125.3	98.9
1899.....	107.1	101.2	99.7	129.7	97.5
1900.....	99.6	100.6	95.8	134.5	94.3
1901.....	94.2	101.2	99.5	138.3	90.7
1902.....	94.3	100.6	102.0	136.7	93.7
1903.....	^c 90.7	98.1	102.3	135.3	96.3
1904.....	88.2	97.5	101.9	132.0	95.7
1905.....	89.8	99.2	101.3	132.4	95.2
1906.....	88.3	97.6	99.5	130.3	94.1
1907.....	84.1	94.8	94.6	126.6	93.0
					89.8

^a January to February, 3½ per cent.

^b March to December, 3 per cent.

^c At 2½ per cent.

Comparative credit of the same countries shown by reducing them all to a 3 per cent basis.^a

Year.	Great Britain.	France.	Germany.	United States.	Holland.
1887.....	103.8	79.7	85.5	110.9	84.7
1897.....	122.2	102.9	88.7	105.2	98.9
1903.....	108.5	97.7	87.6	117.8	95.7
1904.....	105.5	97.1	87.3	115.3	95.2
1905.....	107.4	98.8	86.8	116.2	94.1
1906.....	105.6	97.2	85.3	114.8	93.0
1907.....	100.6	94.4	81.1	111.9	89.8

^a Thus a 4 per cent loan at 100 would be 75 in this table, or at 120 it would be 90. Similarly, a 2½ per cent loan at 80 would be converted into 96.

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Comparative credit of the same five countries shown by exhibiting the real rates of interest paid.^a

Year.	Great Britain.	France.	Germany.	United States.	Holland.
1887-----	2.8	3.7	3.5	2.4	3.5
1897-----	2.4	2.9	3.3	2.8	3.0
1903-----	2.7	3.0	3.4	2.0	3.1
1904-----	2.8	3.0	3.4	2.2	3.1
1905-----	2.7	3.0	3.4	2.1	3.1
1906-----	2.8	3.0	3.5	2.1	3.2
1907-----	2.9	3.1	3.7	2.2	3.3

^a Thus if a 5 per cent stands at 120 the real rate of interest paid is 4.17; or if it stands at 80, the real rate of interest is 6.25.

Three corresponding tables for Sweden, Austria, Russia, Italy, and Spain will help us to form a very correct idea of the ups and downs of public credit in Europe during the last twenty years. Here again the first table gives the average prices of the public loans.

TABLE I.

Year.	Sweden (4 per cent).	Austria (4.2 per cent).	Russia (5 per cent).	Italy (5 per cent).	Spain (4 per cent).
1887-----	102.9	80.6	98.5	97.5	66.0
1888-----	103.5	80.0	99.9	96.2	70.9
1889-----	103.5	84.3	^a 92.8	95.1	74.5
1890-----	102.1	88.5	97.1	94.3	74.7
1891-----	101.8	91.9	97.4	91.9	72.1
1892-----	102.9	95.7	95.0	91.1	62.9
1893-----	103.3	97.4	99.5	87.8	63.5
1894-----	102.4	98.7	101.2	^b 79.4 ^c 79.7	66.6
1895-----	^d 100.9 ^e 101.1	100.8	101.5	88.4	70.0
1896-----	102.1	101.2	103.4	86.8	62.2
1897-----	102.3	101.8	103.7	93.1	61.5
1898-----	100.9	101.6	102.4	93.1	44.7
1899-----	98.5	100.4	101.0	94.1	60.0
1900-----	96.3	98.5	99.0	94.0	71.0
1901-----	98.8	98.6	100.3	97.5	72.0

^a At 4 per cent.

^b 5 per cents with 13.2 per cent income tax.

^c 5 per cents with 20 per cent income tax.

^d January to September, 4 per cent.

^e October to December, 3½ per cent.

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TABLE I—Continued.

Year.	Sweden (4 per cent).	Austria (4.2 per cent).	Russia (5 per cent).	Italy (5 per cent).	Spain (4 per cent).
1902	100.8	101.4	101.0	102.0	82.2
1903	100.4	100.3	99.2	103.0	89.9
1904	99.4	99.6	93.5	103.1	85.9
1905	98.7	100.3	87.3	105.2	91.8
1906	99.2	99.4	75.4	103.9	95.2
1907	95.7	97.9	75.2	^a 102.4	93.1

^a 3¾ per cents free of income tax

The second table gives the comparative credit of the same countries by translating the same loans into terms of 3 per cents:

TABLE II.

Year.	Sweden.	Austria.	Russia.	Italy.	Spain.
1887	77.1	57.5	59.1	66.7	49.1
1897	87.7	72.7	77.7	69.1	45.8
1903	86.0	71.7	74.4	76.5	67.1
1904	85.2	71.1	70.1	76.6	64.0
1905	84.6	71.6	65.4	78.2	68.5
1906	85.0	71.0	56.5	77.1	71.0
1907	82.0	69.9	56.4	81.1	69.4

The third table gives the real rates of interest paid by the same five countries:

TABLE III.

Year.	Sweden.	Austria.	Russia.	Italy.	Spain.
1887	3.8	5.2	5.0	4.5	6.1
1897	3.4	4.1	3.8	4.3	6.5
1903	3.4	4.1	4.0	3.9	4.4
1904	3.5	4.2	4.2	3.9	4.6
1905	3.5	4.1	4.5	3.8	4.3
1906	3.5	4.2	5.3	3.8	4.2
1907	3.6	4.2	5.3	3.7	4.3

To expound these tables fully and to explain the variations would be almost equivalent to writing a history of Europe and America. The bearing of foreign and colonial policy upon

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finance is particularly strong. While Italy and Spain were pursuing a spirited colonial policy in Abyssinia, Cuba, and the Philippines their finances decayed and their credit languished. When, having suffered defeat, they withdrew, the recovery was extraordinarily rapid, until in 1909 Italy can borrow on better terms than Germany, while even Spanish credit is little inferior. The influence of the war with Japan on Russian credit is also plainly visible, while the heavy addition to British debt resulting from the Boer war has greatly reduced the lead of British credit, which is now very little better than that of France. The United States figures are misleading because there is an artificial demand for the bonds for currency purposes.

It must be remembered also that large additions might be made to the debt without injuring the credit, as when, for example, railways are nationalized and bonds with the interest payable out of the public revenues are substituted for the railways' bonds and stock previously in existence. Thus in the last two years the taking over of the railways by the Government does not appear to have hindered the upward movement of Japanese credit. The same may be said of recent State purchases of railways in Austria, Mexico, and Italy. In such cases the portion added to the debt is capital in the strict sense. "New money" is not necessarily required from the market, and the interest on the new debt may be more than covered by the annual profits of the railways. Similar considerations apply with greater or less force to many national and municipal loans. Again, when a country is advancing fast and fortunes are being accumulated rapidly the public credit is almost certain to improve so long as the public debt remains stationary or grows less rapidly than private wealth. Twenty years ago most of the Italian debt was held abroad. In the last decade most of it has been bought back, and the great bulk is now held in Italy. Every country, of course, favors its own national debt, which is treated as a gilt-edged security.

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As I have followed the growth of the British, German, French, and American debts more closely in the following pages, it will not be necessary to set out any figures here. But the appended table taken mainly from official abstracts may serve to illustrate the movements of a number of other public debts in the period 1877-1907.

Public debts.

Year.	Sweden.	Austria.	Russia.	Italy.
1877			R. 1,874,655,090 £296,820,000	Lr. 9,736,819,000 £389,303,000
1887	{ Kr. 245,967,703 £13,664,872	^a G. 5,212,863,000 £434,405,000	R. 3,158,594,865 £500,111,000	Lr. 11,502,795,000 £460,112,000
1897	{ Kr. 287,483,444 £15,971,302	Kr. 8,471,734,000 £352,989,000	R. 6,334,987,000 £668,693,000	Lr. 12,754,610,000 £510,184,000
1903	{ Kr. 345,214,113 £19,178,562	Kr. 9,185,759,000 £382,740,000	R. 6,643,927,000 £701,303,000	Lr. 13,101,114,000 £524,044,000
1904	{ Kr. 383,944,089 £21,330,227	Kr. 9,275,745,000 £386,489,000	R. 6,651,836,000 £702,138,000	Lr. 12,927,419,000 £517,097,000
1905	{ Kr. 380,818,611 £21,156,589	Kr. 9,413,593,000 £392,233,000	R. 7,841,165,000 £827,678,000	Lr. 12,931,180,000 £517,247,000
1906	{ Kr. 420,852,244 £23,380,680	Kr. 9,609,600,000 £400,400,000	R. 8,625,560,000 £910,476,000	Lr. 13,681,641,000 £547,266,000
1907	{ Kr. 464,359,845 £25,797,769	Kr. 9,783,318,000 £407,638,000	R. 8,710,066,204 -----	Lr. 13,940,401,000 £557,616,000

^a Includes Hungarian debt.

The official figures for Spain and Holland are wanting, and I have not been able to procure those for the Swedish and Austro-Hungarian debt in 1877. Allowance must, of course, be made for the conditions and limitations mentioned above. In fact, debts must be analyzed carefully before inferences are drawn as to the influence of debt fluctuations upon the fluctuations of credit. We can only say that when the supply of a national debt increases faster than the market for it the price of the debt is bound to go down; and, conversely, when the demand from investors increases and the supply diminishes or remains stationary the price is equally certain to rise, monetary conditions remaining the same.

The Debt and Credit of Great Britain.

THE DEBT AND CREDIT OF GREAT BRITAIN.

I.—ORIGIN AND GROWTH OF THE NATIONAL DEBT.

The history of the national debt of Great Britain, which is perhaps more instructive for the practical science of national borrowing than that of any other country, really begins with the revolution of 1689. Before that time the monarch frequently raised small sums by pledging jewels, mortgaging temporary revenues, or by extracting loans (not always repaid) from the Jews. The long struggle between King and Parliament was mainly concerned with finance, and until this was finally settled a regular and national system of taxation was impossible. But with the expulsion of the Stuarts and the settlement of 1689, the financial control of the House of Commons was definitely established. It was important, moreover, to maintain contentment at home; and, though the war waged by King William against James and the King of France was a war in which Parliament was ready to pledge the national resources, it was found impossible to provide for its cost by taxes within the year without arousing dangerous dissatisfaction; and accordingly a public debt gradually grew up. At the time of the revolution there was only one considerable incumbrance upon the national revenue, or rather upon the national credit. This was called the banker's debt. It had originated in 1672 and for some years from that time interest had been duly paid at the rate of 6 per cent. But before the end of the reign of Charles II the payment of interest was dropped, and it was not until a little before the death of King William that a composition was arrived at by which Parliament agreed to pay 3 per cent on the principal or to discharge the whole by a payment of £664,263, i. e., half the principal.

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Thus in 1690 when Parliament wanted to borrow to meet the expenses of the war, its credit and integrity were regarded with suspicion. Nor was the stability of the new government fully recognized in this or the following reign, as will sufficiently appear from the rates at which it had to borrow. The first loan of £250,000 was raised in 1690 at the high rate of 8 per cent for the year and 7 per cent for the three years following, the interest being charged on certain excise duties. In the next year two loans were raised, aggregating £1,000,000 at 8 per cent, one secured upon duties levied on East India goods, the other on wine duties. These loans were for five years. In the same year another loan of £1,000,000 sterling was raised at 7 per cent for four years and charged on additional excise duties. In 1693 two loans for £500,000 apiece at 8 per cent were charged on the wine duties and other specified customs. In 1694 stamp duties were introduced for the first time, and an 8 per cent loan for £330,000 was secured upon the revenue thus created. In the same year the Bank of England was incorporated and a loan of £1,200,000 at 8 per cent was advanced by it to the Government. In 1695 and 1696 several millions more were borrowed on various duties, including new taxes on bachelors, widows, marriages, births, and burials.

At the peace of Ryswick in 1697 many of the revenues upon which the various loans had been secured seemed likely to prove deficient, and the exchequer tallies in the hands of the public began to be sold at a heavy discount. The Bank of England was authorized to enlarge its capital, and provision was made by "the first general mortgage" to discharge the debts before 1706 by continuing certain war duties till that time, interest at 8 per cent being paid meanwhile. Several further loans, however, necessitating additional duties on malt, coal, etc., were contracted before the accession of Anne in 1701. But in addition to the loans above described large amounts of

T h e C r e d i t o f N a t i o n s

capital began to be raised by another device—the sale of annuities for lives or terms of years, which became extinct on death or lapse of the prescribed time. An attempt to obtain a million in this way in 1692 only yielded about one-tenth of that sum, the proposal being too complicated. An alternative, however, an annuity of 14 per cent on a single life, was more successful. The payment of these annuities was made defrayable out of an additional duty on ale, etc., which was afterwards made perpetual. Various other annuities were sold, and at the end of King William's reign a principal of £3,884,000 was outstanding for long and short annuities which involved a charge of £310,000 on the revenues. In 1696 the plan of raising money temporarily by means of exchequer bills was introduced, and the important distinction between funded and unfunded debt was gradually created and recognized. Thus "Dutch finance" came to be applied reproachfully by old-fashioned people to the various devices for throwing the burden of expenditure upon posterity that were introduced along with William of Orange and "the Glorious Revolution."

In the early part of Queen Anne's reign (1702–1714) the system of raising money by mortgaging particular branches of the revenue was continued. Nine loans aggregating about £6,000,000 sterling were floated in this way, mostly at 6 per cent, while sums amounting to £1,600,000 were advanced by the East India Company and the Bank of England in return for the renewal of their charters in 1708 and 1709. Large amounts were also raised by annuities, and toward the end of the reign, when, owing to the cost of the war, money was becoming very difficult to raise, recourse was had to a vicious method which added to the capital of the public debt a much larger sum than the exchequer received. By means of six lotteries, including one granted after the peace of Utrecht, £9,000,000 of money were obtained. Each ticket was entitled

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to a capital equivalent to the sum advanced bearing interest at 6 per cent with repayment in thirty-two years. But in addition the prize drawers were entitled to large additional sums amounting in all to £2,723,000 repayable in the same year and bearing the same interest. So that the Government borrowed £9,000,000 but created £11,723,000 of debt. The history of the relations of the Government and the South Sea Company, ending in the South Sea Bubble, would require a separate chapter. Suffice it that large sums were also borrowed through this channel.

The reign of George I marked an important recovery of national credit, thanks to the operation of peace and economy. Although the nominal capital of the debt was but slightly diminished, the charge for interest, and consequently the real burden on taxpayers, was very greatly decreased. Several important improvements in the management of the debt were introduced. In the first place the plan of mortgaging branches of the revenue was replaced in 1715 by a loan raised in perpetual annuities redeemable by Parliament on repayment of principal, but with funds assigned only for payment of interest. This system was thenceforth generally adopted, though the old plan of specific mortgage was also occasionally resorted to. Under the old system separate accounts of each loan with the assigned taxes had been kept. This had led to confusion, as there emerged a multiplicity of funds, some showing deficiencies and others surpluses. Accordingly, soon after the peace of Utrecht, most branches of the revenue were united in three funds—the aggregate fund, the general fund, and the South Sea fund—each fund being charged with the payment of certain annuities. The united surplus of these three funds formed the basis of the first sinking fund (1716), usually called after Sir Robert Walpole, though its real author was Lord Stanhope. In 1717, after negotiation with the Bank of England

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and the South Sea Company, a general reduction of interest on the public debt was agreed upon to 5 per cent—the debt in King William's reign having been contracted mainly at 8 per cent and that of Queen Anne's reign mainly at 6 per cent. Almost all the public creditors agreed to the reduction, and very few had to be paid off. Ten years later, in 1727, the Government arranged to reduce from 5 to 4 per cent the interest on its debt to the Bank and the South Sea Company, and in 1732 a similar arrangement was made with the East India Company. The irredeemable annuities were also converted into redeemable debt, and a reduction of interest to 4 per cent upon this new capital was agreed upon in 1727. At the end of George the First's reign the total debt funded and unfunded was estimated at about £52,000,000 sterling and the charge for interest at £1,217,551.

During the first part of the reign of George II (1727–1760), under the wise administration of Walpole, peace and financial progress continued. Although the fallacious principle of contracting new debts while applying a sinking fund to the reduction of old debts was still occasionally observed, the debt was substantially diminished. In 1739, however, a long war began, at first with Spain and afterwards with France and Spain together, which eventually added some £30,000,000 to the national debt. With the growing wealth of the nation, however, and the growing confidence in public credit, the Government easily raised the large amounts required at from 3 to 4 per cent, though the rate went a little higher in 1745 owing to the alarm caused by the invasion of the Young Pretender. During the peace which followed an important conversion of the debt was effected. It was enacted in 1749 that all the public creditors at 4 per cent who should signify their readiness to accept 3 per cent after December 25, 1757, should have their existing rate of interest continued till December 25, 1750, and should

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then receive $3\frac{1}{2}$ per cent till December, 1757, after which the interest should be 3 per cent. The total amount of the debts involved in this important scheme, which was to serve as a model for future financiers, was £57,000,000 sterling. Most of the creditors accepted the offer; but as some declined it was repeated in 1753, though on less favorable conditions, as the offer of $3\frac{1}{2}$ per cent interest was only till December 25, 1755. Most of the remaining creditors then accepted, and those who persisted in declining were paid off. The debts thus dealt with were united in a fund afterwards called "the 3 per cent reduced annuities," while the debts originally contracted at 3 per cent were united in another fund called "the 3 per cent consolidated annuities." Thus practically the whole debt was converted in the middle of the eighteenth century into the "sweet simplicity of 3 per cent," and the two parts of it were known into our own time as "reduced threes" and "consols." British credit in fact stood about as high then as it does now—a rather startling fact.

Although during the peace this great reduction in the debt charge was effected, the nominal amount of the funded debt was but little reduced. The unfunded debt, however, which had become larger, was nearly all paid off in 1756 before the Seven Years' war broke out. Nearly £60,000,000 were added to the debt by the Seven Years' war, which was far more costly than its predecessors, and 3 percents fell far below par. Various devices were resorted to, such as (in 1756) a $3\frac{1}{2}$ per cent loan redeemable in fifteen years; lottery loans; 4 percents (1760), reducible to 3 per cent after twenty-one years, allowing £103 for every £100 borrowed; and a 4 per cent loan for £12,000,000 (1762), to be reduced to 3 per cent after nineteen years, with an annuity of £1 for ninety-eight years. A large floating debt in navy bills, exchequer bills, etc., incurred during this war was paid off during the peace which ensued. The following con-

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spectus shows the progress of the national debt from 1689 to the war of the American Revolution:

	Principal.	Interest and annuities.
Debt at the revolution, 1689.....	£664,000	£39,000
Debt contracted during the succeeding wars of King William.....	20,851,000	1,681,000
Debt at peace of Ryswick, 1697.....	21,515,000	1,721,000
Debt paid off during peace.....	5,121,000	410,000
Debt in 1702, at commencement of Queen Anne's war.....	16,394,000	1,310,000
Debt contracted during the war.....	35,750,000	2,040,000
Debt at peace of Utrecht, 1713.....	52,145,000	3,351,000
Debt paid during the peace.....	4,190,000	1,338,000
Debt in 1739, at beginning of war.....	47,954,000	2,012,000
Debt added during the war.....	31,339,000	1,078,000
Debt at peace of Aix la Chapelle, in 1748.....	79,293,000	3,091,000
Debt paid off during peace.....	4,961,000	480,000
Debt in 1756, at beginning of Seven Years' war.....	74,332,000	2,610,000
Debt added by Seven Years' war.....	64,533,000	2,241,000
Debt in 1763, at peace of Paris.....	138,865,000	4,852,000
Debt paid off during peace.....	10,281,000	380,000
Debt in 1775, at commencement of American war.....	128,583,000	4,471,000

By this time it was clear* that the national debt was advancing at a dangerously rapid rate; and the whole of it had been spent upon war. But from a financial point of view the war with the American colonies proved more disastrous than any of its predecessors. The first loan of 1776 was £2,000,000 in 3 percents at £107 10s. funded for every £100 borrowed. In 1777 £5,000,000 were raised in 4 percents at par with an annuity of 10s. for ten years. In the two following years the Government reverted to 3 per cent issues with large annuities to tempt the public. In 1780 £12,000,000 were borrowed in 4 percents at par with an annuity of £1 16s. 3d. for eighty years. In 1781 3 percents were funded at £150 with £25 added in the 4 percents, so that by this transaction £21,000,000 was added to the capital of the debt, though only £12,000,000 reached the exchequer. In short, the credit of the country went from bad to

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worse. The course of the funds has been described in telling language by Sir George Trevelyan:

“The funds always fell after British defeats and never very visibly recovered themselves in consequence of a British victory. In August, 1774, before the revolution began, the 3 per cent consols stood at 89. A month before the news of Long Island arrived in London they were at 84; a fortnight after that news they were at 82. * * * By October, 1777, consols had fallen to 78. The tidings of the capture of Burgoyne brought them down to 70. They fell and fell until the capitulation of Lord Cornwallis reduced them to 54; and they could hardly have gone lower if they were to retain any value at all.”

The last sentence is perhaps an exaggeration; and in fact twenty years later, at an early stage in the war of the French revolution, our 3 per cent consols actually fell to 47.

We may now continue our history, following the figures of Robert Hamilton, the learned and accurate author of the “Inquiry concerning the National Debt.”^a

	Principal.	Interest and annuities.
Debt in 1775, at commencement of American war.....	£128,583,000	£4,471,000
Debt added by American war.....	121,267,000	4,980,000
Debt in 1783, at peace of Versailles.....	249,851,000	9,451,000
Debt paid off during the peace.....	5,732,000	149,000
Debt in 1793, at commencement of French war.....	244,118,000	9,302,000
Debt in 1802, at peace of Amiens.....	520,207,000	18,643,000
Debt in 1814, after Napoleon's retirement to Elba.....	742,615,000	26,647,000

These figures, however, only relate to the funded debt. There was also an enormous amount of floating or unfunded debt. Thus according to Porter in the Progress of the Nation^b the

^a Third edition, 1818. This treatise has never been superseded; its conclusions have only been confirmed and illustrated by experience. It will be observed that while the American war did not quite double the debt it more than doubled the debt charge.

^b Edition of 1847, p. 482.

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whole capital of the debt funded and unfunded amounted to £637,000,000 in 1802 and had risen to £885,000,000^a in 1816, involving a charge for interest in that year of £32,938,000—more than half of the whole public revenue from taxes. The national credit was, of course, much impaired. During the French wars the price of 3 per cent consols fluctuated between a maximum of 73 and a minimum of 47.

The miserable condition of the country after the war is well known, and the financial recovery was very slow. Until 1822 little was done. In fact Joseph Hume declared in that year that the debt had been increasing rather than diminishing since 1816. But in 1822 Vansittart introduced a scheme which led to the conversion of the 5 percents with a large saving of interest, and also provided for the establishment of a real sinking fund. Some substantial retrenchments were effected in expenditure, and in the following year Robinson, Vansittart's successor at the exchequer, found himself with a surplus of £5,000,000, which he applied to the reduction of the national debt. A number of taxes were repealed or reduced, and a net surplus of £3,000,000 was recommended as a sinking fund for the reduction of debt in the future. Thus at last the elaborate machinery of a sinking fund, first suggested by Price to Pitt, which had proved worse than futile, was definitely abandoned. From this time until 1833 there were annual reductions of the national debt, which fell in ten years from £885,000,000 to £841,000,000. The result was immediately visible. In 1824, when over £6,000,000 of debt was canceled, 3 per cent consols rose to 96, the highest point touched since 1792. After 1833 the reduction of debt was suspended, but in 1837-38 there were small reductions and consols rose in the latter year to 95. Then came the Whig deficits, and consols drooped until Peel took

^a Professor Bastable estimates the unfunded debt after Waterloo at £60,000,000, and the funded at £826,000,000.

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the helm. In 1841 this great financier found that the whole debt, i. e. "the aggregate gross liabilities of the State,"^a stood at £838,000,000 and that consols were below 90. By 1845, in spite of sweeping reductions of taxation, he had got 3 per cent consols to par, and there they stood in 1852-53, the debt having been reduced by March 31, 1854, to £803,000,000.

By the Crimean war £33,000,000 were added to the debt, which had risen to £836,000,000 in 1857, and a marked depreciation occurred in consols and in many other gilt-edged securities.^b

In the next twenty years nearly £70,000,000 of debt were extinguished—it was £768,000,000 in 1877—and consols varied from 84 to 97. In the following twenty years the reduction amounted to no less than £123,000,000. After 1880 3 percents were ordinarily above par. In 1884 a small quantity of 2½ and 2¾ percents were created by Mr. Childers, and in 1888 Mr. Goschen converted £549,000,000 worth of consols into 2¾ percents. From £736,000,000 in 1887 the debt was reduced to £635,000,000 in 1899. This was our best performance in debt reduction during the nineteenth century, and it is not surprising that during a glut of cheap money it should have led to a record rise in consols. In three consecutive years, 1896, 1897, and 1898, the 2¾ percents (with a prospect of reduction to 2½ in 1902), touched 113. The 2½ percents, of which there was a small quantity, touched 110.

^a The Return "National Debt" issued year by year gives "the aggregate gross liabilities of the State" at the end of each financial year from 1836, defining them as the sum of (1) the nominal funded debt, (2) the estimated capital liability in respect of terminable annuities, (3) the unfunded debt, and (4) other capital liabilities.

^b "The funds have recently gone down to 10 per cent. I do not say that the fall is all on account of this danger of war, but a great proportion of it undoubtedly is. A fall of 10 per cent in the funds is nearly £80,000,000 sterling of value, and railway stock having gone down 20 per cent makes a difference of £60,000,000 in the value of the railway property of this country."—JOHN BRIGHT, at Edinburgh, October 13, 1853.

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In the budget of 1899 (April 13), in order to provide for the growing costs of armaments—there had been an increase in four years of £2,500,000 on the army estimates and of £7,000,000 on the navy estimates—Sir Michael Hicks Beach, who was then chancellor of the exchequer, raised certain taxes and took £2,000,000 off the sinking fund. But the £2,000,000 lopped off the sinking fund did not represent the whole or net shrinkage in the reduction of the national debt in that year of abounding prosperity and of abounding revenue. Since 1889 (the date of the Imperial Defence Act) a new source of danger to credit had been introduced. While with one hand the chancellor of the exchequer was extinguishing consols, with the other he was creating terminable annuities for naval works. In the year 1897-98 the expenditure out of borrowed money on works was over £3,000,000. For the year 1898-99 it was £7,000,000. Before the budget of 1899 the Secretary for War had announced that the army would follow suit. A military works bill for barracks, etc., was to be introduced on the pattern of the naval works act. No wonder that while the public supply of stock was increased and the public demand diminished the private investor had begun to take alarm, and to anticipate a decline in British credit.

The effect of this policy was now felt. From 110 in March, April, May, 1899, the price of consols fell to 108 in June, 106 in July, and 105 in August. By the beginning of September the danger of war with the Transvaal had become apparent; but consols only fell to 104 in September; and 103 was the average for October, though war broke out in the second week of that month. These figures are very significant. More immediate injury was done to British credit by the financial policy which preceded the war than by the actual outbreak of the war. Even after the dimensions of the war came to be more accurately understood, consols for a long time maintained themselves at

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about par. The monthly average from January to June, 1900, was above par, the price for June being $101\frac{5}{8}$. Let us look at it in a slightly different way. In the nine months preceding the Boer war, January to September, 1899, the main considerations operating on the minds of investors were the increasing expenditure, the reduction of the sinking fund, and the apprehension of trouble in South Africa. The first operated from January to April, and caused a fall of 1 point; the second operated from May to August, and caused a fall of 5 points; the third operated in September and caused a fall of 1 point. Then we take the nine months following, during which the war was in progress. In October, 1899, the average price of consols was $103\frac{5}{8}$. In June, 1900, the average price of consols was $101\frac{5}{8}$. Such was the strength of British credit, and such the belief of investors in our financial stability that nine months of unprecedentedly costly war only lowered consols by 2 points.

From this moment (June, 1900) there was a pretty steady depreciation of British credit down to November, 1901, when consols reached the lowest average monthly point touched during the war, namely, $91\frac{3}{4}$. It may be seen now why this depreciation took place and how it could have been prevented. The occupation of Bloemfontein (March 13) was followed by the annexation of the Orange Free State (May 28); and the occupation of Pretoria (June 5) was followed by the annexation of the Transvaal Republic (September 1). If the military successes had been followed by a treaty of peace with guarantees and indemnity, the longest and most costly period of the war would have been avoided.

From £635,000,000 in 1899, the lowest point since the Napoleonic wars, the national debt rose in consequence of the Boer war to £703,000,000 in 1901 and to £798,000,000 in 1903. This was the highest point since 1867, so that the national savings

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of thirty-six years of peace were swept away by national borrowings during three years of war.

The following table shows the movements of the national debt and of the price of consols from 1894 to 1905.

[From return relating to national debt and from statistical abstract.]

Year ending March 31—	Reduction of debt.	Increase of debt.	Average price of consols for year ending December. ^a	
			Price.	Year.
1894.....	5,000,000	-----	98	1893
1895.....	7,000,000	-----	101	1894
1896.....	7,000,000	-----	106	1895
1897.....	7,000,000	-----	110	1896
1898.....	8,000,000	-----	112	1897
1899.....	3,000,000	-----	110	1898
1900.....	-----	7,000,000	106	1899
1901.....	-----	58,000,000	99	1900
1902.....	-----	61,000,000	94	1901
1903.....	-----	31,000,000	94	1902
1904.....	[3,000,000]	-----	90	1903
1905.....	-----	2,000,000	88	1904

^a To assist the eye in tracing the casual connection I have placed the year ending December, 1893, opposite to the year ending March, 1894, and so on. The difference between 2¾ percents (with the prospect of reduction to 2½ percents in 1902) and the 2½ percents already existing in 1898 was only 2 or 3 points. The quotations here given are for 2¾ percents till 1901, and for 2½ percents after 1901. I have bracketed the reduction of 3,000,000 for 1904, because it was due to a returned Transvaal loan and not to a real surplus of national revenue over national expenditure.

On March 31, 1906, though the Sinking Fund had been restored immediately after the war, the national debt still stood at £796,000,000. Then, however, Mr. Asquith becoming chancellor of the exchequer, a heroic effort was made to retrieve the situation, and the national liabilities were reduced by March 31, 1909, to £754,000,000, a reduction in four years of no less than £42,000,000. It may cause some surprise that no recovery should have taken place in the price of consols, which in fact have been lower in 1909 than in 1905. The state of the international money market, the heavy issues of colonial gov-

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ernment securities and municipal stocks, which of course compete with consols, and the annual emission of some five millions of Irish land stock are all contributory causes. Had not the market been supported by this large Sinking Fund there is no doubt that $2\frac{1}{2}$ per cent consols would have fallen well below 80. Many are of opinion that the inclusion, at Mr. Chamberlain's suggestion, of colonial government securities among trustee stocks has also had a very depressing effect upon our premier security.

II.—SCHEMES OF CONVERSION.

The history of the English debt includes several successful schemes of conversion by which the debt charge for interest has been from time to time reduced, much to the relief of taxpayers. The need and occasion for schemes of conversion have been in the periods of peace following upon great and expensive wars. During war debts have multiplied and rates of interest have risen. When a war is over the relation between income and expenditure gradually becomes normal; and fortunately for this nation, considering its warlike propensities and history, our statesmen have usually maintained the principle that in time of peace surpluses ought to be provided for the diminution of debt. A modern war leaves behind it an awkward legacy of floating debt, consisting as a rule of treasury bills and exchequer bonds, which it is the first business of the chancellor of the exchequer to diminish when a period of peace recommences. When this task is accomplished and the floating debt has been reduced to comfortable proportions, the sinking fund can be utilized for the purchase of funded debt. Then, if market conditions are favorable, consols and other national securities will begin to recover from the depression into which they were sunk by war and borrowing. This is the opportunity for a conversion. In the preceding history we have already recorded the first important and highly successful scheme of conversion, which was carried

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through by Pelham, then chancellor of the exchequer, in 1749. Under his scheme over £57,000,000 of 4 per cent stock were dealt with. The offers to holders were accepted with regard to £54,000,000, and the outstanding balance of £3,290,000 was paid off at par. The next important conversion was undertaken by Vansittart in 1818, three years after the conclusion of the Napoleonic wars. But this was a conversion from a lower to a higher denomination, as the Government wanted to raise £3,000,000 sterling of money without increasing the nominal amount of the debt. The object was effected by converting £27,272,000 of 3 percents standing then at 79, into 3½ per cent stock at par, irredeemable for eleven years, the holders paying £11 in cash to the Government for every £100 in stock converted. In 1822 Vansittart carried through a scheme of conversion on the ordinary lines. There existed at the time over £150,000,000 of 5 per cent stock consisting partly of "navy fives," representing the old victualling and transport bills, which had been funded in 1784, and partly of exchequer bills, subsequently funded. At the time of the operation the 5 percents were quoted at 100⅞. Under the statute by which the conversion was effected (3 Geo. IV, c. 9), holders who did not signify dissent within a fortnight were to have every £100 of this stock converted to £105 of new stock, on which interest at the rate of 4 per cent was guaranteed for seven years. Holders of only £2,794,000 of stock dissented, and were paid off at par. The old fives, to the amount of £149,627,000, were converted into the new 4 percents to the amount of £157,109,000. Two years later, in 1824, when Robinson was chancellor of the exchequer, the whole of the old 4 percents then amounting to £76,248,000 and standing at 101¾ ex. dividend was converted by the act of 5 George IV, chapter 11, into 3½ per cent stock irredeemable for five years. The new 4 percents, created as we have seen by Vansittart in 1822, became redeemable in 1829; and in 1830, when the new fours stood at

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102½ ex. dividend, and 3½ percents at 98¾ ex. dividend, Goulburn as chancellor of the exchequer, offered holders an alternative. They might either take in exchange for their stock £100 of new 3½ percents, guaranteed for ten years, or £70 of new 5 percents guaranteed for forty-two years. The proposal was made on March 26, 1830, and the assent of holders was assumed unless they dissented by the 24th of April. Holders of only £2,880,000 dissented, and were paid off at par. The rest, with holdings of £150,790,000, accepted the proposal and nearly all of them chose 3½ percents. Another small quantity of fours was converted in 1834 by Lord Althorp.

In 1844, when Goulburn was again chancellor of the exchequer, under Sir Robert Peel, a very large and highly successful scheme of conversion was carried through. The 3½ percents to the amount of £248,000,000 sterling stood, in March, 1844, at 101¾ ex. dividend. In exchange for these, new stock bearing interest at 3¼ per cent for ten years and at 3 per cent for twenty years was offered, and with the exception of £103,352 the whole of the 3½ percents, amounting to no less than £248,757,000, were successfully converted. In 1853 the ingenious mind of Gladstone, who had lately become chancellor of the exchequer for the first time, set itself upon another effort to diminish interest on the national debt. Unfortunately his scheme was too clever or too complicated, and the times were unpropitious; for troubles began to arise in Eastern Europe and the price of securities drooped in intelligent anticipation of the Crimean war. Another conversion was tried in 1884 under Mr. Gladstone's 2nd administration by Mr. Childers, who offered all holders of 3 percents either £102 of 2¾ per cent stock, or £108 of 2½ per cent stock, both to be irredeemable until 1905. "Notwithstanding that the terms of the offer were favorable," wrote the late Sir Edward Hamilton, "and that notices of it were sent to every stockholder, it took the fancy of comparatively few. The total amount of

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stocks converted under this scheme was only £23,362,000, of which £11,950,000 represented holdings of government departments." The Childers's scheme, however, served several useful purposes, as Sir Edward Hamilton pointed out, for it supplied Mr. Goschen four years later with a valuable gauge of the national credit, and familiarized the public with stocks of lower denomination and of less "sweet simplicity" than 3 percents. It also brought home to many holders the fact that, though they had not been disturbed for thirty years, they were not secure against the intervention of the chancellor of the exchequer.

