Chapter IV

French money and credit

1. It is not without purpose that we have first taken up a study of English credit system, which is most like our own in mechanism and development, and next turn to that of France which controls strongly with the English, and which, moreover, offers a point of view regarding money and credit that is distinctly Continental, as opposed to that of England and the United States. It is the inevitable consequence of such a gigantic cathedrality as the enterprise from that it should put to the practical test long-established institutions. Probably no other great bank has won a higher repute for good management and skill over a long period of years than the Bank of France; and yet it is quite possible that this comparative study of the credit systems of the two nations in an exceptional inning may disclose some errors of general policy, which should oblige us to revise, or at least apprise of the relative value of important credit systems, and the methods of the banks through which they have been conducted, in the case of France. This question must be raised regarding the time, honored and close relationship existing between the granting of credit and the issue of the nation’s public money, between the fiscal borrowing by the State and the increase of its circulation.

The organization of banks in France has been widely recognized as a model. As is well known, it centers around the Bank of France, a joint stock bank, supplied by private capital, but under close governmental control, and to which the institutions of credit and the business public look for leadership. It is the agent of the state in collecting and disbursing funds, and from it the Government draws upon to borrow large sums in any emergency of national import. It acts not primarily for profit, but to provide a safe and steady rate of interest and to watch over the interests of the whole country. This is a bank of the primitive type, holding only one stock for both its deposits and notes without preference.

Presented on the nomination of the Minister of Finance.

1. The Bank is managed by a Governor and two sub-governors appointed by the Board of Directors, and by fifteen regents, who are elected by the two hundred largest shareholders, and whose action is subject to a vote by the Governor. These regents are chosen from the commercial and industrial classes, and decide upon the rate of discount.

2. Cf. infra, p. 188, n.
The private banks are not restricted in making advances on any kind of securities (such as mining stocks), they think good; they must pay interest on deposits, and draw on paper without three signatures — in which respects their business differs from that of the Bank of France.

They carry securities for sale to the public.
Since the exclusive right of issue gave the Bank of France, a special advantage in a country whose framers had been by covering moneys, other banks did not develop fully until after the Franco-Prussian War. 

The private banks were sometimes directly involved in such enterprises as constructing the Suez Canal, the Corniche, or building the Parisian railroad (which was done by the Comptoir d'Escompte). It was between 1857 and 1863 when the largest credit institutions of Paris (were founded) such as the Credit Lyonnais, Société Générale, and the Credit Industriel et Commercial were founded.

2. The failures of the Credit Mobilier (1866), the Union Générale (1865), the Comptoir d'Escompte (1869), and the Société des Dépôts et Comptes Courants (1913) indicates that independent banking in France has not been free from speculation and has met the inevitable mishaps. From 1870 to 1872, new issues of securities amounted to 8,085,500,000 francs, a moral collapse.

1. The general joint stock law was passed in 1867.
Apart from the large private credit institutions, which resemble the English joint-stock banks, there are some 2,700 or more local and provincial banks, provincial carrying on discount, loan, investment, and other banks, acting as agents for limited constituencies. They have suffered from the energetic competition of the large credit companies, until about 325 of them formed a union for self-protection and to centralize provincial operations in Paris in order to obtain a share in the large dealings in securities, under the name of the Société Centrale des Banques de Provinces.
It is well known that—unlike England and the United States—France follows the monetary habits of the Continent in making payments by the passage of actual money (usually Bank of France notes) and not by cheques drawn upon deposit accounts at some bank. For cheques being used, the clearing-house plays a very insignificant role. Therefore, when a customer of the Bank of France gets a loan, its immediate effect does not, as with us, appear in a deposit account, but usually in the form of notes issued. Indeed, the demand liability, which disposes of the extent of credit operations by the Bank of France is to be found mainly in the amount of the notes issued. That is, if we wish to know whether the credit of the general public has been expanded or not, we must study the note liability which is directly responsive to increasing loans. When the customer, above all, is the Government of France—which is certain to borrow heavily from the Bank in a great national emergency—loans to the State inevitably result in large issues of bank notes which eventually find their way into bank reserves or into the hands of the public.

As more goods and securities are bought and sold more bills of exchange are used, as transactions increase, more credit is created. Since the need of the borrowers in France for a means of payment is bank notes (instead of the deposit currency, as with us), then, when there are more transactions in goods or securities, more loans are wanted, and consequently more notes of the Bank of France are issued for, either through the intermediary of a private bank.
or directly from the central bank itself. The point of chief importance is that the expansion of credit carries with it the expansion of the note issue of the Bank of France. So long as these notes expand only in proportion to actual transactions there is a legitimate growth in the circulation and no inflation. If, however, for any reason a demand should arise for loans — such, for instance, as a request due to the war for exceptionally large advances by the Bank to the State — there would result an issue of notes, not based on the real of a means of payment for exchanging goods, which could only be described as inflation — whatever its consequences might be. Thus the problems of money and credit are closely interwoven in France.

The principles of credit receive most clear and interesting illustration in the normal workings of the French system of credit. It is held by some writers that credit depends directly upon the amount of money in circulation, or in bank reserves. The whole operation of credit in France seems to show that exactly the reverse is true. The amount of the circulation appears to be dependent on the amount of discounts. That is, when credit, in proportion as goods are produced and exchanged, are coined, as needed, into means of payment, which in that country are mainly Bank of France notes (apart from a stratum of gold and silver in the hands of the public and in the reserves of the Bank of France). The almost invariable order of
in normal conditions. 

The function of a metallic reserve is not to determine the quantity of credit. As the volume of trade increases and more change is needed, more credit is granted, and then the authorities of the Bank have to determine their function by gradually increasing demand for gold or silver. The Bank can accumulate out of the existing gold block reserves sufficient to ensure the stability and redemption of notes.


This point of view is supported by the Governor of the Bank of France who said: "It is the Bank that provides for discount and the reserve for loans which regulate automatically the movements of issues." (Ibid., p. 210.)
Last, whenever demands of their credit operations. It is essentially true that gold is supplied to support the volume of credit arising out of the needs of trade—whatever they may be, not vice versa, that the quantity of reserves limits the amount of credit. The same forces lying behind the determination of the volume of credit, and those lying behind the accumulation of a gold reserve, are entirely different in kind. The volume of credit varies with the production forces of the nation and the volume of goods produced and exchanged; while the quantity of reserves is limited only by the world stock of gold (which is now increasing at an unprecedented rate), and the monetary habits of the constituencies using the Bank with the character of the assets counted as the basis of loans, it will be observed that entirely different considerations affect each of these items. The causal relation, if any, between them is not usually given. If the volume of legitimate increase of gold causes the Bank to gather the necessary gold reserves (or other forms of legal money allowed to be held), it does not seem to be correct to say, on the other hand, that the volume of credit is limited by reserves, and that a rise or fall of reserves causes a rise or fall of loans. This statement is oblivious to the direct dependence of credit upon the volume of transactions in goods and securities. To be sure, if at any moment in the dynamic swing of trade and credit the reserves do not accord with the customary percentage of reserves to demand liabilities—a purely mechanical relation—attempts will be made to bring the two items into the proper relation. When sound and
Due to an enlargement of trade legitimate loans are offered to the banks in increasing sums, reserves which are inadequate for the moment do not limit the expanding volume of credit, unless it be assumed wrongly that the world's stock of gold is running low. It is therefore necessary to conclude that the primary function of a gold reserve like that of the Bank of France is to maintain immediate redemption of its demand liabilities in coin. Whenever it fails to perform the purposes of the reserve it fails. Immediate (not just short, or ultimate) redemption not only maintains the value of the notes on an equality with gold, but is thereby automatically regulated. The quantity of notes in circulation according to the actual needs of the public as expressed by their own judgment in presenting notes for coin. As M. Ballain, Governor of the Bank of France, expressed it, "as long as this redemption is made without difficulty, there can never be an excess of notes in circulation." I will be well to bear in mind this truth in our study of the workings of French credit during the war.