This brings us to the last, the most important, the most difficult, and the most successful of all the schemes of redemption—that, namely, which was effected by the late Lord Goschen, when, as Mr. Goschen, he was chancellor of the exchequer in 1888. At that time the existing 3 per cent stocks were distinguished as consols, reduced threes, and new threes. The new threes were redeemable at any time after January 5, 1873; but under the national-debt act of 1870, which was a consolidation act, consols and reduced threes, though "redeemable at any time after the passing of this act," were only redeemable subject to certain regulations, including a year's notice. The result was that the fortress of consols and reduced threes was a more difficult one to assault than that of the new threes. After consultation with his advisers at the Treasury and at the Bank of England, as well as with the government broker and various other authorities in the city, Mr. Goschen came to the conclusion that, while he was in a position to make a compulsory conversion of the new threes, he could not apply the same method to the other two classes. The stocks in existence at this time stood as follows:

Consols.....	£322,681,000
Reduced threes.....	68,912,000
New threes.....	166,399,000

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To show the magnitude of the task, it may be mentioned that at the time of the conversion the books of the Bank of England in which the stocks were inscribed showed 96,265 accounts under the head of consols, 19,975 accounts under the head of reduced threes, and 52,995 accounts under the head of new threes; making a total number of 169,235 holdings varying in amount from a penny to £5,760,000. Mr. Goschen propounded his scheme of conversion on March 9, 1888, and after some debate the resolutions were reported and agreed to on the 12th, when the bill was introduced into the House of Commons and read a first time. It was read a second time on March 16, passed through its committee stages on the 20th and 21st, and received the royal assent on March 27 in an act entitled "The National Debt Conversion Act, 1888" (51 Vict., c. 2). The main feature of the scheme was the creation of new stock which was to be offered to all holders of 3 percents. This new stock was to pay quarterly dividends at the rate of 3 per cent per annum for the year ending April 5, 1889, at the rate of $2\frac{3}{4}$ per cent for the next fourteen years, ending April 5, 1903, and at $2\frac{1}{2}$ per cent for the next twenty years ending April 5, 1923, and thenceforward until the stock should be redeemed. To the holders of new threes the chancellor of the exchequer only gave three weeks, i. e., until March 29, in which they could exercise the choice of taking new stock or of being paid off. Silence meant consent to conversion. If they preferred redemption, they were required to signify their dissent either to the Bank of England or to the Bank of Ireland within the three weeks prescribed, but holders who happened to be on the Continent were given to May 1, and those who were out of Europe until September 1. This financial coup de main was completely successful; for the new threes remained at a premium after the notice of compulsory conversion had been served, so that holders who did not want new stock could sell to the market on terms more favorable than

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those offered by the chancellor of the exchequer. The holders of new threes who signified dissent before the 29th of March represented less than £500,000 of stock. For the holders of consols and reduced threes Mr. Goschen inverted the procedure. They received the same offer of conversion, but silence was taken to mean dissent. If they wished to exchange their stock for an equal nominal amount of new stock, they must signify assent on or before April 12, or at later dates if they were on the Continent or out of Europe. To encourage them to surrender their privilege of a year's notice, holders of consols or reduced threes who assented were offered a bonus of 5 per cent on the stock surrendered. This bait proved attractive, and in the following autumn it appeared in a parliamentary return ^a that out of a total amount of about £592,000,000 of 3 percents dealt with under the conversion act, about £550,000,000 had, in six months, been converted into 2¾ per cent stock, the old stock, which remained unconverted at the end of the operations, being less than £42,500,000. Had it been necessary to raise much money for the purpose of paying off dissenting holders of new threes, ample powers were given to the treasury—it might create or sell new stock; it might issue exchequer bills or treasury bills; or again it might borrow temporarily under the conversion act. Mr. Goschen and his advisers deserved the greatest credit for the extraordinary skill with which this campaign was conducted, and there is no doubt that its success was partly due to the favorable reception which Mr. Goschen's masterly speech on the 9th of March secured for it in the city of London. It is hoped that this brief history may be of use to those who are concerned with public finance. It will at any rate enable the reader to understand how it is that British consols are now a 2½ per cent security.

^a House of Commons Papers, c. 5584, sess. 1888.

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III.—THE HISTORY OF THE SINKING FUND.

During the eighteenth century, as Adam Smith observes, and as we have already shown, the reduction of the public debt in time of peace never bore any proportion to its accumulation in time of war. Yet the danger of a large public debt and the fear of impending bankruptcy were constantly impressed on the public mind by writers and statesmen. Sinking funds were devised by which the debt should gradually be extinguished. But unfortunately the management of the debt, both in its theory and in its practice, left much to be desired. A true sinking fund postulates an excess of revenue over expenditure, a margin over and above what is required for the public services and for defraying interest on the public debt.

But during the most profound peace, to quote again the author of "*The Wealth of Nations*," various events occur which require extraordinary expenditure, and the Government finds it more convenient to provide the money by dipping into the sinking fund than by imposing a new tax:

"Every new tax is immediately felt more or less by the people. It occasions always some murmur and meets with some opposition. The more taxes may have to be multiplied, the higher they may have been raised upon every different subject of taxation, the more loudly the people complain of every new tax, the more difficult it becomes either to find out new subjects of taxation or to raise much higher the taxes already imposed upon the old. A momentary suspension of the payment of debt is not immediately felt by the people and occasions neither murmur nor complaint. To borrow of the sinking fund is always an obvious and easy expedient for getting out of the present difficulty. The more the public debts may have been accumulated, the more necessary it may have become to study to reduce them, the more dangerous, the more ominous it may be to misapply any part of the sinking fund the less

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likely is the public debt to be reduced to any considerable degree, and the more likely, the more certainly is the sinking fund to be misapplied toward defraying all the extraordinary expenses which occur in time of peace. When a nation is already overburdened with taxes, nothing but the necessities of a new war, nothing but either the animosity of national vengeance or the anxiety for national security can induce the people to submit with tolerable patience to a new tax. Hence the usual misapplication of the sinking fund.”

The first regular and systematic plan for the discharge of the national debt was devised by Lord Stanhope and adopted by Sir Robert Walpole’s government in 1716. The public debts were then being discharged by the South Sea, aggregate and general funds, which funds were fed by the produce of certain taxes; and as the revenues thus mortgaged were greater than the interest on the debts, surpluses existed. Accordingly these surpluses, and any further surpluses which might accrue, were united and appropriated by law for the discharge of the national debt and for that purpose alone. The fund thus created by Walpole was called the sinking fund. At the same time interest on the debt was reduced from 6 to 5 per cent, and the savings thus made went to swell the sinking fund, which again benefited to the extent of £400,000 per annum in 1727, when the interest on the national debt was further reduced from 5 to 4 per cent. Further reductions in 1749 and 1750 added another £600,000 to the sinking fund. In the peaceful years 1710 to 1732 the sinking fund was preserved intact even when fresh debt was being contracted. But in 1733, rather than raise the land tax (which then stood at the low and popular rate of one shilling in the pound), a sum of £500,000 was subtracted from the sinking fund; in 1734 £1,200,000 was taken, and in 1735 the sinking fund itself was anticipated and mortgaged.

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After 1718, when the sinking fund was established, it was made a collateral security for any new loan in this way. If the particular tax or duty upon which a new loan was charged proved deficient, the deficiency was made up by the sinking fund, whereas when the tax yielded more than was required for the service of the loan, the surplus, instead of swelling the sinking fund, was used for the expenditure of the year. But this was altered by a statute of 1752, by which the sinking fund received the new taxes and discharged the interests on the new loans. The produce of this sinking fund rose pretty steadily from £323,000 at its commencement in 1717 to £3,166,100 (its highest point) in 1776.

But if the proper purpose of Walpole's sinking fund be to sink—i. e., to extinguish or diminish debt—this fund certainly failed of its purpose after 1733, for out of its annual produce after that date, until the termination of the fund in 1786, only 8½ millions sterling went to paying off debt. “On the whole, therefore,” to quote the summing up of Robert Hamilton, “this fund did little in time of peace and nothing in time of war to the discharge of the national debt. The purpose of its inviolable application was abandoned, and the hopes entertained of its powerful efficacy entirely disappointed.”

In 1786, when Pitt united the existing branches of revenue in the consolidated fund, he took from this fund the sum of £1,000,000 annually and intrusted it to commissioners for the redemption of the national debt who were to employ it in purchasing such stock as they deemed expedient at market prices. To this million was to be added interest on debt redeemed and expiring annuities until the fund amounted to £4,000,000. In 1792 another and separate sinking fund was established, consisting of 1 per cent on the nominal capital of every loan^a to which the dividends

^a As a matter of fact this provision was frequently departed from during the war.

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on the capital redeemed by the fund were to be added. A similar provision was applied to annuities. In 1802 the two sinking funds were united and modifications made. In 1807 Lord Henry Petty introduced a new plan, which lasted for one year, and in 1813 Vansittart again modified Pitt's sinking funds with a view to reestablish as far as possible the original design. The sinking funds of 1780 and 1792, which were afterwards maintained with remarkable persistency during the wars with France, were originally established by Pitt, under the influence and inspiration of Doctor Price. Price's theories first appeared in a *Treatise on Reversionary Annuities* in 1771, and were finally exploded by Robert Hamilton in his "Inquiry concerning the national debt." Price's plan for redeeming the national debt was to apply a fixed sum, separated from the rest of the revenue, to the purchase of stock in the market, the interest on the debt so redeemed being always added to the original sum, so continually to enlarge the operation of the fund. Price put his faith in the operation of compound interest. Money, he said, bearing compound interest increases at first slowly, but the rate continually accelerating becomes in course of time so rapid as to mock all the powers of the imagination. It followed, he thought, that a sinking fund should be based on compound interest, that it should be maintained in war time, and that the money required for it should be raised by new loans if necessary. Indeed, he actually contended that war would increase efficacy of his sinking fund, and that a suspension of the sinking fund during war would be "the madness of giving it a mortal blow" at the very time when it was making progress most rapidly. That a man of high character and liberal talents, an expert calculator to boot, could have imposed upon himself to such an extent is hard to believe. But it is still more incredible that such a piece of charlatantry imposed upon Pitt and governed British finance

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for a generation. Of the influence of Price's plan Hamilton writes: "It has not shared the common fate of the projects of private individuals and vanished in neglect and oblivion. It is the basis of Mr. Pitt's sinking fund, adopted fifteen years after its first publication, and now followed out for upward of thirty years, and although with some deviations, yet on the whole with a steadiness seldom experienced in public measures for so great a length of time and under a succession of different administrations." Doctor Price argued further that in time of war his sinking fund would support the price of consols. But, as Hamilton points out in his crushing analysis, the price of stocks as of other commodities depends on supply and demand. In years when the Government borrows as much as, or more than, it spends on canceling debt, it is clear that whatever sums are brought into the market by the commissioners for the purchase of stock equal or greater sums must be withdrawn from the market by the additional loans required to replace the amounts given to the commissioners. If, then, and so far as purchases on behalf of the sinking fund are only made possible by borrowing, it is impossible that the national credit can receive support by a sinking fund maintained under such conditions. Price proposed that £10,000,000 should be borrowed in time of war, when £9,000,000 only are required to balance income and outgo, in order that a surplus million may be given to the commissioners of the sinking fund, and urged that this device would keep up the public credit and enable the Government to borrow at, say, $4\frac{1}{2}$ instead of 5 per cent and so save £50,000 of interest. What he overlooked was that in order to pay the lenders back £1,000,000 the Government was borrowing from them previously the same sum. The only people who benefit by the double transaction are the financiers who profit by the loan issues. The taxpayer loses just what they gain, and public credit can not

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be better and must suffer from the unnecessary expense. In practice the Pitt sinking funds were even worse than in theory. It was calculated by a parliamentary inquiry in 1828 that the loans raised during the French war yielded on an average £5 os. 6d. in interest, while the previous loans to which the sinking fund was applied averaged only £4 10s. In fact the Price and Pitt plan of "selling new stock cheap and buying old stock dear" in order to keep up a sinking fund during war, is computed to have cost the nation more than £1,500,000 a year for a long period.

I have explained this fallacy and its exposure not so much on account of the important part it played during the wars with France, as because it is constantly cropping up. It is the practice of governments all over the world to attach sinking funds to loans, though their debts are year by year increasing. They forget or ignore the simple truth that an excess of revenue over expenditure is the only real sinking fund by which public debt can be discharged, that the increase of revenue or diminution of expenditure are the only means by which such a sinking fund can be enlarged, and that all schemes for reducing the aggregate liabilities of a nation which are not founded upon this principle are fictitious, illusory, and mischievous. In 1819 the force of Hamilton's criticisms was recognized, and a real surplus of four millions was set aside for repayment of debt. But financial embarrassments intervened, though another attempt was made in 1823. Finally, in 1828, a finance committee of the House of Commons (presided over by Sir H. Parnell), after inquiry "found" what Hamilton had proved, that the only real and useful sinking fund is a surplus, and suggested that a surplus of three millions a year should be provided. In his budget speech of July 11, 1828, Goulburn made some recommendations on these lines, and in the following year an act (10 Geo. IV, c. 27) was passed providing that one-fourth of the

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whole surplus (if any) in each year should be issued to the national debt commissioners and applied by them to the extinction of debt. The commissioners were also authorized to use the surplus for paying off exchequer or deficiency bills as well as funded debt. In 1866 Mr. Gladstone assigned a small annual sum to the extinction of debt and reconstituted the old sinking fund by providing that the whole realized surplus of the year, if any, should be applied to the reduction of debt, a very wise provision, under which, in years of expanding trade and abnormal prosperity, unexpected windfalls and overflows of revenue are employed of necessity to reduce the national encumbrances. Thus debt is diminished just when the nation can best afford to do something for posterity. But Mr. Gladstone's legislation of 1866 still left British finance open to the objection that in years of peace there was no substantial permanent provision for reducing debt and that if an incautious Chancellor of the Exchequer overestimated his revenue there would be an actual addition to the debt. This defect was happily remedied by Sir Stafford Northcote, who established what is called the new sinking fund in 1875, by the act of 38 and 39 (Vict., c. 45). This act provided that the annual charge for the debt should exceed by a substantial and increasing sum the actual interest required, and that this excess of charge over interest should be employed by the commissioners of the national debt in reducing national liabilities. This new sinking fund has always been temporarily suspended by statute during war in obedience to the principles above established, and it has been from time to time modified and reduced. The principle, however, that a permanent sinking fund of a substantial amount should be provided for in every peace budget, in addition to realized surpluses, has been on the whole well maintained, and in fact the largest reductions ever brought about in the national debt were effected by Mr. Asquith as Chancellor of the Exchequer in the years

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1906, 1907, and 1908, through the operations of the old and new sinking funds, the latter having been raised to some ten millions sterling annually, though reduced to seven by Mr. Lloyd George in the budget of 1909.

Mr. Lloyd George also proposed to divert the old sinking fund, i. e., the annual surplus, if any, of each year, to the purposes of developing the agriculture, forests, and other natural resources of the country. But this proposal was fortunately dropped, and the old sinking fund remains as it stood in its final form under section 5 of the Sir Stafford Northcote's Act (38 and 39, Vict., c. 45). By this section the treasury is directed to ascertain within fifteen days after the expiration of each financial year any surplus of income over expenditure and to issue the same out of the consolidated fund in the course of the year. Within six months of the date of such issue the national debt commissioners are required to apply the sinking fund in purchasing, redeeming, or paying off any one or more of the following descriptions of debt, namely, annuities, perpetual or terminable charged on the consolidated fund, exchequer bonds, exchequer bills, and advances made by the Banks of England or Ireland under section 12 of the exchequer audit act 1866. By an act of 1877 (40 Vict., c. 2) these powers of cancellation were extended to treasury bills.

IV.—THE LOCAL DEBT OF ENGLAND AND WALES.

No account of the national liabilities of the United Kingdom would be complete which left out the local debt. The systems of local government in England, Scotland, and Ireland, though similar in principle, are sufficiently distinct in detail to make it possible to describe them as a whole; but the importance of England and Wales, the predominant partner, is such that it should be worth while to give some details as regards the local debt of England and Wales, which will not be necessary in the

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case of Scotland and Ireland. First of all, however, it will be convenient to show, as far as official figures are available, the recent growth of local indebtedness for the United Kingdom, taking the three component parts separately:

Local debt, England, Scotland Ireland, 1890, 1900, and 1905-6.

	1890-91.	1900-1901.	1905-6.
England and Wales.....	£201, 215, 458	£316, 704, 222	£482, 983, 929
Scotland.....	(a)	46, 274, 880	58, 818, 534
Ireland.....	(a)	13, 534, 973	18, 586, 251
United Kingdom.....	(a)	376, 514, 075	560, 378, 714

a Not available.

It is, of course, very difficult to arrive at an exact computation of local indebtedness, and different publications give figures that vary considerably according to the views of the compilers as to what should and what should not be comprised in the term "local debt."

In England and Wales the principal local authorities from a financial point of view are the municipal borough councils, the county councils, the urban and rural district councils, and the poor-law guardians. These last, however, are likely to be extinguished in the near future, in which case their work will be transferred to the county and municipal authorities. Another group of ad hoc bodies, the school boards, suffered this fate in 1902. The revenues required by the poor-law guardians are derived partly from the poor rate, partly from grants-in-aid, these grants-in-aid being contributions from the national exchequer, i. e., the general taxpayer, in aid of the local exchequer, i. e., the rate payer. The county council and borough councils also levy a rate, and the rural and urban district councils levy what is called a general district rate. Local authorities, especially municipal boroughs, have other sources of revenue, such as market tolls, the takings of municipal tramways, the charges

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for municipal gas and water, etc. They are also allowed, subject to statutory restrictions and other conditions imposed by act of Parliament, to contract debt for certain capital purposes, the theory being that it is a proper thing to mortgage the rates so as to defray the cost of large permanent undertakings by an annual outlay for interest and sinking fund spread over a series of years. Generally speaking, a local authority which wishes to borrow must either obtain the consent of the local government board or else get the power required into what is called a private or local act of Parliament. But under Part V of the Public-Health act of 1890 any urban local authority may create debt and issue stock under the local government board's regulations. The stock so created must be issued at a price not lower than 95, must be redeemable at par after a fixed period, and must otherwise conform with the regulations of the central board. Municipal and local loans can only be issued for statutory purposes, and they must be repaid in instalments, spread over a period of years, varying according to the purpose, from 20 to 50 or even 60 years. The public-health code, under which a vast local debt has been contracted, provides further that the sum borrowed "shall not at any time exceed, with the balances of all the outstanding loans contracted by the local authority under the sanitary acts and this act, in the whole, the assessable value for two years of the premises assessable within the district in respect of which such money may be borrowed." In brief, a local authority may not borrow for public health more than double the value of the assessed annual rental of the lands, houses, factories, and other ratable property within its area.

The last fifty years have been a period of unprecedented activity and expansion in local government throughout England and Wales. All towns and almost all large villages have been sewered and drained at great expense. In most cases reservoirs have been created and ample supplies of water secured. Gas,

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electricity, tramways, parks, and many other of the necessities and conveniences of modern life have been initiated or extended. The result is that while population and wealth have grown very rapidly the expenditure of our local authorities has increased still more rapidly. Very detailed figures have recently been published by the local government board^a by which this expansion may be measured. In 1867-68 the total receipts of local authorities in England and Wales from all sources except loans were as follows:

Rates.....	£16, 503, 000
Exchequer grants.....	951, 000
Other sources.....	6, 883, 000
Total.....	24, 337, 000

Twenty years later the total had nearly doubled; and in the financial year 1905-6, the last for which complete figures were available, the corresponding figures were:

Rates.....	£58, 256, 000
Exchequer grants.....	19, 850, 000
Other sources.....	35, 612, 000
Total.....	113, 718, 000

It will be seen that the pressure of the local ratepayers for relief had resulted in the percentage of total revenue contributed by Exchequer grants rising from 3.9 in 1867-68 to 17.5 in the last year of the series. The ratable value is the annual value of the land, houses, etc., in the parish or other area from which the rates are collected, and represents in each case the rent at which such land or houses can be let. In order therefore to see how the growth of local expenditure compares with the growth of wealth it is necessary to compare the average rates paid to the local authorities in England and Wales by the ratepayers—every such rate being levied at so many shillings and pence to the pound of ratable value.

^a Public Health and Social Conditions, cd. 4671, 1909.

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We then get the following figures:

	1867-68.	1905-6.
Rates per £1 of ratable value-----	S. d. 3 3¼	S. d. 5 8¾

This, however, gives an inadequate idea of local taxation, and therefore we add the grants per £1 of ratable value, which are paid to the local authorities out of the national exchequer. In 1867-68 the grants for education were nonexistent, or so small as to be negligible. But in 1905-6 they amounted to £10,500,000, or 1s. 2½d. per £1 of ratable value.

For poor law and other purposes these grants were 2¼d. in 1867-68 and 9d. per £1 of ratable value in 1905-6. Thus the total receipts of local authorities in England and Wales per £1 of ratable value rose from 3s. 5½d. in 1867-68 to 7s. 8¼d. in 1905-6. "The receipts from other sources"^a rose, as we have seen, from less than £7,000,000 in 1867-68 to more than £35,500,000 in 1905-6. A large and growing proportion of these sums, as we are reminded by a recent memorandum of the local government board, represents revenue derived from profitable or at least revenue undertakings. Thus the revenue from the waterworks rose from £2,500,000 to £4,500,000 between 1890 and 1905, the revenue from gas works from £3,750,000 to £7,000,000, and the revenue from electricity supply from practically nothing to nearly £3,000,000. Tramways and light railways, which only yielded the local authorities £129,000 in the financial year 1889-90, produced no less than £5,942,000 in 1905-6.

It will readily be inferred from these figures that of late years the local authorities have possessed themselves of a large amount of valuable and revenue-producing property, which must be borne in mind when we come to consider the apparently alarm-

^aSources other than rates, grants, and loans.

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ing increase of local indebtedness. The earliest and latest years, for which complete information as to the total amount of local debt has been provided, are the financial years 1874-75 and 1905-6. These figures for the whole of England and Wales, including the capital borrowed by the metropolitan water board, now become a public authority, are as follows:

Year.	Amount of local debt.	Average amount per pound of ratable value.	Average amount per head of population.
1874-75-----	£92,820,000	£ s. d. 0 16 1	£ s. d. 3 18 3
1905-6-----	482,984,000	2 7 7	14 2 10

The largest increase of debt in this period is due to county, municipal, and urban sanitary authorities, which have contributed no less than £269,000,000 to the total increase of £390,000,000. The building of schools accounted for £35,000,000 of debt, and the metropolitan water board borrowed £47,000,000 during the period.

In order to know more precisely how much of the debt may fairly be regarded as directly productive capital expenditure on purposes for which trading corporations might have been created, the local government board has classified the debt as follows, taking a period of twenty-one years:

Amount and amount per pound of ratable value of the outstanding local debt of England and Wales.

	1884-85. ^a		1905-6.	
	Amount.	Ratio.	Amount.	Ratio.
Trading undertakings-----	278,805,000	£ s. d. 0 10 10	£255,244,000	£ s. d. 1 5 2
Public health-----	57,566,000	0 7 11	136,440,000	0 13 5
Education-----	15,252,000	0 2 1	41,720,000	0 4 1
Poor relief-----	5,951,000	0 0 10	13,360,000	0 1 4
Lunatic asylums-----	3,326,000	0 0 6	10,878,000	0 1 1
Miscellaneous purposes-----	12,308,000	0 1 8	25,342,000	0 2 6
Total-----	173,208,000	1 3 10	402,984,000	2 7 7

^a This year is the first for which a complete classification of our local debt, according to its purposes, can be made.

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Thus in twenty-one years local debt grew about twice as fast as the local value, so that the apparent burden upon the ratepayer doubled. But only a very small fraction of the debt and of the increase is to be attributed to pauperism and lunacy, the two purposes which most nearly approach the character of dead-weight debt. For almost the whole of this debt the ratepayers get in return for the interest and sinking fund^a important services, including some of the prime necessities and comforts of civilized life. Thus out of the total capital debt under the head of "trading undertakings," which was outstanding in the financial year 1905-6, no less than £118,000,000 was for water-works, £23,000,000 for gas works, £27,000,000 for electricity supply, £28,000,000 for tramways and light railways, and £49,000,000 for harbors, docks, canals, etc. Probably the bulk of this capital debt, to quote an official publication, "belongs to undertakings producing a revenue which covers the cost of working and permits of a substantial contribution toward the redemption of the capital debt without recourse to the aid of local rates." The following figures, taken from a return as to the reproductive undertakings of municipal corporations,^b may serve to illustrate the financial character of these municipal trading undertakings.

Average annual income derived from water, gas, and electricity supply, tramways, harbors, and markets, by town councils, in the four years 1899-1902.....	£12, 571, 045
Average annual expenditure on the same undertakings:	
Interest on and repayment of capital and depreciation..	4, 202, 741
Other charges.....	7, 789, 682

^a There has been some controversy of late as to the utility of local sinking funds, seeing that growing towns are apt to increase their debt. The arguments for and against will be found in Commons Papers 193 and 372 of 1909 entitled "Reports from the select committee of sinking funds in exercise of borrowing powers." See also a useful review in the *Economic Journal* for 1909, pp. 468-473, by Mr. S. H. Turner.

^b House of Commons, Paper 398, 1902.

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So that the difference between income and expenditure exhibits an average annual net profit in these four years to town councils from their trading undertakings of £578,622.

Taking public health, the next largest item, which accounted, as we have seen, for £136,000,000 of local debt in 1905-6, we find on analysis that £51,000,000 was incurred in the improvement of main roads, highways, and public streets; £38,000,000 in sanitation and sewage disposal; while £9,000,000 was spent on housing the poor, nearly £7,000,000 on hospitals, £3,000,000 on cemeteries, and nearly the same amount on baths and washhouses. Although with the exception of baths, housing, and cemeteries these expenditures are not directly productive of revenue, so that all the interest and sinking fund have to be drawn from rates and taxes, it is obvious that they all contribute indirectly to improve the health, wealth, and efficiency of the nation.

The leading municipal securities are highly favored, and at the present time British towns can borrow more cheaply than the Empire of Germany. Municipal stocks rise and fall with consols and other gilt-edge securities, as may be seen from the following table of prices at the beginning of January in each year from 1899 to 1909.

The larger the town the larger the debt and consequently the freer the market. The security of a comparatively small town like Bath is practically as good as that of London or Manchester, but its credit is perceptibly lower, just because Bath stocks are a little less marketable.

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Prices of consols, local loan stock, and various municipal stocks on January 1 in each year from 1899 to 1909.

Year.	Consols.	Local loans, 3 per cent.	London county council, 2½ per cent.	Manchester.		Leeds 4 per cent	Bath, 3 per cent.
				4 per cent.	3 per cent.		
1899 ---	(2¾%) 110½	^a 110	95½	^a 143	106¼	118½	102
1900 ---	^a 99	^a 100	89	135½	104½	114¾	99½
1901 ---	97¾	99	88½	133¾	102¾	112½	98½
1902 ---	93¾	100½	86	131¼	100¾	113½	96
1903 ---	92¾	100½	87	130½	99½	110½	94
1904 ---	(2½%) 88	97½	80	126¼	^a 94¼	^a 109	91
1905 ---	88½	97½	81½	125½	93¾	^a 108	87
1906 ---	89¾	99½	80½	127¼	95½	107	91
1907 ---	86	97	75	119½	92½	106	88
1908 ---	83¾	95	75	116¾	89¼	104	84
1909 ---	84	98¼	77½	117¾	91¾	106	85

^a Ex. dividend.

The Debt and Credit of Germany.

THE DEBT AND CREDIT OF GERMANY.

I.—THE GERMAN IMPERIAL DEBT.

The German Empire was described by Count von Buelow, the late Imperial Chancellor, as a "parvenu" among the Great Powers. This, the greatest military power in the world, is not a third as old as the United States, for it was born from a union of states less than forty years ago, when modern Japan was also being evolved.

The financial history of the German Empire since its development has been remarkable, whether we consider the progress of its expenditure, of its revenues, or of its debt. The following table ^a gives a conspectus of the whole subject:

[Amounts are expressed in millions of marks.]

Annual average for the years.	Total expenditure.		Total revenue.	
	Ordinary.	Extraordinary.	Ordinary.	Extraordinary.
1872-1875.....	1, 146. 1		1, 149. 7	670. 3
1876-1880.....	774. 1		759. 8	163. 3
1881-1885.....	776. 2		767. 6	50. 1
1886-1890.....	1, 113. 8	258. 9	1, 134. 4	218. 4
1891-1895.....	1, 411. 3	141. 7	1, 413. 9	154. 4
1896-1900.....	1, 775. 6	102. 9	1, 807. 7	55. 5
1901-1905.....	2, 083. 3	169. 8	2, 060. 3	226. 9
1906.....	2, 157. 3	235. 1	2, 111. 8	264. 7
1907.....	2, 421. 4	388. 5	2, 351. 4	340. 7
1908.....	2, 519. 3	265. 5	2, 519. 3	265. 5

It will be seen that, although there were from the first extraordinary sources of revenue, yet the distinction between

^a All the figures used in this monograph are taken from official sources, chiefly from the valuable *Denkschriftenband zur Begründung des Entwurfs eines Gesetzes betreffend Änderungen im Finanzwesen*, compiled by officials in the German imperial treasury, published in 1908.

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ordinary and extraordinary expenditures (a distinction drawn in order to supply reasons or excuses for borrowing in times of peace) was not introduced into the accounts of expenditure until the year 1886; and it was not until 1908 that the propriety of making the extraordinary expenditure tally with the extraordinary revenue was recognized in the imperial accounts.

The above table showing the total expenditure and income must be supplemented by a second table showing the net expenditure and income, after deducting the profits earned by some of the government departments, such as the post-office, the imperial railways, and the printing department. The net expenditure and revenue of the German Empire then work out as follows:

[Amounts are expressed in millions of marks.]

Annual average for the years—	Net expenditure.	Net income.
1872-1875.....	377.0	267.0
1876-1880.....	462.1	283.1
1881-1885.....	456.9	415.0
1886-1890.....	604.9	576.1
1891-1895.....	813.5	726.8
1896-1900.....	908.9	915.9
1901-1905.....	1,041.0	1,013.7
1906.....	1,261.2	1,230.6
1907.....	1,410.0	1,320.8
1908.....	1,503.2	1,417.3

Applying the net expenditure and revenue to the population we find that the net expenditure of the Empire per head of the population rose from 9.1 marks on the average of the years 1872-1875 to 17.7 marks in 1901-1905 and 23.9 marks in 1908, the corresponding revenue figures being 6.4, 17.3, and 22.5, so that the average taxation paid into the imperial exchequer yearly by each person in the German Empire has almost quadrupled in the course of thirty-six years, having risen from 6 to 22 marks; and neither figure takes account of the extra burdens

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caused by the fact that most of the customs duties are protective, so that in many cases only a small part of what the consumer pays in higher prices finds its way into the treasury.

Turning now to the details of expenditure we find that the cost of the army rose from an average of 324 million marks in 1872-1875 to 462 in 1891-1895, 622 in 1901-1905, and 854 in 1908. The corresponding figures for the navy were 36 million marks in 1872-1875, 84 in 1891-1895, and 223 in 1901-1905, and 339 in 1908. The cost of the foreign department (*Auswärtiges Amt*) rose from an average of 6.7 million marks for 1872-1875 to 17.8 for the year 1908. The cost of the colonial department (established in 1896) rose from 8.8 million marks in 1896-97 to 58.4 million marks in 1907, reverting to 49.2 million marks in 1908. The cost of what may be called the home office or ministry of the interior (*Innere Verwaltung*^a) rose from an average of 2.5 million marks in 1872-1875 to 52.2 for 1891-1895, 74.5 for 1901-1905, and 83.4 for 1908. Neglecting other departments we now come to the cost of financial administration (*Reichsfinanz Verwaltung*). The estimates of the imperial treasury comprise (1) the pay of the officials, (2) the cost of administering the various taxes and imposts, (3) the administration of the general funds, and (4) the assignments to the states of the Bund.

^a *Die Verwaltung im Bereiche des Reichsamtes des Innern.*

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The following table gives a survey of the expenditure of the treasury under the first three headings from the commencement to the present time:

Average for the years.	Cost of treasury administration.	Cost of administering taxes, etc.	General funds, ^a
	Marks.	Marks.	Marks.
1872-1875-----	232,000	392,000	829,000
1876-1880-----	251,000	405,000	1,757,000
1881-1885-----	449,000	398,000	2,822,000
1886-1890-----	482,000	407,000	4,153,000
1891-1895-----	538,000	440,000	4,038,000
1896-1900-----	618,000	469,000	4,883,000
1901-1905-----	714,000	520,000	10,925,000
1906-----	835,000	^b 537,000	24,259,000
1907-----	880,000	4,357,000	26,098,000
1908-----	830,000	3,419,000	27,515,000

^a The general funds of the imperial treasury included in 1908 (1) charitable funds at the disposal of the Kaiser, (2) various invalid and pension funds mostly connected with the war of 1870.

^b The system of accounts was changed this year.

Among other branches of home administration the expenses of the Reichstag and of justice both rose in the period 1872-1908 from less than half a million to more than 2 millions of marks; while the allgemeine pensionsfonds, for army, navy, and civil service rose from 20 to 110 million marks. The expenditure on imperial posts and telegraphs rose from 99 to 545 million marks, on imperial railways from 31 to 95 million marks, and on the imperial printing establishment (founded in 1878) from 2 to 7 million marks.

Another branch of expenditure is entitled capital accounts (*Kapitalfonds*), including (a) the imperial pension fund, (b) the expended funds;^a which again fall into (1) the imperial fortification funds, (2) Reichstag building fund, costing 26 million marks

^a *Aufgezehrtefonds*.

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and paid for out of the French indemnity; (c) the famous war reserve (*Reichskriegsschatz*) kept in the castle at Spandau, and consisting of 120 million marks set aside from the French indemnity; (d) money set aside for a Working Capital Fund.^a

The accounts of the empire are complicated by the financial relations of the federated empire to the states of which it is composed. From 1872 to 1878 the states paid matricular contributions to the empire varying between 51 and 82 million marks a year. The tariff revision and financial changes of 1879 enlarged the financial resources of the empire, and from 1883 to 1898 (with the exception of the two years 1893 and 1894) the empire made annual contributions to the states. This contribution was usually small, but occasionally became substantial, as in 1889, when it rose to 139 million marks. From 1899 onward the imperial finances again became unequal to the strain of increasing expenditure, and matricular contributions were again required from the states. The following table gives a comprehensive view of the imperial finances in the last nine years and of the annual deficits in ordinary revenue:

[Amounts are expressed in millions of marks.]

Year.	Expenditure.	Income.	Surplus paid to the states.	Uncovered Matrikularbeiträge.	Deficits excluding and including the matricular contributions.	
1900.....	1,083.4	971.7	-----	19.2	- 92.5	-111.7
1901.....	1,147.5	979.3	-----	15.2	-153.0	-168.2
1902.....	1,173.9	1,026.6	-----	24.4	-122.9	-147.3
1903.....	1,208.3	1,060.3	-----	24.3	-123.7	-148.0
1904.....	1,194.0	1,087.0	-----	23.7	- 83.3	-107.0
1905.....	1,285.9	1,176.1	-----	24.2	- 85.6	-109.8
1906.....	1,261.2	1,230.6	-----	24.2	- 6.4	- 30.6
1907.....	1,410.0	1,320.8	-----	24.2	- 65.0	- 89.2
1908.....	1,503.2	1,417.3	-----	24.2	- 65.7	- 85.9

^aA useful table showing the increasing cost of imperial administration under nine different branches from 1879-1908 is given on pages 94-95 of the *Denkschriftenband*. The charge for *Schuldendienst* or service of the debt appears in a later table.

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The art and theory of a public debt are comparatively new to Germans;^a but it must be admitted that modern Germany has proved itself an apt pupil of older kingdoms and empires alike in the theory and the practice of borrowing for income. We shall trace the growth of the imperial debt from its commencement in 1877 at some length; but it will be convenient first to take a general view. As Germany is an imperial federation of States with a developed system of local government the debt falls into three great classes—the debt of the Empire, the debts of the individual States, and the debts of the urban and rural communities. The following table shows the growth of debt in the Empire, the States and the “Kommunen” of Germany from 1881 to 1908:^b

[Amounts expressed in millions of marks.]

Year.	Debt of Empire.	Debt of States.	Debt of communities with more than 10,000 inhabitants.
1881.....	267.8	5,244.3	771.8
1891.....	1,317.8	9,230.0	1,400.5
1901.....	2,395.7	10,796.7	3,097.7
1908.....	4,253.5	14,362.4	5,295.7

This shows a growth in twenty-seven years of 3,985,000,000 marks in imperial debt, of 9,118,000,000 marks in the aggregate debt of the German States and of 4,523,000,000 marks in local debts. The imperial debt has been multiplied more than fifteen times; that of the States has not quite trebled; while the local debt was nearly seven times larger at the end than at the beginning of the period. This summary is not complete as it does not include the debts of the Prussian “Landkreise” and Provinces,

^a Even after the exhausting wars of Frederick the Great there was no Prussian debt.

^b The figures are all taken from official sources. The leading authority for the debts of German towns is Most's “*Die Anleiheaufnahme der Grösseren deutschen Städte in Jahrzehnt 1897-1907.*”

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or of school and poor law authorities, or of communities with less than 10,000 inhabitants. If all these were added to the local indebtedness, it is officially estimated that the figure would be not 5,295,000,000 but 7,420,000,000 marks. Most of the local debt and a great part of the state debts are of course more or less reproductive, producing revenue directly or indirectly in relief of taxes; but the imperial debt is in the main what we call in England "dead weight" debt.

(A) THE FUNDED DEBT OF THE GERMAN EMPIRE.

The total funded debt of the German Empire, including long-term treasury notes, has risen by leaps and bounds in the last thirty years, although Germany has not been engaged in war with any considerable power. But the expedition to China cost altogether about 290 million marks and the wars in South-west Africa entailed an expenditure of about 429 million marks, while another sum of 109 million marks was required for the construction of the Kaiser Wilhelm (Kiel) Canal. In 1877 the imperial debt of Germany was only 72 million marks, rather more than 1½ marks per head of the population. On the 1st of October, 1908, the debt amounted to 4,253 million marks—rather more than 67 marks per head of the population. The following official table shows the total funded debt of Germany on March 31 in various years from 1879 to 1908, viz:

March 31—	Total debt.	Amount per head of the population.
	<i>Million marks.</i>	<i>Marks.</i>
1877-----	72.2	1.66
1881-----	267.8	5.90
1886-----	440.0	9.36
1891-----	1,317.8	26.56
1896-----	2,125.3	40.46
1901-----	2,395.7	42.29
1906-----	3,543.5	58.14
1907-----	3,803.5	61.48
1908-----	4,003.5	63.78
1908 (October 1)-----	4,253.5	67.34

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In order to provide material for the Government and to assist it in framing proposals for the reform of the German finances in 1908-9, the imperial treasury made a very careful analysis of the objects upon which the sums raised by imperial loans had been expended up to the end of the financial year 1907.

I. Sums expended out of loans on behalf of all the states of the Bund:

	Million marks.
For the imperial army.....	1,670.1
For the imperial navy.....	768.4
For the imperial railways.....	252.4
For the colonies.....	7.4
For the currency.....	46.4
For printing.....	5.3
For the inclusion of Hamburg and Bremen in the Zollverein....	52.0
For the Kiel Canal.....	109.1
To meet deficits in the ordinary budget.....	114.3
For workmen's dwellings, etc.....	9.4
Expedition to China.....	287.1
South West African wars.....	379.1
Expedition to East Africa.....	1.8
	<hr/>
	3,702.8

II. Payments made by all the states of the Bund except Bavaria (which has its own army) for the military forces of the Empire, 121.6 million marks.

III. Expenditure by all the states of the Bund except Bavaria and Württemberg (which have their own postal systems) for post and telegraphs, 263.8 million marks.

It will be seen therefore that the imperial debt consists of three parts, the first and by far the greatest being that which is raised for the purposes of the whole empire, which accordingly defrays the interest. The second part of the debt is raised and defrayed by all the states except Bavaria. The third part is raised and defrayed by all the states except Bavaria and Württemberg.

It was of course inevitable that as the capital of the debt grew there should be a proportionate growth in the annual

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payment for its maintenance. The following table shows the charge for interest and management of the debt (which of course has to be defrayed in the annual budget) in every fifth year from 1880 to 1905 and in 1907-8.

Debt Charge.

[Amounts expressed in millions of marks.]

Year.	Charge for interest and management of debt.	Year.	Charge for interest and management of debt.
1880-----	6.2	1900-----	79.0
1885-----	17.4	1905-----	119.8
1890-----	48.3	1907-----	148.4
1895-----	71.7	1908-----	155.5

(B) PRINCIPLES GOVERNING IMPERIAL LOAN EXPENDITURE.

At the beginning of this century the rapid growth of the debt began to attract serious attention; and in the year 1901 rules were formulated for the different spending departments to show what classes of expenditure might properly be defrayed out of loans. In the budget memorandum of that year the items of expenditure defrayed out of loans were for the first time stated separately. The following were the rules then laid down to govern borrowing by the four great spending departments—army, fleet, railways, and post-office.

1. *The army.*—The cost of fortifications and of perfecting the network of military railways may be defrayed out of loans.

2. *The navy.*—Expenditure on the enlargement of the fleet, subject to the provision that 6 per cent of the total value of the fleet must be spent out of ordinary revenue on the construction of new ships.

3. *Railways.*—Capital expenditure for the opening of new traffic, and also outlay upon unusually costly buildings and

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improvements, which would be an excessive burden on the ordinary estimates.

4. *Posts and telegraphs.*—The cost of acquiring and equipping telegraph lines by sea and of laying telegraph and telephone wires underground. All expenditure on telegraphs and telephones for military purposes may also be defrayed from loans, and since 1902 any extensions of the telephone system which promise to be immediately profitable have also been placed to capital account.

The principles formulated in 1901 for the regulation of loan expenditures have since been supplemented, the following additional rules being prescribed in a memorandum of 1907:

(a.) *Home administration.*^a—Loans may be employed for the purchase of land and other functions in connection with the housing powers intrusted to the home office. Money may also be borrowed to defray some of the larger structural alterations in the Kaiser-Wilhelm Canal, which are costly enough to exceed the limits of current maintenance and go beyond the ordinary extensions required by the growth of traffic.^b

(b.) *Military administration.*—Not only the cost of building forts (*Festungsbauten*), but also expenditures for general purposes connected with fortifications (*Festungszwecke*), may be defrayed out of borrowed money.

(c.) *Naval administration.*—The excess above the 6 per cent described in the regulations of 1901 is to take the form of an additional sum in the extraordinary budget.^c War ships only are to be included in this category, the cost of arming the ships with guns and supplying them with mines and torpedoes

^a *Im Bereiche des Reichsamts des Innern.*

^b *Etwaige grössere bauliche Änderungen am Kaiser-Wilhelm Kanal, die schon wegen des erheblichen Aufwandes über den Begriff der laufenden Unterhaltung und der durch die regelmässige Fortentwicklung des Verkehrs bedingten Erweiterung hinausgehen.*

^c *Wird das Mehrbedarj in Gestalt eines Zuschusses des ausserordentlichen Etats auf Anleihe übernommen.*

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must be defrayed out of taxes and included in the ordinary estimates.

(d.) *Posts and telegraphs.*—In addition to the provisions of 1901, the losses occasioned by renting rooms below the market price to underpaid officials and workmen may be thrown on the capital expenditure of the post-office if not otherwise provided for by the general fund.^a

(e.) *Railways.*—The rules of 1901 are repeated at greater length, with slight modifications. As regards loans for things rapidly used up which are only treated as capital because of their unusual cost, it is prescribed that they shall have special and appropriate sinking funds attached, the interest and sinking fund being charged on the ordinary railway budget. This device is borrowed from the British system of loans for works. The German runs: “*Und zwar bei solchen Anlagen, Einrichtungen und Beschaffungen, die einer verhältnissmässig schnellen Abnutzung unterworfen sind, unter Verzinsung und entsprechend abgekürzter Tilgung des aufgewendeten Anleihekaptals zu Lasten des ordentlichen Eisenbahnetats.*” Authority similar to that granted to the post-office in regard to borrowing money for subletting rooms to underpaid officials and workmen is likewise conferred on the railway department.

It may cause surprise that anyone should have gone so far in describing the debt of the German Empire and the regulations which govern or restrict its increase without any reference to a general sinking fund. But the fact is that there neither is now, nor ever has been, a sinking fund for the imperial debt of

^a This curious provision runs as follows: “*Die Ausgaben für Vermietung an minderbesoldete Beamte oder an Arbeiter bestimmte und sich angemessen verzinsende Gebäude, sofern ihre Einrichtung hauptsächlich aus Rücksichten der sozialen Fürsorge erfolgt und eine Verweisung auf den in Etat des Reichs-antes des Innern ausgebrachten allgemeinen Fonds nicht angängig ist.*” Nothing could better illustrate the straits into which treasury officials were driven by the widening gap between revenue and expenditure. The wording, however ingenious, cannot excuse what is practically the part payment of ordinary wages and salaries out of loans.

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modern Germany, though in the rules, 1907, a sinking fund was prescribed for special types of railway loan expenditure. A law, indeed, was passed on June 3, 1906, providing that from 1908 onwards a provision of three-fifths of one per cent of the debt should be set aside for its extinction.

For eloquent brevity the latest comment of the German treasury upon this law can not easily be surpassed. "*Eine Tilgung ist auf Grund dieser Bestimmung noch nicht erfolgt.*" "This provision for a sinking fund has not yet produced any results." In truth the object of a sinking fund is to reduce debt. The extinction of a small amount of debt with one hand while you create a large amount with the other is not practical; in fact, it is wasteful. Most modern states indeed indulge in this sham of a sinking fund probably in the hope of encouraging their creditors. The German Reichstag has wisely determined not to enforce its own law until the Government has contrived to balance revenue and expenditure. Until equilibrium is attained a sinking fund is a farce. Hence when war is declared one of the first financial steps taken by the British Government is to suspend the sinking fund.

As regards the actual method of issuing new debt, the following official account may be of service:

If the Government adopts the system of open sales with the Reichsbank as its agent, the transaction is spread according to market conditions over a longer or shorter period. But if the Imperial or Federal Government assigns the new scrip to financial and other institutions, then the day on which the purchase money due to the Imperial Government is to be paid wholly or in part, is considered as the date for the conclusion of the transaction. The same holds good when the issue is assigned to an Imperial Government department or a State institution which has funds to invest. But when, according to the method now usually adopted the scrip is issued to a "consortium" or syndicate presided over by the Reichsbank and the Seehandlung, then there are three dates marking three different stages

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in the transaction. The first is the day on which the agreement is entered into between the Imperial Government and the consortium of banks, when the conditions of the issue are fixed; then comes the day on which the loan to be issued is offered for public subscription; thirdly, there is the period within which the consortium which has taken over the loan is bound to complete its cash payments to the Imperial Exchequer. The first Imperial Loan of June 17, 1877, was emitted by a consortium but from that time to the end of the 80's this method was only once resorted to, namely in 1887, when an Imperial loan of 100,000,000 marks was intrusted to an association of banks and financial houses. From 1889 onwards as the debt rose more rapidly, this method became more common, and since 1900 it has been constantly adopted in the case of important issues.

So much for the funded debt.

(C) THE UNFUNDED DEBT OF THE GERMAN EMPIRE.

The unfunded debt of Germany consists of long-term and short-term treasury issues. With reference to the first it is officially admitted that a great increase has taken place in the ten years 1898-1908. The explanation given is that owing to general industrial conditions and demands the strain on the German capital and loan market was so great as to preclude the possibility of consol issues on a scale sufficiently large to meet the deficits.

The following table shows the issues of long-term treasury bonds (*langfristigen Schatzscheinen*) between 1900 and 1908:

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Year and series.	Amount.	Rate of interest.	Date of falling due.	Price of issue.	Remarks.
1900:	<i>Million marks.</i>	<i>Per cent.</i>			
Series I.....	20	4	Apr. 1, 1904	99¼	
Series II.....	20	4	July 1, 1904	99¼	
Series III.....	20	4	Apr. 1, 1905	99¼	
Series IV.....	20	4	July 1, 1905	99¼	
1904:					
Series I.....	20	3½	Apr. 1, 1908	99¼	To redeem Series I, 1900.
Series II.....	20	3½	July 1, 1908	99¼	To redeem Series II, 1900.
Series III.....	100	3½	Oct. 1, 1908	98½	
1905, series I.....	20	3½	Apr. 1, 1909	98½	To redeem Series III, 1900.
1907, series I.....	200	4	July 1, 1912	98	
1908:					
Series I.....	20	4	Apr. 1, 1912	98	To redeem Series I, 1904.
Series II.....	20	4	July 1, 1912	98	To redeem Series II, 1904.
Series III.....	100	4	Oct. 1, 1911	98	In exchange for Series III, 1904.

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Short-term treasury bills (*Kurzfristige Schatzanweisungen*) are used to meet temporary deficiencies at times when the revenues coming in are inadequate to cover the expenditures. They have been regularly employed for the purpose of strengthening the balances of working capital. For a few years after the war the French indemnity sufficed for this purpose. In 1877, however, 24 million marks worth of these treasury bills were put into circulation. In 1882 the amount rose to 70 million marks, in 1887 to 100, in 1892 to 175, in 1902 to 275, in 1905 to 350, and finally, in 1908, short bills to the amount of no less than 475 million marks were negotiated. The amount actually in circulation varies of course enormously, and until the year 1904 it happened not infrequently that all the outstanding bills would run off. But between 1904 and 1908 treasury bills were always in circulation. In April, 1905, the total of bills in circulation mounted to 350 million marks, then sank rapidly to 10 millions, but rose again at the end of November to above 200 millions. In 1906 there were similar fluctuations from a minimum of 27 to a maximum of 323 millions. In 1907 the amount rose early in April to 340 millions and never fell below 49 millions. In 1908 the legal maximum was raised to 475 million marks and a record of 359 million marks was touched in the spring. In that year the lowest figure was 129 millions, and on November 9 the circulation again mounted to 354 millions.

This brief history shows, as has been officially pointed out, that since 1903 a "latent debt" has grown up of varying amount indeed, but still of permanent character. As a government expert puts it: "Since 1903 the Empire has had treasury bonds in continuous circulation; so that a service for strengthening the working balances has to some extent degenerated into a concealed debt consisting of short-term bonds."

Since 1897 the average circulation of the treasury bills has varied from 14 days in 1899 to 94 days in 1904.

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The procedure adopted for taking up treasury bills is thus described:

When the necessity for an issue of floating debt arises the Imperial Chancellor directs the Department of the Debt to make an estimate of its immediate prospective requirements and to prepare a corresponding issue of Treasury Bills, which are then deposited with the Reichsbank. As soon as the credit to be maintained by the Treasury at the Reichsbank falls below 10,000,000 marks, the Reichsbank thereupon without any special notice draws from the Treasury Bills deposited whatever number may be required to restore the Government's balance, buying them (usually) at its current official rate of discount. It either keeps these bills in its bill-cases until they fall due or rediscounts them. In exceptional cases Treasury Bills are allotted to other public departments or private firms.^a

In conclusion it may be pointed out that just as the increase of the floating debt during the Boer war proved a disquieting factor in the London money market, so the great increase of treasury bills has been of late a source of anxiety in German banking circles, and there is a strong desire to restrain the output.

^a "Steht die Notwendigkeit, schwebende Schulden aufzunehmen, zu erwarten, so wird nach Massgabe des für die nächste Zeit vor auszusehenden Bedarfs auf Anweisung des Reichskanzlers seitens der Reichschuldenverwaltung ein entsprechender Betrag an Schatzanweisungen ausgefertigt und der Reichsbank zur Aufbewahrung übergeben. Sobald und soweit alsdann das seitens der Reichshauptkasse bei der Reichsbank zu unterhaltende Guthaben unter den bei Einrichtung des Reichsbank-Girokontos der Reichshauptkasse im Jahre 1898 festgesetzten Mindestbetrag von 10 Millionen M. sinkt, entnimmt die Reichsbank ohne besondere Anweisung dem Depot einen entsprechenden Teil der Schatzanweisungen und kauft sie in der Regel zu ihrem jeweiligen offiziellen Diskontsatz an. Sie behält diese Beträge entweder bis zum Verfall im Portefeuille oder begibt sie im Wege der Rediskontierung weiter. In Ausnahmefällen werden auch an andere öffentliche Kassen oder Fondsverwaltungen oder an private Firmen Schatzanweisungen veräussert."

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II.—DEBTS OF THE GERMAN STATES.

The debts of the 26 or 27 States^a of the Bund have not advanced as a whole at anything like the ratio of the imperial or local debt. The lion's share of the increase is due to Prussia. At the beginning of the period Prussia's debt was not half as large again as Bavaria's; now it is more than five times as large. The following table excludes all the smaller States whose debt was less than 10,000,000 marks in 1908:

Debts of 13 German States.

[In million marks.]

	1881	1891	1901	1908
Prussia	1,965	5,834	6,602	7,963
Bavaria	1,341	1,331	1,362	1,754
Saxony	673	625	829	917
Wurttemberg	418	439	495	585
Baden	322	339	335	470
Hesse	31	35	284	407
Mecklenburg-Schwerin	37	94	108	127
Oldenburg	36	36	55	58
Brunswick	84	69	58	50
Lübeck	23	11	37	55
Bremen	80	80	160	235
Hamburg	160	271	406	545
Alsace-Lorraine	19	25	30	35

The total funded debt of all the States was officially computed on November 1, 1908, to be 13,807,423,000 marks, and there was also outstanding a floating debt of 555,000,000 marks, of which 545,000,000 fell to Prussia, 7,000,000 to Oldenburg, and 3,000,000 to Alsace-Lorraine. Of the Bavarian debt, 302,000,000 marks were general or dead-weight debt and 1,551,000,000 marks represented capital invested in the Bavarian state railways. To the total state debts, funded and unfunded, computed on November 1, 1908, at 14,362,000,000 marks, Prussia contributed 8,771,000,000 marks, or 61 per cent.

^a Counting Saxe-Coburg-Gotha as two, and including Alsace-Lorraine.

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Prussian and imperial credit are almost exactly on a par, and when, as frequently happens, the premier State and the Empire both require loans the issues are usually brought out together by a "consortium" of German banks and in the same denominations. At the end of April, 1909, when both the Prussian State and the German Empire were suffering from large deficits, Prussia requiring 480,000,000 marks and the Empire 320,000,000, there was some difficulty in arranging for the joint issue, and a long conference took place between the representatives of the two Governments and the bankers, the former pleading for a $3\frac{1}{2}$ per cent issue, while the bankers stood out for 4 per cent, arguing that the German public had got accustomed to expecting 4 per cent for its money, and that a $3\frac{1}{2}$ per cent issue would not be taken up, in spite of the favorable condition of the money market. The government officials, of course, in the interests of the taxpayer and of German credit, were anxious that Germany should not have to borrow on the same basis as Spain or on worse terms than Italy. Eventually it was arranged that half the loans should be in 4 per cent and the other half in $3\frac{1}{2}$ per cent denominations, both to be irredeemable until the year 1918. The 4 per cent loans were taken over by the bankers at 102 and issued to the public at 102.70, while the $3\frac{1}{2}$ per cents were taken over at 94.80 and issued at 95.60, both loans being three-fourths of 1 per cent lower than were the existing $3\frac{1}{2}$ and 4 per cents on the day when the loan was announced. The "consortium" of bankers, which issued the loans on this occasion, was composed of the leading bankers and finance houses of all the principal cities of Germany. In Berlin the members of the "consortium" were the Deutsche Bank, Disconto-Gesellschaft, Dresdner Bank, Berliner Handels-Gesellschaft, A. Schaaffhausenscher Bankverein, Bank für Handel und Industrie, Nationalbank für Deutschland, Commerz und

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Disconto-Bank, Mitteldeutsche Creditbank, Mendelssohn & Co., S. Bleichröder, Delbrück Leo & Co., and F. W. Krause & Co.; in Hamburg, the Norddeutsche Bank, Vereinsbank, L. Behrens & Sons, and M. M. Warburg & Co.; in Frankfort, M. Lazard Speyer-Ellissen and Jacob S. H. Stern; in Cologne, the house of Sal. Oppenheim, jr., & Co.; in Munich, the Bavarian Hypotheken and Wechselbank and the Bayerische Vereinsbank; in Nuremburg, the Königliche Bank; in Mannheim, the Rheinische Creditbank; in Stuttgart, the Württembergische Vereinsbank; in Leipzig, the Allgemeine Deutsche Creditanstalt; and in Posen, the Ostbank für Handel und Gewerbe.

The history of Prussian credit since 1886 may easily be traced by following the average prices of Prussian 3½ per cent consols from that year to 1908 on the Berlin Bourse. The average price in 1886 was 102.1. They fell back to 99.8 next year, but rose to 103 in 1888 and 104.4 in 1889. In 1890 the price fell back to 100.5 and in 1891 to 98.4. For the next two years they stood at par, and ran up to 102.4 in 1894, 104.4 in 1895, and 104.6 in 1896. This was the high-water mark, though the highest actual quotation in the year (105.6) was just below the record of 105.8 which had been touched in 1889. The price now sank steadily to 95.8 in 1900, but recovered to 99.4 in the following year and to 102.2 in 1903. Then another shrinkage began which lasted until 1909, when cheap money more than offset the continuance of heavy borrowing. The following table will show the close correspondence of the Prussian and imperial 3½ per cents from 1904 to 1908:

Year.	Prussian.	Imperial.
1904.....	101.89	101.94
1905.....	101.41	101.33
1906.....	99.59	99.54
1907.....	94.89	94.66
1908.....	92.25	92.21

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The slight superiority of Prussia's credit to that of the Empire may be explained by the fact either that Prussia has more tangible assets or that the Empire is a comparatively youthful and artificial creation compared with the Kingdom of Prussia. Certain it is that some German and foreign investors are inclined to prefer the security of a German State to the collective guaranty of the Empire.

The credit of Saxony, judged by her 3 per cent rentes, at one time stood higher than that of either the Empire or Prussia. But in 1898-99 Prussia stood better with the market than Saxony; for in 1898 Saxony issued a 3 per cent loan at 83, while Prussia issued 3 per cent stock for a similar amount in the following year at 92. In the same year Bavaria raised a 3½ per cent loan at 99 and Brunswick got no better than par for a small 4 per cent issue. Ten years later the situation was very different, owing to the heavy and persistent deficits of Prussia. In 1906 a Prussian 3 per cent loan could still be issued at par, but in 1907 and 1908 large blocks of Prussian 4 per cents had to be marketed at 99 and 98. Meanwhile in 1907 small issues of Bavarian and Hessian fours fetched 100 and 102, respectively, while Brunswick and Hamburg also borrowed on a 4 per cent basis at par. It is clear that in the last three or four years both Prussia and the Empire have offended against the law of demand and supply. They have been issuing stock faster than it can be absorbed. In 1907 and 1908 Prussia added 600,000,000 marks to her funded debt and issued 345,000,000 of long-term treasury notes.

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The following table gives a conspectus of recent Prussian borrowings:

Month and year.	Amount of issue in million marks.	Type.	Mode of issue.	Price of issue.
January, 1902.	185	3 per cent consols.	Konsortium	^a 89.8
February, 1904.	70	do.	Kleines Konsortium	91.0
February, 1905.	30	do.	Seehandlung	91.1
April, 1906.	300	3½ per cent consols.	Konsortium	100.0
January, 1908.	181	4 per cent consols with provision for reduction later to 3¾ and 3½.	Seehandlung	98.5
April, 1908.	400	4 per cent consols.	Konsortium	^b 99.5

^a It was sold to the Konsortium at 89.2.

^b Sold to Konsortium at 98.4.

The larger States also issue long-term and short-term notes and treasury bills for more or less temporary purposes. As a rule the amount of these outstanding is highest in March, but in the last two or three years the requirements have been unusually large from November onward, chiefly in consequence of Prussia's heavy deficits. The increasing pressure of these public bills on the money market is sufficiently shown by the rapid rise of rates at which the treasury bills were discounted:

	Discount rates.
1902	2.3—2.7
1903	3.3—3.6
1904	2.9—3.8
1905	2.8—4.0
1906	3.6—4.3
1907	5.4—6.0

In the last year of course the difficulties were much accentuated by the American crisis. The amounts of treasury bills (*Schatzanweisungen*) which may be issued by Prussia are

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restricted to 100,000,000 marks, those of Bavaria to 35,000,000 and of Wurttemberg to 20,000,000. The largest amount actually issued by Prussia, Wurttemberg, Bavaria, and three smaller States in the period 1902-1907 was 110,000,000 in December, 1907, and the next largest was 81,000,000 in February, 1906. In April and August, 1902, only 2,000,000 were outstanding.

II.—THE LOCAL LOANS OF GERMANY.

As we have already seen, the local indebtedness of Germany has been advancing very rapidly and was over 7,400,000,000 marks in 1908, nearly double that of the Empire and more than half that of the States. After 1880, and again still more notably after 1890, the growth of this debt was much accelerated, mainly in consequence of the increasing activity of the town councils, many of which practice what is called municipal socialism. In the period between 1881 and 1907 the debt of the towns and "Landgemeinden," with more than 10,000 inhabitants, increased nearly sevenfold—from 771,000,000 to 5,295,000,000 marks. Of this total, in the former year about 49,000,000 marks were short-term obligations and in 1907 about 487,000,000. In the same period the charge for this mass of local debt rose from 53,000 to 285,000 marks. The credit of the towns was rather better therefore in 1907 than in 1881; for while the debt was multiplied by $6\frac{2}{3}$ the debt charge for interest, etc., was only multiplied by $5\frac{1}{3}$, though this calculation of course assumes that provisions for sinking fund remained a constant proportion.

If, however, we look at the borrowing of the last ten years we find a general tendency, especially at the end of the period, for the rates of borrowing to rise rather than to fall. In 1898, for example, the 165 largest towns of Germany borrowed 150,000,000 marks at $3\frac{1}{2}$ per cent and 24,000,000 marks at 4 per cent, while in 1906 they borrowed 42,000,000 at $3\frac{1}{2}$ per cent and 122,000,000 at 4 per cent. In 1907 and 1908 the municipal

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rate of borrowing in Germany began to rise above 4 per cent. Under these circumstances German municipal loans came to attract foreign attention, especially in Switzerland, Holland, and Scandinavia, as offering good security with a high rate of interest. A considerable quantity of the loans emitted are absorbed by the town and provincial savings banks and similar institutions which have funds to invest; but out of the 2,143,000,000 marks of debt issued by the 165 largest towns from 1897 to 1907, 1,653,000,000 were sold to Bank-Konsortiums.

Generally speaking, the credit of German towns is lower than that of the States and Empire, but the difference is less than might be expected from the analogy of other countries. Berlin's credit is almost on a par with Prussia's, as there is a very free market and a particularly strong support from the Berlin Savings Bank (*Sparkasse*). The small but rapidly growing towns, where there is much industry but little capital, have to pay most, as they have no reserve strength and are more at the mercy of the large financial houses. Even the towns which are also States—Hamburg, Bremen, and Lübeck—cannot as a rule borrow quite so cheaply as Berlin.

The Debt and Credit of France

THE DEBT AND CREDIT OF FRANCE.

I. HISTORY OF DEBT.

(A) PREREVOLUTION.

Though the public debt of modern France dates from the revolution, the art of borrowing had long been practiced by the monarchy. The first French King to raise loans on security was Francis I. He borrowed from the city of Paris, and in return alienated to it certain aids and customs, which became known as "rentes sur l'Hotel de Ville." This convenient device, once discovered, was vigorously employed. In 1561 the debt already amounted to 74,000,000 francs and had become so onerous that the regent, Catherine de Medicis, on the advice of the Parlement of Pontoise, thought of laying hands on ecclesiastical property as a means of reducing royal obligations. The clergy preferred to avert confiscation by a temporary sacrifice, and after the "Conference of Poissy" they signed an undertaking to provide for six years an annuity of 1,600,000 livres,^a whereby the King might regain all the domains, aids, and customs which had been alienated to the city of Paris. The annuity, however, was used not to liquidate the old, but to contract new debt. It became known as "rentes sur le clergé," which were also sold to the Hôtel de Ville. On the strength of this subvention the clergy afterwards claimed and obtained many exemptions from taxation. After the civil wars Henry the Fourth found the finances in great disorder, with a debt amounting to 337,000,000 livres. But in 1604 his great Minister Sully effected such extensive reforms and reductions that at the close of the reign, while the revenues had largely increased, the debt had been diminished by 100,000,000. Neither Richelieu nor Mazarin were able to maintain the Sully

^a Eighty-one livres Tournois = 80 francs.

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tradition, though the latter made some attempts at debt reduction. But by this time borrowing had become habitual and loans were constantly issued in the early part of Louis the Fourteenth's reign, whose finance ministers had a hard task to supply their master's prodigal magnificence. One of them, Bouquet, who raised loans of all kinds at all possible rates of interest, made a first (and unsuccessful) attempt to employ the tontine annuity, so popular both in France and England in the next century, as a means of money raising. It was suggested to him by its Italian inventor, or name father, Laurent Tonti; but with Colbert at the treasury a very different system came into force. Acting on his belief that rentes were a most useless and expensive possession for a State, he took active measures to reduce debt. He had no belief in the benefits of credit; in his eyes loans were always made by idle capitalists for unproductive purposes, and he looked upon the interest charge as an improper burden on the taxes. Accordingly, in 1664-65, Colbert redeemed all the debt created in the previous six years and compulsorily reduced the interest on the remainder. This drastic measure had its disadvantages, for it so estranged the capitalists that when shortly afterwards loans had to be raised for the wars it was found very difficult to get the money. Warned by this experience Colbert suggested, after the peace of Nymeguen, 1679, an optional conversion "au dernier 20" (i. e., 5 per cent) of loans contracted "au dernier 14-16" (i. e., 7 per cent to $6\frac{1}{4}$ per cent) and so reduced the annual charge by more than 2,000,000 livres. At his death, in 1683, the debt charge—which in 1663 had exceeded 30,000,000 livres—stood at about 8,000,000; this figure he considered to be not out of proportion to the scale of public expenditure.

With the death of Colbert all sound management vanished from French finance, and in 1715 (at the end of the reign of

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Louis XIV) the capital amounted to nearly 2,000,000,000 livres, although two years previously Desmarestz had carried out a compulsory conversion, reducing the interest on all the debts "au dernier 25" (4 per cent) and the capital to correspond. This lowered the capital value by 135,000,000 livres and the interest charge by 14,000,000. In the early part of Louis the Fifteenth's reign the public finances fell into such chaos that St. Simon, in the Regent's Council, advocated open bankruptcy. In 1719 the notorious John Law, to crown his bubble projects, proposed a general redemption of the debt—the rentes to be exchanged for bonds on his India Company. The crash came too soon and the Frères Paris, who undertook the liquidation of the gigantic bankruptcy, dealt drastically with the debt, reducing the rentes to 2 per cent and the life annuities to 4 per cent. As a result the debt, in 1719, is said to have stood at 1,700,000,000 livres capital value, with an annual charge of 48,000,000 livres. Throughout this reign the policy of loans and forced reductions continued, and the mischief caused by the Seven Years' war was aggravated by court extravagance.

In 1764 the revenue stood at 286,000,000 livres. The whole public debt of France was estimated (in a memoir presented in the same year by the parliament of Bordeaux to the King) at 2,400,000,000 livres, one-eighth of which was represented by annuities for lives. The interest on the whole debt was put at 120,000,000, of which one-fourth was required for the payment of the annuities.^a In 1768, in spite of remonstrances from Parliament, all pretense of debt redemption was suspended, and from 1769 to 1774 the Abbé Terray carried out a series of bankruptcies and forced loans to which he gave the smooth names of "reductions" and "consolidations" of debt. Nevertheless, when Louis XVI succeeded in 1774, the total debt

^a See Adam Smith's *Wealth of Nations*, Book V, Chap. III.

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charge was very nearly 120,000,000 livres, while the floating debt amounted to 235,000,000 livres.

The appointment of Turgot revived the credit of the State. The rate of interest on loans to the Government dropped in twelve months from $5\frac{2}{5}$ to 4 per cent, and when the great minister fell he was planning a large conversion. His programme—"ni banqueroute avouée ou masquée par des réductions forcées, ni augmentation d'impôts, ni emprunts"—was a complete reversal of all French financial policy since Colbert, and might have saved the monarchy. In his two years he paid off 74,000,000 livres of debt and 58,000,000 of anticipated revenue, leaving only 10,000,000 of the latter to be dealt with by his successor. But Necker (1777-1781) reverted to the bad old plan of borrowing; and between 1783 and 1787 Calonne, the last finance minister of the ancient régime, added 650,000,000 to the debt. He was at last (February, 1787) forced to summon the assembly of notables, and in his opening speech admitted that the last ten years had added 1,250,000,000 to the debt, and that the deficit for the present year was 115,000,000. It is not surprising that he lost his office. In 1789 a committee of the constituent assembly reported that the annual debt charge, exclusive of the floating debt, was then 208,000,000 livres.

From the above history, drawn from the best sources available—though the figures have no pretense to exactitude, so confused were the public accounts and so conflicting the estimates even of the best informed—we may infer that borrowing was a main cause of the downfall of the French Monarchy, and, further, that financial ruin was due at least as much to the methods followed as to the amount raised. An open bankruptcy or confiscation is, of course, a public fraud upon private lenders, and makes it impossible for the state to raise further sums except at exorbitant rates of interest. Even more disastrous to the national trade, revenues, and credit was the

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favored plan of "redeeming" debt by issuing paper money to the creditors, the result being a general debasement of the currency or destruction of public faith in the means of exchange and a general refusal to accept money in ordinary commercial transactions. Consequently the state, receiving taxes in its own depreciated and debased currency, was unable to pay its way, the prices of things and services having increased automatically as the currency was enlarged and debased.

(B) THE REVOLUTION TO THE END OF THE FIRST EMPIRE, 1789-1814.

In spite of several declarations by the assembly that they held the national debt as a sacred trust, the public credit of France had sunk to a very low ebb. Necker, now again Finance Minister, tried to raise two loans of 30,000,000 and 80,000,000 francs, respectively, but neither were covered. The report of the committee had recommended an issue of assignats; this vile measure was voted in spite of Necker's protests, and he resigned in August, 1790. The issues of assignats continued, and in 1793 a forced loan of 1,000,000,000 francs only produced 100,000,000. The "loan" (which did not bear interest) was practically a confiscation of all income in excess of 9,000 francs per annum and a heavy tax up to that limit. The Government, it may be added, estimated the income without consulting its possessor. Yet this same year saw the first appearance of the public debt in its modern form. By the law of August 24, 1793, Cambon proposed the creation of a "Grand livre de la dette publique" in which all the existing debt forms were to be entered as a unified 5 per cent debt. The annuities were afterwards added. The book entries were treated as conclusive evidence of the claim. After this reorganization the capital value of the debt in 1793 was nearly 3,500,000,000 francs, and the interest charge 174,000,000 francs, of which only one-quarter was paid in money and the remainder in assignats. In 1797, however,

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depreciation of the assignats and general financial confusion induced the Government to "pay off" two-thirds of the debt in bonds exchangeable for land; in other words, the debt was reduced to one-third of its original value, and after some further confiscations amounted at the end of the eighteenth century to 800,000,000 francs with an annual charge of 40,000,000 francs.

Under Napoleon's rule and that of his two excellent finance ministers, Gaudin and Mollien, the issues of inconvertible paper ceased, and loans were as far as possible avoided. As a result the Restoration in 1814 found the debt charge, after fourteen years of unprecedentedly costly war, augmented by only 23,000,000, i. e., from 40,000,000 to 63,000,000 francs. Of this additional 23,000,000, 6,000,000 were the debts of the countries taken over by France and 10,000,000 were obligations incurred by the Directory. Only 7,000,000 (or a capital increase of 140,000,000) were attributable to the Empire. Napoleon's policy of making war "pay its way" imposed very heavy annual burdens on France and the conquered territories. Nevertheless, in consequence of this policy, the financial situation of the French Government at the end of the Napoleonic wars was enviable compared with that of the victorious Government of Great Britain.

(C) THE BOURBON AND ORLEANIST GOVERNMENTS AND THE SECOND REPUBLIC, 1814-1852.

The restoration government had to meet the war indemnity imposed by the allies, to compensate the emigrants, and to take up the large unpaid balances of the imperial expenditure. For all this large loans were required. Although urged by some of its supporters to repudiate the existing debt, it had the honesty and sagacity to take longer views. Even so, such was the scarcity of capital and the suspicion of the few who had money to invest, that for some time the French Government was unable to borrow at par even on a 5 per cent basis. From 1815 to 1818

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5 per cent loans were actually issued at prices varying from 52.50 to 67.60—that is, practically at from $9\frac{1}{2}$ per cent to $7\frac{1}{2}$ per cent. It would have been wiser, as M. Leroy Beaulieu observes, to create 6 or 7 per cent stock at a price nearer par. The actual burden would have been much the same, and it would have eased the work of redemption later. Yet stock of even lower denominations was issued, notably the emigrants' indemnity of 25,000,000 francs at 3 per cent.

In 1819 a law was passed creating auxiliary "grands livres" in every department, and so giving facilities to the provincials for investment in government stock. From this point public credit steadily rose; in 1821 a 5 per cent loan was issued at 85.55, and another in 1823 at 89.55. A steady policy of debt redemption and budget surpluses had such an effect that the last loan contracted by the Bourbon government (80,000,000 of 4 per cent rentes in 1830) was issued at $102\frac{1}{2}$ —the only French loan, it is said, that was ever emitted above par. The debt existing in 1814 had been practically redeemed, but the additions since that date involved an annual charge of 164,500,000 francs, a good deal more than double the legacy of Napoleon, but a mere fraction of the British war debt.

During the July revolution the 3 per cent funds fell to 46, and when in 1831 the Orleanist government emitted a loan of 120,000,000 at 5 per cent they could only obtain a price of 84, which made the real charge 6 per cent. A "patriotic" loan of 100,000,000 5 per cents at par in the same month proved an utter failure, for only one-fifth was subscribed. Several loans followed for public works, military preparations, and to meet the persistent budget deficits. They were issued, not in 5 per cents, which had risen well above par, or even in fours, but in threes, which for many years after were not near enough par to make an advantageous form of loan. The prices ranged from 75.25 to 84.75.

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The strength of the funds under Louis Philippe is a curious phenomenon, and marks the extreme of French credit as compared with the early years of the Bourbons. Professor Bastable observes:^a

“The position of the stocks over 3 per cent would have easily admitted of conversion without any increase of capital into a 4 per cent or even 3½ per cent stock, but to avoid popular hostility this evidently prudent course was not taken.” He gives a table showing the position of the various stocks in 1845:

	Highest.	Lowest.
5 per cent.	122.85	116.45
4½ per cent	116.25	111
4 per cent	110.5	106
3 per cent.	86.4	80.85

In spite of eighteen years of peace and a considerable amount of debt redemption, 13,000,000 had been added to the debt charge, leaving it at 177,000,000 francs, or a total capital debt of 3,540,000,000 francs.

The three years of the Second Republic passed amid grave financial disorder. As a result of the February revolution the 3 per cents collapsed to 32.50, and when the new government tried a “patriotic” loan of 100,000,000 5 per cents at par only 26,000,000 were taken up. During the three years the 5 per cents fluctuated between 50 and 75. The difficulties of the government induced them to resort to such questionable measures as forced “conversions.” In July, 1848, some treasury bonds which fell due were not paid off, but were arbitrarily changed to 3 per cent rentes at 55. This stock was quoted on the Bourse at 43, so that the unfortunate holder lost 20 per cent. At the same time some savings bank deposits on current account were “converted” to 5 per cents at 80, quoted on the Bourse at 73, or a loss of 10 per cent. In spite or because of these wretched

^a *Public Finance*, p. 646.