In the period just before the war, the political climate had fostered both military and financial conditions in France. In no sense was the French nation prepared for such a titanic struggle as that in which she was now engaged, and yet she was not without warning. The conflict and disharmony in political situation were variously ascribable to the increasing control of radicals and Socialists. The lack of balance in Parliament, the rise of professional politicians, strikes and social unrest, parliamentary demagogy, German intrigue was obvious at work stirring up political animosities, labor antagonisms, anti-militarism, and subverting the efficiency with only of the army and navy, but of the financial management of the country. France was left only to advocate the abolition of the army. In 1905, compulsory military service was reduced to two years. Meanwhile, the falling off of the German seaboard began with the intention of Germany into Morocan affairs in 1905, the conference at Algiers in January, 1906, followed by a reactionism of the African and the difficulty in February, 1911, eliminating the west of the German front. From Triang to Agadir in July 111, which brought Germany and France to the brink of war. In 1912, France was convinced that war was coming; and when in 1913, Germany increased her army by several corps and held a special non-recurring levy, France reacted by re-turning to three-year military service. In addition, despite of these obvious warnings, France was so

It should be noted, however, that the bullying of France on the part should not be allowed to conceal the truth that the events in the Balkans were the real reasons for these war preparations of 1913, and the intention to keep Russia from interfering with the plans of Mitteleuropa.
1. As early as the Cadiz’s administration, concessions in 1905 by the Ministry of War and Marine to the

horrible weakened the efficiency of the army and navy.
The radicals being in the saddle in the Rouvier cabinet,
and since the revelation of weakness in the Russian

army in the defeat by Japan showed France ally to be

defeated, Germany evidently believed she had

found the opportunity to bully France and extend her

territory at the threat of war. The arrangement by

France and England of affairs in Morocco in 1905

was used as pretext by Germany for saying that

as she had not officially informed of its provisions, she

would disregard them. Then began a German intrigue

with the Sultan of Morocco, and March 31, 1905,

Kaiser visited the Sultan as “an independent sovereign”

at Tangier. Germany called for an international conference on Morocco affairs which the compliant

Rouvier agreed to at Algiers, January 1906, and in

which twelve powers, including the United States, par-

ticipated. Germany was eliminated. Not content, Ger-

many continued her intrigue in Morocco until war threat

again appeared. Following a reference in February 1909,

to the Hague Tribunal, which justified the French.

In 1911, in the ministry of Caillault, Germany, supported by

the French anti-militarist party, raised the Moroccan

question again in a threatening way. She declared that

the Military Expedition sent to Tangier in 1911 had nullified

the settlements of Algeciras and the Hague. Thence

upon, she sent the gunboat Panther to Agadir, July 1, and demanded

a fleet of Morocco; England supported France; and finally Ger-

many gave up her claims on Morocco in return for the Camer-

oons (containing 230,000 sq. kilometers and 1,100,000 inhabitants).

A. C. H. C. Wright, History of the Third French Republic (1916), and E. D.

Noel, Morocco in Diplomacy (1912) for the pro-German view.
of the Balkans and Southern Europe. On a larger scale, France had floated loans for Russia.

In her rapid industrial expansion, Germany had gone beyond the suffit of her own capital and had borrowed largely, both from France. In 1911, at the time of the Agadir incident, French capital was entirely warranted by the threats of war in Caliph in the large balances due to them in German banks. The conditions of credit were so ill-posed in Germany due to over-expansion, that this incident revealed the French capital disturbed the equilibrium and nearly brought on a financial crisis. Without doubt, it was the critical situation which forced the Germans to weaken and give up their claims in Morocco in exchange for the Cameroons.

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The Balkan Wars had in the fall of 1912. The League of the Balkan States created by Venezuela, and its victor, moved to Constantinople under the German scheme of expansion to the Persian Gulf very preciously; hence their general trend of a European War stopped the headway of the League at the London Conference of 1913, and blocked Serbia's way to the Adriatic. Though the Second Balkan War brought the submission of Bulgaria to Greece, and Serbia, supported by Romania, the outcome was not at all to the liking of Germany and Austria-Hungary. In every financial centre there was a long delay in the payment of war was inevitable. France itself was hard hit by the two Balkan Wars, because she had been financing the Balkan States, and at the end they were so hard-handed that they were in no condition to repay their French creditors. Above all, the uncertainty and tension produced by the warlike attitude of Germany caused an anxiety which affected all financial elements in the United States, France was already crippled in her credit before the European War began.

Moreover, corrupt politics and an on-creeping Radicalism had been eating out the vitals of her financial safety at home. Quite irrespective of her ability to pay, the country was in the toils of those who were steadily using the State — obeying an extreme Socialistic theory — as a means of equalizing the distribution of wealth, and who were thereby steadily increasing the burdens of taxation in order to what men be called "social." In order to better what men be called "social" or other fundings in behalf of the proletariat, the cost of such paternal government had been growing so rapidly that the national income had lagged.
Far behind the swelling expenditures, and the debt of the State, has become the largest of any in the world. The debt of $6,347,540,000 before the war began was five times that of the German Empire, and nearly twice that of Great Britain; while the burden of taxation was uniformly heavy. Indeed, in 1914 she was unable to carry her debt to cover a large deficit in her income. Nor could it be said that the huge debt was directly due to the abnormal war indemnity of $1,000,000,000 imposed on Germany in 1878-79; for it had risen to six times the amount of that indemnity. In fact, in the year before the war it seemed as if the searching for new sources of taxation could go no further, and she had been obliged to increase her debt in order to cover a huge deficit in her income. No one else, in the beginning, was so prepared as France, no one was so handily equipped, for entering upon a long and extensive war. The cost came upon the country after the hostilities ceased from two years of economic depression.
§ 3. Having in mind the characteristics of the organization of credit, and the situation immediately preceding the war, we are obviously interested to know how she weathered the storm.

The most sensitive market, and the one first to discount in its prices coming danger, is the Stock Exchange, especially in a country like France, which deals largely in foreign securities, as much as securities formed the collateral for advances by the banks on an enormous scale. The weakness of securities formed the quicksilver test of French credit. It would be difficult to appreciate quickly the effect of French credit in the world's markets for securities had not become panicky. In Berlin what was coming was known as early as May, 1914. The critical condition of the markets in Berlin and Vienna brought on a panic in Paris by July 23.

1. The official market, or Bourse, is known as the Parquet, composed of Agents de Change, or stock brokers, appointed by the Government and under the control of the Ministry of Finance. The seventy brokers in Paris form an association and by ballot choose a Syndical chamber known as the Syndicat des Agents de Change. Securities not admitted on the official quotation list are dealt in outside the Bourse in the Coulisse (Curbs).

2. Cf. The Chronology given on p. 91, supra.
On July 25, there was a rush to sell securities, and
the Bourse was closed; although the Parquet re-
mained open, but under strict supervision by the
Government. On July 29, the Parquet was still open,
as were also the Stock Exchanges of London and New
York, but before business on Friday, July 31, those
of London and New York were closed.

The settlements for stock transactions due at the end
of July had to be postponed until the end of August. Se-
curities were now unsaleable even at panic prices.
All credit obligations based on the movement or
sale of securities were "frozen." Parties which had
made advances on even these best securities could
not make payment on demand notes, if their asset
were not convertible into cash. Consequently, it
was absolutely impossible for the parties to obtain in
scales of securities the means of payment with
which to meet maturing obligations. In fact, a
large amount of capital was locked up and made
unavailable for normal purposes.

The severity of the crisis in securities can be
appreciated by the statement that the Total sum in-
volved in trades for carrying them was estimated at
$120,000,000 for the Parquet; $40,000,000 for the
Bourse; while contangoes (charges for carrying
forward securities whose buyers could not pay for
them on settlement) outside the Bourse mounted from
$2 to $3 per cent, and credit houses were involved for about
$160,000,000. The fall in price had gone to 30 or
40 per cent. The decline in rents, the greatest national
bond, was unprecedented, falling from 3 per cent, dropping
to 7½ by the middle of August, 1914.
Credit obligations based on the production and sale of goods were equally shaken by the sudden crisis. Credit had been given involving an obligation on the part of the borrower to return a certain quantity of goods in the future, so that the ability to make that return depended on the continuance of the production and sale of goods. But on the day of mobilization, August 1, virtually every able-bodied man in France to the age of 49 was called to the colors. Of men over that age from agriculture, and it was at once reduced the normal production of all industries. For instance, of the 135 steel furnaces in operation in 1913, only 116 were in operation in July 1, 1914, and of these, about 50 were shut down. The silk industry, too, was at a standstill. The stoppage in factories of all kinds was a serious blow to the country’s economic position. Military needs absorbed practically all means of transportation by railways.

The early invasion of Belgium and northeastern France by the Germans touched some of France’s vital economic interests. Here was the heart of the textile industry. The industries of Lille, Cambrai, and Saint-Omer were the chief cotton manufacturing centers and chief woolen mills. Moreover, the richest coal fields, which had yielded 26,000,000 tons out of the country’s total of 35,000,000 (metric) tons, or two-thirds of her total production of coal, were lost to France. Of course, the total supplies to Belgium were cut off. These facts explain why the labor question in the Welsh coal mines was so vital.

[Note] The local banks of Verdun, Reims, and Lille had withdrawn into 27 French offices in the departments of Nord and Pas de Calais.
to the coal production now needed to help out England’s allies, France and Italy,

Again, the best lignite district of Belgium and France, including The Depart-
ment of the Somme, and reaching nearly to Paris was occupied by The Germans.

Such a blow to the production of coal, the very basis of credit, came upon

France already weakened by two years of economic depression.