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expedients the Second Republic increased the debt charge in three years by 53,000,000 francs, making the total charge, in 1852, 231,000,000 and the capital debt 4,620,000,000 francs.

(D) THE SECOND EMPIRE, 1852-1870.

In all, eight loans were issued under the Second Empire, most of them at 3 per cent, which was much below par. In 1854-55 the investors in the Crimean war loan were given the option of 4½ per cent at 92 and 3 per cent at 65, but only a very small proportion of the former were applied for. All the loans were issued by public subscription, and in the grandiose language of the time Finance Ministers would speak of the "suffrage universel des capitaux." As a matter of fact the loans were generally much oversubscribed by speculators, and the policy certainly had the effect of disseminating "rentes" among the French people. In 1830 the number of rentiers was 125,000; in 1869 it had risen to 1,254,000, and in 1881 to 4,000,000—these figures of course do not allow for duplicates. The extravagance and borrowing propensities of the Second Empire increased the debt charge by 129,000,000 francs, mainly owing to the Crimean, Mexican, and Italian wars, to the undertaking of huge public works, and the necessity of meeting budget deficits. The total cost of the Crimean war to France was 1,650,000,000 francs, of which 1,538,000,000 was raised by loans—a proportion which contrasts very unfavorably with British borrowing for the same purpose.

On September 4, 1870, the account for the debt stood as follows:

[In million francs.]

	Capital.	Interest
Perpetual rentes	11,662	362
Redeemable rentes	1,332	^a 149
Unfunded debt	794	-----
Total	13,788	-----

^a Annual charge.

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The annual charge on redeemable rentes consisted of 55,127,034 francs in annuities and 94,168,631 francs in rentes for terms and lives, amounting, as above, to 149,296,265 francs.

(E) THE WAR OF 1870.

From 1870 to 1872 France endured a period of war finance unexampled in European history, and thenceforward till 1878 a period of repayment and reorganization of the vast obligations then contracted. There were large borrowings during the war with Germany; and at its conclusion two great loans were raised to pay the indemnity. The following table gives a conspectus of the amounts raised and the burden placed on the state.

[In million francs.]

Date of loan.	Denomi- nation.	Amount received.	Nominal capital.	Amount of interest
	<i>Per cent.</i>			
August, 1870	3	804	1,327	39.8
October, 1870 ^a	6	208	250	15.0
June, 1871	5	2,293	2,779	139.0
July, 1872	5	3,498	4,140	207.0
		6,803	8,496	400.8

^a The so-called "Morgan" loan.

To these must be added the debt incurred to the Bank of France for its issue of inconvertible paper—1,470,000,000 francs—and the indemnities by means of annuities to the Eastern Railway Company and to towns and private individuals, which raised the total amount of indebtedness incurred during and as a result of the war to over 9,000,000,000 francs. The enormous stored-up wealth of France and the recuperative powers of the nation were then wonderfully displayed. The loan of 1871 was subscribed for twice over and that of 1872 thirteen times over. But half of the second loan was taken up abroad, and both these great issues drew forth the contents of many French hoards and led to the sale of foreign securities by French invest-

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ors on such a scale that for the succeeding three years there was very little French capital seeking investment.

The effect of the war on credit, which was very marked, may be gauged by the course of 3 per cent rentes. Their highest price during the fifteen years before the war was 75.45 in 1856, their lowest 60.50 in 1859. During the years 1869 to 1872 fluctuations were as follows:

Year.	High.	Low
1869 ^a	73.90	69.80
1870 ^b	75.10	50.80
1871 ^b	58.45	50.35
1872 ^c	57.25	52.40

^a Before war. ^b During war ^c After war.

Extreme prices quarterly.

Year.	First quarter.		Second quarter.		Third quarter.		Fourth quarter.	
	High.	Low.	High.	Low.	High.	Low	High	Low.
1869	71.60	69.80	72.10	70.10	73.90	69.90	73.30	71.50
1870	74.72	73.05	75.10	72.25	72.95	^a 50.90	55.00	50.80
1871	52.90	^b 50.35	54.20	50.65	57.85	53.20	58.45	55.25
1872	57.25	55.45	56.00	53.55	56.30	53.15	54.80	52.40

^a War declared July 16, 1870.

^b Peace signed February 26, 1871

The average prices for each year were 1869, 71.41; 1870, 65.82; 1871, 53.85; and 1872, 54.75. The debt to the Bank of France was discharged by annual payments from 1872 to 1879 of 200,000,000 francs or over. The total payment, including interest, amounted to over 1,512,000,000 francs.

(F) RECENT HISTORY OF THE FRENCH DEBT, 1878-1908.

The debt history of the last thirty years falls under three heads. From 1878 to 1882 loans were undertaken to carry out those ambitious schemes of public works which are associated with the name of M. de Freycinet. After the crisis of 1881-82

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it was obvious that the country's resources were not yet equal to such undertakings, and the loans during the next ten years were mainly incurred to meet chronic budget deficits. Since 1891 expenditure and receipts have gradually been equalized, and only one small funded loan has been issued—in 1901.

The first estimate of the cost of M. de Freycinet's plans (including a state railway system) was 4,000,000,000 francs, and in 1878 a loan for 278,000,000 francs was issued under a new form, 3 per cent rentes terminable in seventy-five years. In all, between 1878 and 1890, there were eight issues of 3 per cent redeemable rentes, with a total nominal capital of over 4,000,000,000 francs, and a real capital of nearly 3,000,000,000. The issues added 127,000,000 francs to the interest charge of the debt. In 1878 and 1880 the loans were for the purpose of the "great programme." But the crisis of 1881-82 showed the danger of this policy to French finance. The fluctuations in the funds at that time were as follows:

	Highest.	Lowest.
3 per cent rentes	86.88	82.00
3 per cent redeemable	88.30	81.50
5 per cent	120.95	113.00

In 1882 the budget deficit (the first since 1877) was 42,500,000 francs and the floating debt rose from 1,023,000,000 to 1,187,000,000 francs. In the same year the railway policy was definitely modified under an arrangement with the great railway companies (whose interest is guaranteed by the State) by which these undertook the responsibility for loans for railway development. From 1882 onward the state issues have been mainly used to cover budget deficits or to consolidate the floating debt.

In December, 1884, the floating debt stood at 1,100,000,000 francs; in 1885, at 1,430,000,000; and in 1888 there was a budget deficit of 180,000,000. M. Cavaignac, in his report on the

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budget of 1892 gave a striking instance of the financial slackness which prevailed from 1881 to 1892. "In 1883 a sum of 834,000,000, which ought, strictly speaking, to have been covered by the ordinary resources of the State, was put down as an extra-budgetary expense and increased the public debt by a net total of 646,000,000." From 1881 to 1891 the net total of extra-budgetary expenses was over 5,000,000,000 francs, or more than the amount of the German war indemnity. The last great loan in 1891—869,000,000 francs—added 28,000,000 to the annual debt charge.

The French debt increased from 13,000,000,000 francs in 1870 to 31,000,000,000 in 1891—that is, by 18,000,000,000—and the annual charge from 511,000,000 in 1870 to 1,286,000,000 in 1892—that is, by 775,000,000. The total increase in public revenue during the same period was 1,082,000,000, so that 71 per cent was absorbed by the service of the debt. The main causes to which this gigantic and alarming increase of public indebtedness since 1870 must be ascribed are—

	Frans.
The war of 1870 and the Commune.....	8,418,000,000
Reparation of the effects of the war, and army and navy reform.....	2,118,000,000
Public works and education.....	5,637,000,000
Subvention to the Caisse des Retraites.....	348,000,000
Other expenses.....	1,575,000,000
Total.....	18,096,000,000

The capital items of the debt stood as follows on January 1, 1908:

	Frans.
Consolidated, 3 per cent.....	22,188,000,000
Redeemable, 3 per cent.....	3,637,000,000
Floating debt.....	1,102,000,000
Annuities, etc.....	4,224,000,000
Total.....	30,161,000,000

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The following table shows the variations in the capital value of the interest-bearing debt since 1877:

	Francs.
1877-----	19,909,000,000
1887--	24,661,000,000
1903-----	25,984,000,000
1904-	25,959,000,000
1905-----	25,934,000,000
1906-----	25,884,000,000
1907-----	25,850,000,000
1908-----	25,825,000,000
1909-----	25,510,000,000

At the present time the French debt is the largest in the world. It is double the English in annual charge. The only alleviations which seem probable are the gradual redemption of the new 3 per cents, a process which will be completed in 1952, and the reversion of the chief railway lines to the state between 1950 and 1960 which should bring in a very large and expanding revenue.

The variations in French credit since 1877 may be gauged by the yield of the 3 per cent rentes. In that year, when the influence of the war was still felt, the yield was 4.27, more than that of the 4 per cent German imperial loan. In 1881 it fell to 3.58, but in 1884 rose to 3.91, when it was 0.7 above the German yield. In 1897 it reached its lowest point, 2.91 (0.46 below British consols for the same period), while at present (June, 1910), it is 3.12, while the yield of British 2½ per cent consols is about 3.03. The annexed table gives fuller details.

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Price of 3 per cent French rentes on the Paris Bourse.

Year.	Highest.	Lowest.	Average.	Real yield.
1877	74.25	66.00	70.57	4.27
1878	77.25	70.50	74.61	4.04
1879	83.50	75.75	80.02	3.77
1880	86.00	80.75	83.54	3.61
1881	86.00	82.00	84.18	3.58
1882	83.50	79.25	81.62	3.69
1883	81.25	75.25	78.40	3.85
1884	78.75	75.13	77.19	3.92
1885	81.75	75.50	79.57	3.79
1886	83.25	80.00	81.61	3.69
1887	82.00	75.50	80.13	3.76
1888	83.00	80.00	81.64	3.69
1889	87.75	81.75	84.94	3.55
1890	95.00	86.50	90.72	3.32
1891	95.50	91.75	94.28	3.19
1892	99.50	94.50	97.39	3.09
1893	98.50	94.25	97.22	3.10
1894	103.50	96.50	100.05	3.01
1895	103.73	99.65	102.03	2.95
1896	103.30	100.40	102.16	2.95
1897	105.20	101.90	103.33	2.91
1898	104.28	101.32	102.85	2.93
1899	103.01	98.83	101.24	2.97
1900	102.07	99.20	100.60	2.99
1901	102.40	99.94	101.22	2.98
1902	101.95	98.55	100.60	2.99
1903	100.09	96.31	98.13	3.07
1904	99.05	94.58	97.54	3.09
1905	100.45	97.70	99.21	3.04
1906	99.90	94.95	97.65	3.08
1907	96.12	93.78	94.85	3.18
1908 ^a	97.62	94.36	96.15	3.13

^a To October 31.

II. METHODS OF ISSUE—REDEMPTION, CONVERSION.

Under the Bourbons and Louis Philippe loans were generally floated with the help of the bankers; under the second Empire, as already mentioned, they were thrown open to public subscription. The first payment was generally 10 per cent of the total, and there were 18 "termes."

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The terminable annuities are not generally open to the public, but are arranged by the State with large corporations, such as the Bank of France, the railway companies, chambers of commerce, and municipalities. The 3 per cent stock, repayable in seventy-five years, created in 1878, is quoted in terms of 100 francs, but can not be delivered in amounts of less than 500 francs. It is not much favored by small investors.

The method of redemption by periodical drawing has some peculiarities. The stock is divided into 175 series, and each subscriber has the option of taking each "coupure" from a different series, so that the subscriber for 175 "coupures" may hold one in each series. They are redeemed by lot—1879-1907, 1 series in each year; 1908-1925, 2 series in each year; 1926-1938, 3 series in each year; 1939-1945, 5 series in each year; 1946-1953, 6 series in each year.

The policy of debt redemption in France has not been carried out with conspicuous success, owing to the failure of French statesmen to grasp the rudimentary principle that the only real sinking fund is a surplus of revenue over expenditure. In 1816 a sinking fund (*Caisse d'amortissement*) was begun and endowed with 20,000,000 francs a year, which sum was raised in 1817 to 40,000,000, and again from 1818 to 1825 to 77,000,000. But the State was buying its funds back at a higher price than that at which it had issued them, the difference amounting to 105,000,000 francs during the eighteen years 1816 to 1834. In 1833 the sinking fund was reduced to 44,000,000, and it was suspended by Louis Napoleon from 1848 to 1852. The *caisse* still existed in name, but its funds were diverted to other objects. In 1866 it was reorganized, but finally suspended in 1871.

An Old Age Pensions Savings Bank (*Caisse de Retraites*) was founded by the State in 1852, and any profits on its management were to be applied to the reduction of the debt. But the

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rate of interest on deposits—5 per cent—proved too high, and a loss instead of a profit was shown. In 1886 the institution was converted into an ordinary savings bank.

A more successful method of debt reduction during the last half century has been by conversions effected in years when the national credit has been rising. But for this process the existing debt would present an even more portentous total. It may be noted that owing to the large number of fundholders conversion has not always been easy, and to avoid unpopularity opportunities have been neglected at times when the price of the funds would have favored the operation—e. g., under Louis Philippe, and more recently from 1878 to 1883.

In 1852 the government of the Second Empire converted 3,500,000,000 five percents to $4\frac{1}{2}$ per cent stock, with a saving to the State in interest of 17,500,000 francs. Less than 75,000,000 of capital had to be paid to dissenting creditors. The conversion of 1862 was not so satisfactory. "For the sake of a premium the $4\frac{1}{2}$ and 4 per cent stocks were converted into 3 per cent, with a proportionally increased capital. This unjustifiable measure brought a premium of 157,500,000 francs to the State, but, on the other hand, it increased the capital of the debt by almost 1,600,000,000 francs and precluded the hope of further speedy conversion."^a In 1883 the old 5 percents were converted into $4\frac{1}{2}$ percents without any increase of capital, but with a proviso against further conversion for ten years. An annual saving in interest of 34,000,000 francs was the result. In 1894 the high price of this stock allowed a successful conversion to $3\frac{1}{2}$ per cent. Out of a capital of nearly 6,800,000,000 only about 1,400,000 was demanded by the holders and the gain in interest amounted to 67,000,000 annually. In 1902 M. Rouvier carried out a further conversion of this stock to 3 per cent, with a bonus

^a Bastable, Public Finance p. 647.

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of 1 per cent to the acceptors and a guaranty that no further conversion would be attempted for eight years. By this measure all the existing funded debt was consolidated under one denomination. The remarkable steadiness in the price of French rentes has often been remarked and is ascribed to the wise policy of the French Government in appealing to the small investor's appetite for small bonds which are unknown to holders of British consols. The 3 per cent rentes are distributed now among more than 4,500,000 persons. Another explanation of this stability of price may, however, be found in the fact that since 1890 the debt of France has been practically stationary, and yet another in the policy of the Bank of France, which sets its face against changes in the discount rate—a policy which, however, is only possible because of the law enabling it to refuse payment in gold. Thus France is removed from the fluctuations of the international money market and Paris, though a great capital market, cannot vie with London as a center of international banking and exchange.

III. LOCAL INDEBTEDNESS IN FRANCE.

The unit of French local government is the commune, a division which varies in size from a tiny parish of less than 50 to a great city. Cantons, arrondissements, and departments are all multiples of the commune, though in exceptional cases a large commune may cover several cantons. The commune has both a territorial and a personal basis, being at once a tract of territory and a union of citizens inhabiting a common locality with common interest in communal property. In the latter sense it is a legal person and possesses all the ordinary rights of a corporation. The commune is administered by an elected council of varying size, with a mayor and one or two "adjoints" or assistants of the mayor. The mayor of the commune has general charge of the finances of the commune and has to present

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a report on their condition to the council before they consider the annual budget. But the mayor's report must tally with an independent report presented by the municipal treasurer, who is a government official appointed, according to the size of the commune, by the prefect of the department or the President. Both reports go to the prefect or to the Minister of the Interior for scrutiny.

After the report is accepted by the council the mayor draws up the budget. In Paris the administration consists of a large municipal council of 80 members and two prefects. The prefect of the Seine undertakes all the duties of a communal mayor, except those connected with police, which pertain to the prefect of police. The municipal budget is voted by the council, but when passed a copy must be sent to the prefect of the department for his approval. If the total revenue is estimated at more than 3,000,000 francs, another copy must be sent to the Minister of the Interior to be approved, on his advice, by the President of the Republic. Both copies must be accompanied by sufficient explanatory data. The prefect or the minister has power to reduce but not to increase any item of estimated expenditure.

The council of the commune has power to authorize loans for public improvements; but when they are for large sums they must be approved by the prefect and (if a special tax levy for a long period is necessary) by the Government. Thus the borrowing power of French local authorities is circumscribed, and their loan must be authorized by a superior authority. The State forbids French departments and municipalities to contract any loan not redeemable within a fixed period. These constitutional restraints and regulations may account for the fact that the French municipalities generally are less enterprising and have smaller debts than those of Great Britain and Germany.

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The growth of local debt has, however, been almost as marked as that of state indebtedness during the last fifty years. For the period before 1862 little statistical material exists; but it is estimated that in 1836 the debts of all the communes, excluding Paris, amounted to 19,500,000 francs. That of Paris in 1830 was 39,400,000 francs.

The average annual increase of local debt, excluding Paris, has been as follows:

	Million francs.
1862-1868	35,700,000
1868-1877	21,600,000
1877-1886	53,800,000
1886-1890	36,400,000

The total amount of local indebtedness, including Paris, since 1862 has risen as follows:

Year.	Local debts. ^a			Per head.	
	Paris.	Other communes.	Total.	Total.	Without Paris.
				<i>Francs.</i>	<i>Francs.</i>
1862	342	341	683	18.30	9.50
1868	1,475	573	2,049	53.80	15.80
1877	1,988	757	2,745	74.40	21.70
1886	1,777	1,242	3,020	80.20	35.10
1896	2,043	1,468	3,511	91.59	41.00
1900	2,357	1,491	3,848	100.38	41.66
1903	2,297	1,536	3,834	98.41	42.39
1904	2,266	1,564	3,831	98.30	42.51
1905	2,425	1,567	3,992	102.43	42.62
1906	2,433	1,588	4,021	105.16	41.74

^a In million francs.

The per capita increase has been, 1862-1877, 128.3 per cent; 1878-1890, 73.2 per cent; 1890-1900, 10.8 per cent. Paris borrowed heavily before 1870 to carry out the great improvement schemes of Baron Haussman, and since that date to repair the damages incurred during the war. The amount per head of the Paris debt in 1899 was 941.02 francs, and in 1900 the city

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paid for the service of the debt 112,000,000 francs, or one-third of her total expenditure for the year. Upon the whole, as we have remarked, French local debt outside Paris, though it rose rapidly in the latter half of the nineteenth century, is not very heavy. The debt of Paris, it will be seen, is five-eighths of the whole, an extraordinary proportion, considering the ratios of population. In 1907, the last year for which figures are available, the aggregate local debt amounted to 4,060,000,000 francs, to which Paris contributed 2,456,000,000 and the rest of France 1,604,000,000. In the same year the total debt of Marseille was 115,000,000 francs, of Lyon 63,000,000 francs, of Rouen and Bordeaux 37,000,000 apiece, of Havre 31,000,000, of Nantes 29,000,000, and of Tours 3,000,000. The last issues of Paris loans were 2 percents in 1898 and 1899, 2½ percents in 1904, and 2¾ percents in 1905. The 400-franc stock of these 2¾ percents was issued at 380 and now stands at 308.

The following is a list of the existing loans contracted by the city of Paris, with their prices on the Paris Bourse:

	Nominal price.	Issue price.	Price October, 1909.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs</i>
1865, 4 per cent.....	500	450	546
1869, 3 per cent.....	400	345	Reimbursed.
1871, 3 per cent.....	400	277	407
1874, 4 per cent.....	500	440	556
1876, 4 per cent.....	500	405	555
1892, 2½ per cent.....	400	340	380
1894-96, 2½ per cent.....	400	Divers.	378
1898, 2 per cent.....	500	435	424
1899, 2 per cent.....	500	410	414
1904, 2½ per cent.....	500	440	454
1905, 2¾ per cent.....	400	380	308

The reason for the apparently low rate of interest upon the Paris bonds is that they all include lottery prizes at the half-yearly or quarterly drawings for redemption. This vicious

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system is applied by many of the other French municipalities, but not by those whose bonds are quoted upon the Paris Bourse. The 500-franc bonds of Bordeaux, yielding 4 per cent, stood at 517 in 1898 and at 511 in 1908. The 3 percents of Lyon, issued in 100-franc bonds, stood in 1908 at 105. The 3 percents of Marseilles in bonds of 500-francs, stood at 407 in 1898 and at 408 in 1908, while bonds of similar denomination issued by Marseille and yielding $3\frac{1}{2}$ per cent stood in 1898 at 498 and in 1908 at 482.

The Debt and Credit of the United States.

THE DEBT AND CREDIT OF THE UNITED STATES.

I. HISTORY OF THE NATIONAL DEBT.

(A) 1775-1789. THE CONTINENTAL CONGRESS.

During the last years of the seventeenth and throughout the eighteenth century most of the British colonies in North America had embarrassed their finances by large issues of bills of credit and paper money—first to meet war emergencies and then for the ordinary expenses of Government. These usually depreciated rapidly until in some cases they became worthless. Virtual or open repudiations by some of the colonial assemblies were not uncommon. The English merchants who gave large credits suffered heavily, and there were many disputes between the colonial governors and their legislatures.

The Continental Congress at the outbreak of the Revolution also resorted to paper currency, and the individual States continued their issues. Between 1775 and 1779 \$241,000,000 worth of continental paper was issued, while the States were responsible for \$209,000,000. The Congress tried to enforce a redemption of its own issues upon the States but failed, and depreciation was very rapid. In November, 1779, the ratio of the real value of the paper to its face value was $38\frac{1}{2}$ to 1. "Boston was, in October, 1779, on the verge of starvation; money transactions had nearly ceased, and business was done by barter."^a In 1780 an attempt was made to replace the money by "new tenor," but depreciation continued. The new bills started at a depreciation of 2 to 1, which became 3 to 1

^a White: Money and Banking, p. 98.

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before they were paid to the army, and dropped to 6 to 1 in a few months. "Old tenor went at a galloping pace down to 500 for 1 in Philadelphia, when it ceased to circulate. In the remoter districts of the South it continued in circulation nearly a year longer, and until the depreciation had reached 1,000 for 1." ^a

The Congress also contracted about \$11,000,000 of domestic loans (reduced to a specie basis) at rates varying from 4 to 6 per cent. After March 1, 1782, the interest was not met, but certificates of value were given to the holders, and these were received by the Government in payment for taxes. Further, the Government gave receipts for impressed supplies to an estimated total of \$16,700,000.

External loans and subsidies were raised from the Governments of France and Spain and from private bankers in Holland, to the amount of \$7,830,517, at par, for the most part at 5 per cent, although a small proportion of the French loan was at 4 per cent. The French government subsidies were mainly spent in France on supplies, but one instalment reached America in specie and helped to pay the interest on the domestic loans. By 1782 Holland, having gained confidence in the success of American arms and the integrity of the American Government, became an important lender.

A superintendent of finance (Robert Morris) was created in 1781, but resigned three years later. The capital indebtedness in 1784 was—

Foreign debts and arrears of interest	\$7,921,886
Loan office certificates	11,585,000
Unliquidated certificates of indebtedness	16,708,000
Arrears of interest on home debt	3,109,000
Total	39,323,886

The indebtedness of the individual States stood at about \$21,000,000. From 1784 to 1789 loans of \$2,296,000 were

^aOp cit., p. 99.

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raised in Holland at 4 per cent, nominally at par; although various bonuses and "gratifications" raised the rate to nearly $6\frac{3}{4}$ per cent. In 1787 the Federal Constitution among its other far-reaching enactments laid down that the new Federal Congress should "have power to borrow money on the credit of the United States" (Art. I, sec. 8), that "all debts contracted and engagements entered into before the adoption of this Constitution shall be as valid against the United States under this Constitution as under the Confederation" (Art. VI, sec. 1), and that "no State shall coin money or emit bills of credit" (Art. I, sec. 10).

In 1789 the Department of the Treasury was founded, and Alexander Hamilton became its first Secretary. I have touched upon this early history very briefly. Its chief interest and importance for present-day controversies lies in the fact that the Government of the United States inherited from the States of which it was composed the vicious principle of confounding debt with currency. The crude notion of raising money by debasing the currency whether by adulterating the metal or by issuing an excess of paper has now been relegated to the least civilized and intelligent states of the world. But traditions die hard, and the system of propping up credit by currency regulations may still be traced in the laws of the United States.

(B) 1790-1812.

After the passage of the Constitution Hamilton prepared his first report on public credit (January 9, 1790), in which he summarized the amount of debt as follows:

Foreign debt, with arrears of interest.....	\$11,710,000
Estimated domestic debt.....	27,383,000
Accrued interest on the domestic debt.....	13,030,000
Unliquidated debt.....	2,000,000
Total.....	54,123,000

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The question of funding was complicated by the depreciation that had occurred. Were the holders of continental certificates to be paid at their face value, or at their face value plus the accrued interest, or at the sum they had actually given? This was hotly debated, and a wild speculation in certificates ensued. But Hamilton prevailed, and it was agreed that all holders should receive the face value of their certificates plus the accrued interest. The only exception was in the case of the outstanding continental bills of credit, which were funded into 6 per cent bonds at the rate of \$100 of bills to \$1 of specie. But of these bills comparatively few were ever presented.

Out of the \$21,500,000 of state debts the Federal Government took over the larger part, \$18,000,000, on the ground that they had been incurred for war purposes. The Southern States during the war had composed their embarrassments either by taxation or repudiation, and, as their existing debts per head of population were much less than those of the Northern States, they opposed the measure. Hamilton, whose aim was political—to consolidate the interests of the States and to procure national unity—pacified them by a bargain through which the Federal Capital was to be in the South, and Washington accordingly stands on territory taken from Virginia and Maryland.

By the funding act of 1790 three loans were authorized:

1. A loan of not more than \$12,000,000 for the payment of the foreign debt.

2. A loan to the full amount of the domestic debt, which could be subscribed in any of the old certificates of indebtedness issued by the Continental Congress. In return, subscribers received two certificates, one for an amount equal to two-thirds of the subscription with 6 per cent interest, the other for one-third not bearing interest till 1801. As the old debt bore 6 per cent interest, this practically meant a reduction for ten years to 4 per cent.

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Conversion was not compulsory; but as the old debt was redeemable at pleasure and there was a general expectation that it would soon be extinguished, it was to the interest of holders to make the exchange. A 3 per cent loan was also issued to clear off the arrears of interest.

3. The third loan, to take up the state debts, could be received in the certificates issued by the States for war purposes. The interest provisions in this case were also complicated. The government agreed to limit the amount of the new debt redeemed in any one year, and offered quarterly instead of annual payments of interest at 13 different places. The national revenue, subject to the prior claim of the foreign debt, was pledged to the payment of interest.

Six per cent loans were raised in Holland and Antwerp to pay off part of the foreign debt to France and Spain and to extend the remainder. Allowing for commission and expenses these were floated at from 96½ to 94½. The act was complicated, and created too many varieties of stock, but on the whole it proved successful, and the old floating obligations disappeared, as these figures show:

	1791.	1801.
Old debt:		
Funded.....	\$1,500,000	\$57,000,000
Unfunded.....	61,000,000	3,800,000
Foreign.....	12,800,000	12,400,000
New debt.....	.....	10,600,000
Total.....	75,300,000	82,800,000

In 1791, through Hamilton's exertions the first bank of the United States was chartered (the Government subscribing \$2,000,000 to its capital of \$10,000,000) and proved a financial success. During the subsequent ten years the expenditure of the Government forced it to borrow many small loans from the

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bank. In all, these mounted up to about \$10,000,000, of which one-third was outstanding in 1801. In 1798 a loan of \$5,000,000 and in 1800 another of \$1,500,000 for appropriations and military purposes were authorized. These were limited to fifteen years, and the fear of invasion forced the Treasury to pay 8 per cent.

In 1792 a sinking fund was created, but its operation did not prevent the growth of the debt.

With Jefferson's administration in 1801 the policy of public retrenchment with a view to the reduction of debt and taxation took the field, with Gallatin at the Treasury as its director. "He had been unceasing in his demand for economy, for specific instead of general appropriations, for the extinction of the debt in preference to military and naval expenditures, and for a change in the form of the sinking fund."^a The result was a remarkable reduction of debt between 1801 and 1812. The net amount paid off was \$38,000,000, but the real reduction was larger; for the Louisiana purchase accounted for an addition of nearly \$15,000,000. At the same time some unpopular excise duties and the salt tax were repealed. The foreign debt with the costly loans of 1798 and 1800 were wiped out, and no further recourse was had to temporary loans.

In 1803 Gallatin to meet the \$15,000,000 incurred by the Louisiana purchase issued a loan of \$11,500,000, at 6 per cent, redeemable after fifteen years in four annual instalments. The balance was met from the revenue chiefly from customs, as it was a period of expanding trade. The loan was very successful. In 1811, in spite of Gallatin's support of the United States Bank, the renewal of its charter was lost in the Senate by 1 vote, owing to political reasons and the jealousy of the state banks, of which 88 were by this time in existence.

^a Dewey: Financial History of the U. S., p. 119.

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(C) THE WAR OF 1812.

Gallatin had long foreseen the approach of war, and on several occasions had declared that he should propose to raise the necessary money by loans; taxes would only be increased in so far as might be needed to pay interest on new debt. Congress was very ready to agree to a loan policy, and in March, 1811, it authorized a loan of \$5,000,000, at 6 per cent, not to be sold under par. In December, 1811, however, Gallatin proposed the revival of the unpopular excise taxes, declaring that Congress, by its destruction of the United States Bank, had deprived him of an important credit instrument. It was, however, too late to resort to a strong policy of taxation; the proposals were rejected, and loans continued. An increase of customs duties produced little revenue, for commerce with Europe was almost destroyed by the war.

In October, 1814, Dallas replaced Gallatin at the Treasury and had to deal with a serious situation. The following is, in outline, the financial history of the war period:^a

1812.

- Mar. 14. Loan of \$11,000,000, at 6 per cent.
- June 12. War declared.
- June 30. Issue of \$5,000,000 of Treasury notes.
- July 1. Customs duties doubled.

1813.

- Feb. 8. Loan of \$16,000,000, at 6 per cent.
- Feb. 25. \$5,000,000 of Treasury notes.
- July 22. } Internal-revenue duties and some direct taxation imposed.
- Aug. 2. }
- Aug. 2. Loan of \$7,500,000, at 6 per cent.

1814.

- Mar. 4. \$10,000,000 of Treasury notes.
- Mar. 24. Loan of \$25,000,000.
- August. Specie payments suspended.
- Dec. 15. Internal-revenue taxes increased.
- Dec. 24. Treaty of peace.
- Dec. 26. \$10,500,000 of Treasury notes.

1815.

- Jan. 18. New internal taxes.
- Feb. 24. \$25,000,000 of Treasury notes.
- Feb. 24. Loan, at 7 per cent.

^a Dewey: Financial History, p. 132.

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The ordinary rule of policy was not to issue government stock below par; but public credit began to fall, and it was found necessary to accept lower bids for the loan of February 8, 1813, for most of which 88 was taken. It was difficult to get subscribers in the Eastern States, where the commercial interest had been antagonized by Jefferson's policy of embargo, nonintercourse, and war. In New England only \$3,000,000 were subscribed out of the \$41,000,000 raised to the end of 1814. The loss of the bank was much felt by the Government.

For the loan of August 2, 1813, special terms had to be made; it was not to be sold under 88 and was actually placed at $88\frac{1}{4}$. In the case of the loan of March 24, 1814, the Government agreed that if more favorable terms were offered to later subscribers they would be extended to earlier purchasers. Thus it became the interest of the earlier holders to depress the price. From 88 the loan dropped to 80, and later on to 65. Public credit rose with the conclusion of peace, and the average price received for the loan of March 3, 1815, was 95. A Committee of Ways and Means of the House of Representatives estimated in 1830 that during this war the actual value in specie of the Treasury receipts was only \$34,000,000 for loans of over \$80,000,000 nominal.

During the war period Treasury notes were issued to the amount of \$36,500,000 (part to replace earlier issues), and all except \$3,392,994 were payable to order at a definite time and bore interest at $5\frac{1}{2}$ per cent. Two-thirds were in denominations over \$100. They did not become, and were not intended to become, part of the circulating medium, though they were receivable in payment of taxes. A proposal to issue Treasury notes as legal tender was decisively rejected by the House of Representatives in 1814. The notes remained generally at par until the suspension of specie payments.

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(D) 1816-1846.

In 1816, when Dallas was Secretary to the Treasury, and Madison, President, the second bank of the United States was founded to reorganize the currency. Of its capital (\$35,000,000) one-fifth, or \$7,000,000, was subscribed to the Government. By the terms of the charter government funds were kept in the bank or its branches but could be removed at the discretion of the Secretary of the Treasury. Up to 1819 its career was inglorious, but after that date it became very prosperous. Between 1811—the refusal of the charter to the first bank—and 1816 the number of state banks rose from 88 to 246. After the suspension of specie payments their notes fell to a discount of 10 to 30 per cent, yet they were accepted by the Government in payment of taxes. This naturally led to increased issues. The circulation—\$45,000,000 in 1812—had risen to \$100,000,000 in 1817. “The monetary derangement was so acute that the Treasury Department was obliged to keep four accounts with its depositories, in four standards of value—cash, or local currency; Treasury notes bearing interest; Treasury notes not bearing interest; and special deposits.”^a

In January, 1816, the debt stood at \$127,000,000; the following March Congress ordered an annual appropriation of \$10,000,000 to the sinking fund and in 1817 \$9,000,000 more were added. The succeeding years, however, were marked by deficits, and in 1819 there was a severe crisis throughout the country—a reaction after the forced growth of manufactures during the war and the speculation and bad banking that followed it. Since 1817, \$32,000,000 of debt had been redeemed, but now loans were called for to tide over the financial difficulties. In May, 1820, a small loan of \$3,000,000 was issued, two-thirds at 6 per cent, redeemable at pleasure, which sold at 102, the remainder for twelve years at 5 per cent at par.

^a Dewey: Financial History, p. 145.

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In 1821 several millions of the public debt fell due, and in March another loan of \$5,000,000 for fourteen years at 5 per cent was issued, and it was readily taken at a premium of from 5 to 8 per cent, foreshadowing the revival of trade and confidence which took place in this year. After 1822 there were constant surpluses, but as the debt ran for fixed periods they could only be used to purchase stock at a premium in the open market. In 1826 \$19,000,000 became due, more than the sinking fund could discharge. Attempts were made at refunding which were not markedly successful, but in spite of the handicap of fixed loans the conditions favored rapid debt reduction, and by 1835 the debt had been extinguished.

The political antagonism against the bank of the United States culminated in 1833 when President Jackson withdrew the government deposits. During the crisis of 1837-1843 the Government issued treasury notes to the amount of \$47,000,000, about one-third being reissues. They bore interest, some even at a nominal rate, 1 "mill" ($\frac{1}{1000}$) per \$100. They all ran for a definite time, for the Committee on Ways and Means of the House of Representatives declared that if payable on demand they were "bills of credit," which by the Constitution Congress had no power to issue.

From 1841 to 1843 the new Whig Government proposed loans to fund these notes and for current needs. In 1841 the loan was for three years with interest from $5\frac{2}{3}$ to 6 per cent. It could not be sold at less than par, and of the \$12,000,000 authorized less than half was issued. In 1842 and 1843 the stock could be sold at less than par and the loans ran for ten and twenty years, respectively. In 1842 \$8,000,000 was disposed of from $97\frac{1}{2}$ to par, and in 1843 \$7,000,000 at a premium of 1 to $3\frac{3}{4}$. But the effects of the crisis and the suspicion caused by State repudiations prevented a wider success.

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(E) 1846-1848—THE MEXICAN WAR.

The net indebtedness created by this war was \$49,000,000. All the loans, at 6 per cent, were floated at, or even above, par. As they ran for ten or twelve years and remained at a premium, redemption proved costly. One loan of \$18,000,000 was bid for in specie to the amount of \$57,750,000—the first on a specie basis since the Government entered office. Treasury notes were also issued to the amount of \$26,000,000, bearing interest at $5\frac{2}{3}$ and 6 per cent. Like the notes of 1837 to 1843, they were “merely government loans of which the securities were in small denominations and had only short periods to run.”^a

(F) 1848-1860.

In 1851 the debt stood at \$68,000,000, but it was steadily reduced until it reached \$28,700,000 in 1857. In that year a sharp commercial and banking panic ensued upon feverish railroad construction and the gold discoveries, though protectionists blamed the low tariff of 1846 and the further reductions which took place in 1857. The bank note circulation, which was \$58,000,000 in 1843, was \$214,000,000 in 1857.

In 1860 the debt was \$65,000,000, or \$2 per head of the population. During the period 1836-1860 its capital amount rarely exceeded and was sometimes much below the annual receipts of the Federal Government. Since the establishment of the Constitution it had stood as follows:

1791	.....	\$75,400,000
1801	.....	83,000,000
1804	.....	86,400,000
1812	.....	45,200,000
1816	.....	127,300,000
1819	95,500,000
1835
1851	68,300,000
1860	64,800,000

^a White: Money and Banking, p. 107.

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(G) 1861-1866—THE CIVIL WAR.