A new light, moreover, is thrown on the calculated violation of the

neutrality of Belgium, - apart from finding The easiest

road to France, - by the fact that The Belgians of The

coal fields and gas works of The French and Belgian

districts enables Germany, this estimate, to increase

her output of Bengal from 120,000,000 to 200,000,000

gall. One essential explanation of her ability to

keep up The unprecedented supply of explosives

for her heavy guns.
The torpidity of credit, caused by the inanimate condition of industry and commerce, was still further aggravated by the injection of the moratorium. It gave debtors an excuse for not paying creditors, and by locking up funds even made payments impossible.

On August 6, 1914, (revised August 9) a Decree of the Government was issued affecting bank deposits by which depositors could withdraw 250 fr. and, in addition, only $5 per cent. of any surplus above that sum. If the depositor could prove he needed the funds for paying wages, or for raw materials he could withdraw the whole. The moratorium was extended to insurance contracts and payments on the war loan were relaxed; and bills drawn before July 31 were extended. On August 10, it was applied in general to all "civil, commercial, and administrative prescriptions and precepts." By the end of October some pressure was put upon debtors (except those called to the colors and those in the invaded area) to clean up their indebtedness; and after December 1 the debtor could be called upon to show if he were making payment. Renters were also given extensions, at the rate, if

1. The original decree was modified later, as follows:

- August 29, allowing withdrawal of 250 fr. plus 20 fr. interest.
- Sept. 27:
  - November: 1000 fr. 25 fr. interest
  - December: 1000 fr. 50 fr. interest

Depositors in savings banks were allowed to draw only 50 francs a fortnight, cf. Appendix II, B.
course, of reducing the burden of owners to meet the interest on real estate obligations. By January, 1915, a number of important banks removed all restrictions upon the withdrawal of deposits, a measure tending to bring funds out of bonds.

At this distance the policy of a moratorium seems to have been unfortunate. Credit is kept sound, and its validity constantly tested, by the imperative necessity of payment at maturity. A moratorium is the negation of credit. Such it said that the paralysis of trade and the unacceptability of securities made payments of obligations at maturity impossible, and that the moratorium was necessary to save men from failure. The obvious reply is that the temporary crisis which stopped production and trade was the very thing which then it was required free discounting by the banks. It is the function of bank credit to rise to just such an emergency. If there had been no moratorium there would have been a greater demand for loans than was actually shown — and that certainly very serious, but even so exceptionally heavy creation of temporary loans for such an emergency would have furnished a means of payment for maturing obligations; it would have unlocked capital, it would have worked against hoarding, it would have been the one thing to hasten the inevitable recovery of trade and thereby have enabled the public to reduce its credit commitments. That is, the extension and free granting of credit, reaction from the critical situation, and acts to reduce the need of credit. This time-honored maxim (that in a crisis the credit should float freely, has been proved by many an experience). A
under a moratorium

Credit system is not functioning normally where a moratorium is felt to be necessary. It assumes that the borrower is not worthy of a legitimate loan, and drives him to what is a refusal to pay, which is actual, if not legal, bankruptcy.

What is the end to be gained in an unexpected crisis? To enable debtors by credit to meet immediate obligations, and to give them time to liquidate goods and securities without throwing masses of them on the market at a great sacrifice. The renewal of a loan, if the borrower cannot pay at maturity is, of course, a disguised moratorium, but it is all the moratorium really needs, and it is confined to private adjustments. In our country the banks, in the crushing panic of 1914, quite generally refused to push a hand press a moratorium for nearly six months after the outbreak of the war, when goods and securities were unsalable. It never occurred to us to resort to a public moratorium.

There seems to be little doubt that in France there was a large surplus of free capital, but the conditions that existed kept it unemployed. This was due somewhat to timidity, but largely to the moratorium. It resulted that large amounts of capital were withdrawn from industry at a critical moment. The restrictions on the withdrawal of bank deposits, moreover, caused no little lack of confidence in bank deposits and their security. The inability to draw deposits freely put a premium on hoarding. In addition, the looking up of bank balances forced the customer to seek funds, if possible, in other ways, and added to
more economical means such as the use of notes or coin which could be handled. Yet, means of payment, such as checks, had been familiar to customers, they could have retained their funds and yet had them available at any moment, without impairing the carrying reserve of the banks by calling for cash. Indeed, it is worth noting that only after the stress of this great war emergency serious attempts were made to introduce the check system into France. But the restriction on the withdrawal of bank deposits had unfortunately frightened the small depositor from using banks and caused a distrust of the check.

As early as 1859, the Crédit Indus trial et Commercial was founded to introduce deposit accounts accompanied by the use of checks, after the manner of English institutions. Later other companies were founded in imitation but the confusion of investment with commercial

2. La Société Générale pour Favoriser le Développement du Commerce et de l'Industrie en France, was followed by the Crédit Lyonnais (1863) and two others in Lyons, one in Marseille (1865).

1. The check was legalized and defined by the Act of June 14-20, 1865.
Attempts to introduce checks were not successful. The growth of the deposit currency, which requires confidence by the public in the safety and liquidity of bank deposits, largely based on seasonal experience. It must find its successful operation chiefly in well-established monetary habits, and not in the published willingness of special banks to prosper by introducing a means of attracting business, no matter how successful it may have been in other countries having different monetary habits.

The campaign [started recently] by the Bank of France to induce a more general use of checks might aim at educating the general public on the risk of loss in carrying bank notes in the pocket; on the waste of capital in supporting a large circulation, which might be economized by using checks, and enabling deposits and credits to the amount of hundreds of billions of francs to be offset against each other without the use of any but small balances in money; and on the method by which checks should be paid only to the rightful owners.

The fact that checks "crossed" by two parallel lines (traverses transcrites)

1.issues assumes that the success of a check system depends on having a group of banks of deposit (National Monetary Commission, No. 522, p. 195), but France had these in a way that France itself might have used, while making payments in some other way. Then money that implies a different attitude towards banks and less holding them now trials in the Thrifty French people.
(which makes them negotiable only at a bank) can now be used in France to avoid risk in the market. It seems to show that the public do not wish for the flexibility of getting cash) on identification. To the protection of both the drawer and the payee. The slight use of checks in France makes the clearing house (Chambre de Compensation, established in 1872) of little importance. Part of the work of a clearing house is not by operations, such as transfers, through the Bank of France.

The early effects of The crisis showed themselves not only on the Bank and in the net market, but also in the circulation. The metallic money disappeared in a trice; hoarding, which gave the nation, like the hoarding of a tiger, was encouraged by the anticipation of war. Even the small Silver coins vanished. All the coin paid out by the banks little returned to circulation. The Bank of France gave out by the end of 1814 some fr. 30,000,000 of gold, which with the way of all the coin. The advances made on securities, as well as to the Government, to which began to be made by the Government, the payments to which began to be made by the Government, seemed to have no effect on the want of confidence. (Courant of the Bank, in its circular, The Bank of France issued 30,000,000 of gold specie payments on its notes (as of the Aug. 12, 1870), which were given legal tender (commeforce), and issued in denominations of 20 and 5 francs, but no result on the circulation.

1. In Avignon, a city of 40,000 inhabitants, a branch of a secondary bank paid out from July 25 to Aug. 1, about fr. 3,000,000 of gold and fr. 1,000,000 silver, with little or no result on the circulation.

On July 22, 1917, secured on by the hoarding of both cash and bank notes, and the fact that the old clearing houses had only a restricted membership, a new Chambre de Compensation was established with a membership of nearly all the important banks, and absorbing the recently formed Courant de Compensation, created to meet the needs of British and American Bankers.

[Note]

2. At this time, also, the status of the check has been strengthened by a law passing anyone who issues a check without funds to meet it, or who withdraws funds after issuing a check, with imprisonment for two months to two years and a fine of not less than one-quarter of the amount.

In a recent case, however, when the buyer of goods after paying for them by a check, found the goods not as described, and claimed payment on the check, was upheld by the French Court.
Notes seem to have been readily accepted.

The exceptional and unparalleled crisis in credit, taken in connection with existing monetary habits and the organization of credit in France, placed the whole responsibility for guidance and recovery on the management of the Bank of France. Both for the business public and the State it was the final source of relief.
§ 4. In the study of the credit operations of the major nations during the most stupendous war of all history, we have a rare chance for comparative study and to profit by the revelation of defects and advantages which amendment may develop. The study will have failed of its purpose if it does not clearly disclose that, while the forms and legal mechanism of credit by virtue of historical and racial characteristics differ in the different countries, the fundamental principles of credit are nevertheless the same, irrespective of their external forms in which they work. Indeed the inevitable methods of relief for depressions of credit are almost monotonously the same everywhere. In France, they have to do with efforts to restore the salability of securities, the amelioration of the moratorium, the restoration of liquidity to banking assets, and— as the chief means to this end— finally, to rely on the Banque de France for discounts in order that engagements may be met by a means of payment acceptable to the monetary habits of the people. These habits are such that this means must come, not as in England from France at the loans department of the Banque of England which led to the use of checks on deposit accounts, but loans from banks by the Banque of France itself, which results in the issue of Bank of France notes.

Although the means are different, the end is the same. To discount freely comes to be the final efficient remedy. For the banks themselves it is self-preservation, brought with, or always in a crisis, more or less
lording of the majority in making payments.

We are now led to consider the operations of the great central institution of credit, the Bank of France, in what was without doubt the greatest emergency in its whole history. Would it be able to liquidate its heavy responsibilities? The frozen assets, start the circulating supply of bills on goods, allow producers to obtain capital, enable a dislocated industry to make new adjustments, again to France to turn out goods which would form a basis for normal credit operations? Time about the salability of securities, and, in addition, meet the huge dem-
c London of credit. In times of crisis, without undue strain on its note-issuing power, which would be inevitably inflated as the demands for credit increased? The responsibility laid upon it was a heavy one.

The exceptional demands would be made on the Bank even before the actual outbreak of hostilities. That, at least, was the judgment of Mr. Ribot, minister of finance, in a letter to The Economist of September 7, 1914. The Bank discounted increased from 3,145,000,000 francs in the first week of August, 1914, to 6,982,000,000 francs in the third week of August. Yet in spite of this rapid rise in discount, the Bank was able to meet the increased demands for credit. The indication of this is found in the fact that the rate of discount rose from 7 per cent. on August 15, 1914, to 10 per cent. on August 20, 1914. The rate of interest on public securities rose to 7 per cent. on August 23, 1914. By August 30, 1914, the rate was down to 5 per cent. and 6 per cent., respectively.

by the later developments. The whole story of the credit operations of the Bank, and thus those which contributed for the organization of credit in France, are presented in Chart IV, drawn on the same scale, and comparable with those of the Bank of England, at a glance.

The direct service of the Bank of France in releasing the needs of the public appears, of course, in the expansion of the discounts and advances. On the frontier before the war these items together ran below 50,000,000, but obviously rising with the vicissitudes of trade and credit in times of emergency. The movement of the items representing these joint items presents very clearly the credit situation as affecting the general livelihood of public. Its immediate and greatest rise came in the period when no accounts were published, extending over the end of 1914. By February 4, 1915, they

1. To those approved persons or firms to whom current accounts have been opened, the Bank of France makes discounts, in the main, on satisfactory commercial paper brought by merchants and manufacturers, such as bills of exchange, checks, bills to order, and commercial and agricultural warrants of fixed maturity, which have not more than three months to run, and which bear the signatures of three persons, tradesmen, agricultural syndicates, or others, known to the solvent, and, as a bank's bank, on approved paper of the private banks presents for rediscount (amounting normally to about 70% of the discounts of the Bank).

Advances are loans made on stocks, exchange securities, easily convertible in normal times into cash, usually only on French government securities, certain ones issued by the departments, communes, municipalities, or French colonies, and French railways, varying from 60 to 80 per cent. of their market value.

The term deposits is applied generally to funds left by private persons whose accounts are not active, and which are in the nature of reserve funds.
had climbed to about $850,000,000, which formed the peak of the movement during the whole war. Thereafter there was a steady decline in the requirements of the business public.

The moratorium, however, left the Bank of France with a heavy burden of assets whose liquidation was postponed, and whose repayment in full depended on the uncertainty of the future. There was no guarantee against loss to the Bank by the Government in carrying these delayed obligations, as in the case of the Bank of England. In August, 1914, at the height of the credit crisis, the total of pre-moratorium paper carried at the Bank of France rose to $896,000,000, of which about $160,000,000 belonged to the districts occupied by the Germans.

By the end of the year 1915, the total had been reduced to $367,000,000. By June 1917, it had dropped to $223,000,000, and by June 1919 to $42,000,000. All through the war this item was steadily reduced, while the discount on securities towards the end of 1915 showed a tendency to rise, being highest at the end of 1916, and thereafter slowly declining. The general tendency of the line in Chart IV representing the total burden of loans (discounts, advances on securities and pre-moratorium bills) to decline is due to the repayment of postponed obligations, with the accompanying result that by the middle of 1917 the total burden of loans had

1. L'Économiste Français, July 1, 1916, p. 58. In 1870-1, the Bank had to carry only $173,700,000 of moratorium bills.
was only a little more than $100,000,000 above the normal just before the war. Clearly, there was no expansion of credit to any perceptible amount, in the dealings with the general business public. The addition of pre-monetary bills was accompanied, as was natural, by a lessened volume of business paper. The highest figure for all loans to the public in the European war is about $385,000,000 about the highest annual average of loans in the Franco-Prussian War!

In August, 1914, the armament firms became very busy; and some slight revival took place in securities. In September, transportation became more available. From September to December the withdrawing of deposits was slowly relaxed. In October, the overa-

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1. Loans at Bank of France:
   [millions of francs]

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<th>Year</th>
<th>1871</th>
<th>1872</th>
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<tr>
<td></td>
<td>1907</td>
<td>1908</td>
<td>Apr. 23, 1914</td>
<td>July 31, 1915</td>
<td>Feb. 4, 1916</td>
<td>July 27, 1916</td>
<td>June 7, 1917</td>
<td>1125</td>
<td>897</td>
<td>2136</td>
<td>3187</td>
<td>4243</td>
<td>3534</td>
<td>3079</td>
<td>3199</td>
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<td>0</td>
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</tbody>
</table>

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torium was revised. By this time, also, the Thrift policy of the country enabled some to pay off notes at maturity and the outlook showed improvement; while the relaxation of the moratorium and the small dealings in securities brought some money out of hoarding. The Bourse, however, was tied up. By friendly agreement about two per cent. of the securities had been disposed of. In October, the settlement on stock dealings went through with unexpected ease. In November, the Bank of France finally agreed to aid in liquidating the mass of engagement securities by advancing to the Perquie 40 per cent. on loans made for carrying forward stock settlements, guaranteed by the Syndicat des Agents de Change. This measure brought only partial relief. As time went on the settlement hung heavily over the market, appeals were made for help; but the Bank was unwilling fully to liquidate the share market, because securities were not yet salable, and very properly it did not wish to swell the issue of bank-notes made on frozen assets. As we shall soon see, the notes were to be swollen only too much by the demands of the Government.
As has been explained, the sale and exchange of goods were the basis of all credit operations; but it was expected that the soundness of these transactions should be tested at any settlement by payments in money. Hence the necessity of having such a supply of the means of payment as would meet the needs for a medium of exchange in the business community of France (since the deposit currency was not in use). But beyond the matter of the desired quantity which was automatically regulated by redemption on demand in normal times, was the equally important matter of the quality of the currency. As long as immediate redemption in gold goes on, the notes remain at par in gold.

But, following the example of August 12, 1870, and an unwritten European opinion seemingly based on the fear of gold slipping out of the territory or into the hands of enemies, the Bank of France by August 5, 1914, suspended specie payments. That is, the Bank was, until otherwise determined by law, forced to issue notes in scrip, and suspends the notes were made legal tender for all debts public and private (comes force). In times of peace, the Bank, having a tradition in favor of keeping a large gold reserve, not in frequently running above 80 per cent. of the note issues, in the belief that thereby discriminate rates could be kept low, and a sense of absolute security and complete financial independence could be maintained. In June, 1914, the reserves of gold were over $900,000,000, or 76 per cent. of the note issues.

In addition, much gold is held in bonds by the French, estimated at not less than $700,000,000 in 1915.

In July, 1915, (following the example of Germany) an appeal was made to the public to send in gold to the Bank of France to be exchanged for notes. By October, $160,000,000 had been brought in by individuals; and, in spite of shipments of gold to England (in May, 1915, $40,000,000) and payments of $60,000,000 over its counter, by the end of 1914, the reserves of gold have continued to increase until the reserves of specie at the Bank by the end of the third year of the war have risen above $1100,000,000. This encouraging growth in the absolute sum of specie was, however, offset by the discouraging inflation of the note issue, of which the specie was only 2.8 per cent. at that time (or only 2.4 per cent. of all demand liabilities). It is this unprecedented increase in the volume of Bank of France notes which furnishes the one outstanding problem of French credit operations, dominating all others.

1. The Governor of the Bank estimated that in 1906 the gold in France was $1,000 to $1,500 millions, of which the Bank issued $639 millions. (Bank Mon. Com. No. 405, p. 218). In 1870, the Bank reserves were about $250,000,000.