(a) *Federal Finance*.—The result of the elections in November, 1860, gave a shock to credit, and in December, in order to float a treasury note issue at par, 10 to 12 per cent interest had to be offered. On February 8, 1861, a 6 per cent loan for \$18,000,000 was issued with no restrictions as to price, and sold at an average price of 89.

In March Lincoln appointed Chase Secretary of the Treasury, and in April war broke out. The debt in July stood at \$74,985,000, about \$18,000,000 of which had been incurred since the secession movement began. Chase estimated that during the next year about \$320,000,000 would be required, of which he proposed to raise \$80,000,000 by taxes and \$240,000,000 by loans. In August he negotiated \$50,000,000 in three loans from the banks of New York, Boston, and Philadelphia, at par, with interest at 7.3 per cent. Chase did not believe that he had the power to leave the money in the banks till actually required, and then draw it by check, and consequently ordered the banks, in spite of their protests, to pay the gold by weekly installments into the subtreasury at New York. As the government creditors in their turn paid it back to the banks, the effect at first was not great. But in December the Trent affair caused a fear of war with England and Chase asked for another loan of \$200,000,000.

The government credit declined, so that the banks could not sell government securities except at a loss, and people stopped depositing or even withdrew money. The reserve dwindled rapidly, and on December 30 the banks suspended specie payment and were, of course, followed by the Treasury. Before these loans \$60,000,000 of noninterest-bearing treasury notes had been issued, of which \$33,000,000 were outstanding. These were payable on demand and receivable for taxes, but were not legal tender.

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In January, 1862, the Committee on Ways and Means, by a majority of one vote, proposed a legal-tender system and the bill passed Congress by narrow majorities. It provided (1) for the issue of \$150,000,000 of notes (\$50,000,000 to take up the outstanding demand notes). They were payable to bearer, for denominations of not less than \$5 and noninterest bearing. They were legal tender and exchangeable for bonds. (2) Of these bonds \$500,000,000 were authorized at 6 per cent, redeemable in five years, payable in twenty years—the well-known “five-twenties.” These sold at a fractional premium when reckoned in the depreciated paper currency. (3) Certificates of deposit bearing 5 per cent interest in exchange for United States notes left on deposit for not less than thirty days, payable at ten days’ notice.

A sinking fund was established.

The Senate added amendments: (1) The interest should be payable in coin. (2) The Secretary of the Treasury should have power to sell the 6 per cent bonds at any time at their market value for notes or coin (to obtain gold for the interest). (3) All import duties should be payable in coin.

Chase was in fact opposed to legal-tender notes, but he had not the courage of his convictions and yielded, partly out of hostility to the bankers. “A delegation of bankers from New York, Boston, and Philadelphia came to Washington to remonstrate against the bill. * * * Mr. James Gallatin presented a plan of national finance which would, in the opinion of these gentlemen, procure the means for carrying on the war without recourse to legal-tender notes. One of the proposals was to ‘issue 6 per cent twenty-year bonds, to be negotiated by the Secretary of the Treasury without any limitation as to price he may obtain for them in the market.’ Mr. Spaulding (the proposer of the bill) * * * objected ‘to any and every form of “shinning” by the Government through Wall or State

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street to begin with; objected to the knocking down of government stocks to 75 or 60 cents on the dollar, the inevitable result of throwing a new and large loan on the market without limitation as to price.' In order to avoid selling government stocks at 75 or 60 cents on the dollar in an honest way Mr. Spaulding initiated a policy which ended in selling those stocks at 40 cents on the dollar in a roundabout way, and cheating creditors, soldiers, and laboring men out of more than half their dues in an incidental way."^a

On July 11, \$150,000,000 more notes were issued, \$35,000,000 in denominations of less than \$5. In January, 1863, \$59,000,000 of army and navy pay had not been met, and there was great distress. Chase was asked for an explanation. He said: "The Secretary, solicitous to regulate his action by the spirit as well as the letter of the legislation of Congress, did not consider himself at liberty to make sales of the 5-20 bonds below their market value, and sales except below were impracticable." On this Mr. White comments:^b "What Mr. Chase meant was that the quoted value of 6 per cent bonds on a particular day—the 3d of January, 1863, for instance—was 98 in currency. But if the Secretary should offer any large lot the price would fall below 98."

On January 17, 1863, \$100,000,000 notes, later increased to \$150,000,000, were issued. The price of gold at this time was 142; by the end of the month it was 159. The former issues had been fundable within five years at the option of the holder into the 6 per cent gold bonds, which was a method of indirect redemption. Chase hoped that if this provision were repealed he could issue 5 per cent bonds, and he persuaded Congress to pass the law of March 3, 1863, which repealed the conversion clauses of the legal-tender act by fixing July 1 as the date when the right of redemption would cease. This was a breach of

^a White: Money and Banking, p. 110.

^b Op. cit., p. 114.

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contract which destroyed the previous standards of value, injured government credit, and hindered the conversion of the currency at the end of the war.

At the same date treasury notes (as distinguished from the noninterest-bearing "greenbacks") were authorized, the act providing for \$400,000,000 in denominations of not less than \$10 to run for not more than three years and bear interest in "lawful money" at not more than 6 per cent. They were legal tender for their face value, minus interest. Thus it was hoped the holder would have an inducement to keep the note, and if he used it as money the recipient would have an inducement to keep it. Under these provisions \$44,520,000 of one-year and \$166,480,000 of two-year notes at 5 per cent were issued, besides \$266,595,440 compound-interest notes for three years at 6 per cent. These latter were semiannually compounded, and the interest was payable with the principal at maturity. Thus \$10 were worth \$10.30 at the end of the first half year and \$11.94 at the end of three years. They were the most scientific form of legal-tender notes issued, as the owner had an increasing inducement to hold them as an investment.

In 1862 silver coins grew scarce and about \$27,000,000 of fractional currency notes were issued. On March 3, 1863, there was an issue of bonds at 6 per cent "ten-forties," of which both the principal and interest were payable in coin. (Some were already suggesting the payment of government obligations in greenbacks.) Of these \$75,000,000 were issued at an average price of 104½. On March 3, 1864, another issue of ten-forties, at 6 per cent, was authorized, \$196,000,000 in all, at prices ranging from par to 107. In June, 1864, an act limited the amount of greenbacks issued or to be issued to \$450,000,000. During the same month Chase insisted upon the unfortunate act prohibiting the sale of gold on "futures." He believed the price

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of gold had been advanced by brokers' gambling, and declared "it must and shall come down." On the day of the bill's passage the price of the gold dollar was 198 cents in legal tender, the next day 208, the next 230, and soon 250. Never before had there been so rapid an advance, and after two weeks' operation the law was repealed without debate. On June 30 Chase resigned and was succeeded by Fessenden. During this year taxation was resorted to with more effect.

Various estimates have been formed of the loss incurred through this debasement of the currency. In 1865 Prof. Simon Newcomb estimated the loss up to the end of 1864 at \$180,000,000 and the loss still to be incurred as \$300,000,000, a total of \$480,000,000. Professor Adams's (Public Debts) estimate is \$850,000,000, reckoning the difference between the debt created and the gold value of the currency which the Government received in return. Mr. Wesley Mitchell (Journal of Political Economy, March, 1897) put the loss at \$528,400,000, on the supposition that the government receipts were increased \$228,700,000 by the use of the greenbacks. He assumed that the receipts from internal revenue were increased to the full extent of the greenbacks, but admitted this to be doubtful.

The main features of Chase's loan policy were: (1) His endeavor to obtain moderate rates of interest. Early issues were at 7.30 per cent, later at 7, 6, and 5 per cent. He steadily refused to borrow except on his own terms, and evinced a great aversion to the terms of the money market. This eagerness for low interest led to the blunder of substituting 5 per cent for 6 per cent bonds in 1863. This raised the price of gold 20 per cent, and led to further legal-tender issues, and so to a further rise in the price of gold. (2) His wish for a general distribution of the loans led him to favor popular subscription, e. g., through Jay Cooke's agencies. This again arose partly from his hostility to the banks. (3) Another object was future controllability

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and hence his opposition to long loans. This has been criticised on the ground that it made foreigners distrust the debt and also because "the country was flooded * * * with short-time paper, which served in many instances the purposes of currency, expanded prices, and increased the speculation and extravagance always incidental to war. Temporary obligations falling due in the midst of civil conflict were a source of double vexation to the Treasury Department, which was obliged to conduct a series of refunding operations and at the same time to go into the money market to borrow ever-increasing sums." ^a

The proportion of long to short term indebtedness each year may be seen from the following table:

	Long term.	Short term.
	<i>Per cent.</i>	<i>Per cent.</i>
1861-62	15	85
1862-63	29	71
1863-64	67	33
1864-65	39	61
1861-1865	40	60

Another table (Bastable, p. 653) gives the relation of loan to tax revenue:

[In millions of dollars.]

Year.	Revenue.	Loans.	Total.	Percentage of loans to total receipts.
1861	41.5	23.7	65.2	35.0
1862	51.9	433.6	485.5	89.5
1863	112.6	595.6	708.2	85.0
1864	264.6	696.0	960.6	72.5
1865	333.7	864.8	1,198.5	74.0
1866	538.0	92.6	650.6	14.0

^a Dewey: Financial History, p. 317

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The growth of the debt (including notes and treasury bills) was as follows:

June 30—	
1861.....	\$90,600,000
1862.....	524,200,000
1863.....	1,119,800,000
1864.....	1,815,800,000
1865.....	2,680,600,000
1866.....	2,773,200,000

In 1866 the interest charge was \$133,000,000, and the interest-bearing debt was thus divided on August 31, 1865:

5 per cent bonds.....	\$269,100,000
6 per cent bonds.....	1,281,000,000
7.3 per cent bonds.....	830,000,000

Several of the loans issued in 1864 and 1865 were sold at from 102 to 104, and others at par, interest being 6 per cent.

(b) *Confederate finance.*—The Confederate States met their expenses almost wholly by treasury notes, which served as the currency of the people. “Those notes were not made legal tender by legislative authority, but were made practically so by public opinion and by the repeal of state laws for the collection of debts. Their course was similar to that of the Revolutionary bills of credit. They became nearly worthless before the close of the war and were repudiated in part by the Confederate government and were superseded by another batch, a sort of ‘new tenor,’ which pursued the same downward career. Secretary Memminger said that it was impossible to carry on war by means of taxes alone. This was a mistake. Except money borrowed abroad, every country pays the cost of a war at the time of the war. The Southern Confederacy presents an easy illustration of this maxim, because it was for the most part isolated, having little communication with the outer world, and because all of its debts were obliterated at the end of the war * * * There being nobody else to pay it, the people of

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the Confederacy must have paid it, and must have paid it during the time of the war, and not a moment later."^a

The following were the issues under the Confederacy:

March, 1861, \$2,000,000 treasury notes at 3.65 per cent payable to order. These were not currency; \$15,000,000 borrowed in gold on the security of 8 per cent bonds.

May 16, 1861, \$20,000,000 treasury notes for \$5 and \$10, noninterest bearing. These were redeemable in specie in two years and convertible into 8 per cent bonds. They acted as currency. The issue of bonds was increased to \$150,000,000. This was in part a produce, especially a cotton, loan.

August 19, 1861, \$100,000,000 treasury notes, later raised to \$150,000,000. They were convertible into 8 per cent bonds or 6 per cent call certificates.

At the end of 1861, \$105,000,000 treasury notes were outstanding and the premium on gold was 15 to 20 per cent.

April, 1862, \$165,000,000 8 per cent bonds; \$50,000,000 treasury notes; also a new kind of notes for \$100, bearing 7.3 per cent interest and payable for taxes. These also passed into circulation, owing to the rapid rise in prices. Up to this time 9 per cent of the expenses of the war had been met by bonds, 85 per cent by notes, and 6 per cent by taxes, donations, and the confiscation of federal property.

September, 1862, an act was passed authorizing note issues limited only by the public expenses.

December, 1862, the outstanding notes, including state issues, amounted to \$500,000,000. Gold in relation to notes was worth 3:1.

March, 1863, a loan for £3,000,000 was raised abroad (by Erlanger & Co., of Paris). It was secured by the cotton in the Confederate States at a valuation of 6d. per pound (the selling price in England being 21d.). The issue price was 90, and it is

^a White: Money and Banking, pp. 148, 149.

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said to have been five times oversubscribed in England alone. Yet after deducting brokers' commissions, interest on the bonds, repurchases to sustain the market, and other expenses the net amount realized (on \$15,000,000) was \$6,500,000. This paid for the confederate cruisers.

Attempts at compulsory funding, i. e., repudiation, 1863-64.

January, 1864, outstanding notes \$700,000,000. Gold quotation, 20:1. "Old notes and the new notes circulated side by side, were equally discredited, and continued to depreciate together."

January, 1865, gold quotation, 53:1.

March, 1865, bill for \$80,000,000 notes passed over the President's veto; attempt at a forced specie loan of \$3,000,000, failing this a tax of 25 per cent on all the specie in the Confederacy. This was just before the end of the war.

(H) 1865-1890. THE FUNDING OF THE FEDERAL DEBT.

The highest point of the debt was reached on September 1, 1865, when it stood at \$2,846,000,000 against a cash reserve in the Treasury of \$88,000,000, the net liabilities thus being \$2,758,000,000. Its composition was as follows:^a

Funded debt.....	\$1, 110, 000, 000
Inconvertible paper (of which \$26,000,000 was fractional currency).....	460, 000, 000
Floating debt (mostly immediately repayable).....	1, 276, 000, 000
Total.....	2, 846, 000, 000

According to Adams (Public Debts, p. 248) the interest-bearing obligations stood then at \$2,381,000,000. On June 30, 1866, the interest-bearing debt consisted of loans at 5 different rates of interest maturing at 19 different periods, there were 12 different 6 per cent bonds and notes, 5 different 5 per cent and 5 different 7.3 per cent. Part of the interest was payable in coin and part in currency. Only one-ninth of the

^a Bolles: Financial History, p. 306.

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debt ran for longer than two years, the remainder was in transient forms, expressing in the aggregate nearly a hundred contingencies of duration, option, conversion, extension, renewal, etc.

The problems which faced McCulloch, the new Secretary to the Treasury, were: (1) How to pay off or fund the floating debt; (2) how to provide a permanent scheme of debt reduction. In rather over two years the floating debt was brought down to \$408,000,000 (a decrease of over \$900,000,000), and the inconvertible paper was reduced by \$20,000,000. The act of April 12, 1866, authorized the conversion of temporary into long-term obligations. In accordance with this new funded debt to the amount of \$686,000,000 at 6 per cent was issued at a slight premium. The temporary obligations were cleared off in 1868. A sinking-fund law had been enacted in 1862; but as there was no real surplus until 1866 it had been inoperative, nor was later debt reduction carried out in conformity with it. In 1870 and 1871 refunding acts were passed authorizing the creation of \$500,000,000 bonds redeemable in ten years, \$300,000,000 at 4½ per cent redeemable in fifteen years, and \$1,000,000,000 at 4 per cent redeemable in thirty years. None of these issues was to be sold at less than par in gold. Both interest and principal were to be paid in "coin," and later the question arose whether gold alone was meant, or gold and silver. These stocks unexpectedly went to a high premium, and so were difficult to redeem. Before thirty years were over the Government could borrow at 2½ per cent. By 1876 the five-twenties of 1862 were converted to 5 per cent due in 1881, and by 1879 the five-twenties of 1865-1868 were converted into the same denomination. The 4 per cent thirty-year bonds were not placed till 1877, and were therefore not redeemable till 1907, and the 4½ per cent fifteen-year bonds were not placed till 1876, and were therefore not redeemable till 1891.

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The surplus of 1882 was used to cancel temporary and outstanding debt; but by 1886 all bonds subject to optional redemption had been canceled, so that in 1887 the question was whether the Treasury had power to buy bonds in excess of the amount apportioned by the sinking fund. Great haggling with the bondholders ensued. In the summer of 1887 the Secretary to the Treasury called for offers toward redemption. The $4\frac{1}{2}$ per cents at once ran up from 109 to 111, and most offers were above 110. The Treasury refused all above $109\frac{1}{2}$, and the offers dropped to between $106\frac{1}{2}$ and 109.

Between 1880 and 1890 the old war loans disappeared. The 5 per cents, which fell due in 1881, were continued at $3\frac{1}{2}$ and 3 per cent, but extinguished in 1890. The following table^a shows the progress of reduction of the interest bearing debt:

Year.	Rate of interest.	Interest charge.	Capital.
	<i>Per cent.</i>		
September, 1865-----	6.34	\$151,000,000	\$2,756,400,000
November, 1868-----	5.8	126,400,000	2,484,900,000
November, 1884-----	3.92	47,300,000	1,408,500,000
December, 1889-----	3.7	41,000,000	1,056,100,000
June, 1892-----	3.9	22,900,000	585,000,000

Thus, in twenty-seven years \$2,100,000,000 were removed from the capital liability, and the annual charge was reduced by nearly \$130,000,000. The reasons for this success were the rapid rise of the United States credit by which the 6 per cent and 5 per cent bonds as they fell due were reduced to $4\frac{1}{2}$ per cent, and even 3 per cent; also, the large annual surpluses which resulted from the high duties on imports. "The protective system was in this way the cause of the repayment of the war loans. From the financial point of view it is plain that a like result could have been reached at much less real

^a Bastable, p. 654.

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cost and sacrifice if moderate duties had been used; but then it is doubtful whether in that case the policy of repayment would have been so firmly adhered to. The result was that the federal debt became unimportant except in connection with the management of the Treasury and the banking system." (Bastable.)

On the other hand, Mr. Horace White (Money and Banking, p. 166) criticises the attitude of the Federal Government toward the legal tender issues. Suspension of specie payments lasted for fourteen years, during which time the policy of Congress underwent many fluctuations. In December, 1865, it voted in favor of the early resumption of specie payments, and accordingly, in April, 1866, passed a law to retire and cancel the legal tender notes at the rate of \$4,000,000 per month. In February, 1868, after \$44,000,000 had been canceled, it repealed this act. In 1873 the Treasury Department reissued \$26,000,000 of the retired notes, without authority of law. The following year Congress passed a bill to reissue the entire \$44,000,000, but President Grant vetoed it, and it was not passed over the veto. In 1875 a law provided for the resumption of specie payments on the 1st of January, 1879. Two years later the House of Representatives passed a bill to repeal this resumption act, but it was defeated in the Senate by one vote. Both Houses then passed an enactment that the legal tender notes should not be retired when redeemed, but paid out and kept in circulation. The amount then outstanding was about \$346,000,000. Specie resumption accordingly took place on January 1, 1879.

In 1890 Congress passed a law for a new emission of legal-tender notes in payment for silver bullion to be stored in the Treasury. The new issues were followed by the exportation of gold, and a disastrous financial panic, the history of which falls within the next period.

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From the price quotations of the 4 per cent bonds after 1878 we find that their yield in the first year was rather under French rentes, in 1879 and 1880 it was above them, but from 1880 to 1889 considerably below, partly owing to the currency law.

Year.	Highest.	Lowest.	Average price.	Yield.
				<i>Per cent.</i>
1878.....	102 $\frac{3}{4}$	99 $\frac{3}{4}$	100.672	3.966
1879.....	104 $\frac{1}{4}$	99	100.609	3.963
1880.....	113 $\frac{5}{8}$	103	106.322	3.631
1881.....	118 $\frac{5}{8}$	112 $\frac{3}{8}$	115.375	3.134
1882.....	121 $\frac{3}{4}$	117 $\frac{1}{4}$	119.2690	2.912
1883.....	125 $\frac{1}{8}$	118 $\frac{1}{2}$	119.8446	2.912
1884.....	124 $\frac{7}{8}$	118 $\frac{1}{2}$	121.5529	2.758
1885.....	124 $\frac{3}{8}$	121 $\frac{3}{8}$	122.2833	2.680
1886.....	129 $\frac{3}{8}$	123	126.2147	2.427
1887.....	129 $\frac{5}{8}$	124 $\frac{1}{2}$	127.1751	2.317
1888.....	130	123 $\frac{3}{4}$	126.7252	2.266
1889.....	129 $\frac{7}{8}$	126 $\frac{1}{4}$	127.8331	2.134
1890.....	126 $\frac{1}{2}$	121 $\frac{1}{2}$	122.7499	2.372

(I) 1890-1898.

In 1873 by a coinage revision act no provision was made for the coinage of the silver dollar; at that time it was worth more than 100 cents in gold. In 1876 the price of silver fell and the dollar was only equal to 89 cents. Those interested in the mines as well as the inflation party set on foot an agitation to remonetize silver, which ended in the bill of 1878. This provided for a limited coinage of silver dollars from bullion purchased by the Government. It remained in force till 1890, when it was repealed and a new act was passed enlarging the purchases of bullion and providing that payment be made with legal tender treasury notes which should be redeemable in "coin." This act remained in force for three years. Under it legal tender notes were issued to the amount of \$156,000,000. At the same time changes in the tariff largely reduced the revenue culminating in 1894 in a deficit,

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and the issue of notes was followed by an almost equal exportation of gold. The "greenback redemption fund" in the Treasury fell below \$100,000,000 in April, 1893.

A financial panic was followed by a prolonged commercial crisis during which the Government had four times to sell bonds to replenish the gold reserves. Congress repealed the act of 1890 but did nothing more, since the majority of its members were unfavorable to the gold standard.

	Years.	Amount.
Gold drawn from the Treasury (by redemption of legal tender notes).....	1879-1892	\$43,310,887
Do.....	1893-1896	483,538,788
Gold exported.....	1893-1896	344,248,036
Borrowed by the Government.....	1893-1896	293,481,894
Bonds issued.....	1893-1896	262,315,400

Bonds issued for the gold redemption fund.

	Year.	Interest (to 1908).
\$100,000,000, at 4 per cent for 30 years (original loan)....	1878	\$120,000,000
\$50,000,000, at 5 per cent for 10 years.....	1894	25,000,000
\$50,000,000, at 5 per cent for 9 years.....	1894	22,500,000
\$62,000,000, at 4 per cent for 30 years.....	1895	74,700,000
\$100,000,000, at 4 per cent for 30 years.....	1896	120,000,000
		362,200,000

The amount of the greenbacks is only \$346,000,000, but to keep these and also the treasury notes issued under the silver act of 1890, alive and equal to gold \$362,000,000 of bonds have been issued and \$362,000,000 of interest incurred, while the amount of the greenbacks is still owed. The total liability to the Government, according to an official estimate of the Treasury Department in the Congressional Record, April 29, 1908, has been \$1,081,881,562. If the notes had been funded on

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January 1, 1879, into 4 per cent thirty-year bonds and canceled, the cost of the principal and interest to July 1, 1907, would have been \$741,897,340, or a saving of \$339,984,222.^a

(J) 1898. THE FINANCES OF THE SPANISH WAR.

To meet the expenses of the Spanish war internal revenue taxes were promptly increased and Congress also authorized the issue of not more than \$100,000,000 of treasury certificates, and not more than \$400,000,000 of 10-20 bonds at 3 per cent. In fact, the Treasury raised \$200,000,000 by the sale of 10-20 bonds, while the additions from the new internal taxes were more than \$100,000,000 per annum. In July, 1898, the interest-bearing debt amounted to about \$847,000,000—\$100,000,000 at 5 per cent and the remainder at 4 per cent. The 4 percents payable in 1925 were quoted at 125.34, the average for the month (or a yield of 2.704 per cent), and it was accordingly argued that it was foolish to place the new loan at 3 per cent. The bonds were subscribed seven times over, and rose to a premium of 111.79 in May, 1901. These were far better terms than had ever before been secured by the United States Government in war time. The main reasons for the success were that the bonds were offered for popular subscription at small amounts, and they formed a better basis for the national-bank note circulation than the old bonds at 125.34, and a much better basis than those bonds at 128½, a point reached before the end of the war. One hundred thousand dollars in old bonds, quoted October 31, 1898, at 128½, deposited as security for circulation, yielded a profit of \$302.93, with interest at 6 per cent. Moreover the international market for gilt-edged stocks was then highly favorable. It was in this year that British consols touched the high-water mark of 113.

^a White. Money and Banking, pp. 191-192.

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As Congress had prescribed that it should be a popular loan the offers of banking houses to take it at a slight premium were refused. It was issued in denominations as low as \$20; subscriptions were received through the post-office, and every bona fide offer under \$500 was accepted. More than half the issue was taken by 230,000 of these small subscriptions, and no subscription of more than \$4,500 was accepted. In all, 320,000 persons offered subscriptions and an amount of \$1,400,000,000 was tendered. The bonds soon advanced to 102 and 105½, and the subscribers made from 3 to 5 per cent in a few days. The Government certainly lost an original premium by refusing the offers of the bankers, and owing to the small size of the bonds and the number of the holders incurred greater cost and trouble in handling the loan and paying interest. But the success gave financial prestige to the Government.

The funded debt, which was \$585,000,000 in 1892, had advanced to \$1,046,000,000 in 1899, an increase of \$461,000,000, or 78 per cent. The interest charge, in spite of low rates, had risen from \$23,000,000 to \$40,000,000.

(K) 1899-1909.

In 1864, at the instance of Secretary Chase, Congress had passed a bill to set up a national banking system, by which the bank-note circulation of the country was used to promote the sale of government bonds. The sole merit of the plan was that it helped public credit in time of need. By the act each bank on commencing business was bound to deposit in the United States Treasury bonds of the United States bearing a certain proportion to its capital. (If the capital was under \$150,000, it must deposit bonds equal to one-fourth of its capital; if it was more than \$150,000 at least \$50,000 must be deposited.) In return the bank was entitled to circulate notes equal to the par value of the bonds deposited, but not exceeding

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the market value. Thus the note circulation of the country was made to depend largely on the amount of the national debt. After the Spanish war, instead of providing a new basis for note circulation the Government extended a large part of the maturing debt for thirty years. In 1900 by an act of Congress the 3, 4, and 5 per cent loans were converted into 2 per cent bonds at par, to run thirty years. Up to this time, says Mr. White, "it had always been the policy of the Government to pay its interest-bearing debts as soon as possible in order to avoid unnecessary burdens upon the taxpayers. Thus the 5-20 bonds issued during the war were made redeemable at any time after five years, but payable at the end of twenty years. Under this system the Treasury could use its surplus revenues to pay bonds at par instead of buying them in the market at a premium. * * * Now nearly \$550,000,000 of the public debt was put beyond the chance of extinction for nearly a quarter of a century, except by purchase in the open market. The Government paid a bonus of nearly \$50,000,000 on the old bonds, of which it recovered less than \$2,000,000 as premium on the new ones."^a

Mr. White adds that the loss was enormous. For example, a surplus of \$240,000,000 in 1907 might (but for the refunding) have been applied to the extinction of debt, and thus annulled the interest on that amount. "The excuse for this kind of financing was that if the Government's interest-bearing debt were paid, there would be a shortage of bonds to be held as security for national-bank notes."

A law of 1902 provided for the issue of \$130,000,000 2 per cent bonds, interest payable quarterly in gold, the bonds redeemable in 1916 and payable in 1936 in gold. These were for the Panama Canal expenditure, and a first issue in 1906 of \$30,000,000 took place.

^aWhite: Money and Banking, p. 405.

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The panic in the autumn of 1907, followed by a general bank suspension for two months, demonstrated the dangers of an inelastic and artificial currency. During the course of the panic the Treasury, on November 17 offered to issue \$50,000,000 of Panama Canal bonds and \$100,000,000 of one-year certificates of indebtedness. This, of course, involved borrowing money from a market which already could not meet the demands upon it. The idea was that the offer of 3 per cent interest would attract hoarded money and that the increase of 2 per cent bonds would increase the amount of national bank notes. Doubt was thrown on the legality of the issue of certificates, and the banks feared to deplete their reserves still further by buying bonds.

To meet this it was arranged that 75 per cent of the certificate subscriptions and 90 per cent of those for the Panama bonds should remain in the vaults of the subscribing banks. On this inducement \$25,000,000 of bonds and \$30,000,000 of certificates were sold. Bankers generally held that the Government's intervention had been the reverse of helpful.

The interest-bearing debt of the United States in 1908 was thus divided:

At 4 per cent.....		\$118,490,000
At 3 per cent.....		78,132,000
At 2 per cent.....		700,882,000
Total		897,504,000

The variations in the funded debt since 1870 have been as follows:

	Funded debt.	Interest.
1870.....	\$2,046,000,000	\$119,000,000
1875.....	1,722,000,000	97,000,000
1880.....	1,724,000,000	80,000,000
1885.....	1,196,000,000	47,000,000
1890.....	725,000,000	29,000,000
1895.....	716,000,000	29,000,000
1900.....	1,023,000,000	33,000,000
1907.....	895,000,000	22,000,000

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In 1889 the yield of the 4 per cent bonds was 3.13, it then rose till it was 3.58 in 1893, and between 1892 and 1895 was occasionally higher than the German and Dutch 4 per cent. From 1896 the 4 per cent 1925 bonds fell constantly until the yield in 1901 was 2.90 and American paper was the highest valued in the world. The yield has risen since then, and has been generally about equal to French rentes and higher than consols. In 1907 it was 3.17—the lowest yield of Government stock next to consols.

The following table gives details of the fluctuations:

1891-1894 4 PER CENT 1907 BONDS.

Year.	Highest.	Lowest.	Average.	Real Yield.
1891.....	122	116	118.76	3.38
1892.....	118 $\frac{1}{8}$	114	116.11	3.46
1893.....	115	108	112.27	3.58
1894.....	116	112 $\frac{1}{2}$	114.51	3.51

1895-1907 4 PER CENT 1925 BONDS.

1895.....	124 $\frac{1}{8}$	118 $\frac{1}{4}$	121.58	3.30
1896.....	120 $\frac{3}{8}$	111 $\frac{1}{4}$	116.60	3.45
1897.....	129 $\frac{1}{2}$	120 $\frac{1}{8}$	125.04	3.21
1898.....	129 $\frac{3}{4}$	117 $\frac{3}{4}$	125.57	3.20
1899.....	134 $\frac{1}{2}$	128	130.24	3.08
1900.....	138 $\frac{5}{8}$	131 $\frac{3}{4}$	134.83	2.98
1901.....	139 $\frac{7}{8}$	136 $\frac{7}{8}$	138.59	2.90
1902.....	139 $\frac{3}{4}$	136 $\frac{1}{2}$	138.00	2.91
1903.....	137 $\frac{1}{2}$	134 $\frac{1}{4}$	135.72	2.96
1904.....	134	130 $\frac{7}{8}$	132.26	3.04
1905.....	134 $\frac{1}{2}$	130 $\frac{1}{4}$	133.02	3.02
1906.....	132 $\frac{1}{4}$	129 $\frac{3}{8}$	130.47	3.08
1907.....	130 $\frac{3}{8}$	117	126.70	3.17

In 1862, 1864, and 1878 the Government issued in all some \$64,000,000 of 6 per cent bonds on behalf of the Pacific railways, but these were redeemed by 1900 and most of these railway loans have been paid back to the United States Government by the railways.

An article in the London Economist (November 13, 1909) explains the existing situation. The value of the 2 per cent

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United States bonds is artificially high, because the national banks have to hold them. They are always higher than 3 per cent rentes or $2\frac{1}{2}$ per cent consols, sometimes even than 3 and 4 per cent United States bonds. They act (1) as the basis for the note circulation, (2) as a guaranty for the government deposits in the national banks, (3) as a means of raising money for federal needs. As a result of the act of 1900 many state banks took the opportunity of becoming national banks, of receiving bond-secured government deposits and issuing bond-secured notes. In eight years the capital of the national banks rose by 50 per cent and their circulation by 100 per cent.

Year.	Circulation.	2 per cent bonds held by banks.	Price.
1900.....	\$331,693,000	\$270,007,000	103
1902.....	380,476,000	320,738,000	109
1904.....	457,281,000	416,973,000	105
1906.....	583,172,000	506,653,000	104
1908.....	665,845,000	593,259,000	104

The reduction of interest from 4 to 2 per cent drew the securities out of the hands of the public, and a reduction of one-half per cent in taxation made it cheaper for the banks to hold 2 per cent than 4 per cent bonds. In November, 1909, the 2 percents for the first time fell below par. The prospect of fresh issues for the Panama Canal, the lessened demand for currency and the expectation of banking reform were factors in this decline. When the price is below par the national banks have to make good the deficiency in their guaranty deposit by buying fresh bonds, and thus lose their profit.

II. SINKING FUND AND DEBT REDUCTION.

The systematic reduction of debt began in 1790 with the application of any surplus revenue from the tonnage fees and imports to the purchase of public bonds. In 1792 the bonds pur-

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chased were made the basis of a definite sinking fund, the interest on them to continue and to be paid to a commission for the future purchase of bonds. In 1795 the commissioners were allotted certain revenues to be applied to the purchase of definite portions of the debt. Hamilton has been accused of following Price's compound interest fallacy in his plan for debt reduction; but Professor Dunbar considers that Hamilton's scheme was based on the expectation of a surplus, and that its failure resulted from an unanticipated growth of expenditure.

Gallatin formulated the true principles of debt reduction in 1800 in a debate upon the sinking fund, when he observed (with a side reference to Hamilton):

"I know but one way that a nation has of paying her debts, and that is precisely the same that individuals practice, 'spend less than you receive,' and you may then apply the surplus of your receipts to the discharge of your debts. But if you spend more than you receive, you may have recourse to sinking funds, you may modify them as you please, you may render your accounts extremely complex, you may give a scientific appearance to additions and subtractions, you must still necessarily increase your debt."

Still he did not abolish the old sinking fund, but increased the annual appropriations. In 1791 the debt had been \$75,400,000. This old debt was reduced by Hamilton to \$72,700,000 by 1801, but in the same period new loans had been made, mostly at 8 per cent, so that Jefferson's Government inherited \$83,000,000. Gallatin's sinking fund extinguished \$46,022,810 between 1801 and 1811, while the purchase of Louisiana added 11¼ millions of new debt. On January 1, 1812, the debt was \$45,154,189, or 31 millions less than the original revolutionary debt. In fairness to Hamilton we must remember that his sinking fund enabled some conversions to be made, which reduced the charge. The

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following table shows details of debt reductions between 1801 and 1812:^a

	1801.	1804.	1812.
Old debt:			
Funded	\$57,000,000	\$53,500,000	\$33,200,000
Unfunded	2,800,000	1,800,000	-----
Foreign	12,400,000	7,700,000	-----
Previous time loans	7,200,000	7,200,000	-----
Temporary loans	3,200,000	900,000	-----
Louisiana:			
Debt	-----	11,200,000	11,200,000
Assumed claims	-----	3,700,000	-----
Total	82,600,000	86,000,000	45,200,000

During the war of 1812 the operation of the sinking fund was suspended. At its close (in 1817) the arrangement of the sinking fund and debt account was much simplified by an enactment that all certificates of the public debt when redeemed should be destroyed. At that time there were 14 types of stock, bearing 7 different rates of interest. In the years following the war a series of large surpluses favored debt reduction, although the fixed periods for which loans had been contracted proved an inconvenience. In 1824 \$9,500,000 of 6 per cents were converted to 4½ per cents redeemable in eight or nine years. Other attempts at refunding were not markedly successful, as too low interest was offered. By 1835 the debt was almost paid off, and the sinking fund was transferred from the management of the commissioners to that of the Secretary of the Treasury.

During the civil war the law of February 25, 1862, enacted that a sinking fund should be created by the surplus from import duties after they had been used to pay the interest on the debt. The surplus was to be used to buy 1 per cent of the debt each year, and this was to be set apart as a sinking fund, the interest on which was likewise to be applied to debt reduction. The residue of the customs receipts (if any) was to be

^a Dewey: Financial History, p. 125.

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paid into the Treasury. There were no surpluses during the war, nor were the above provisions observed after it was over, but the debt as we have seen was redeemed with amazing rapidity by means of annual surpluses. The history of the refunding of the civil-war debt has already been related.

III. DEBTS OF THE STATES, CITIES, AND OTHER LOCAL BODIES.

During the first half of the nineteenth century many of the Northern States borrowed for internal improvements, such as railroads and canals. The States in the South and West also raised loans for state banks, and in the West for various commercial enterprises. These undertakings were often unremunerative, and the newer States sometimes failed to meet the obligations which they had incurred. For example, in 1838 Mississippi invested \$5,000,000 in a bank which broke. The governor recommended that the bonds should be repudiated, on account of certain irregularities, and a legislature elected on this issue carried out the repudiation. Florida acted in much the same way. Foreigners who invested in state securities found that under the Constitution the Federal Government had no power over defaulters. It was during this period that *The Times* called the States "one vast swindling shop." Even Sidney Smith, an admirer of America, was provoked by these scandals to unaccustomed bitterness.

In 1843 it was proposed that Congress should assume the state debts. This course was not adopted, and American credit continued to suffer for the dishonesty of some and the incompetence of other States. Owing to these experiences amendments were gradually introduced into many state constitutions imposing restriction on public borrowing, as, for instance, that the loans must be temporary and that the amount of each must not exceed a certain sum varying from \$50,000 to \$1,000,000. In 17 States loans must be accom-

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panied by legal provision for redemption, and in 16 every act proposing a fresh loan must be referred to a popular vote.

The civil war caused a large increase in state debts, but they have lately been reduced. In 1902 their total amount was \$235,000,000, as against the \$925,000,000 of the federal debt. The burden per head was \$9.15 in 1870, \$5.48 in 1880, \$3.37 in 1890, and \$2.99 in 1902. Thirty-one States in 1902 were below this average, and only a few markedly above it—Nevada with an average of \$14.70, Arizona \$23.86, and Massachusetts \$22.87.