2. On October 1, 1914, the silver amounted to $64,000,000.
It is at once apparent that the phenomenal enlargement of the note circulation (see Chart IV), surpassing that of any other countries, has not been made in response to the needs of business for monetary use, and yet an increase of credit in the form of money, which is the one main currency of France, has taken place, without any regard to the demands of trade for accommodation of exchange. The note issue of the Bank of France at the end of the third year of the war increased three times its great on the issues required for normal trade in the fifteen preceding years. The reason for this unequalled inflation is not to supply a monetary want, but to meet a fiscal need of the Government. A system which cannot separate the monetary from the fiscal requirements of the Government is dangerous alike to the mechanism of exchange and the standard of prices (which is certain to depreciate) and to the credit of the Government in its borrowings. The extensive issue of the Bank is due to its advances to the State, which can be carried out only by an issue of notes. Thus is revealed the weak point in the French organization of credit. If the Treasury could make its payments by checks acceptable to its creditors drawn on some deposit in the credit of the Bank, there would be no reason for issuing notes in proportion to the advances to the State out of money necessarily transferred to the medium of exchange in a time of great emergency.
The already heavy indebtedness of the nation and the shock of war forced the Government to borrow from the Bank of France in the beginning of the struggle. The advances have continued to increase in a mercantile manner, as may be seen by the following table in millions of francs:

<table>
<thead>
<tr>
<th></th>
<th>1914, Oct. 1</th>
<th>1914, Nov. 30</th>
<th>1916, Jan. 31</th>
<th>1916, March 31</th>
<th>1916, May 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>advances to the state</td>
<td>2,100</td>
<td>3,900</td>
<td>6,500</td>
<td>7,100</td>
<td>8,600</td>
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<tr>
<td>advances to the state</td>
<td>4,100</td>
<td>7,100</td>
<td>9,000</td>
<td>9,600</td>
<td>10,100</td>
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<tr>
<td>advances to the state</td>
<td>5,200</td>
<td>10,100</td>
<td>10,600</td>
<td>10,600</td>
<td>10,600</td>
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<tr>
<td>advances to the state</td>
<td>7,100</td>
<td>8,800</td>
<td>10,900</td>
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</table>

The Government, receiving a credit from the Bank of France, draws out bank notes, which they issue for purchases of war supplies. From the hands of the public, if not needed in the circulation, the notes would be some extent returned to the Bank in payments made into current accounts.

These vast advances to the State (as contrasted with the highest figure in the War of 1870 of 285,000,000) to over 2,000,000,000, so far beyond anything in the previous history of the Bank, seem almost incredible. The only means by which the State can reduce this debt to the Bank are taxation of her people, or borrowing with short or long-term obligations. When advances to the Bank are not possible, funding operations by the Treasury become necessary.

From 5,200,000,000 fr. at the end of the Franco-Prussian War, it had been raised Jan. 28, 1893, to 4,000,000,000; Nov. 17, 1895, to 5,000,000,000; and Feb. 9, 1906, to 5,800,000,000.

In October, 1916, by virtue of the placing of a long-term loan of 327,200,000 francs, towards which 1100 millions were paid in cash, the Government repaid the Bank 440 millions, reducing the advances to the State to 1,600 millions.

The limit to the advances by the Bank is fixed by a special convention. On September 21, 1914, it was fixed at 6,000 million francs; on May 18, 1915, it was raised to 9,000 million francs; on February 12, 1917, to 12,000 million francs.
February 15, 1917, to 21,000,000,000

On August 5, 1914, the limit was at once raised to
12,000,000,000 francs; in May, 1915, to 15,000,000,000;
March 15, 1916, to 18,000,000,000 francs. By August 9, 1917, the notes in
circulation had risen to 20,434,000,000 francs, or
3,387 millions — a sum far in excess of the entire (municipal
bonds, Treasury bills, etc.) about $1000 millions.

Far greater than the whole debt of the United States at
the end of the Civil War. This unprecedented expansion
of the bank is directly due to the prodigious advances to the State.

We are faced, finally, with the question as to the fundamental soundness of the fabric of
credit that built up just such a bubble from the Bank of France, and, therefore, upon the quality of the
assets upon which the notes have been issued to
such extreme and amounts. These notes, as explained,
are issued only upon strict, statutory loans to
merchants and advances on securities, and advances

3. The notes of the Bank of France, by April, 1917, had been increased to 11,153 millions of francs which of
these (51 cents) would amount to 5,688 millions. Thus,
the Russian bank has the unexampled record of having
issued more notes than the Bank of France.

[Note]

2. George W. Pendleton, candidate for the President (1896), pointed out
that the form of credit note to pay the national
share never exchanged into fact. It was readily
accepted, but was entirely illusory. That such a policy has
not actually succeeded in France, a country noted for its
sound Monetary policy, is witnessed by the debt caused
by the Civil War.

1. The limit can be increased by the Conseil d'Etat, on the
advice of the Ministry of Finance, of Afghanistan, etc.
to the State. The specie has been steadily increasing to a sum never before equalled. The discounts have remained at a safe figure showing no inflation. The advances on securities have been rising somewhat (only about $78,000,000 above normal at July 1914). The most obvious sign of returning internal health has been the reduction in the volume of pre-maturatorium bills— which, as frozen assets, might have been regarded as weakening the support behind the notes— from $8,960,000,000 to $2,330,000,000. Indeed, the postponed obligations form less than 7 per cent of the assets behind the notes. As to these elements in the cover for the notes there is no cause for lack of confidence as to how the future is to be met. The same cannot be said, on the other hand, about the amazing increase of notes based on the advances to the State. Their constant increase advertizes the inability of the Treasury to borrow in the market by normal fiscal methods sufficient funds to meet the enormous expenses of the war. Thus the weakness of the fiscal situation is, by the French organization of money and credit, inevitably affecting the soundness of the notes issues of the Bank of France, the very nerve center of the whole system of credit. In short, the stability and future of

1. There is no legal percentage fixed for the amount of commercial paper, specie, etc., relatively to the whole issue of notes, as in Germany and other countries.
French credit depends on the liquidity of the obligations issued by the State. This is the crux of the whole matter,
§5. It has long been a stock subject of remark that, in times of war, governments seem unable to resist the temptation to confuse the monetary with the fiscal functions of the State, and thereby issue forms of money as a means of borrowing. The obvious truth that the reasons for charging the quantity of money in circulation, complicated as they must be with different questions as to the needs of trade, are of an entirely different sort from the reasons which have to do with the ability of the Treasury to place bills and borrow large sums. The simple idea, Thinking which assumes that the getting of capital is more easy, the greater the number of counters or in exchange goods, or the Theory That issues of demand forms of indebtedness which serve no money are forms without interest, seem to lie behind them. What has escaped attention in a common definition, it is the after effects on the value of the paper, the tendency to over issue, the depreciation of the money, the consequent rise of prices, the increased cost of living and of all government purchases, the rearrangement of the foreign exchanges, the growth of speculation and wide disturbances in trade. A devalued currency introduces uncertainty into production and an upheaval to trade makes borrowing by the state more expensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy. Moreover, the State more extensive and less easy.

The path by which France wandered into the suspension of specie payments and successive issues of bank notes may have been different from the
general one just indicated (but which was the one
traded by the United States in the Civil War), but
the consequences were the same. In France this
example is due to the peculiarity of her monetary
habits and of her organization of credit. So it
seems almost inescapable that a large loan can
not be made to the State without, by the very act
of granting the credit, increasing the supply of the
currency. If the experiences of the war are to
be teach wisdom, it seems hardly possible that
the absolute habit in France and Germany of making
payments by passing note issues from hand to
hand, thus carrying with it the unnecessary expansion
of money whenever loans are increased, should
be hereafter maintained. It is a habit which
cuts them off from the efficiency of a more modern
organization of credit, such as is possessed by
Great Britain and the United States.

But there is far more to the matter than this.
The general principle should be followed that the
fiscal, should be kept wholly separate from the
monetary functions of the State. If the standard of
prices and contracts is kept undisturbed, the costs
of supplies and the whole magnitude of national
debt would be freed from the results of re-
preciation. To mingle the monetary, the credit,
and the fiscal functions, as is done in France,
seems truly fatal. Here, the central in-
stitution of credit is at the same time
issuing of money; by French monetary habits it credit
operation is necessarily carried through by the issue of notes; and, then, as an additional complication, former money and forces out, not because of the needs of business, but in direct connection with a critical condition of public finances by way of advances from the Bank to the State. The contrast with operations in England is full of significance. There the governmental borrowings rise and fall; the fiscal dealings between the Treasury and its creditors, without in any way affecting the separate function of supplying the money of the nation. Moreover, the fiscal operations of the Treasury are kept distinct from the credit operations of the Banking Department of the Bank of England, which discount for the business community. In the corresponding crisis in England, the placing of government loans went on without disturbing the currency or private credits (except so far as they threatened European practice by issuing Government Currency Notes). The difference in issuing Government Loans without disturbing the currency or private credits (except so far as they threatened European practice by issuing Government Currency Notes). The difference in the working of the French and the English systems is strikingly shown by a comparative study of Charts II. and IV. especially in regard to bank issues and discounts, as will be seen later (in Chart V.) the Theory of the German Reichsbank is not in this respect an improvement on that of the Bank of England. In France, the Bank is in the different position, not of placing State loans with the public as the agent of the Treasury, but of having to lend to it directly, just the reverse of crisis for credit is developing from the works of business. The
worth of the system which requires the Bank of Issue also to lend to the State in the form of notes and thereby gives rise to very serious complications in the prices of all goods, the ratio of foreign exchange, and a long period of inconvertibility after the war is often to question. Would it not be infinitely better for the Government to borrow by normal methods from the public, and not wreck the monetary system by borrowing from the Bank? It would seem to the impartial observer that the experience of this war has demonstrated the weakness of a tradition which confines the monetary and fiscal functions of a great nation to its organization of money and credit. By way of contrast, the system of Great Britain stands out strikingly sound, entailing no such dangerous consequences after the war, and offering an example to this country, as it is entering upon enormous war expenditures, to avoid the issue of forms of money as a means of increasing its credit to the public.
§ 6. The suspension of specie payments alone must have brought the notes to a discount. But when, to suspension (inconvertibility) was added the increase of the notes to an unforseeable volume it was inevitable that the paper should seriously depreciate. By the end of the third year, The extent of the inflation of the currency beyond the normal requirements before the war is about 40 per cent. The Governor of the Banque estimated the gold of France at no more than $1,200 millions, which, with the Bank issues early in 1914 of another $1,200 millions, made a total circulation of $2,400 millions. Since the notes have reached nearly 4,000 millions, there is an excess over a pre-war basis of about 1,600 millions.

If, then, we assume with Professor Sidgwick that not only all the gold but some $600 millions of notes have been hoarded or withheld from circulation, there yet remains an expansion of the money supply beyond $1,000 millions, or perhaps 40 per cent. That in use before the war. As the war continues, there will continue to be loans to the State and increasing volume of notes. There can be little doubt of a very serious inflation of notes issues, an inflation, too, quite unrelated to the demands of trade or need for a medium of exchange. The need of a large quantity of notes for payments to the army cannot be greater than the civil war.

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1. Supra, p. 192.
2. In Kirkaldy's Labour, Finance and the War, p. 252; Professor Sidgwick argues that (April 15, 1916) the circulation had not been increased, because all the gold had disappeared, and that 3,500 millions were out of a total of 15 millions. Some notes had also been hoarded.
needs for the same persons when engaged in the production of goods. Therefore the larger payments needs for the society cannot be regarded as an increased need for notes; they are simply a reason for larger loans by the State (which ought not to be synonymous with a greater quantity of the circulation).

In the issue of notes by the Bank of France, there is an illustration of the principle that immediate, not ultimate redemption of paper money is always necessary to its circulation at par. If special can be obtained on presentation of the note, the value cannot vary from that into which they are convertible; moreover, no more notes can remain in circulation than actually needed by the public, as decided by their own act in retaining or redeeming them irrespective of any wishes of the issuers; so that immediate redemption automatically determines the quantity of notes needed by trade.

But, when redemption ceases, both the value and the quantity of the notes become a matter of speculation. The discount on the notes reflects the opinion as to the certainty and future redemption of them. If, as in the case of the Bank of France, large holdings of gold are retained and not paid out, that fact may affect the possibility of redemption in the future. Even large holdings of gold behind the notes will not keep them at par, if there is no convertibility at sight. Yet this fund if gold does have some effect, how much, is an interesting question. In France and

1. In the war of 1870-71, under the skillful management of such financiers as Thiers and Léon Gambetta, the circulation was saved from extreme inflation and the foreign Exchanges (especially in connection with the payment of the Indemnity of War) were handled in so masterly a manner that there was very little depreciation of the bank notes during the suspension of specie payments for seven and a half years. In one extraordinary case of exchange on London the premium on gold rose to 4 per cent., but in the spring after the end of the war they dropped close to par.
Germany it is entirely assumed that an accumulated stock of gold will maintain confidence in the notes. The possibility of redemption by the Bank of France, however, is influenced by other matters than the stock of gold, which is only about 28 per cent. of the notes. Since 54 per cent. of the notes is made up of government debt, and since the debt of the State has risen beyond all measure of experience, it is quite clear that the Bond - even after the end of the war - will be limited to its full capacity in the issue of enormous funding loans, so that it will be obliged to postpone the repayment of its debt to the Bank as long as possible. Inasmuch as suspension continued seven years after the end of the war (1870-71), when advances to the State totaled 294,000,000, the period of postponement when the debt to the Bank is already over 2,000,000,000 is likely to be much longer. Hence the possibility of redemption is seriously compromised, and must be reflected in the depreciation of the notes. Ultimate redemption, even with a large fund of gold in sight, but looking up, cannot have a potent influence in preventing depreciation.

It is not possible, of course, to measure the depreciation of the notes by the level of prices, because prices are affected by other forces than the quantity of the circulation or the premium on gold; yet the effect of depreciation in the notes would, in itself, have a direct influence on raising prices to the extent of the depreciation. For instance, if the prices of wheat or coal imported into France from a gold standard country, like the United States, were to rise in proportion to the depreciation of the notes relatively to gold. That could not be avoided.
Prices may rise for reasons other than the withdrawal of labor into the army, and for the greater expense of obtaining raw materials and manufactured supplies of every kind. (c) But special the volume and general conditions would, in addition, produce scarcity of goods and coal. The occupation of her coal fields by German armies made coal scarce and high. The seasons and the lack of labor have reduced the grain crops and the supply of food the world over. The shortage of shipping and the abnormal price changes would almost alone explain a serious rise of prices. For all these obvious reasons, therefore, we can account for the high range of French prices without being obliged to explain the rise by the quantity of notes added to the circulation. This increased volume of paper is influential in affecting the depreciation of the farmer's and prices reflected in a depreciated paper will, by course, rise. There is one reason, however, to suppose that prices risen simply because more notes were in circulation, if those notes had remained in gold. The depreciation of the paper franc in 1915, using neutral countries, such as the United States, was about 12 per cent, and at the end of the third year of the war 18.05 per cent. The increase in bank notes was more than three-fold. Nor did prices rise in any connection with the increase of the circulation.
The prices of 13 articles of general consumption, computed from figures in cities over 10,000 in inhabitants for the whole of France, had risen from the third quarter of 1914 to the end of the second quarter of 1916, by 37 per cent. How uneven the changes of prices in different branches of commodities may be seen in the following table, which indicates that unequal causes were at work. Such unevenness cannot be explained by a single cause like the increase in the quantity of money in circulation.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Price Change</th>
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<tr>
<td>Freights</td>
<td>300 - 400</td>
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<tr>
<td>Chemicals</td>
<td>130</td>
</tr>
<tr>
<td>Fodder (Paris)</td>
<td>74</td>
</tr>
<tr>
<td>Vegetable Oils (Paris)</td>
<td>116</td>
</tr>
<tr>
<td>Metals (Paris)</td>
<td>70</td>
</tr>
<tr>
<td>Cotton Yarn (Rouen)</td>
<td>47</td>
</tr>
<tr>
<td>Grains (Paris)</td>
<td>64</td>
</tr>
<tr>
<td>Sugar, Rice &amp; (Bourdeaux)</td>
<td>217</td>
</tr>
<tr>
<td>Silk (Lyons)</td>
<td>36</td>
</tr>
<tr>
<td>Cotton, Wool, Leather &amp; (Harve)</td>
<td>87</td>
</tr>
</tbody>
</table>

2. Ibid., pp. 306-312.

1. Bulletin de la Statistique générale de la France, Tome V, Juillet, 1916, p. 356. Zibet (op. cit., p. 25) gives the rise in April, 1916, as 35 per cent, for France, as against 50 per cent, in England and 100 per cent, in Germany. If the quantity theory were true, prices ought to be much higher in France than in England or Germany.
§7 In its foreign operations this credit organization of France has been put to a severe test. As with other belligerents, there has been an upheaval in French foreign trade, an inability of foreigners to pay their debts at maturity, a falling off in exports, increased purchases abroad of coal, food, steel and the whole list of war supplies, and a reversal of the usual trade balance in favor. The foreign exchanges have, of course, been thrown into confusion. But the conditions affecting the exchanges on France are different from those in England, and a comparative study discloses many interesting phases of the exchange problem.

Harking back to the causes influencing the levels of foreign exchange, when disentangling English credit, we find the same general forces at work in both countries, with the one marked exception for France of a depreciated currency. The characteristic feature of the exchange problem which is brought out in the experience of France is the effect of the depreciation of the bank notes. Some attention has been drawn to the attempt to measure the discount on the notes by the price of exchange. The determination of the exact percentage of depreciation, however, is not so important as the cause of it, which has been treated in the last section, granting a depreciation of the legal notes.