The rate of interest on state debts in 1902 varied from 3 per cent to 7 per cent. In 1902 the amounts were thus distributed—

At 3 per cent	\$90,000,000
At 3.5 per cent	60,000,000
At 4.5 per cent	30,000,000
At 6 per cent	35,000,000
At 7 per cent	20,000,000
	235,000,000

The service of the debt for states, cities, and smaller local authorities in 1902 claimed \$78,900,000, or 7.1 per cent of their total expenses. But against this it is to be remembered, especially in the municipalities, that a considerable part of the capital debt (whose total in 1902 stood at \$1,864,900,000) is applied to productive purposes, the revenue from which covers about 70 per cent of the service of the debt.

The payments for interest are as follows:

	Amount.	Per cent of total.
States	\$9,560,000	12.1
Towns over 25,000 inhabitants	42,770,000	54.2
Towns under 25,000 inhabitants	7,180,000	9.1
Counties	9,610,000	12.2
Other divisions	9,770,000	12.4
	79,090,000	10.0

The total indebtedness of the United States for certain years from 1870 to 1902 is classified in the table on the next page.

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	Net liabilities.					Per head of population.				
	1870.	1880.	1890.	1902.	1908.	1870.	1880.	1890.	1902.	1908.
	<i>Mill. dolls.</i>	<i>Mill. dolls.</i>	<i>Mill. dolls.</i>	<i>Mill. dolls.</i>	<i>Mill. dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>	<i>Dolls.</i>
Federal Government	2,331.10	1,919.30	851.90	925.00	938.13	60.40	38.30	13.60	11.80	10.72
States and Territories	352.80	274.70	211.20	234.90	-----	9.10	5.50	3.40	3.00	-----
Counties	187.50	124.10	145.00	196.50	-----	4.90	2.50	2.30	2.50	-----
Cities, townships, etc.	328.20	706.80	744.20	1,387.30	1,710.59	8.50	14.10	11.90	17.60	71.70
School districts	-----	17.60	36.70	46.20	-----	-----	.35	.60	.60	-----
Total	3,199.80	3,042.60	1,989.10	2,790.00	-----	83.0	60.70	31.80	35.50	-----

*Wealth, Debt, and Taxation, Census Office.

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In 1887 Adams (Public Debts^a) remarked of the States that they had no financial standing and never appeared on the market as large borrowers, because of the restrictions on their administrative capacity. Some of their original functions, such as banking, have been taken over by the Federal Government, and others, such as railway management, by private corporations.

During the last forty years, in fact ever since the conclusion of the great civil war, the credit of the American States and cities has advanced rapidly and steadily. As in all parts of the civilized world the standards of civic life, and consequently of communal expenditure, have risen very rapidly. In respect of lighting, sanitation, water supply, and transit the American city, like its European rival, has been transformed. The movement for municipalization of natural monopolies has, however, not gone so far in the United States as in England or Germany; and this fact, together with the severe restrictions imposed by state legislatures, accounts for the generally lower ratio of municipal debt to population in the New as compared with the Old World. In spite of the loud and too often just complaints of extravagant waste and even corruption American municipal credit is good, and the bonds of the chief cities find a ready market, if not a free market, in the English or German sense. The market for city bonds in the United States has been described by a recent financial writer as "sufficiently close for the investor's purpose," except as regards minor municipalities. These smaller issues are generally taken over by private banking houses, mainly in New York or Boston, who then distribute the bonds among their clients at a good profit. The table on the next page shows the growth of municipal indebtedness in the United States in the last ten years for twelve of the largest cities.

^a P. 303.

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Growth of American Municipal Debts, 1898-1908.

Cities.	Net debt, January 1.		Debt per capita.	
	1899.	1909.	1898.	1908.
	<i>Dollars.</i>	<i>Dollars.</i>		
New York.....	244,220,435	672,019,244	68.79	156.82
Chicago.....	15,104,636	24,844,400	7.74	8.73
Philadelphia.....	36,380,082	79,635,020	29.33	53.40
St. Louis.....	13,924,278	19,966,000	26.50	26.48
Boston.....	55,084,172	74,099,388	109.31	122.01
Baltimore.....	12,408,434	22,507,048	23.65	39.67
Cleveland.....	8,139,003	22,567,077	20.34	42.98
San Francisco.....	68,105	3,787,725	.19	9.46
Cincinnati.....	25,169,532	29,242,667	65.37	68.81
Buffalo.....	11,286,397	13,258,863	29.70	33.14
Pittsburg.....	9,172,956	12,118,987	30.57	30.39
New Orleans.....	14,009,137	26,126,600	50.94	74.64

New York City has suffered much for its extravagance; in the crisis of 1907 it was glad to sell $4\frac{1}{2}$ per cent bonds at very little above par, and again in March, 1910,^a it issued a loan for \$50,000,000 in $4\frac{1}{4}$ per cent bonds at par. At the beginning of 1910 a survey of the credit of twenty-four cities showed yields varying from just under $3\frac{1}{2}$ per cent in the case of Detroit to just over 4 per cent in the case of Portland.

The conditions governing the credit of American municipalities may be realized by a selection of typical instances. Let me take Cleveland, Ohio, where one may follow the researches of a careful student.^b The city debt was insignificant before the civil war, with the exception of half a million dollars borrowed

^a Copenhagen was borrowing in the same week on a 4 per cent basis.

^b The Finances of Cleveland (Columbia University Studies in History, Economics, and Public Law. Volume XXV, number 3), by Charles C. Williamson, Ph. D. New York. The Columbia University Press. London, P. S. King & Sons, 1907. See Chapter VI and Appendix D.

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for the erection of water works. Yet in 1843 Cleveland's finances were "embarrassed," largely owing to the practice of issuing orders recklessly on the treasury. In 1847 the total debt was \$22,000, of which \$8,000 were treasury orders, worth about 62.5 cents on the dollar. Thus the city had to pay in its own depreciated currency of treasury orders from 25 per cent to 33 per cent more for labor and materials than the cash prices, and it became necessary to fund part of these orders and bring the rest to par. But "funded debt" does not appear in the city accounts till 1856. After 1861 floating obligations accumulated and were periodically refunded. Even current charges, such as interest or lighting expenses, were allowed to run for some time and then funded into interest-bearing debt. In 1872 30 per cent of Cleveland's indebtedness was due to such charges, and for several years later over one-third of the interest was paid on bonds to meet current expenses. Bonds were issued for the building of a viaduct, for water works, and other special improvements. Between 1871 and 1877 \$9,500,000 was raised by loans. Cleveland was only following in the steps of other cities. From 1866 to 1875, while the population of 15 of the principal cities of the United States increased by nearly 71 per cent, their indebtedness increased by 271 per cent. In the same period the increase in Cleveland's population was 72 per cent and the debt rose by 355 per cent, although in 1860 her mayor had warned the city that "such a policy (of loaning) is unwise and to be deprecated." We may note, however, that in the earlier period it was not easy to attract investors. After the civil war city bonds gradually came into favor with investors, and this has been an important factor in the growth of municipal indebtedness. There have been few cases of repudiation or composition in the history of cities of any standing in the United States. Pittsburg for a time refused to pay interest on some street-improvement bonds that were

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issued in 1879. Memphis once compounded with its shareholders after the fever epidemic of 1878, and Galveston scaled down its debt after being nearly wiped out by a flood.

At first the increase of Cleveland's debt was obscured by a division into "general" and "special" indebtedness, the latter incurred for local improvements and paid for by special assessments on the property benefited. From 1870-1875 this "special" debt was almost quadrupled and amounted to nearly \$3,000,000, while the general debt increased by only 50 per cent.

Opposition arose to these bond issues on the ground that they were controlled by private interests, especially by land speculators. Various irregularities were discovered, for example, a method of paying contractors not in cash, but in interest-bearing bills or "certified estimates" which the treasurer would discount at from 3 to 5 per cent.

From 1870 to 1880 a wave of borrowing afflicted American towns. Municipal indebtedness in the State of Massachusetts increased from \$34,800,000 to \$80,427,000 between 1870 and 1874. This expansion led to limitations being imposed by various States upon the borrowing powers of their cities. Pennsylvania (1873) limited municipal debts to 7 per cent of the tax valuation, Maine (1877) limited them to 5 per cent, and in 1881 Indiana forbade any municipal debts in excess of 2 per cent of the valuation. In 1874 Ohio limited the debt of her cities and towns to 5 per cent of their tax valuation, but this maximum has since been raised more than once. Between 1878 and 1891 the debt of Cleveland decreased by \$500,000, but in 1891 the net indebtedness was very near the 5 per cent limit, although the waterworks debt was not included in the maximum. Of late the city of New York has also reached its maximum, and leading financiers have expressed grave anxiety as to the financial outlook unless strong measures of retrenchment are adopted.

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In 1896 in connection with a new scheme of municipal improvement the mayor of Cleveland brought forward arguments for the extension of the debt limit. No American city of the same class (he pointed out) had so small a debt, except San Francisco and Detroit, and (according to his calculation) the debt of Cleveland in proportion to population "was anywhere from a sixth of to something less than merely equal to the debt of a dozen of fifteen other large cities." Real and personal property he maintained was valued at about 35 per cent of its actual worth, and consequently the tax rate was really only 1 per cent instead of 2.87.^a He pointed to the example of great cities, such as St. Louis and Chicago, which had overstepped their debt limits. The council protested, but the legislature raised the limit to 7 per cent, with the result that between 1896 and 1900 the total debt rose from \$10,675,000 to \$14,503,000.

In 1877 the mayor of Cleveland had attributed the growth of debt partly to the partisan (or "spoils") system of administration, and partly to the government by "boards," which led to large annual deficits, partly again to a vague notion that the "special" debt need not be taken into account. Since 1902 the debt of Cleveland and other cities in Ohio has been governed by the Longworth bond act, which laid down the main conditions under which new loans might be contracted. Interest must not exceed 6 per cent, but there is no limit to the period the bonds may run. A loan issue must be authorized by a two-thirds vote of the council, and if the amount issued in any year exceeds 1 per cent of the valuation it must be submitted to a popular vote.

The total debt of Ohio cities must not exceed 4 per cent of the valuation, unless an extension is authorized by popular vote, in which case the maximum is fixed at 8 per cent. Bonds to be paid by special assessment are not included, nor, according

^aP. 209.

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to a decision of the Supreme Court in 1906, are debts contracted before the act. Also waterworks bonds and sinking funds have recently been excluded. Nevertheless, Cleveland has reached the limit which requires submission to the popular vote. In October, 1906, the people rejected proposals for the issue of \$2,300,000 worth of new bonds. In addition to the powers under this act, the council may raise temporary loans for sanitary purposes, and can issue "deficiency bonds" to meet a revenue deficit. These, however, must not exceed 1 per cent of the valuation, and popular consent is required.

In 1873 more than one-third of the city taxes went to meet the interest on the debt, and throughout the decade the per capita expenditure of interest was heavy, the highest point being \$2.73 from 1876 to 1880. From 1896 to 1900 it was \$1.66, but had increased to \$1.95 in 1904. This is larger than the average for Chicago, Philadelphia, St. Louis, Detroit, or Milwaukee—cities of the same class as Cleveland—and the only city in Ohio where the burden per capita is as heavy is Cincinnati. But the credit of Cleveland (as of other American cities) has risen steadily. Before 1875 it was 7 per cent, in 1875 some bonds were issued at 6 per cent and sold slightly under par, the true rate being $6\frac{1}{4}$ per cent. The next year 6 per cent bonds sold at a premium, and after 1878 no further 7 per cent bonds were issued. From 1887 to 1891 the general rate was 5 per cent. Some 4 per cent bonds sold at par in 1881, and since 1893 nearly all issues have been at that rate, \$1,000,000 of waterworks bonds in 1902 selling at a premium, which made their real yield less than 3.3 per cent. Under a recent act the city of Cleveland must offer all its bonds at par to the sinking-fund commission, and can then offer them for public sale to the highest bidder, after the sale has been advertised thirty days in advance. They can not be sold privately until this public offer has been made. Before 1877 all bonds were sold in the eastern

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markets by the personal exertions of the treasurer. Although various sinking funds have been initiated since 1862, and their existence may have helped to secure stability in the city's credit, yet the steady increase of net indebtedness shows that their operation has not been very effective.

Net indebtedness of Cleveland.

1841.....	\$20,000
1865.....	410,000
1870.....	1,764,000
1875.....	3,189,000
1880.....	6,520,000
1885.....	5,671,000
1890.....	6,983,000
1895.....	8,930,000
1900.....	12,082,000
1906.....	24,274,000

The existing debt is divided under the following main heads: General government, protection to life and property, health and sanitation, highways, charities and corrections, education, recreation, municipal industries, temporary loans, assets of sinking funds. Of these in 1906 the most important items were, health, \$6,825,000; highways, \$6,952,000; and municipal industries (waterworks, cemeteries, and market), \$4,476,000.

From this more detailed illustration we may turn to glance briefly at the debt and credit of some other important municipalities—Boston and Philadelphia in the East, Chicago and Kansas in the Middle West, and Richmond, Va., in the South. For the information received I am indebted to the officials of the respective cities. In general, it may be noted that the high price of American municipal issues is due partly to the restrictions on borrowing imposed on their cities by the various States, so that as a rule the total debt can not exceed an amount equal to a small proportion of the valuation made for the city taxes.

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(A) RESTRICTIONS ON MUNICIPAL BORROWING.

In Philadelphia the debt must not at any time exceed 7 per cent of the valuation, and in any one year no new debt can be incurred to an amount exceeding 2 per cent of the valuation without a consenting vote of the citizens. The debt of Boston must not exceed $2\frac{1}{2}$ per cent of the average valuation for three years. In practice these restrictions are not rigid, as various classes of debt—waterworks debt, for example—are considered to be of a special character, and are omitted in reckoning the limit. In Richmond the limit of the total debt is considerably higher—18 per cent of the assessed value of the taxable estate of the city—and there is still a comfortable margin between the actual and the possible indebtedness.

(B) AMOUNT AND GROWTH OF THE DEBT.

The statistics for Boston are the most complete, dating back to its incorporation in 1822. Before 1875 the city annexed several smaller municipalities.

	Gross funded debt.	Sinking funds, etc.	Net debt.
1822.....	\$100,000	-----	\$100,000
1827.....	1,011,775	\$299,096	712,678
1830.....	891,930	228,028	663,902
1840.....	1,698,232	171,439	1,526,793
1850.....	6,195,144	310,259	5,884,884
1860.....	8,491,599	967,175	7,524,424
1870.....	18,687,350	9,215,831	9,471,519
1880.....	42,030,125	14,188,021	27,842,104
1890.....	53,930,095	22,854,262	31,075,832
1900.....	86,996,978	28,663,641	58,333,337

The total debt on January 1, 1908, for the city and county, including sinking funds, was \$103,732,906, but this included \$60,211,900 of debt outside the limit and \$14,456,366 of sinking funds devoted to the redemption of this debt. When these are

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deducted the remainder, \$29,064,639, is well under the statutory limit—2½ per cent of the valuation, which in 1908 amounted to \$31,945,756.

The debt of Philadelphia (which has been defined by the supreme court of Pennsylvania as the authorized debt less the amount of city certificates purchased and uncanceled in the sinking fund) has grown as follows during the last ten years:

	Amount authorized, 7 per cent of valuation.	Gross funded debt.	Sinking fund.	Net debt.
1899-----	\$60,516,122	\$51,241,295	\$16,078,000	\$35,163,295
1904-----	81,345,181	56,337,245	4,995,575	51,341,670
1909-----	92,210,443	88,770,220	9,135,200	79,635,020

It is apparent that the margin between actual and possible indebtedness has shrunk rather severely of late. But the assessed valuation reported for taxation rose from \$864,000,000 in 1899 to \$1,317,000,000 in 1909. In Richmond the figures for the last thirty years are these:

	Population.	Bonded debt.	Floating debt.	Rates of interest.
1880-----	63,600	\$4,478,245	\$2,162	<i>Per cent.</i> 6.8.
1890-----		5,928,015	180,000	8.6, 5.4.
1900-----	85,050	7,227,447		8.6, 5.4.
1909-----	^a 114,050	9,282,758		8.6, 5.4, 3½.

^a Local census in 1907.

The salable assets of the municipality, which were only \$4,023,513 in 1880, are now estimated at \$14,701,627, while the limit of the bonded debt under the city charter (18 per cent of the valuation) is now \$10,340,906. The city has no floating debt. All accounts are closed at the end of each financial year. A new tax assessment is made every five years.

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(C) ISSUE AND SALE OF BONDS—PRICE AND RATES OF INTEREST.

In Boston (of which the secretary to the statistics department remarks "the credit of the city is good and always has been") the municipal bonds are little dealt in on the stock exchange, being usually taken by a syndicate of bankers who sell them to their own customers. Within the last twenty-seven years the city treasurer has three times sold bonds over the counter, when the money market has been unsettled. The last occasion was in 1907. Annual loans are made in anticipation of taxes and the city pays the ruling rate of interest, or a little less, for such loans. They are almost always paid off within the fiscal year in which they are raised.

The average annual rate of interest on the funded debt is now about 3.68; on the total debt it is about 3.7. The whole interest charge in 1908 was \$3,836,646. The highest prices realized at the issue of bonds since January, 1874, have been:

Year.	Bond issue.	Price.
1889	\$200,000, 4 percents, for 30 years at	\$115.437
1896	\$100,000, 4 percents, for 40 years at	114.330
1900	\$700,000, 3½ percents, for 40 years at	108.817

In 1906 three issues at twenty, thirty, and forty years at 4 per cent all realized 106.44. No stock during the period 1874-1909 has been issued below par, though during 1903-1906 3½ percents were issued just above par. In 1906-1908 the 4 per cent issues realized 101 and over.

The bonds of Philadelphia are as a rule sold privately only at the counters of the leading bankers after they have been awarded by the mayor of the city in accordance with the bids of the said bankers. This award is always to the highest and most responsible bidder, after due advertisement of the loan has been made. The following prices have been paid during

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the last decade by the sinking fund, for bonds issued by the city, and may be taken as a fair average:

Year.	Issue.	Price.
1898	3 per cent.....	\$103.270
1899	3 per cent.....	100.583
	3 ½ per cent.....	104.400
1900	3 per cent.....	101.178
1902	3 ½ per cent.....	105.000
1904	3 ½ per cent.....	101.036
1905	4 per cent.....	104.299
1907	4 per cent.....	104.299
1908	4 per cent.....	103.590
1909	4 per cent.....	103.250

The decline in credit of the last ten years reflects the international movement, and is less than that of New York City.

Most of the city bonds of Chicago are taken by investors, and few are bought and sold on speculation. They are seldom listed on the stock exchange. In the crisis year of 1907 some difficulty was experienced in disposing of the bonds, but this was felt in all cities—New York raising its rates to 4½ per cent. Between 1893 and 1908 issues were made at from 3½ to 4½ per cent, the price varying from par to 106. In 1898 two issues of 3½ per cent stock were floated at over 106.

Official statement of bonds sold by the city of Chicago from 1893 to 1908, inclusive.

Date of issue.	Kind.	Rate.	Amount.	Sale.	Premium.
		<i>Per cent.</i>			
July, 1893	River.....	4	\$500,000	Par.	
Jan., 1894	Municipal.....	4	60,000	\$103.26	
	Water.....	4	130,000	103.26	
July, 1894	Sewerage.....	4	785,000	102.83	
	River improvement.....	4	346,000	102.83	
	Water.....	4	446,000	103.26	
July, 1895	River.....	4	1,263,000	104.64	
	Water.....	4	1,485,000	104.64	
Jan., 1898	Tunnel.....	3 ½	100,000	103.66	
July, 1896do.....	4	100,000	103.78	

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Official statement of bonds sold by the city of Chicago from 1893 to 1908,
inclusive—Continued.

Date of issue.	Kind.	Rate.	Amount.	Sale.	Premium.
		<i>Per cent.</i>			
July, 1898	Tunnel -----	3 ½	\$98,000	\$103.66	-----
Oct., 1898	do -----	3 ½	100,000	103.28	-----
Jan., 1899	do -----	3 ½	98,000	104.41	-----
July, 1899	Municipal -----	3 ½	618,000	106.07	-----
Sept., 1899	do -----	3 ½	228,000	106.11	-----
Jan., 1904	Judgment funding -----	4	5,250,000	-----	\$6,600.00
July, 1904	Permanent improvement -----	4	3,000,000	-----	50,197.00
July, 1905	General corporate purposes -----	4	2,000,000	-----	11,620.00
July, 1906	General corporate -----	4	1,400,000	-----	5,614.00
Apr., 1908	do -----	4 ½	1,000,000	-----	28,127.00
May, 1908	Judgment funding -----	4 ½	300,000	-----	8,439.00
July, 1908	General corporate -----	4	1,000,000	-----	Par.
Aug., 1908	Judgment funding -----	4	115,000	-----	Par.
Sept., 1908	General corporate -----	4	1,000,000	-----	Par.
Oct., 1908	do -----	4	500,000	-----	3,150.00
Nov., 1908	Judgment funding -----	4	85,000	-----	535.50
	General corporate -----	4	750,000	-----	6,521.00
Dec., 1908	do -----	4	100,000	-----	1,106.10
July, 1909	do -----	4	1,500,000	-----	10,216.66
	Judgment funding -----	4	200,000	-----	1,540.00

The population of Kansas City at the beginning of the year 1910 was estimated at about 375,000, and the debt of the city was \$4,000,000. The city's credit has only fluctuated between 4 and 4½ per cent during the last twenty years. "Bond brokers and trust companies," writes the city clerk, "usually buy our bonds at a premium of 4 to 7 per cent." Kansas City has no means of borrowing for temporary deficiencies. It "must live within its current income."

After the civil war the city of Richmond 8 per cent bonds were as low as 80, but in recent years Richmond Fours have touched 106⅛. That they are little affected by panics is shown by the fact that in the worst months of 1907 they sold at par less ½ per cent brokerage. They are sold chiefly in New York, Baltimore, and Richmond. For many years all moneys to meet

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temporary deficiencies have been supplied by local banks,^a the rate of interest not exceeding 6 per cent and usually being 4 per cent.

For many years Richmond's bonds have been considered good investment securities. By refunding at 4 per cent the city has saved \$25,000 in annual interest; the charge was \$380,383 in 1900 and \$354,972 in 1908, although the debt had increased by \$1,250,000. Of the whole debt (\$9,282,758) more than \$7,000,000 is in 4 per cent bonds, and only \$184,000 in 8 per cent. Part of the debt matures each year between 1909 and 1942.

(D) MUNICIPAL SINKING FUNDS.

The arrangement for municipal debt redemption is generally under the control of sinking fund commissioners. In Boston a certain percentage is required by law to be raised for the redemption of outstanding loans at maturity. In the fiscal year 1907-8 (ending January 31) the various sinking funds of this city amounted to \$31,734,763, and during the year \$2,611,700 of debt was paid and canceled, while \$5,249,000 of new issues were created; but of these \$3,447,800 was taken at par by the commissioners of the sinking funds, and of various trust funds held by the city.

The city of Richmond has also sinking fund commissioners, and by an ordinance of the council $1\frac{1}{2}$ per cent of the entire gross bonded debt must be appropriated to the sinking fund. By a law of the State of Virginia, 1903, Richmond was empowered to issue bonds to redeem outstanding bonds. They were to be sold to the highest bidder for cash, not under par, with interest at not more than 6 per cent. The existing sinking fund in 1909 was \$1,723,361. In Philadelphia the sinking fund in 1909 stood at \$9,135,000.

^a Another method of meeting temporary deficiencies is that pursued by Springfield and other cities, which borrow on short-term bonds usually bearing interest at 6 per cent.

The Trade Balance of the United States

BY

GEORGE PAISH
Editor of *The Statist*

THE TRADE BALANCE OF THE UNITED STATES.

I.—ON TRADE BALANCES.

The term "trade balance" is generally used for the purpose of indicating the excess value of a country's exports of merchandise over the value of its imports of merchandise or the excess value of a country's imports of merchandise over the value of its exports of merchandise. In monetary circles the term is employed to denote the ability of a country to import supplies of the precious metals. If the rate of exchange of one country upon other countries is at the level which permits of gold imports, it is said that the balance of trade is in favor of the country importing the gold. On the other hand, if the rate of exchange of any country is at a level which admits of gold exports, the balance of trade is said to be against the country exporting the gold. In the sixteenth, seventeenth, and eighteenth centuries a favorable trade balance was a matter of great concern to statesmen and to financiers. At that time it was supposed that any country which imported goods of greater value than the goods it exported would be seriously injured by having to make payment in the precious metals for the difference between the value of the goods imported and the value of the goods exported, and that any country which persisted

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in purchasing goods of greater value than the goods it exported would be totally drained of its stock of the precious metals and would be ruined. The theory of the supreme importance of a balance of exports over imports was known as the "Mercantile system." Efforts to secure favorable trade balances led to the passage of many laws for restricting imports and for stimulating exports. As commerce developed and international banking advanced it was recognized that a nation could under certain circumstances purchase goods of a greater aggregate value than it exported without sustaining any drain upon its stock of the precious metals or suffering any inconvenience whatsoever, and in recent time no one has paid any great amount of attention to the question of the trade balance other than for the purpose of ascertaining the factors which caused the imports of certain countries largely to exceed their exports or of discovering the reason for the exports of certain countries largely exceeding their imports.

The great change in the theory of commerce that has taken place in modern times is due to the recognition of the fact that the volume of trade which any country enjoys quickly adjusts itself to the needs of that country, and that the effect of a sudden disturbing influence to trade—such as a crop failure, labor troubles, etc., which temporarily reduce a nation's exporting power—can be got over by financial operations in the great international money markets, and that excessive drains of the precious metals are not now to be apprehended. Experience has shown that apart from sudden catastrophes the foreign

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trade of every country is of a very elastic character, that the volume of imports or of exports quickly responds to the necessities of the case, and that no country can have an adverse balance of trade except for a short time and as a consequence of some unexpected disaster which temporarily diminishes its power to make payment for goods imported. Even at such times countries in good credit have no difficulty in borrowing temporarily or permanently the sums required to settle the balance due to other countries for commodities purchased or obligations incurred prior to the disturbing event—a process which averts any excessive denudation of the stock of the precious metals possessed by the country experiencing the disaster.

II.—CAPITAL INVESTMENTS AND TRADE BALANCES.

The nations of the world may roughly be divided into two classes. In Class I are the countries whose imports exceed their exports, and in Class II are the countries whose exports exceed their imports. Generally speaking, the nations in Class I are the lending countries; those in Class II are the borrowing countries. The lending country has to receive payment for two things, (1) for the goods it exports and (2) for the interest upon the capital which it has in former years supplied to other countries. Excluding all other considerations the imports of a country which has placed capital in other lands must necessarily exceed the value of its exports to the extent of the produce it receives from other countries in payment of the interest upon its capital. On the other hand, the country

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that has borrowed capital from other countries, other factors being excluded, must export a larger amount of produce than it imports in order to pay, first, for the produce imported and, second, for the interest upon the capital it has previously borrowed from other nations. Hence the exports of the borrowing countries exceed their imports and the imports of the lending countries exceed their exports.

The situation is not usually confined to the mere receipt by a lending country of interest upon capital previously lent or the mere payment of interest by a borrowing country upon capital previously borrowed, and it will be worth while briefly to indicate the normal course of the trade balance, first, of a country which invests capital in other lands, and, secondly, of a country which borrows capital from other countries. Were there no interfering conditions the value of the goods, in which I include the precious metals, imported by a country must exactly balance the value of the goods exported in exchange. But when a country commences to invest capital in other lands its exports begin to exceed its imports. Capital investment by one country in other lands means that that country is willing to sell goods to other lands and to take payment in securities of one class or another. Should the capital investments extend over only one year the exports of the lending country in the year in which the loan is made would exceed its imports to the extent of the sum invested. Should no additional investments be made, the imports of the lending country in the following years would exceed its exports to the extent of

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the interest or dividends it received upon the capital invested. As time goes on, and the total amount of capital invested by it in other lands attains to larger and larger figures, the annual sum received as interest upon the capital embarked rises correspondingly. In this case the balance of exports over imports resulting from the investment of capital becomes smaller and smaller in consequence of the increasing sums received per contra from the interest upon the capital previously invested. After a time the annual sums which a lending country receives for interest exceeds the additional sums it lends in each year, and in spite of its continued investment of capital in other lands its imports exceed its exports. For the clearer understanding of the matter I set out supposititious statements to show how investments of capital and the receipt of interest affect the trade balance of a country—

1. That neither lends nor borrows capital.
2. That is beginning to invest capital in other lands.
3. That has in the past invested capital in other lands but has temporarily ceased to make new investments.
4. That has both invested capital in other lands in the past and is still investing annual sums equal to the interest received on former investments.
5. That has in the past invested capital in other lands and is investing fresh amounts equal to less than the interest received.

1. A country that neither lends nor borrows and which has an exchange trade of \$500,000,000:

Exports.....	\$500,000,000
Imports.....	500,000,000
Balance.....	Nil.

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2. A country beginning to invest capital in other lands and which places \$100,000,000 of capital abroad in a year:

Exports.....	\$600,000,000
Imports.....	500,000,000
Balance of exports over imports.....	^a 100,000,000

3. A country that has invested abroad in the past a sufficient amount of capital to yield an income of \$100,000,000 per annum from interest and which temporarily ceases to make fresh investments of capital:

Exports.....	\$500,000,000
Imports.....	600,000,000
Balance of imports over exports.....	^b 100,000,000

4. A country that has in the past invested capital in other lands, is receiving an income of \$100,000,000 a year from interest upon that capital, and is investing an additional amount equal to the interest received:

Exports.....	^c \$600,000,000
Imports.....	^d 600,000,000
Balance.....	Nil.

5. A country that having invested a large amount of capital in other lands, is receiving an income of \$150,000,000 per annum from interest upon that capital, and is investing \$100,000,000 of additional capital in a year:

Exports.....	^e \$600,000,000
Imports.....	^f 650,000,000
Balance of imports over exports.....	50,000,000

^a Sum invested by exporting country.

^b Received as interest on capital previously invested.

^c Of this sum, \$100,000,000 is for new capital investment.

^d Of this sum, \$100,000,000 is interest on capital previously invested.

^e Of this sum, \$100,000,000 is new capital investment.

^f \$150,000,000 is interest on capital previously invested.

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In the same way the trade balances of countries which borrow capital from other lands are affected by the produce they import in respect of the capital they borrow and by the export of produce for the payment of interest. A country beginning to borrow from other lands imports a larger amount of produce than it exports. When the interest payments of a borrowing country amount to large figures its exports appreciably exceed its imports even in years in which it borrows freely.

III.—EFFECT OF CAPITAL INVESTMENTS UPON TRADE.

The effect of capital investments by one country in other lands is an exceedingly interesting inquiry. A loan of capital means that the lending country concedes a portion of its purchasing or consuming power to the borrowing country and that the latter's purchasing or consuming power is increased to a corresponding extent. Imports of capital usually bring a period of active trade, although sometimes it happens that capital is borrowed to tide over a calamity, in which event the purchasing and consuming power of the nation suffering from disaster is maintained by means of the money borrowed at a higher level than otherwise it would be.

Not infrequently a country which obtains supplies of capital from abroad does not desire to import that capital in goods from the country advancing the capital. Nevertheless, this does not affect the general statement that capital must be received by the borrowing country by imports of commodities and must be dispatched by the lending country by exports of commodities. What happens in this case is that the country which borrows the

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capital, buys the goods it needs out of the proceeds of the loan from the countries that can supply them, that the purchasing power of the latter is thereby increased and that they in turn buy the goods they desire to obtain in exchange for the goods they sell until eventually the chain of purchases started by the original loan of capital extends to the lending country and the transaction is completed by the export of goods from that country.

Thus loans of capital from one country to another frequently result in a world-wide expansion of trade in consequence of the increased purchasing power of the borrowing country. Further in practice loans of capital to other lands do not mean that the lending country's purchasing power is reduced to the extent of the capital lent. Loans of capital create an increased demand for the lending country's goods, and by stimulating production cause the lending country to produce a great many more goods than otherwise it would do.

Loans of capital by one country to another do, in fact, increase both the producing and the consuming power of the lending countries as well as of the borrowing countries if the proceeds of the loans are wisely and productively expended.

Hence the immediate effect of loans of capital by one country to another is to increase the exports of the lender and the imports of the borrower and to increase both the imports and the exports of all other countries. Subsequently, when interest is paid on the loans the imports of the lending country and the exports of the borrowing country are increased.

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The export of capital by the lending countries is more or less intermittent and the fluctuations in the amounts of the fresh capital invested in the new countries from period to period largely explains the fluctuations in the value of the exports of the lending countries. In the same manner the import of capital by the borrowing countries greatly varies from period to period and the fluctuations in the amount of capital imported from year to year is one of the causes of the wide movements in the value of the imports into the borrowing countries from period to period.

IV.—THE NEW COUNTRIES AND IMPORTS OF CAPITAL.

Although somewhat outside the scope of the present inquiry it may not be altogether irrelevant to indicate the immense influence upon the development of the new countries and the expansion of their foreign trade of the investment of capital by the lending countries. Most of the new countries are endowed by nature with almost unlimited natural wealth which can be made available for consumption by the expenditure of a relatively small amount of labor and of capital. In proportion to their natural resources the new countries possess but a small supply either of labor or of capital and they attract supplies of both from the older countries.

The construction of railways across fertile prairies opens up great tracts of virgin country to cultivation at a very small expenditure both of effort and of money. The rapid expansion of agriculture which ensues gives to the new countries a large amount of agricultural produce to exchange for the goods of the other lands and to pay interest

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upon the capital borrowed. The introduction of large sums of capital into the new countries for railways and other purposes causes, during the period of its introduction, large imports of manufactured goods into the countries borrowing the capital and as a consequence the imports of these countries largely exceed their exports. After a time the new countries increase their production of foodstuffs and raw materials so largely that they are able to provide a much larger proportion of the capital they need for themselves and they obtain the goods they require from other countries to an increasing extent by exchange of their own production and less by capital borrowings. I calculate that capital wisely expended upon new railways through districts containing fair agricultural and mineral resources brings about an annual production of wealth much more than equal to the total amount of capital spent upon the construction of the railways, a rate of production which could not possibly be secured if capital were not provided for railway construction. The capital needed for the direct development of agriculture, for mining, for house building, for manufactures, and for retail trade is chiefly provided by the inhabitants of the new countries themselves. Nevertheless, a portion of the capital required for these purposes is also provided by the older countries.

The net effect of the capital investments of the older countries in the newer ones is thus to bring about the creation of an immense quantity of new wealth of all kinds and descriptions and to cause the foreign trade both of the newer and of the older countries to show immense expansion from decade to decade.

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V.—FOREIGN TRADE AND THE PRECIOUS METALS.

Imports and exports of the precious metals play an important part in international trade. Until what may be termed the "capital investment system" was initiated the part played by gold and silver in paying for exports and imports of other commodities was considered to be of immense importance. Indeed, for several centuries it was believed that the chief object of foreign trade was to secure supplies of the precious metals and that the greatest thing to be desired was to obtain payment for produce exported entirely in gold or silver. These crude notions have long since disappeared, and it is now generally recognized that the great value of foreign trade is to enable each country to purchase all those things which it cannot advantageously produce for itself and which it needs or desires to consume.

The development of banking, both national and international, has brought with it great economy in the use of gold and silver for currency and for international settlements. Of course, precious metals are still largely used both in national trade and in international commerce; but the chief medium of exchange in national trade is the cheque, and the chief factors in the settlement of international balances are loans and repayments of capital. Only in countries where banking is in a relatively backward condition, and where credit is lacking do the precious metals play any great part either nationally or internationally. In modern times the precious metals have been mainly employed as banking reserves to serve as a basis of credit, as a provision against periods of discredit, such as

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arise in times of war and in periods of disaster, and for ornament. Occasionally a lending country suffers from nervousness, created either by political or financial events, and buys gold in order to strengthen its bank reserves, but most of the annual output of gold and silver, over and above that required for industrial purposes and the arts is sent to the young, backward or borrowing countries, whose banking and credit systems are not so highly developed as those of the lending countries. These countries have no difficulty in paying for the gold and silver they thus import for currency by means of their exports of produce and by means of the capital they borrow. Only in times of discredit do the young, backward or borrowing countries experience difficulty in retaining their stocks of the precious metals or in making the additions to their currency, rendered necessary by the growth of their populations, the expansion of their trade, and their unscientific banking systems.

In these days it may be said that the movements of gold and silver are brought about not so much by trade balances as by the currency and banking needs of the various countries. If a country desires to obtain gold, it has no difficulty in buying it, provided that its credit is good. One of the greatest accumulations of gold in modern times was made by a country which obtained the means of paying for the gold entirely by borrowing. The really essential matter to be considered by countries desiring gold is the state of their credit. Not infrequently it happens that countries possessing credit balances in other lands elect to leave them abroad for employment rather than withdraw

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them in gold. Only in periods of great alarm and anxiety, political or financial, does any country experience difficulty in obtaining supplies of the precious metals. In the statement of trade which I shall subsequently give I shall set out separately the amounts of the precious metals imported and exported from year to year by the United States. But it should be clearly understood that the factors involving the import and export of gold are practically the same as those which govern the imports and exports of other commodities. These factors are, first, the real need of the precious metals by the various countries importing them; second, ability to pay for the amounts they desire to obtain; and, third, the extent of the available supplies. It should be specially noted that the demand for gold and silver is quite a limited one; that nations are not usually anxious to obtain greater stocks than they really need, and that the lending countries are quite willing to make loans to any country in good credit desirous of obtaining supplies of the precious metals.