1. Supra, p. 141.
circulation, we are given thereby an cause of a rise in the level of quotations for foreign exchange. A buyer in New York of a bill on Paris will not give more for it in gold, when he knows that the bill when presented for payment to a French bank will be paid in francs which are at a discount of 10 per cent. on gold. He will give no more than the value of the currency in which the bill is re-issuable. That is, the exchange necessarily follows the value of the money (currency, etc., about). It is inevitable. That exchange should rise, if the note depreciates, and for the same reason that the price of any commodity would rise. Of course, if there were not enough gold or replacement of the note for gold on demand, exchange would go to zero. The special fact to be noticed is that the customary means of payment in international trade, the bill of exchange, is not redeemable in gold. The case, therefore, is the same as the domestic currency. The effect of inconvertibility on the international means of payment is produced by the disappearance of the shipping point for gold. If gold ceases to move when the demand for it and supply of bills brings the quotations to the point where it is profitable to ship gold rather than pay the high price for bills, the effect on the value of bills is exactly the same as the effect of suspension of gold payments on the value of the Bank of France notes. It removes the support which helps up their value. Once that support is removed, the value of bills, just as that of bank notes, is thereby
subject to all other influences, such as rumor, speculation, the fortunes of war, which may affect the return to redemption in the more or less remote future. One exception is to be noted. Since gold has become the accepted basis for international settlements, it is conceivable that, after the war, shipments of gold might be resumed even before redemption of notes in gold had been reached; consequently, bills might return to par in gold before that of the notes, provided the convertibility of bills were separated from that of notes.

It must be obvious, then, that the price of exchange follows the level of the value of the money in which this is paid, just as a float follows the level of water in a reservoir. As the notes go back to par, the level of exchange will follow. In normal times of peace, bills cannot rise or fall beyond the quotations which cover the cost of shipping goods; when these prices are reached, gold is sent; that is, immediate redemption in gold takes place. Since August 15, 1914, these limits have been removed. In other words, there is no fixed level of the water in the reservoir; it may go down indefinitely; consequently, the float on its surface will follow the changing level.

Those who are intimately affected by the course of the war, and are unwilling to admit the depreciation of the notes, are disposed to believe that the fall in the exchange is due to the balance of trade, and not to the depreciation of the currency. 1. Cf. edge, op. cit., p. 252. The same view is held in Germany.
The enormous inflation of the currency, suspension of specie payments, could have but one effect on the value of the notes; the rise of prices (for many reasons) and the fall of exchange in neutral gold, using countries are inevitably consequences. Of the balance of trade has been reversed, the exchange would have been kept at par by the shipment of gold. That being prohibited, there is no support to the level of the exchange.

Then must come into play, if the level is to be sustained, the operation of the fundamental forces underlying international credit. The situation made it impossible to greatly increase her exports in order to help pay for the much needed imports of food and war supplies. This dislocation in trade was very serious.

In five months of 1915, as compared with the same months in 1914, the imports had decreased 25 per cent, and exports 58 per cent. In 1916, the industries of Lyons had not shown recovery, but the china, glass, wood-working and metal industries showed improvement, while there was a gain of perhaps 20 per cent. over the whole field. Those working for the Government, such as those

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1912</td>
<td>4,162</td>
<td>3,224</td>
</tr>
<tr>
<td>1913</td>
<td>4,240</td>
<td>3,372</td>
</tr>
<tr>
<td>1914</td>
<td>3,575</td>
<td>1,415</td>
</tr>
<tr>
<td>1915</td>
<td>3,550</td>
<td>1,449</td>
</tr>
<tr>
<td>1916</td>
<td>4,459</td>
<td>1,717</td>
</tr>
</tbody>
</table>

The Foreign trade of France (most for home use) in millions of francs.

The effects of the war are seen in the higher imports in 1916 due to larger imports of food and manufactures. The falling off in exports is mainly in manufactures and materials for manufacture.

The chemical, leather, cotton, woolen, canned food, chain, motor, engineering, were working night and day. There promptly producing for export were mainly occupied in supplying war goods. The purchasers, especially from the United States, were very heavy. The payment for the imports, however, could be offset only to a reduced extent by the exports of goods (although there was a noticeable gain in 1916).

The resort to sending securities was tried, but France had not accumulated American securities in such amounts as those of other countries. It is estimated that the French would own $8,000,000,000 of foreign securities (out of total holdings of about $22,000,000,000), but the estimate of $1,000,000,000 in American investments is thought to be far too high. No South American securities were sent home to be realized upon to cover French purchases. But the main dependence was on the securities of other neutral countries held by Frenchmen. In July, 1916, the Ministry of Finance asked the owners of such securities to lend them to the Government, which gave in return a receipt negotiable on the bearer and at once advanced to the owners one-fourth of the net annual income. This provided with which was required at the time to be about $200,000,000 of such investments. France was able to use them as collateral for loans to

The balance of payments, having been in favor of France before the war, so continued for a time after war began. The franc did not fall below four until May, 1915. Then the unfavorable account was reversed. In 1915 imports exceeded exports by $1,000,000,000, and in 1916 by over $250,000,000.

Loans from the United States

pay for purchases here. Also a number of important industrial concerns united in borrowing from private American bankers, giving French Government obligations and bonds from neutral countries as collateral, in order to pay for exports to France. The French merchants drew on the New York bankers which accepted the three months' paper, with an agreement to make five renewals if desired. Thus French accounts appeared in our money centers, and to that extent obviated a resort to the exchange market. After the United States entered the war, our Government loaned directly to that of France. Such measures to a large extent offset the purchases of France in this country. That is, the creation of credits abroad saved the export of gold when exports of goods fell off, and postponed the settlement, which is the characteristic of credit, to the future.

Only after all other devices fail in balancing the international account does gold move. Even in this extraordinary emergency France did not resort to her exchanges, as we have seen, by the shipment of gold.

April 13, 1917. The French Government placed a loan of $100,000,000 in this country by its own direct obligations, supported by collateral, at 5¼ per cent.

1. Immediately a loan of $100,000,000 repayable in 3 years, at 5½ per cent, guaranteed by the Syndicate to the Borrower, was placed in New York with a Corporation composed of banks such as J. P. Morgan & Co., First National Bank, National City Bank, Guaranty Trust Co. and others, which issued and sold this own obligation, protected by the securities of neutral states that are guaranteed by the French Government. The dollar was fixed at 60. 5. 18.
And yet an indirect use was made of her large gold supply. In three months (April, May and June) of 1916, the Bank of France sent to London about 100,000,000 of gold, receiving in return a credit on which she could draw for three times as much, thus aiding England with gold, as she had several times before (in May and September, 1915), in supporting the exchange market on New York.

The working of the foreign exchanges, involving as it does matters of international credit, is affected not only by all the forces which appear in the case of England, but also by the complications arising from the depreciation of the Bank notes. Taking away payments in gold and the shipping points, all normal limits to fluctuations in exchange are removed. Thus the exchange may be modified in price by any of the considerations which touch the credit of France and the uncertainties of her trade.
8. 

In the organization of France, money and credit, and following its workings, in the very difficult conditions during the first three years of the war, we have come to see how private credit has been closely related to that of public credit through the Bank of France. We have seen, what complications have arisen from this relationship.

If, in this critical time, private credit has known great tribulations, a fortunate public credit must have fared worse. Starting from the worst, the largest debt of any country in the world, obliged to appear to make actual expenses in 1914, it was in installments on the bonds issued yet unpaid after the war began, the unprecedented requirements of the most extensive war in all history forming in gigantic figures before him, the task of the Finance Minister must have been appalling. How France could carry this burden, on what resources, of strength she could draw, what fiscal measures the course of events, pre-arranged or not, required, to meet this emergency, as well as to avoid sacrificing the credit and independence of the French in which they felt a sense of pride, is one of the most interesting problems of the period.

In meeting the cost of mobilization and the early enormous expenses of war, France signally by her fiscal measures the general policy which seemed to have been forced upon her by circumstances. Under her existing organization, the source of credit, the time of least resistance, as well as precedent, led her to borrow from the Bank.

1. In 1914, besides a budget of $1,075 millions, a loan of $170 millions was placed in to cover expenses in Morocco.

The Thirty years' military service, and the increase of the fleet, when the war broke out, the subscriptions to this loan found it difficult to meet. The unpaid installments coming due, one at the end of October, and two at the end of December. Although the two installments were changed to four, the loan hung heavily over the market. They were quoted at about 82, being held largely by the Coules. This loan proved a great annoyance in later operations. On January 26, 1915, the government agreed to accept payments already made on this loan at 91 (the price of issue) in payment of future loans, and arranged with the Bank of France to look to the sufficiency of this means to meet coming in installments. A greater part was converted into new National Defense Stock, running between 5 and 10 years. By the spring of 1915, all but about $4,400,000 were paid off.
from the Bank of France. As we have seen, this sort of borrowing was continued to a dangerous extreme. It was, however, in accordance with the general policy of borrowing by temporary and short-term obligations in the expectation that, later, long-term funding operations might be carried through, which would take up the floating and maturing debt as it fell due. The long-established preference of European money markets for short-term Government bills was relieved upon by the French Treasury to float very large sums of Bond du Trésor in small denominations of $20, $50, and $100, for perhaps one year at 5 per cent. Early in 1915, some $50,000,000 of these were absorbed by London.