In brief, cheques, notes, and securities are now the medium by which national and international trade balances are mainly settled, and the employment of the precious metals for national or international settlements is entirely subsidiary to the use of credit.

VI.—THE PRECIOUS METALS AND CAPITAL INVESTMENTS.

In view of the somewhat common fallacy that the investment of capital by one country in another must lead to corresponding exports of gold or silver from the lend-

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ing countries to the borrowing countries, it may not be out of place to deal briefly with this phase of the question of trade balances.

It should, in the first place, be recognized that the lending countries do not produce the precious metals and that the mining countries are borrowers and not lenders of capital; secondly, the lending countries can not, except when they dip into their own accumulated stocks, supply the borrowing countries with gold; third, that only a very small portion of the capital invested by the lending in the borrowing countries is used by the latter to buy supplies of the precious metals, and that most of it is used to purchase other commodities than gold or silver, such as machinery, railway material, clothing, etc.; fourth, that the lending countries receive considerable sums of gold each year on balance from the mining countries; fifth, that the borrowing as well as the lending countries must obtain the supplies of the precious metals they need from the mining countries; and, lastly, that the purchase of gold in London is merely due to the free market for gold in that centre which causes a large part of the world's supplies of new gold to be sent there for sale.

VII.—SERVICES AND TRADE BALANCES.

Beyond the effect upon the trade balances of individual countries of investments of capital and the payments of interest thereon several other important factors have to be taken into account. The greatest of these is the services rendered by the countries possessing great fleets of

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mercantile ships to those countries which possess little or no shipping. The imports of produce of the countries possessing great mercantile navies are swollen by the produce they receive in payment for the services rendered by their shipping, while the exports of the countries owning but few ships are increased by payments to other lands for marine transportation. The mercantile marine of Great Britain renders very valuable services to the whole world, and a substantial portion of the imports of goods into the United Kingdom is received in payment of the services rendered by the British mercantile fleet.

A third factor of moment in determining the trade balances are the amounts expended by tourists. Large numbers of travellers, mainly from the new countries, visit the older lands for the purpose of recreation, and during their sojourn they expend great sums of money in the aggregate. The means of defraying these expenses have to be provided by shipments of produce from the countries of which the travellers are citizens and from which they draw their incomes. The amounts expended in Europe by visitors from the United States, from Canada, South America, and Australasia are very large and are an important factor in causing the imports of the older countries to exceed their exports and the exports of the newer countries to exceed their imports. There are several other factors of minor importance tending to increase the imports of the older countries and the exports of the newer. The most important of these is the temporary employment found in various of the newer countries by the citizens of Europe. In the spring large

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numbers of Europeans of various nationalities visit the United States, Canada, Argentina, and other of the new countries in order to obtain employment during the summer and autumn, and they return with their savings to spend the winter in Europe. Further, many Europeans who dwell in the new countries for a period of years ultimately return to their native land with large savings. This movement of population and of money tends to increase the imports of goods into the older countries and the exports of goods from the newer countries. Again, large sums of money are sent by citizens of the new country to their friends in Europe, and these remittances are settled by imports of produce into the recipient countries and by exports of produce by the countries from which the remittances are made. Further, a considerable number of children are sent to Europe for education by their parents living in various parts of the world, and the sums remitted for school fees increase the exports of the newer countries and the imports of the older ones. It is unnecessary to go into less important matters other than to say that insurance, commissions to bankers and to brokers, and fees to members of a great many other professions all tend to increase the volume of imports into the older countries and to enhance the exports of the newer ones.

On the other hand, there is an important offset in the number of persons emigrating from the older to the newer countries. The amount of money carried by these emigrants is considerable. How much of it is borrowed by the emigrants, and subsequently returned with interest to

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the friends who provided them with the means of emigrating, no one can calculate. On balance, however, the money taken from the older countries into the newer countries by emigrants is an offset to be reckoned with in analyzing the factors responsible for the balance of imports over the exports of the European countries and the balance of exports over imports of the newer countries.

VIII.—LENDING AND BORROWING COUNTRIES.

Prior to dealing specially with the trade balance of the United States it may be useful to discuss briefly the effect upon trade balances of the more important countries of the world of exports and imports of capital and of the receipt and payment of interest thereon. There is practically no country which neither exports nor imports capital with the exception of Thibet. This type of country may be left out of consideration. The chief countries which supply capital to other lands are Great Britain, Germany, France, Holland, Belgium, and Switzerland. Of these countries, Great Britain is by far the most important lender. This country has about \$15,000,000,000 of capital invested abroad and is adding to its colonial and foreign investments at the rate of upwards of \$500,000,000 a year. Germany and France come next with investments of about \$8,000,000,000 each. The investments of Holland, Belgium, and Switzerland are of much smaller amount, but are nevertheless considerable. The imports of all these five countries largely exceed their exports in consequence of the receipt of interest and of tourist expenditures. In the case of Great Britain the excess of im-

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ports over the exports is further largely increased by the earnings of British ships, the tonnage of which forms so large a portion of the world's international shipping facilities. The fleets of other countries are not much more than sufficient to take care of their own trade in the aggregate; indeed, in most cases they are insufficient for this purpose, and the deficiency is made good by the British mercantile marine.

The principal countries whose exports exceed their imports in consequence of the large amount of interest they have to pay on capital borrowed from other lands are the United States, the Australasian colonies of Great Britain, British India, Argentina, Brazil, and Mexico. Several other countries whose imports now exceed their exports will eventually come into this category. At the present time Canada's imports largely exceed her exports in consequence of the vast amount of capital—about \$200,000,000 a year—which she is borrowing from other lands—almost entirely from Great Britain. In the course of time the Canadian indebtedness to other countries and the expenditures of her tourists, etc., will be so great that her exports will exceed her imports, although large amounts of capital will continue to flow into the country each year. Of course Canada will have no difficulty in making these interest payments, having regard to the rapid growth in the annual amount of wealth created by means of the capital she is importing. China, Japan, and Chile are other instances of borrowing countries whose imports exceed their exports in consequence of the inflow of large amounts of foreign capital.

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Parenthetically, I would ask the reader to note that in the case of the United States the excess of exports over imports arises only in part from payment of interest on capital previously borrowed. The excess of exports is in part due to the expenditures of American visitors to Europe, to Egypt, and elsewhere, in part to the remittance of money by American citizens to friends in other lands, and in part to the payment for ocean transport of freight. But at the moment I wish to refer more particularly to the effect upon trade balances of the lending and borrowing of capital and of the receipt and payment of interest thereon. In this respect it should be noted that Great Britain is by far the largest lender of capital, and that the United States has obtained a greater amount of capital from other countries than any other State, that in the case of Great Britain the great balance of imports over exports is mainly due to the receipt of interest on capital invested in other lands, and that in the case of the United States the excess of exports over imports arises in large part from the payments of interest upon capital borrowed from other countries.

Foreign trade of countries that have invested large amounts of capital in other lands and receive a considerable income from their foreign investments.

Country.	Year.	Merchandise.		Excess of imports over exports.
		Net imports	Domestic exports.	
Great Britain.....	1907	\$2,695,711,000	\$2,073,300,000	\$621,586,000
Germany.....	1906	1,842,822,000	1,501,717,000	341,105,000
France.....	1907	1,201,031,000	1,080,047,000	120,984,000
Holland.....	1907	1,068,823,000	883,926,000	184,897,000
Belgium.....	1907	707,449,000	545,349,000	162,100,000

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IX.—EUROPE'S CAPITAL INVESTMENTS IN THE UNITED STATES.

Almost from the day that it was discovered the United States has obtained supplies of capital from Europe. In the sixteenth, seventeenth, and eighteenth centuries the capital was imported for the development of sugar, tobacco, and cotton plantations and for mercantile purposes. Early in the nineteenth century large sums of money were invested by Great Britain in the securities of the United States Government and in state and municipal government bonds. In 1800 there were no American securities quoted in what was then regarded as the London Stock Exchange "official list," but in 1825 nine issues of United States government bonds were quoted in London and a number of state and city loans. These latter were New York state 5 percents and 6 percents, Virginia 6 percents, Pennsylvania 5 percents, various Louisiana loans, and the bonds of the cities of New York and of New Orleans. United States Bank shares were also quoted in London.

The application of steam to land traction greatly widened the need for capital in the United States, and London was asked for capital for railway construction. The first record of a loan in London for an American railway was the purchase in 1836 by the Messrs. Baring Brothers of \$2,000,000 of bonds of the Baltimore and Ohio Railroad. But it was not until the fifties and sixties that any large amount of capital was raised in London for railway construction. This is indicated by circulars issued in the early fifties by the Messrs. Baring Brothers

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in which they directed the attention of their British clients to the attractive yields afforded by the loans of the United States Federal Government, by the state loans of Alabama, Indiana, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and Georgia, as well as by the loans of the cities of Boston and of New York, all of which bore interest at the rate of from 5 per cent to 6 per cent. No mention was made in the circulars issued in the early fifties of railroad bonds or stocks. In the fifties, sixties, and early seventies large sums of capital were invested by Europe, mainly by Great Britain and Holland, in the federal and state government loans, in municipal securities, in railroad bonds and stocks, and in the shares of land, mining, and other ventures. But the chief borrowers were railways. By 1883 the amount of American railway securities quoted in London amounted to the large total of \$1,535,000,000. Since the early eighties the accumulation of capital in the United States itself has been on a great scale, and the federal and state governments have been able to borrow at home at lower rates of interest than the rates at which they could obtain capital from the investors of Europe. But the amounts of capital needed by American railways have been beyond the power of the American people to supply, and large amounts of capital have been invested by Europe in American railway and other securities. At the end of 1908 the securities of American railways quoted in the London Stock Exchange "official list" were of the nominal value of \$7,500,000,000.

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Further, there are a large number of American industrial and other securities quoted in London which raises the total to over \$9,000,000,000. Only a portion of this vast amount of securities quoted in London is owned by British investors. Great Britain possesses about \$3,500,000,000 of American securities. To this sum has to be added the considerable amounts invested by the Continent. Large amounts of German, Dutch, and French capital are embarked in American undertakings, principally railways. A statement drawn up in 1902 at the instance of the French Minister of Finance from reports supplied by French diplomatic agents and consuls in various parts of the world placed the total amount of French capital invested at that time in the United States at 600,000,000 francs, or \$120,000,000, but this figure appears to have been an underestimate. It is true that few issues of American securities are publicly quoted on the Paris Bourse, but relatively large amounts have been purchased privately by French investors in London and in New York. The French investments in the United States, including the Pennsylvania Railroad and other loans placed in Paris since 1902, amount to nearly 2,500,000,000 francs, or \$500,000,000.

Estimates of the amount of capital invested by Germany in the United States were made in 1905 by the German Admiralty and published in a work entitled "Die Entwicklung der Deutschen Seeinteressen im letzten Jahrzehnt." These estimates placed the amount of German capital in the United States and Canada in 1904 at from 2,500,000,000 marks to 3,000,000,000 marks, say,

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\$625,000,000 to \$750,000,000. Since 1904 considerable additional sums of German capital have been invested in the United States. German bankers place the amount of the German investments in American securities at about \$1,000,000,000. The amount of Dutch capital in the United States is about \$750,000,000. American securities are also held in Belgium, Switzerland, and in other countries. In the aggregate the amount of European capital invested in "permanent" securities in the United States is approximately \$6,000,000,000.

Beyond the fixed capital invested by Europe in the United States account has to be taken of the floating loans made by Europe to America. These floating loans are mainly incurred in the spring and summer months in anticipation of the produce shipments from the States in the fall months and they are then largely liquidated. The amount of the floating debt of the United States to Europe in the form of produce bills, finance bills, loans against securities, overdrafts, etc., averages about \$400,000,000, reaching a larger sum in July and early August and falling to a much lower sum at the end of December. The rate of interest paid upon this floating debt insofar as it consists of produce bills is a very low one, the rate of interest charged on this class of loan being less than that on any other kind of security.

Including both the fixed investments and the floating loans, the amount of capital borrowed by the United States from other countries is about \$6,500,000,000, the annual interest charge upon which is about \$300,000,000.

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An offset to the large amount of capital invested in the United States is the capital invested by American citizens in other countries, more especially in Mexico, Canada, in the South American States, in the Philippines, in Cuba, etc. It is true that a portion of the capital of these foreign undertakings in which American capital is invested has been provided by European investors; nevertheless, as these corporations are American and the amounts invested in the United States by Europe include investments in these foreign companies, it is necessary to place the interest received from these foreign investments by American corporations against the interest paid to Europe. Beyond the capital of public corporations which have been formed under state laws in America the capital invested privately by American citizens in other lands reaches to a considerable total. The amount of American capital invested in other lands in this manner both publicly and privately is probably \$1,500,000,000, yielding an income of about \$75,000,000 a year. By deducting the interest—\$75,000,000—received upon American capital placed abroad from the interest—\$300,000,000—which the United States pay upon capital supplied to them by other lands, I arrive at a net payment of \$225,000,000 by the United States to other countries for interest and dividends upon capital. This sum the United States has to remit each year by exports of produce.

X.—THE VALUE TO THE UNITED STATES OF LOANS OF CAPITAL BY OTHER LANDS.

I have dealt in a general way with the effect of capital investments by the older countries in the newer lands; I

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will now refer in somewhat greater detail to the effect of the imports of capital from the older countries upon the growth of trade and of prosperity of the United States. The capital obtained by America from other lands, mainly from Great Britain, was chiefly for the purpose of extending and improving the railway system of the country. No one can survey the remarkable growth in the production, wealth, and population of the United States without expressing his appreciation of the great part played by railway extensions in bringing about that growth. The extension of railways alone made it possible to bring into cultivation the vast tracts of virgin lands that are now under the plough. Without railways the United States could not now produce annually agricultural wealth of the value of about \$8,000,000,000. Again the extension of railways alone made it possible to reach and to develop upward of \$2,000,000,000 of mineral wealth per annum. It is the railways that enable the people of the United States to reach and to obtain for their use the vast quantity of lumber annually cut from the forests. Lastly, the immense manufacturing industries of the States which now distribute over \$3,000,000,000 in wages could never have been built up but for the construction of railways.

The provision of some \$6,500,000,000 of capital to the United States by older countries, mainly for railway construction, has enabled the American people to devote their rapidly growing savings to the building and furnishing of homes, to the equipment of manufactories, to fitting out retail establishments, and to other purposes to a much

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greater extent than otherwise would have been possible, and in this way the foreign capital has greatly accelerated the growth of population, production, and wealth. By the use of the \$6,500,000,000 of capital obtained from other countries the annual production of wealth by the United States has, I calculate, been increased to a nearly corresponding extent and the accumulated wealth of the country has been increased by many times the amount of the capital borrowed. The additional value given to land alone by the construction of railways is so vast and so apparent that it needs no demonstration. The increase in the annual production of wealth by the United States rendered possible by the importation of capital has been at least twenty times greater than the sum paid for interest. The investment of this capital by the older countries in the United States has thus brought advantages which cannot easily be exaggerated.

XI.—TOURIST AND OTHER EXPENDITURES.

Their great prosperity permits a large number of American citizens to visit other countries each year and to expend for this purpose a large aggregate sum. No statistics are kept of the number of American citizens leaving the shores of the United States for other lands, but complete figures are available of the number of citizens that return to their country from these visits. The number of American citizens who make visits to other lands is steadily increasing. In the year to June 30, 1908, the number returning was 200,447. The numbers in recent years have been as follows:

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Number of United States citizens returning to the United States from other lands.

Year to June 30—1898.....	93,602
1899.....	95,196
1900.....	120,477
1901.....	157,050
1902.....	142,058
1903.....	140,669
1904.....	147,974
1905.....	167,227
1906.....	177,488
1907.....	191,797
1908.....	200,447

Thus, the number of American citizens visiting other lands in the course of the year is now upward of 200,000. The data I have been able to obtain as to the expenditures of these tourists shows that the sum expended by them approximates to \$1,000 per person. This sum includes merely the passage money and the sums expended in other countries for food, transportation, and other miscellaneous expenditures. It does not include the sums expended upon works of art, jewelry, clothing, etc., which are declared at the customs and are included in the value of the goods imported into the United States. In the aggregate, tourist expenditures for the purpose I have mentioned reach a total of about \$200,000,000. On the other hand, a number of foreign tourists visit the United States and their expenditures should be placed against those of American citizens. In 1907-8 the number of persons arriving in the States who were neither American citizens nor immigrants reached 142,000, but a large portion of these were immigrants destined for Canada who expended but a very small sum of money per person for transportation on their way to destination. Apparently the number

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of visitors, other than immigrants passing through to Canada, was about 30,000. The expenditures of visitors to the United States may be taken at about \$1,000 per person, excluding all shipping transportation, or an aggregate sum of visitors' expenditures in the United States of \$30,000,000. On balance, therefore, the United States has to pay to other countries a sum of about \$170,000,000 a year to cover tourist expenditures.

XII.—EXPENDITURES OF IMMIGRANTS AND EMIGRANTS.

There is another movement of population which creates large debit and credit items in the American trade balance. Each year a considerable number of persons, who previously had migrated to the United States, return to take up their residence in Europe. The numbers of these persons greatly fluctuate. In periods of trade depression the numbers of wage-earners that return to Europe rise to great figures. Indeed, in the trade depression of 1907-8 the number of persons that left the United States of the wage-earning classes was nearly as great as the number of immigrants—637,905 left the United States and 782,870 arrived. For the period from October, 1907, to October, 1908, the number of persons that left the United States of the wage-earning class largely exceeded the number that arrived. In calculating a trade balance it is necessary to deal with a normal rather than with an abnormal situation. Probably such a movement as that witnessed in 1907-8 will not recur for a great number of years. Therefore in my calculation I propose to take the average number of persons of the wage-earning class that

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leave the United States. In the four years to 1907 they averaged somewhat over 300,000 a year. But the whole of this number did not consist of persons who had made a modest fortune and who desired to return to Europe to enjoy the fruits of their labors. Large numbers of the working classes visit their friends in Europe from time to time and travel in the steerage because of its cheapness. Persons traveling for this purpose and intending to return to the United States do not carry with them nearly as much money as others who are returning to live in Europe after having accumulated what is to them a fortune. Again a certain number of immigrants are unable to find congenial occupations in the country and return to Europe with practically no resources. Thus the average amount of money carried by the 300,000 "emigrants" who leave the United States each year is not a very large sum, on the average it was probably not more than \$200 per head, or a total sum of about \$60,000,000. On the other hand, account has to be taken of the money brought in by immigrants from other lands. In 1908-9 the number of immigrants into the United States was about 1,000,000 in comparison with 783,000 in the previous twelve months and 1,285,000 in 1906-7. The number of immigrants arriving in the States in the last eleven years are as follows:

Year to June 30—1898	229, 299
1899	311, 715
1900	448, 572
1901	487, 918
1902	648, 743
1903	857, 046
1904	812, 870
1905	1, 026, 499
1906	1, 100, 735
1907	1, 285, 349
1908	782, 870

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The average sum brought into the country is about \$50 per head. In the aggregate the money brought into the country by immigrants probably reaches \$50,000,000 per annum.

For all practical purposes I calculate that the money brought into the country by immigrants about counterbalances the money taken out of the country by emigrants returning to their native lands and by "other than cabin passengers" visiting other countries.

XIII.—REMITTANCES TO FRIENDS.

The great prosperity of the United States enables many of its citizens who have come from other lands to make gifts of large sums of money in the aggregate to friends in the old countries. The remittance of this money means that the United States have to send considerable quantities of produce abroad for which there is no corresponding item on the import side of the account, as the produce goes for the purpose of providing the funds necessary to cash the postal money orders and other drafts remitted to friends. The amount of these remittances is exceedingly difficult to calculate, but that it is large everyone admits. I have endeavored to make an independent calculation of the amount of these remittances, but unfortunately there is a controversy between the banks and the express companies as to the sale of these drafts and neither the banks nor the express companies are willing to furnish the necessary information to enable an estimate to be made of the situation at the present time.

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However, the bankers have referred me to a paper written by Mr. Charles F. Speare and published in the North American Review of January, 1908, in which Mr. Speare calculates the total amount of money remitted to friends in Europe by immigrants. Mr. Speare estimates that out of the savings of the foreign born in America \$250,000,000 a year are going abroad and that the annual rate of increase is about 10 per cent. The annual distribution of this great sum throughout Europe is, he says, in the following proportions:

Italy.....	\$70,000,000
Austria-Hungary.....	65,000,000
Great Britain.....	^a 25,000,000
Norway and Sweden.....	25,000,000
Russia.....	25,000,000
Germany.....	15,000,000
Greece.....	5,000,000
All others, including France, Switzerland, Belgium, and Denmark.....	10,000,000

The foreign-born population of the United States numbers about 15,000,000 and the remittances per head were estimated as follows:

	Number.	Per capita remittance.
Italian.....	2,300,000	\$30.00
Austro-Hungarian.....	2,250,000	28.10
British.....	3,500,000	7.14
Scandinavian.....	1,600,000	15.00
Russian.....	1,700,000	14.50
German.....	3,700,000	4.05
Greek.....	100,000	50.00

^a In 1906 these remittances included about \$10,000,000 to Ireland alone—\$5,500,000 through banks and over \$4,000,000 by the post-office.

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The amounts of foreign money orders issued by the post-office of the United States to all countries in the world in 1906-7 and in previous years were as follows:

Year to June 30—1885	\$6, 840, 358
1890	13, 230, 135
1895	12, 890, 744
1900	16, 749, 018
1905	47, 516, 028
1906	63, 047, 867
1907	71, 000, 000

Beyond the post-office all sorts of outside agencies are employed. The greater portion of the remittances are made through bankers of the nationality of those remitting. There are nearly 1,000 Italian bankers in the United States, several hundred Hungarian bankers, and numerous small Russian bankers. Beyond these private bankers there are many large banking institutions which remit large sums of money for account of immigrants. The express companies also do a large business, calculated at from \$20,000,000 to \$25,000,000. Considerable sums are also remitted in other ways. That there is this large sum sent abroad by small remittances, as calculated by Mr. Speare, cannot, I think, be questioned. American citizens undoubtedly are very liberal and generous to their friends in Europe. I have personal knowledge of large sums of money remitted by individuals to friends. Nevertheless, from the data I have been able to obtain, I can not confirm the calculation that the remittances to friends are as much as \$250,000,000 a year. In the first place, a portion of this money is remitted by persons returning to live in Europe whose remittances I have already allowed for in

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Chapter XII. Secondly, many of the money orders and drafts are sent to Europe to pay for goods purchased. Very large numbers of small parcels of goods are imported and figure in the imports of produce. These small parcels are usually paid for by small drafts or by postal money orders. It is impossible to determine if a small remittance is for the purpose of purchasing articles of attire, presents, books, etc., or is merely a gratuity, against which no produce is received. The amount of the remittances for the purchase of small articles imported through express companies and others undoubtedly reaches a large sum. That all foreign postal money orders are not gratuities is evident from an examination of the foreign money orders issued by other countries. In comparison with the \$63,000,000 of foreign money orders sold by the United States post-office in 1905-6, Austria remitted \$50,854,000 to other countries in this manner, Hungary \$45,251,000, Germany \$33,233,000, France \$13,074,000, the United Kingdom \$9,664,000, and Switzerland \$9,265,000. Certainly the remittances of Austria-Hungary, Germany, France, the United Kingdom, and Switzerland were not in the nature of gratuities—they were mainly remittances for value received. With the data at my disposal I do not feel justified in placing the amount of money remitted by American citizens to friends in other countries at a larger figure than \$150,000,000. This is still a very large sum, and is a factor of great importance in calculating the trade balance of the United States and the amount of produce which has to be remitted for various purposes other than to pay for goods imported.

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Although I am unable to accept Mr. Speare's conclusions that America remits each year \$250,000,000 in gifts to friends in other lands and have reduced the sum to \$150,000,000, I wish to express my indebtedness to Mr. Speare for the assistance he has afforded me and my appreciation of the work he has done in compiling the total of the small foreign drafts sold by bankers, by the express companies, and by the post-office.

XIV.—FREIGHTS.

The United States possesses a mercantile marine large enough to convey but a small portion of the produce they export and import, and considerable payments have to be made for shipping services. In 1907-8 the imports into the United States by sea were valued at \$1,123,000,000. Of this amount \$152,000,000, or 13.5 per cent, was carried in American vessels and \$971,000,000, or 86.5 per cent, in foreign vessels. In the same year the exports from the United States were valued at \$1,670,000,000, of which amount the produce conveyed in American vessels was valued at \$120,000,000, representing a proportion of only 7.2 per cent and the balance of \$1,550,000,000, or 93.8 per cent, was conveyed in foreign vessels. The sum which the United States had to pay to other lands for marine transportation is much smaller than is usually calculated. In the first place, other countries have to pay the cost of transporting the produce they purchase from the United States, and there is no burden upon America for freight upon goods shipped to other lands. Indeed, there is a credit item on goods exported, inasmuch

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as \$120,000,000 worth of produce, or 7.2 per cent, of the whole of the goods exported in 1907-8 was conveyed in American vessels. The freight which the United States has to pay for is that upon the \$971,000,000 of imports conveyed in foreign vessels less the freight earned by American vessels in conveying \$120,000,000 of exports. Thus the net amount of freight payable is in respect of goods amounting in value to about \$850,000,000. That was the amount in 1907-8. In 1908-9 the imports have shown large expansion, and it is probable that the value of the freight imported in foreign vessels has been about \$1,150,000,000, and that after allowing for the credit item in respect of exports conveyed in American vessels, the net amount of goods upon which freight was payable was about \$1,000,000,000. There are, however, other credit items to be taken into consideration. The foreign vessels carrying goods from the United States to other countries are usually coaled and provisioned for the outgoing voyage in American ports, and the value of the coal and provisions supplied to them must be deducted from the payments which the United States has to make for freight brought into the country in foreign vessels. After taking all these factors into consideration I calculate that the net sum which the United States pays to other countries for the transportation of merchandise is about \$25,000,000 per annum. Payment of this sum has also to be remitted to other lands by exports of produce.

The values of the exports from and imports into the United States carried in American vessels and in foreign vessels, respectively, since 1890 are shown in the tables following.

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Value of imports of merchandise into the United States carried in American vessels, 1890 to 1908.

Year ended June 30—	By sea.				Total.	Per cent in American Vessels.	By land vehicles.	Total by land and sea.
	By sea.			Total.				
	In American vessels.	In foreign vessels.	Total.					
1890.....	\$124,948,948	\$623,740,100	\$748,689,048	16.7	\$40,621,361	\$789,310,409		
1891.....	127,471,678	676,511,763	803,983,441	15.9	40,932,755	844,916,196		
1892.....	139,139,891	648,535,976	787,675,867	17.7	39,726,595	827,402,462		
1893.....	127,095,434	695,184,394	822,279,828	15.5	44,121,094	866,400,922		
1894.....	121,561,193	593,810,334	625,371,527	19.4	29,623,095	654,994,622		
1895.....	108,229,615	590,538,362	698,767,977	15.5	33,201,988	731,969,965		
1896.....	117,299,074	626,890,521	744,189,595	15.7	35,535,079	779,724,674		
1897.....	109,133,454	619,784,338	728,917,792	15.0	35,812,620	764,730,412		
1898.....	93,535,867	492,086,003	585,621,870	16.0	30,427,784	616,049,654		
1899.....	82,050,118	581,673,550	663,723,668	12.4	33,424,821	697,148,489		
1900.....	104,304,940	701,223,735	805,528,675	12.9	44,412,509	849,941,184		
1901.....	93,955,493	683,015,858	776,971,351	12.0	47,100,814	823,172,165		
1902.....	102,188,002	744,766,235	846,954,237	12.1	56,366,711	903,320,948		
1903.....	123,666,832	835,844,210	959,511,042	12.9	66,208,195	1,025,719,237		
1904.....	132,253,065	790,595,186	922,848,251	14.3	68,239,120	991,087,371		
1905.....	160,649,571	878,138,230	1,038,787,801	15.5	78,725,270	1,117,513,071		
1906.....	168,488,129	971,397,270	1,139,885,399	14.8	86,677,047	1,226,562,446		
1907.....	176,550,716	1,103,698,060	1,340,248,776	13.2	94,172,649	1,434,421,425		
1908.....	151,919,733	971,111,234	1,123,030,967	13.5	71,310,825	1,194,341,792		

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Value of exports of merchandise from the United States carried in American vessels, 1890 to 1908.

Year ended June 30—	By sea.				Per cent in American Vessels.	By land vehicles.	Total by land and sea.
	In American vessels	In foreign vessels.	Total.	Total.			
1890.....	\$77,502,138	\$747,376,644	\$824,878,782		9.4	\$32,949,902	\$857,828,684
1891.....	78,968,047	773,569,324	852,557,371		9.3	31,923,439	884,480,810
1892.....	81,033,844	916,023,675	997,057,519		8.1	33,220,629	1,030,278,148
1893.....	70,670,073	733,132,174	803,802,247		8.8	43,862,947	847,665,194
1894.....	73,767,023	769,212,122	842,919,145		8.7	49,221,427	892,140,572
1895.....	62,277,881	695,357,830	757,635,411		8.2	49,902,754	807,538,165
1896.....	70,392,813	751,083,000	821,475,813		8.5	61,131,125	882,606,938
1897.....	79,941,823	905,969,428	985,911,251		8.1	65,082,305	1,050,993,556
1898.....	67,792,150	1,090,406,476	1,158,198,626		5.9	73,283,704	1,231,482,330
1899.....	78,562,088	1,064,590,307	1,143,152,395		6.9	83,870,907	1,227,023,302
1900.....	90,779,752	1,193,220,689	1,283,999,941		7.1	110,483,141	1,394,483,082
1901.....	84,343,122	1,291,520,938	1,375,864,060		6.1	111,900,931	1,487,764,991
1902.....	83,631,985	1,174,263,079	1,257,895,064		6.6	123,824,337	1,381,719,401
1903.....	91,028,200	1,190,262,178	1,281,290,378		7.1	138,851,301	1,420,141,679
1904.....	97,482,054	1,210,608,328	1,308,090,382		7.5	152,736,889	1,460,827,271
1905.....	129,958,375	1,225,063,232	1,355,021,607		9.6	193,540,059	1,518,561,666
1906.....	153,859,076	1,396,470,084	1,550,129,160		9.9	193,735,340	1,743,864,500
1907.....	141,780,310	1,520,598,231	1,662,378,541		8.5	218,472,537	1,880,851,078
1908.....	120,593,589	1,549,628,630	1,670,222,219		7.2	190,551,127	1,860,773,346

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It should be noted that the values of the exports are those at the seaboard of the United States, while the values of the imports are those in the countries consigning the produce.

XV.—INSURANCE.

A large amount of fire insurance is written each year in the United States by English and other offices and the sums payable to those offices in respect of insurance reaches a considerable figure. On the other hand, the fire losses of foreign offices in the United States are heavy and the profit which alone accrues to other countries is not a large item, at any rate it has not been a large item in the recent past. On the other hand, American life-assurance offices transact a fairly large business in foreign countries. Here again the claims have to be placed against the premiums received and the net sum coming to the United States is not an important item. In recent years the experience of American life offices has been abnormal. They have transacted very little new foreign business and their claims have represented a much larger proportion of their premium income than usual. Still, this situation will doubtless pass away and America will receive the normal amount of income from the business transacted in other lands by her life-insurance offices. On balance, if all kinds of insurance and assurance are combined, America probably has to pay very little on balance to other lands and the factor of insurance in calculating the trade balance may consequently be ignored.

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XVI.—SUMMARY OF REMITTANCES FOR INTEREST, TOURIST EXPENDITURES, GIFTS TO FRIENDS, AND FREIGHT CHARGES.

Thus I arrive at the conclusion that the United States have on balance to pay other countries a net sum of \$250,000,000 for interest upon foreign capital invested with them; that the expenditures of American citizens in other lands exceed by \$170,000,000 the outlays of foreign tourists in the United States; that the remittances of foreign-born citizens to friends in Europe and elsewhere amount to \$150,000,000, and that the net sum paid for ocean freight to other countries is \$25,000,000. Thus America has to make an annual payment of about \$595,000,000 for purposes other than for the purchase of goods from other countries. In other words, the exports of merchandise, gold, and silver from the United States must exceed the aggregate value of the merchandise gold and silver imported by nearly \$600,000,000 in order that payment may be made for interest, tourist expenditures, etc. That is to say, America requires an excess of exports over imports of nearly \$600,000,000 per annum in order to settle her trade balance. If she has a larger balance of exports over imports than this figure, she is repaying a portion of her obligations to other lands. If she has less than this sum, she is borrowing additional capital from other lands. It should, however, be clearly understood that this amount is subject to wide fluctuations, and is by no means a hard and fast obligation. The interest upon foreign capital invested in the country fluctuates to some extent with the rate of dividend earned upon the capital invested. If the country is in depression,

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the rate of dividend on much of the capital declines, and if the nation is prosperous it advances. The figure given is calculated upon the return upon capital in recent years. Again the tourist expenditures vary widely. In years of trade activity and prosperity American visitors to Europe and other countries spend money freely, whereas in years of depression they are more economical. Further, the gifts of American citizens to their friends in Europe fluctuate with the condition of trade. In a period of depression the gifts are appreciably smaller than in years of activity. In this respect, however, it should be noted that depression in trade causes a great many persons to return to Europe; that these persons take with them large sums of money, and that this outflow of money has to be placed against the smaller gifts to friends at such times. Taking all these circumstances into account, I calculate that in a year of depression the obligation of the United States to other countries for interest, tourist expenditures, remittances to friends, freight, etc., is about \$500,000,000 and that in years of normal trade activity it is about \$600,000,000.

XVII.—EFFECT UPON UNITED STATES TRADE BALANCE OF IMPORTS AND EXPORTS OF CAPITAL.

I have already shown that European countries, especially Great Britain, make large investments in the United States. The inflow of this capital is more or less spasmodic. At times the amount invested in a single year reaches to large figures, at others there is practically no investment of new capital, while on rare occasions the United States pays back a portion of the capital pre-

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viously borrowed. These movements of capital into and out of the country powerfully affect either the imports or the exports. In periods of capital inflow the imports of goods are swollen, while exports are relatively light. Capital can only be imported by one country from another by the remittance of goods, hence the effect upon imports or upon exports of the import or repayment of capital. Nevertheless, it is necessary to recollect that the obligations of the borrowing countries to the lending countries is, after a period of years, much greater than is indicated by the amount of capital actually received by that country. Not infrequently the undertakings in which foreign capital is invested use a large portion of their profits for betterments and for capital purposes, and do not distribute it in dividends. The retention of this profit for capital expenditure increases the indebtedness of the borrowing countries, although no actual remittance of capital from one country to the other has taken place. Undivided profits of one year become capital in the next. This practice of using profits for capital purposes is responsible for no inconsiderable portion of the capital invested by other countries in the United States. Thus, if it were possible to ascertain the actual amount of capital that was remitted from other countries to the United States, the total would not nearly reach the amount of capital now belonging to other nations and employed by the United States. The method of raising capital for railway companies in the past has largely contributed to securing for the United States a larger amount of capital than that which was directly borrowed. A great number of the railways of the country

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raised their capital by selling bonds to Europe, and to place the bonds they issued a considerable amount of common stock for which no additional payment was required. By accumulating profits instead of by dividing them in dividends, and by using those profits for capital purposes, the stock which was originally issued as an inducement to investors to subscribe for bonds has been gradually paid up, and at the present time the railway companies possess actual assets to an extent equal to if not exceeding the nominal amount of their bonds and stock. This latter method of borrowing capital does not appreciably affect either exports or imports. If anything, it tends to check both the exports and the imports, as it means that the borrowing country has to remit a smaller amount to other lands for interest and has to receive a smaller amount of foreign produce for capital investment. On the whole, however, the investment of capital through the accumulation of profits has very little immediate effect either upon imports or upon the exports. Ultimately, of course, by increasing the productive power of the country and increasing its ability to exchange produce for the goods of other countries, it tends to increase both the exports and the imports. Further, the payment of interest upon capital accumulated in this manner to its owners in other lands increases the exports of produce but not the imports.

The inflow of capital from other countries is sometimes nearly \$250,000,000 in a year and, on the other hand, the repayments have reached to about \$150,000,000 in a year. The normal course of events, however, is for capital

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to flow into the United States year after year and for repayments to be made but very seldom.

All through the earlier years of the last century up to the later seventies capital was sent into the United States in considerable amounts, and this explains the reason for the large excess of imports over the exports in this period notwithstanding the increasing annual payments of interest to other lands and the considerable annual sums that even then were expended for tourist outlays, remittances to friends, and ocean freights.

In the later seventies a wave of distrust passed over Europe and for the moment investments of capital by Europe in the United States came to an end. This explains the reason for excesses of exports over imports of \$262,000,000 in 1878 and of \$270,000,000 in 1879 in place of an excess of imports over exports of \$116,000,000 in 1872. These figures include the combined balances of merchandise and the precious metals.