Likewise, the Bond de la Défense Nationale, running usually from 3 to 6 (rarely 12) months, at 5 per cent., of small denominations (later purchaseable at face value as low as $4 and $1) appealed to small investors. Large amounts were taken by the credit houses, while the Comité subscripteur took $100,000,000; and the Banque de France accepted them as collateral for 80 per cent. of loans. By February, 1917, the issue of short-term national bonds was reported to be $250,000,000. The resort to temporary and short-term borrowing is indicated by the statement of M. Ribot, August 5, 1915, that by them about two-fifths of the needs of the Treasury had been met by advances from the Bank of France and the issue of notes, and three-fifths by short-term Treasury bonds.
By Nov. 15, 1915, a long-term national loan, popularly known as the “victory loan,” at 5 per cent, was issued at 88, to the amount of $3,100,000,000, callable in sixteen years. A second long-term national loan of 5 per cent. rate was successfully placed by October 1916, to the amount of $2,275,000,000.

By June, 1917, the war debt must have been approximately as follows:

<table>
<thead>
<tr>
<th>Amount of War Debt</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Defense Bonds</td>
<td>2,900</td>
</tr>
<tr>
<td>Other National Obligations</td>
<td>400</td>
</tr>
<tr>
<td>Long-term 5% Loan, Nov., 1915</td>
<td>3,100</td>
</tr>
<tr>
<td>Long-term, 5 1/2%, Loan, Oct., 1916</td>
<td>2,275</td>
</tr>
<tr>
<td>Advances by Bank of France</td>
<td>2,120</td>
</tr>
<tr>
<td>Advances by Bank of Belgium</td>
<td>1,185</td>
</tr>
<tr>
<td>Loans in England</td>
<td>795</td>
</tr>
<tr>
<td>Loans in United States</td>
<td>775</td>
</tr>
<tr>
<td>Advances to Allies</td>
<td>930</td>
</tr>
<tr>
<td>Other Debt</td>
<td>14,500</td>
</tr>
</tbody>
</table>

According to the report of the Budget Committee of the Chamber of Deputies, France had spent by the middle of 1917 on the war $16,600,000,000. Of this war debt, be taken as about $14,500,000,000.

on. Which the annual charge was $502,000,000, to find the total burden at the end of the third year of war, there must be added the pre-war debt of $6,340,000,000 with its annual charge of over $200,000,000, creating an annual burden of over $2,800,000,000 to be raised by taxation to pay the interest on the public Debt of about $21,000,000,000. The last military budget in 1914 called for $1075 million. So the more accustomed to pre-war finance these figures seem incredible. What is to be said as to the capacity of France to carry this load — on a lower increased by added years if was still to come? The annual charge on the Debt would now absorb more than the total revenue of $167,000,000 in 1912; and in 1914 it seemed as if France had reached the limit. In this way, however, what has seemed incredible has turned only too possible. The Treaty of the French had not been a motto. In France, as in any country, there is but one loss of life and property, with the psychology of sacrifice for a future gain allows the largest part of the excess of production over the bare margin of subsistence to be turned over to the State either in taxes or in subscription to fund debt. Already these subscriptions have passed all expectations. No one seems to have realized how large this margin over subsistence has grown in these latter years of mechanical development and the era of near peace. It is out of this enormous surplus that the amazing extravagance of recent years.

1. For a period shorter than that given above, that is, excluding nine months of 1917 in the period since the War began, the Finance Ministry gives the following analysis of expenditures [in millions of dollars]:

<table>
<thead>
<tr>
<th>Period</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, last 5 months, 1914</td>
<td>1,173</td>
<td>12</td>
<td>1,185</td>
</tr>
<tr>
<td>Total, 1915</td>
<td>3,155</td>
<td>380</td>
<td>3,535</td>
</tr>
<tr>
<td>Total, 1916</td>
<td>4,734</td>
<td>653</td>
<td>5,387</td>
</tr>
<tr>
<td>Total, June quarter, 1917</td>
<td>4,107</td>
<td>644</td>
<td>4,751</td>
</tr>
<tr>
<td>Total since outbreak, May 1915</td>
<td>13,169</td>
<td>1,659</td>
<td>14,828</td>
</tr>
</tbody>
</table>

On this period, the receipts from taxes and budget are given as $2692 millions. Cf. London Earn., Aug. 4, 1917, p. 155, and Sept. 8, 1917, p. 387.
has been made possible; and, if extravagance ceases, to the same extent can it be supplanted by the waste of war, without having impaired the forces of production (except by changing to war industries, loss of labor, etc.). The psychological shock caused by the frightful losses of France, which brings home the obligation of refraining from unnecessary consumption — everything above the minimum needed for health — will yield an incredible fund of savings. The increase of savings even during the war has been amazing; although much is hoarded. So strong is French thrift that it forms a basis for the estimates of the Ministre de l'Intérieur in 1911, the annual savings of France were put at $600,000,000.

In the very period.

1. In the thirty years, 1875-1905, when the burden of taxation had been increased by $200,000,000, the funds in French savings banks rose from $136,000,000 to $964,000,000.

of which some $400,000,000 were available for investment in securities. I'm trying to find out the total fund from which savings can be made, we can get nothing very definite. The estimates of total wealth are of Sound Value; but that for France has been given by Helfferich as $70,000,000,000, and her total income as $6,000,000,000. As the strength of the desire to save increases, an even larger total of savings may be made out of a reduced fund of wealth. To the savings and investments of France the Treasury must look for the resources to float its loans. Of all securities owned by the French were offered in exchange for the debt of France, the whole of that now existing (23,000,000,000) could be absorbed at home. Or, if the foreign securities owned in France were sold, they would take up more than one-third of the present enormous debt. Or, again, if one-tenth of the total annual income of France were saved, the whole debt now existing could be taken up in 37 years.

As in other countries, France can meet the expenses of the war either by taxation or by loans. Until well into 1915, she did not try to increase the already burdensome taxes. Obviously, she must follow the rule not to tax beyond the point where the productivity of industry would be lowered. The case of France has shown that war levies may form a lower ratio of taxes to loans than in other countries. There can be no fixed percentage for all countries, for internal conditions in each country must determine how much taxation the people can bear, and only experience can furnish a guide. For France, the
past follies in public expenditure largely decided for her the alternative of large loans relatively to taxation. Of the total expenditure to the middle of 1917, $16,600,000,000, the amount met by taxation, according to M. Ribot, is $2,429,000,000, or 14.6 per cent. (as against 25.4 per cent. for Great Britain)

By 1916, it became clear that new taxes must be levied sufficient to provide for the interest on the new loans, and serious changes were made in the fiscal system. Obviously, the new sources to be relied upon were the taxes on incomes and war profits. A tax on incomes above $600 were levied rising from 1 per cent. to 10 per cent. (on incomes over $30,000), but granting reductions in proportion to dependents. War profits, above $100,000 to have 60 per cent.; 50 per cent. on others. The average profits of the three years before August, 1914, were taken as a basis for earnings at

In effect, France reduced her percentage of direct taxes and increased that of indirect taxes from 52 in 1913 to 60 in 1916. In spite of the occupation of a part

although early in the war import duties on grains and meat were suspended.

1. Great Britain did the opposite: increased her percentage of direct taxes from 47 in 1913 to 73 in 1916, and reduced that of indirect taxes from 52 in 1913 to 26 in 1916.

cf. Man Finance Primer, (National Banks & Commerce) by
of her territory by the Germans. The revenue of France has about held its own in 1913, being 10

The middle class and the peasants must be kept in mind in estimating the ability of France to carry
The burden of this gigantic war debt. The matter is a psychological one. It is a question of the traits and
qualities of her people. If nearly all the margin of
food produced by an energetic people, even the tremendous
war debt and the heavy taxation may be successfully
carried. One writer instances three times in the past
two centuries when France has been completely defeated
and left in a state of seeming economic exhaustion — at
the end of the long campaign of Louis XIV, at the final
overthrow of Napoleon, and at the crushing climax of
the Franco-Prussian conflict. Yet, after each of
these experiences, the world witnessed the extraordinary
spectacle of France promptly resuming her place in the
Economic System, and in the end displaying a tangible
economic power even greater than before.

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1. Revenue of France (in millions):

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1913</td>
<td>928</td>
</tr>
<tr>
<td>1914</td>
<td>797</td>
</tr>
<tr>
<td>1915</td>
<td>777</td>
</tr>
<tr>
<td>1916</td>
<td>933</td>
</tr>
</tbody>
</table>

2. A. D. Noyes, Financial Chapters of the War, p. 205.