In the eighties capital was invested very freely in the United States by Europe, and notwithstanding the very large amount of the annual interest and dividend obligations, expenditures by tourists, and remittances to friends, the imports into the United States again exceeded the exports in 1888 by a sum of \$40,000,000, a figure which reflected the very large inflow of capital in that year.

The financial crisis which took place in July, 1893, again checked the imports of capital into the country and the exports once more began to exceed the imports by large sums annually. The obligations of the United States to Europe were curtailed at this time by default

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of interest and absence of dividends upon large amounts of railway stocks and bonds. Further, the severe depression greatly diminished American tourist expenditures in other lands and severely contracted the remittances to friends. With the recovery in trade that took place in 1897 and 1898 interest payments were largely resumed and expenditures became freer. Nevertheless the economy of the American people was so great that the excess of exports over imports rose to figures which enabled a considerable amount of the capital previously invested in the States to be repaid. This is the explanation for an excess of \$534,000,000 of exports over imports—merchandise, gold, and silver—in 1898, of an excess of \$504,000,000 of exports over imports in 1898-99, of \$570,000,000 in 1899-1900, and of \$680,000,000 in 1900-1901. In these four years not only did the United States borrow no fresh capital from abroad, but it repaid considerable sums beyond meeting its interest obligations, tourist expenditures, and making remittances to friends.

The great prosperity of the country since 1901 has enabled the American people to resume their normal rate of expenditure, and in this period they have again imported large amounts of capital from abroad. I calculate that in the past year to June, 1909, European countries invested about \$184,000,000 in the country. In this period the excess of merchandise exports over imports has been \$351,000,000, the excess of gold exports over imports has been \$48,000,000, the excess of silver exports over imports has been \$12,000,000, and the total excess of exports over imports has been

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\$411,000,000, whereas the sum needed to cover interest payments, tourist outlays, remittances to friends, and freight charges has been about \$595,000,000. The difference between the two sums has been met by investments of capital by Europe in the United States. Perhaps the situation will be more clearly realized if I set it out in tabular form:

<i>Foreign trade of the United States, 1908-9.</i>	
Merchandise:	
Exports—	
Domestic	\$1,638,000,000
Foreign	25,000,000
Total	\$1,663,000,000
Imports	1,312,000,000
Excess of merchandise exports over imports	\$351,000,000
Gold:	
Exports	\$92,000,000
Imports	44,000,000
Excess of gold exports over imports	48,000,000
Silver:	
Exports	\$56,000,000
Imports	44,000,000
Excess of silver exports over imports	12,000,000
Total excess of merchandise, gold, and silver exports over imports	\$411,000,000
Remittances for interest, etc.:	
Interest	\$250,000,000
Tourist expenditures	170,000,000
Remittances to friends	150,000,000
Freight	25,000,000
Total remittances	595,000,000
Excess of sum remitted for interest, tourists, to friends, and for freights over trade balance	184,000,000

This balance of \$184,000,000 has been liquidated by permanent or temporary investments of capital by other countries in the United States.

XVIII.—IMPORTS AND EXPORTS.

In the foregoing I have referred to the fluctuations in the balance of imports over exports. I now set out the value of the merchandise imported into and exported

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from the United States in each year since 1790, with the balance of imports over exports or of exports over imports:

Merchandise exports and imports, 1790 to 1909.

Fiscal years. ^a	Imports.	Exports.	Excess of—	
			Imports over exports.	Exports over imports.
1790-----	\$23,000,000	\$20,205,156	\$2,794,844	-----
1791-----	29,200,000	19,012,041	10,187,959	-----
1792-----	31,500,000	20,753,098	10,746,902	-----
1793-----	31,100,000	26,109,572	4,990,428	-----
1794-----	34,600,000	33,043,725	1,556,275	-----
1795-----	69,756,268	47,989,872	21,766,396	-----
1796-----	81,436,164	58,574,625	22,861,539	-----
1797-----	75,379,406	51,294,710	24,084,696	-----
1798-----	68,551,700	61,327,411	7,224,289	-----
1799-----	79,069,148	78,665,522	403,626	-----
1800-----	91,252,768	70,971,780	20,280,988	-----
1801-----	111,363,511	93,020,513	18,342,998	-----
1802-----	76,333,333	71,957,144	4,376,189	-----
1803-----	64,666,666	55,800,033	8,866,633	-----
1804-----	85,000,000	77,699,074	7,300,926	-----
1805-----	120,600,000	95,566,021	25,033,979	-----
1806-----	129,410,000	101,536,963	27,873,037	-----
1807-----	138,500,000	108,343,150	30,156,850	-----
1808-----	56,990,000	22,430,960	34,559,040	-----
1809-----	59,400,000	52,203,233	7,196,767	-----
1810-----	85,400,000	66,757,970	18,642,030	-----
1811-----	53,400,000	61,316,832	-----	\$7,916,832
1812-----	77,030,000	38,527,236	38,502,764	-----
1813-----	22,005,000	27,856,017	-----	5,851,017
1814-----	12,965,000	6,927,441	6,037,559	-----
1815-----	113,041,274	52,557,753	60,483,521	-----
1816-----	147,103,000	81,920,052	65,182,948	-----
1817-----	99,250,000	87,671,569	11,578,431	-----
1818-----	121,750,000	93,281,133	28,468,867	-----
1819-----	87,125,000	70,142,521	16,982,479	-----
1820-----	74,450,000	69,691,669	4,758,331	-----
1821-----	54,520,834	54,596,323	-----	75,489
1822-----	79,871,695	61,350,101	18,521,594	-----
1823-----	72,481,371	68,326,043	4,155,328	-----
1824-----	72,169,172	68,972,105	3,197,067	-----
1825-----	90,189,310	90,738,333	-----	549,023
1826-----	78,093,511	72,890,789	5,202,722	-----

^a Fiscal year ended September 30 prior to 1843; since that date ended June 30.

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Merchandise exports and imports, 1790 to 1909—Continued.

Fiscal years.	Imports.	Exports.	Excess of—	
			Imports over exports.	Exports over imports.
1827-----	\$71,332,938	\$74,309,947		\$2,977,009
1828-----	81,020,083	64,021,210	\$16,998,873	
1829-----	67,088,915	67,434,651		345,736
1830-----	62,720,956	71,670,735		8,949,779
1831-----	95,885,179	72,295,652	23,519,527	
1832-----	95,121,762	81,520,603	13,601,159	
1833-----	101,047,943	87,528,732	13,519,211	
1834-----	108,609,700	102,260,215	6,349,485	
1835-----	136,764,295	115,215,802	21,548,493	
1836-----	176,579,154	124,338,704	52,240,450	
1837-----	130,472,803	111,443,127	19,029,676	
1838-----	95,970,288	104,978,570		9,008,282
1839-----	156,496,956	112,251,673	44,245,283	
1840-----	98,258,706	123,668,932		25,410,226
1841-----	122,957,544	111,817,471	11,140,073	
1842-----	96,075,071	99,877,995		3,802,924
1843-----	42,433,464	82,825,689		40,392,225
1844-----	102,604,606	105,745,832		3,141,226
1845-----	113,184,322	106,040,111	7,144,211	
1846-----	117,914,065	109,583,248	8,330,817	
1847-----	122,424,349	156,741,598		34,317,249
1848-----	148,638,644	138,190,515	10,448,129	
1849-----	141,206,199	140,351,172	855,027	
1850-----	173,509,526	144,375,726	29,133,800	
1851-----	210,771,429	188,915,259	21,856,170	
1852-----	207,440,398	166,984,231	40,456,167	
1853-----	263,777,265	203,489,282	60,287,983	
1854-----	297,803,794	237,043,764	60,760,030	
1855-----	257,808,708	218,909,503	38,899,205	
1856-----	310,432,310	281,219,423	29,212,887	
1857-----	348,428,342	293,823,760	54,604,582	
1858-----	263,338,654	272,011,274		8,672,620
1859-----	331,333,341	292,902,051	38,431,290	
1860-----	353,616,119	333,576,057	20,040,062	
1861-----	289,310,542	219,553,833	69,756,709	
1862-----	189,356,677	190,670,501		1,313,824
1863-----	243,335,815	203,964,447	39,371,368	
1864-----	316,447,283	158,837,988	157,609,295	
1865-----	238,745,580	166,029,303	72,716,277	
1866-----	434,812,066	348,859,522	85,952,544	
1867-----	395,761,096	294,506,141	101,254,955	
1868-----	357,436,440	281,952,899	75,483,541	
1869-----	417,506,379	286,117,697	131,388,682	

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Merchandise exports and imports, 1790 to 1909—Continued.

Fiscal years.	Imports.	Exports.	Excess of—	
			Imports over exports.	Exports over imports.
1870-----	>435,958,408	\$392,771,768	\$43,186,640	-----
1871-----	520,223,684	442,820,178	77,403,506	-----
1872-----	626,595,077	444,177,586	182,417,491	-----
1873-----	642,136,210	522,479,922	119,656,288	-----
1874-----	567,406,342	586,283,040	-----	\$18,876,698
1875-----	533,005,436	513,442,711	19,562,725	-----
1876-----	460,741,190	540,384,671	-----	79,643,481
1877-----	451,323,126	602,475,220	-----	151,152,094
1878-----	437,951,532	694,865,766	-----	257,814,234
1879-----	445,777,775	710,439,441	-----	264,661,666
1880-----	667,954,746	835,638,658	-----	167,683,912
1881-----	642,664,628	902,377,346	-----	259,712,718
1882-----	724,639,574	750,542,257	-----	25,902,683
1883-----	723,180,914	823,839,402	-----	100,658,488
1884-----	667,697,693	740,513,609	-----	72,815,916
1885-----	577,527,329	742,189,755	-----	164,662,426
1886-----	635,436,136	679,524,830	-----	44,088,694
1887-----	692,319,768	716,183,211	-----	23,863,443
1888-----	723,957,114	695,954,507	28,002,607	-----
1889-----	745,131,652	742,401,375	2,750,277	-----
1890-----	789,310,409	857,828,684	-----	68,518,275
1891-----	844,916,196	884,480,810	-----	39,564,614
1892-----	827,402,462	1,030,278,148	-----	202,875,686
1893-----	866,400,922	847,665,194	18,735,728	-----
1894-----	654,994,622	892,140,572	-----	237,145,950
1895-----	731,969,965	807,538,165	-----	75,568,200
1896-----	779,724,674	882,606,938	-----	102,882,264
1897-----	764,730,412	1,050,993,556	-----	286,263,144
1898-----	616,049,654	1,231,482,330	-----	615,432,676
1899-----	697,148,489	1,227,023,302	-----	529,874,813
1900-----	849,941,184	1,394,483,082	-----	544,541,898
1901-----	823,172,165	1,487,764,991	-----	664,592,826
1902-----	903,320,948	1,381,719,401	-----	478,398,453
1903-----	1,025,719,237	1,420,141,679	-----	394,422,442
1904-----	991,087,371	1,460,827,271	-----	469,739,900
1905-----	1,117,513,071	1,518,561,666	-----	401,048,595
1906-----	1,226,562,446	1,743,864,500	-----	517,302,054
1907-----	1,434,421,425	1,880,851,078	-----	446,429,653
1908-----	1,194,341,792	1,860,773,346	-----	666,431,554
1909-----	1,311,920,224	1,663,011,104	-----	351,090,880

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The imports and exports of gold and the gold balance since 1821 are set out below:

Gold imports and exports, 1821 to 1909.

Year ended June 30—	Exports.	Imports.	Excess of—	
			Exports over imports.	Imports over exports.
1821 ^a	\$10,478,059	\$8,064,890	\$2,413,169	-----
1822 ^a	10,810,180	3,369,846	7,440,334	-----
1823 ^a	6,372,987	5,097,896	1,275,091	-----
1824 ^a	7,014,552	8,378,970	-----	\$1,364,418
1825.....	315,672	529,277	-----	213,605
1826.....	1,056,088	678,740	377,348	-----
1827.....	1,872,489	1,110,448	762,041	-----
1828.....	1,635,084	808,220	826,864	-----
1829.....	1,573,258	816,666	756,592	-----
1830.....	1,422,664	821,146	601,518	-----
1831.....	2,979,529	932,029	2,047,500	-----
1832.....	2,049,406	716,686	1,332,720	-----
1833.....	889,505	611,852	277,653	-----
1834.....	690,180	3,766,172	-----	3,075,992
1835.....	1,355,280	2,325,196	-----	969,916
1836.....	647,455	7,231,862	-----	6,584,407
1837.....	3,213,735	2,431,814	781,921	-----
1838.....	1,213,204	11,674,883	-----	10,461,679
1839.....	4,800,668	1,164,580	3,636,088	-----
1840.....	3,703,373	3,085,157	618,216	-----
1841.....	3,589,869	1,269,449	2,320,420	-----
1842.....	2,304,756	757,294	1,547,462	-----
1843.....	407,687	17,066,437	-----	16,658,750
1844.....	1,365,521	1,613,304	-----	247,783
1845.....	3,053,425	818,850	2,234,575	-----
1846.....	2,053,199	910,413	1,142,786	-----
1847.....	1,037,921	21,574,931	-----	20,537,010
1848.....	11,071,197	3,408,755	7,662,442	-----
1849.....	1,972,233	4,068,647	-----	2,096,414
1850.....	4,560,627	1,776,706	2,783,921	-----
1851.....	22,829,913	3,569,090	19,260,823	-----
1852.....	40,073,979	3,658,059	36,415,920	-----
1853.....	25,442,858	2,427,356	23,015,502	-----
1854.....	40,470,260	3,031,964	37,438,296	-----
1855.....	55,109,215	1,092,802	54,016,413	-----
1856.....	45,000,977	990,305	44,010,672	-----
1857.....	65,232,653	6,654,636	58,578,017	-----

^aGold and silver can not be separately stated prior to 1825 but it is probable that the greater portion of the exports were gold.

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Gold imports and exports, 1821 to 1909—Continued.

Year ended June 30—	Exports.	Imports.	Excess of—	
			Exports over imports	Imports over exports.
1858.....	\$50,002,804	\$11,566,068	\$38,436,736	-----
1859.....	61,108,053	2,125,397	58,982,656	-----
1860.....	58,446,039	2,508,786	55,937,253	-----
1861.....	27,423,973	42,291,930	-----	\$14,867,957
1862.....	35,439,903	13,907,011	21,532,892	-----
1863.....	62,162,838	5,530,538	56,632,300	-----
1864.....	100,661,634	11,176,769	89,484,865	-----
1865.....	58,381,033	6,498,228	51,882,805	-----
1866.....	71,197,309	8,196,261	63,001,048	-----
1867.....	39,026,627	17,024,866	22,001,761	-----
1868.....	72,396,344	8,737,443	63,658,901	-----
1869.....	36,003,498	14,132,568	21,870,930	-----
1870.....	33,635,962	12,056,950	21,579,012	-----
1871.....	66,686,208	6,883,561	59,802,647	-----
1872.....	49,548,760	8,717,458	40,831,302	-----
1873.....	44,856,715	8,682,447	36,174,268	-----
1874.....	34,042,420	19,503,137	14,539,283	-----
1875.....	66,980,977	13,696,793	53,284,184	-----
1876.....	31,177,050	7,992,709	23,184,341	-----
1877.....	26,590,374	26,246,234	344,140	-----
1878.....	9,204,455	13,330,215	-----	4,125,760
1879.....	4,587,614	5,624,948	-----	1,037,334
1880.....	3,639,025	80,758,396	-----	77,119,371
1881.....	2,565,132	100,031,259	-----	97,466,127
1882.....	32,587,880	34,377,054	-----	1,789,174
1883.....	11,600,888	17,734,149	-----	6,133,261
1884.....	41,081,957	22,831,317	18,250,640	-----
1885.....	8,477,892	26,691,696	-----	18,213,804
1886.....	42,952,191	20,743,349	22,208,842	-----
1887.....	9,701,187	42,910,601	-----	33,209,414
1888.....	18,376,234	43,934,317	-----	25,558,083
1889.....	59,952,285	10,284,858	49,667,427	-----
1890.....	17,274,491	12,943,342	4,331,149	-----
1891.....	86,362,654	18,232,567	68,130,087	-----
1892.....	50,195,327	49,699,454	495,873	-----
1893.....	108,680,844	21,174,381	87,506,463	-----
1894.....	76,978,061	72,449,119	4,528,942	-----
1895.....	66,468,481	36,384,760	30,083,721	-----
1896.....	112,409,947	33,525,065	78,884,882	-----
1897.....	40,361,580	85,014,780	-----	44,653,200
1898.....	15,406,391	120,391,674	-----	104,985,283
1899.....	37,522,086	88,954,603	-----	51,432,517

Trade Balance of United States

Gold imports and exports, 1821 to 1909—Continued.

Year ended June 30—	Exports.	Imports.	Excess of—	
			Exports over imports.	Imports over exports.
1900.....	\$48,266,759	\$44,573,184	\$3,693,575	-----
1901.....	53,185,177	66,051,187	-----	\$12,866,010
1902.....	48,568,950	52,021,254	-----	3,452,304
1903.....	47,090,595	44,982,027	2,108,568	-----
1904.....	81,459,986	99,055,368	-----	17,595,382
1905.....	92,594,024	53,648,961	38,945,063	-----
1906.....	38,573,591	96,221,730	-----	57,648,139
1907.....	51,399,176	114,510,249	-----	63,111,073
1908.....	72,432,924	148,337,321	-----	75,904,397
1909.....	91,531,818	55,682,792	35,849,026	-----

The values of the exports of silver in each year since 1825 are presented herewith:

Silver exports and imports, 1825 to 1909.

Year ended June 30—	Exports.	Imports.	Excess of—	
			Exports over imports.	Imports over exports.
1825.....	\$8,481,383	\$5,621,488	\$2,859,895	-----
1826.....	3,648,475	6,202,226	-----	\$2,553,751
1827.....	6,142,391	7,040,682	-----	898,291
1828.....	6,608,392	6,681,521	-----	73,129
1829.....	3,350,762	6,586,946	-----	3,236,184
1830.....	756,109	7,334,818	-----	6,578,709
1831.....	6,035,402	6,373,916	-----	338,514
1832.....	3,606,934	5,190,818	-----	1,583,884
1833.....	1,722,196	6,458,516	-----	4,736,320
1834.....	1,386,578	14,145,460	-----	12,758,882
1835.....	5,122,495	10,806,251	-----	5,683,756
1836.....	3,676,881	6,169,019	-----	2,492,138
1837.....	2,762,514	8,084,600	-----	5,322,086
1838.....	2,294,842	6,072,233	-----	3,777,391
1839.....	3,976,075	4,430,596	-----	454,521
1840.....	4,713,641	5,797,656	-----	1,084,015
1841.....	6,444,463	3,719,184	2,725,279	-----
1842.....	2,508,783	3,329,722	-----	820,939
1843.....	1,113,104	5,253,898	-----	4,140,794
1844.....	4,087,693	4,217,125	-----	129,432

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Silver exports and imports, 1825 to 1909—Continued.

Year ended June 30—	Exports.	Imports.	Excess of—	
			Exports over imports.	Imports over exports.
1845-----	\$5,551,070	\$3,251,392	\$2,299,678	-----
1846-----	1,852,069	2,867,319	-----	\$1,015,250
1847-----	869,103	2,546,358	-----	1,677,255
1848-----	4,770,419	2,951,529	1,818,890	-----
1849-----	3,432,415	2,582,593	849,922	-----
1850-----	2,962,367	2,852,086	110,281	-----
1851-----	6,635,839	1,884,413	4,751,426	-----
1852-----	2,600,156	1,846,985	753,171	-----
1853-----	2,044,017	1,774,026	269,991	-----
1854-----	727,040	3,726,623	-----	2,999,583
1855-----	1,138,128	2,567,010	-----	1,428,882
1856-----	744,508	3,217,327	-----	2,472,819
1857-----	3,904,269	5,807,163	-----	1,902,894
1858-----	2,630,343	7,708,428	-----	5,078,085
1859-----	2,779,358	5,309,392	-----	2,530,034
1860-----	8,100,200	6,041,349	2,058,851	-----
1861-----	2,367,107	4,047,681	-----	1,680,574
1862-----	1,447,737	2,508,041	-----	1,060,304
1863-----	1,993,773	4,053,567	-----	2,059,794
1864-----	4,734,907	1,938,843	2,796,064	-----
1865-----	9,262,193	3,311,844	5,950,349	-----
1866-----	14,846,762	2,503,831	12,342,931	-----
1867-----	21,841,745	5,045,609	16,796,136	-----
1868-----	21,387,758	5,450,925	15,936,833	-----
1869-----	21,134,882	5,675,308	15,459,574	-----
1870-----	24,519,704	14,362,229	10,157,475	-----
1871-----	31,755,780	14,386,463	17,369,317	-----
1872-----	30,328,774	5,026,231	25,302,543	-----
1873-----	39,751,859	12,798,490	26,953,369	-----
1874-----	32,587,985	8,951,769	23,636,216	-----
1875-----	25,151,165	7,203,924	17,947,241	-----
1876-----	25,329,252	7,943,972	17,385,280	-----
1877-----	29,571,863	14,529,180	15,043,683	-----
1878-----	24,535,670	16,491,099	8,044,571	-----
1879-----	20,409,827	14,671,052	5,738,775	-----
1880-----	13,503,894	12,275,914	1,227,980	-----
1881-----	16,841,715	10,544,238	6,297,477	-----
1882-----	16,829,599	8,095,336	8,734,263	-----
1883-----	20,219,445	10,755,242	9,464,203	-----
1884-----	26,051,426	14,594,945	11,456,481	-----
1885-----	33,753,633	16,550,627	17,203,006	-----
1886-----	29,511,219	17,850,307	11,660,912	-----
1887-----	26,296,504	17,260,191	9,036,313	-----

Trade Balance of United States

Silver exports and imports, 1825 to 1909—Continued.

Year ended June 30—	Exports.	Imports.	Excess of—	
			Exports over imports.	Imports over exports.
1888.....	\$28,037,949	\$15,403,669	\$12,634,280	
1889.....	36,689,248	18,678,215	18,011,033	
1890.....	34,873,929	21,032,984	13,840,945	
1891.....	22,590,988	18,206,880	4,564,108	
1892.....	32,810,559	19,955,086	12,855,473	
1893.....	40,737,319	23,193,252	17,544,067	
1894 ^a	50,451,265	13,286,552	37,164,713	
1895 ^a	47,295,286	20,211,179	27,084,107	
1896 ^a	60,541,670	28,777,186	31,764,484	
1897 ^a	61,946,638	30,533,227	31,413,411	
1898 ^a	55,105,239	30,927,781	24,177,458	
1899 ^a	56,319,055	30,675,056	25,643,999	
1900 ^a	56,712,275	35,256,302	21,455,973	
1901 ^a	64,285,180	36,386,521	27,898,659	
1902 ^a	49,732,390	28,322,254	21,410,136	
1903 ^a	44,250,259	24,163,491	20,086,768	
1904 ^a	49,472,702	27,768,814	21,703,888	
1905 ^a	48,848,812	27,484,865	21,363,947	
1906 ^a	65,869,063	44,442,540	21,426,523	
1907 ^a	56,739,073	42,946,624	13,792,449	
1908 ^a	57,921,202	44,658,097	13,263,105	
1909 ^a	55,682,792	43,954,810	11,727,982	

^a Includes silver in ore.

Year to June 30—	Mercha		Silver.		Total	
	Excess of imports over exports.	Excess of imports over exports.	Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.
1800-----	\$20	\$54	\$1			\$14
1801-----	18	44	3			12
1802-----	4	59	2			2
1803-----	9	33	5			42
1804-----	7	59	3			18
1805-----	25	56		\$2		38
1806-----	28		2		\$87	
1807-----	30	22	1			22
1808-----	35	57	2			16
1809-----	7	89		3	65	
1810-----	19	52		6	15	
1811-----		63		12	11	
1812-----	39	22		17	62	
1813-----		43		16		4
1814-----	6	22		15	94	
1815-----	60	22		10	11	
1816-----	65	60		17		
1817-----	12	41		25	116	
1818-----	28	36		27	57	
1819-----	17	14		24		57
1820-----	5	53		18		52
1821-----		23		17		120
1822-----	18			15		166
1823-----	4			8		262
1824-----	3			6		269
1825-----				1		92
1826-----	5			6		169
1827-----				9		33
1828-----	17			9		104
1829-----		18		12		103
1830-----				17		164
1831-----	24	22		12		78
1832-----	14			9		
1833-----	14			13	41	
1834-----	6	50		18		65
1835-----	21	4		14		87
1836-----	52	68		5		112
1837-----	19			13		216
1838-----		87		18		86
1839-----	44	5		37		279
1840-----		30		27		133
1841-----	11	79		32		214
1842-----				31		273
1843-----				24		534
1844-----				25		504
1845-----	7	4		21		570
1846-----	8			28		680
1847-----				21		496
1848-----	10	2		20		417
1849-----	1			22		474
1850-----	29	39		21		401
1851-----	21			22		481
1852-----	41			14		397
1853-----	60			13		604
1854-----	60	18		10		117

BALANCES OF MERCHANDISE, GOLD AND SILVER IMPORTS AND EXPORTS, 1800 TO 1900

[Expressed in millions of dollars.]

Year to June 30—	Merchandise.		Gold.		Silver.		Total.		Year to June 30—	Merchandise.		Gold.		Silver.		Total.	
	Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.		Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.	Excess of imports over exports.	Excess of exports over imports.
1800.....	\$0						\$0		1855.....	\$19		\$4		\$1		\$14	
1801.....	18						18		1856.....	20		44	3			27	
1802.....	4						4		1857.....	55		59	2			66	
1803.....	0						9		1858.....	59	59	38	5			102	
1804.....	7						7		1859.....	38		59	3			100	
1805.....	23						25		1860.....	30		50		\$2		82	
1806.....	28						28		1861.....	70	215	2			387	602	
1807.....	30						30		1862.....	19	1	21	1			22	
1808.....	35						35		1863.....	19		27	2			48	
1809.....	7						7		1864.....	151		89		3		243	
1810.....	19						19		1865.....	71		57		6	15	143	
1811.....		\$8						\$8	1866.....	80		97		13	11	190	
1812.....	39						39		1867.....	101		22		17	62	180	
1813.....		0						6	1868.....	75		43		16		134	
1814.....	6						6		1869.....	131		32		15	94	260	
1815.....	60						60		1870.....	41		22		10	17	70	
1816.....	65						65		1871.....	27		60		37		124	
1817.....	12						12		1872.....	12		41		35	100	153	
1818.....	25						25		1873.....	120		26		17	57	203	
1819.....	17						17		1874.....	19		14		24		57	
1820.....	5						5		1875.....	19		53		18		80	
1821.....								2	1876.....	80		23		17		120	
1822.....	18						18		1877.....	151		15		15		181	
1823.....	4						4		1878.....	238	4			8		250	
1824.....	3						3		1879.....	264	1			6		269	
1825.....								3	1880.....	168	77			3		248	
1826.....	5					\$1	7		1881.....	260	97			6		353	
1827.....								1	1882.....	28	2			9		31	
1828.....	17						17		1883.....	101	6			12		119	
1829.....								3	1884.....	71		18		9		96	
1830.....		9				0		3	1885.....	105	18			17		130	
1831.....	22						22		1886.....	44		22		12		78	
1832.....	14						14		1887.....	24	33			9		66	
1833.....	14						14		1888.....	28	16			13	41	88	
1834.....	6						6		1889.....	3		50		18		61	
1835.....	21						21		1890.....	69		4		14		87	
1836.....	24						24		1891.....	39		5		5		49	
1837.....	19						19		1892.....	203				12		215	
1838.....		0	10				4		1893.....	4	19			87		100	
1839.....	44						41		1894.....	337		5		37		379	
1840.....		25					1	25	1895.....	76		30		27		133	
1841.....	12							0	1896.....	103		79		39		211	
1842.....		4					1		1897.....	286	14			31		331	
1843.....		40	17				4	19	1898.....	618	108			24		750	
1844.....		3						1	1899.....	510	51			25		586	
1845.....	7							3	1900.....	345		4		31		380	
1846.....	8							8	1901.....	665	13			18		686	
1847.....		34	27				3	12	1902.....	478		3		21		495	
1848.....	10						2	1	1903.....	395				20		417	
1849.....	1							1	1904.....	470	18			22		490	
1850.....	29						26		1905.....	401		39		21		461	
1851.....	21						5		1906.....	517	58			22		593	
1852.....	21						1	4	1907.....	446	63			14		523	
1853.....	70						37		1908.....	501	70			13		604	
1854.....	66						70		1909.....	351		48		19		418	

*Gold and silver can not be separately stated for these years.

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XIX.—THE IMPORT AND EXPORT OF GOLD.

Experience clearly demonstrates the ability of every country to obtain the precious metals it needs for currency and for banking, provided its credit is good, its currency laws are sound, and its banking institutions are conservatively and wisely administered. The United States suspended specie payments during the civil war in consequence of the issue of a vast amount of notes for war purposes, the notes being of the nature of a forced loan. The issue of these notes drove gold from circulation, and the export of gold both during and subsequent to the civil war reached very large figures. As soon as the currency requirements of the country reached the level of the note circulation and specie payments were resumed gold began to flow in. In the ten years from 1878 to 1888 the United States not only retained at home the whole of the gold it produced in the country, but it imported large additional sums, and the stock of gold in the country showed great increase. At the end of the eighties and in the early nineties the currency was again inflated by the creation of a large quantity of silver certificates and Treasury notes, and this inflation again drove gold out of the country. The exports of gold in the five years to 1896 reached a very large sum. The repeal of the Sherman silver act, the renewal of confidence in the maintenance of the gold standard, and the expansion of trade caused a renewed demand for currency and brought about large imports of gold. From 1896 to 1907 a vast amount of gold was imported. The

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banking crisis of 1907 again disturbed confidence, and considerable shipments of gold have taken place in the calendar years 1908 and 1909. The alteration of the law relating to trust companies, whose operations are closely akin to banking institutions, the restoration of confidence, and the improvement in trade that has recently taken place are likely to stop the outflow of gold and to bring about renewed importations. I have no doubt that with sound currency and banking laws and with the restoration of confidence both at home and abroad in the stability and progress of the United States, America will have no difficulty in obtaining all the gold she will need.

The experience of other countries has paralleled that of the United States. At one time Russia issued a vast quantity of notes, and the redundancy of its note circulation prevented gold imports. As soon as steps were taken to remove the redundancy and to place this currency on a sound basis, Russia imported very large sums of gold, and in a few years accumulated so large a stock that it was able to resume specie payments. The experiences of Argentina and of Brazil have been similar. The revolutionary war in Argentina caused a great quantity of notes to be created, and gold was forced out of circulation. The steps that were subsequently taken to place the currency upon a sounder basis and to restrict the note circulation have been followed by the import of large amounts of gold into Argentina, and a substantial gold reserve has been accumulated.

In Brazil events have followed a similar course. Russia, Argentina, and Brazil are all debtor countries and

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have to make large payments each year for interest, but as long as their credit is good and their currency enjoys the confidence both of their own citizens and of those of other countries they have no difficulty in obtaining the gold they need.

The amount of gold in circulation in the United States is a matter of estimate, but the amount of gold certificates in circulation against which gold is actually held in the Treasury is not a matter of estimate. The fluctuations in the amount of the gold certificates in circulation at the end of June in each year since 1899 shows conclusively the great increase in the amount of gold available for circulation in periods of confidence. The great decline in the gold certificates that took place in the early nineties when confidence was severely shaken by the Sherman silver act and the vast increase that has taken place since confidence in the currency was restored will be apparent from the following statement:

Gold in the United States Treasury and in circulation July 1, 1885 to 1909.

July 1—	Gold.			
	Coin and bullion.		Certificates in circula- tion. ^a	Total.
	In Treasury.	Coin in circulation.		
1885.....	\$120,298,895	\$341,668,411	\$126,729,730	\$588,697,036
1886.....	156,510,511	358,219,575	76,044,375	590,774,461
1887.....	186,754,217	376,540,681	91,225,437	654,520,335
1888.....	193,610,172	391,114,033	121,094,650	705,818,855
1889.....	186,451,708	376,481,568	117,130,229	680,063,505
1890.....	190,473,247	374,258,923	130,830,859	695,563,029
1891.....	119,200,620	407,319,163	120,063,069	646,582,852
1892.....	114,612,892	408,568,824	141,093,619	664,275,335

^a Gold coin became available for circulation January 1, 1879, as a result of the resumption act of January 14, 1875.

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Gold in the United States Treasury and in circulation July 1, 1885 to 1909—
Continued.

July 1—	Gold.			
	Coin and bullion.		Certificates in circula- tion.	Total.
	In Treasury.	Coin in circulation.		
1893-----	\$96,519,833	\$408,535,663	\$92,642,189	\$597,697,685
1894-----	64,976,622	495,976,730	66,339,849	627,293,201
1895-----	108,236,753	479,637,961	48,381,309	636,256,023
1896-----	102,494,781	454,905,064	42,198,119	599,597,964
1897-----	141,363,989	517,589,688	37,285,339	696,239,016
1898-----	167,752,728	657,950,463	35,811,589	861,514,780
1899-----	251,104,415	679,738,050	32,655,919	963,498,384
1900-----	222,844,953	610,806,472	200,733,019	1,034,384,444
1901-----	247,811,938	629,790,765	247,036,359	1,124,639,062
1902-----	253,801,291	632,394,289	306,399,009	1,192,594,589
1903-----	254,162,230	617,260,739	377,258,559	1,248,681,528
1904-----	216,183,723	645,817,576	465,655,099	1,327,656,398
1905-----	221,381,650	651,063,589	485,210,749	1,357,655,988
1906-----	290,489,841	668,655,075	516,561,849	1,475,706,765
1907-----	304,619,431	^b 561,697,371	600,072,299	^a 1,466,389,101
1908-----	221,912,063	613,244,810	782,976,619	1,618,133,492
1909-----	223,184,405	601,433,854	817,829,209	1,642,447,468

^a As the result of special investigation by the Director of the Mint, a reduction of \$135,000,000 was made in the estimate of gold coin in circulation on July 1, 1907, as compared with the basis of previous years.

XX.—THE TRADE BALANCE AND GOLD IMPORTS.

In the foregoing chapter I have indicated that any country in good credit can obtain the gold it needs. Nevertheless it is essential to recollect that the supply of gold at any given moment is limited and that a country needing gold must satisfy its needs at the time that supplies of gold are available in the market. Practically the only banking institution in the world which keeps a surplus stock of gold is the Bank of England, and its surplus stock rarely exceeds \$50,000,000. Therefore those desiring to purchase gold must acquire it when it arrives

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from the mining countries in order that it may not be absorbed by other purchasers. Probably the demand for no commodity is as elastic as the demand for gold. Certainly it rarely happens that gold is a drug on the market. In these circumstances the countries rapidly increasing in prosperity, trade, and population, and which can profitably use an increasing amount of gold, should take steps to obtain the metal during that period of the year in which the supply is abundant.

Not infrequently it happens that the United States discover they require gold to supplement their banking reserves and to provide the necessary currency for circulation just at the moment that the demand for gold for other countries is also urgent. The demand for gold by the United States at these times creates so great a competition for the metal that the rate of interest for loans—which is governed mainly by the supply of gold—is forced up in nearly every country in the world, to the serious dislocation of business everywhere. If there is not enough gold to meet the demand at any given moment the would-be purchasers have to wait in order to obtain the amounts they need until a future date, just as purchasers of other commodities have to do when the demand for these commodities exceeds the supply. Therefore, although there is no doubt that the United States can from year to year obtain all the gold they need, it is very desirable that measures should be taken for the purpose of enabling the country to obtain the gold it requires at periods of the year when the demand from other countries is not urgent and when no difficulty would be

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experienced in obtaining the sums required or at any rate a large part of them.

In Great Britain the special duty of the Bank of England is to look ahead and, with an open market for gold, to endeavor to obtain the gold needed as reserve for the banking deposits and currency of the United Kingdom and by other countries which look to London to supply the gold they require for harvesting and marketing their produce.

The success of the Bank of England's action in maintaining a free market for gold in London, in protecting the banking reserves of the United Kingdom, in supplying the country with currency, and in taking care of the gold requirements of those countries which look to England for assistance shows conclusively that the United States would be materially assisted in obtaining the gold it needs for currency and banking purposes at the time the gold is wanted, if they possessed an institution of this character. Again and again it has happened that trade throughout the world has received a shock in consequence of the urgent demands for gold for the United States arising from the undue delay in endeavoring to obtain supplies of the metal, whereas no shock whatever would have been given if the measures needed to obtain the gold had been taken a few weeks earlier. Not infrequently the supply of banking money in the United States seems to be so abundant and rates of interest are so low that loans of money are made to other countries—loans which cause shipments of gold from the United States to be made, although the signs

Trade Balance of United States

clearly point to an early shortage of money and of gold. When the shortage comes it is intensified by the loss of the gold that has been shipped. A central institution of the nature of the Bank of England charged with the special duty of assisting the country to obtain the currency it needs for spring and fall requirements would take measures to prevent the export of gold and to secure additional supplies of the metal against the time it would be needed, and would thus prevent or diminish the monetary stringency that would otherwise occur.

In brief, there can be no question as to the ability of the United States to obtain all the gold they need from other countries, notwithstanding the extent of their obligations for interest, tourist expenditures, etc. But it is of the highest importance that measures should be taken which will enable the country to obtain the gold it requires with greater ease and with less disturbance to its own trade and commerce and to the trade and commerce of other countries than is possible under the existing system.

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