Carnegie Endowment for International Peace
DIVISION OF ECONOMICS AND HISTORY

PRELIMINARY ECONOMIC STUDIES OF THE WAR

EFFECTS OF THE WAR UPON FRENCH ECONOMIC LIFE

CARNEGIE ENDOWMENT
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John Bates Clark, Director

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No. 23

EFFECTS OF THE WAR UPON FRENCH ECONOMIC LIFE

A Collection of Five Monographs

EDITED BY

CHARLES GIDE

Professor of Political Science at the University of Paris

The Effect of the War upon the French Merchant Marine, by Henri Mazel
The Effect of the War upon the French Textile Industry, by Albert Aftalion
The Effect of the War upon French Finance, by Bertrand Nogaro
The Effect of the War upon French Commercial Policy, by Albert Aftalion
The Effect of the War upon Labour in France, by Willian Oualid

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INTRODUCTORY NOTE BY THE DIRECTOR

THESE monographs constitute a *multum in parvo* of French economic history since the outbreak of the war. Revealing the expedients by which the country gathered in funds enough to carry the war through, they show in what financial condition the country is left. The serious inroads made on agriculture in France made that country, formerly self-sustaining, dependent on importations at a time when the state of the exchanges has rendered that resource difficult and costly. Transportation has been obstructed and the mercantile marine has passed through vicissitudes which have called out energetic measures for restoring it. The output of textile industries has been reduced and the export trade in them has been lost, partly by the difficulty of importing raw materials, partly because of the invasion of the manufacturing section of France by the German armies, and, very largely, by sheer destruction of working people. These effects of war are of such a kind as would naturally be caused by the sudden transfer of the greater part of an entire population from producing to fighting, but the account of the actual extent of them will be found profoundly interesting.

In the changed condition of labour one encounters something even more significant than the other effects of the struggle, and not easily foreseen except in its very general features. An outbreak of war and a sudden decree of mobilization in the very midst of the harvesting season must, of course, cripple the work of the field as it would that of the factory, but it was just at this time, when workers were elsewhere scarce, that the refugees from invaded districts created in certain areas a difficult problem of unemployment. This made necessary a rapid and extensive reorganization of the national working forces, transferring labour to points of greatest need and successfully enlisting the labour of women and of foreign and colonial workers. The handling of such problems and of those connected with wages, during the war and the demobilization at the close of it, affords a shining example of the efficiency of Republican France in industry as well as in warfare, and goes far to explain

the quick recovery of that country, which bore the brunt of the German attack and was the greatest sufferer by its devastation.

The peace of the world is in no small degree dependent on the commercial regulations of the several countries. It was to be expected that commerce with hostile countries would cease during the war and be resumed at some time after its close, and also that the importation of food from all available quarters would be favoured; but it was hardly expected that import duties, as applied to merchandise generally, would be supplanted, as in the latter years of the war it was, by prohibitions applied to importation from countries both hostile and friendly. Yet such was the case, not only in France, but in other countries. The supreme importance of getting supplies for the army made it dangerous to allow either money or cargo space to be used for bringing in less necessary articles.

Such a control of commerce by states engaged in war is, in reality, only a part of a general fact, namely, that modern warfare has to be carried on by working forces as well as fighting ones, that the population at home and in the field must be mobilized, and that even when conscription ensures great forces in the field, a state is sorely handicapped if it leaves the army of support—the workers in mills, fields, shops, railway cars, and ships—to be secured only in the ordinary economic way. In any great war of the future in which forces are at all evenly balanced, the side will be successful which applies military rules to makers and carriers of food, clothing, munitions, and army supplies, as well as to the fighting army. The government of the whole force at home and in the field will have to be martial. Economic science itself calls for a general supplanting of the ordinary control of production in times of war. Such are a few of the lessons to be derived from this brief compendium of economic facts.

JOHN BATES CLARK,

Director.

THE EFFECT OF THE WAR UPON THE FRENCH MERCHANT MARINE

By HENRI MAZEL

DIRECTOR OF THE REVUE DE LA MARINE MARCHANDE

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THE EFFECT OF THE WAR UPON THE FRENCH MERCHANT MARINE

Introduction

Numerous articles and books have been written about the decay of the French merchant marine. This decay has been greatly exaggerated, however, and the truth is that the word should be used in this connexion only in a relative sense.

During the thirty years that intervened between the Franco-German War of 1870–1 and the end of the last century, as a matter of fact, the total tonnage of the French merchant marine fluctuated relatively little. Immediately after the victory of the German arms it comprised a million net tons, approximately, and in only one period of four years (1893–6) did it fall slightly below 900,000 net tons. Four years later (1900), however, it rose again to its former level, and after that its growth was regular up to the outbreak of the World War in 1914, when it comprised approximately 1,629,000 net tons.

In the first fifteen years of this century, accordingly, the total net tonnage of the French merchant marine underwent an increase of more than 60 per cent., so that it is manifestly an exaggeration to speak of its decay in an absolute sense of the word.

On the other hand, it is not to be denied that the French merchant marine grew slowly in comparison with those of certain other countries, so that in a relative sense the use of the word is perhaps justifiable. If we take as our starting-point the year 1874 (the earliest year for which the *Annuaire statistique* was published by the *Service de statistique générale de la France*), we find that from that year to 1913 the French merchant

marine increased only from 1,037,000 to 1,582,416 net tons, whereas in the same period of forty years the British merchant marine increased from 5,912,000 to 12,106,000 net tons, that of Germany from 1,068,000 to 3,320,000 net tons, that of the United States from 3,659,000 to 7,929,000 net tons, that of Norway from 1,317,000 to 1,767,000 net tons, and that of Japan from nothing to 2,151,000 gross tons. Meanwhile, the merchant marines of other countries, while not as large as that of France, nevertheless underwent proportionately greater increases : those of Holland, Greece, Russia, and Denmark more than doubled ; those of Sweden and Spain almost doubled ; and that of little Belgium more than trebled. The Italian merchant marine alone increased proportionately less than that of France, namely, from 1,032,000 to 1,137,000 net tons.

I. The French Merchant Marine at the Outbreak of the War

According to the *Annuaire statistique* of 1917, on December 31, 1913, the French merchant marine comprised 17,719 vessels with a total carrying capacity of 1,582,416 net tons (2,447,734 gross tons).[1] This fleet was manned by 86,005 seamen and 12,725 mechanics and firemen. In regard to the 17,719 vessels referred to, however, it is to be remarked that the great majority (14,123) were sailing vessels of less than thirty tons. If we take into account only the vessels of five hundred tons or more, we find that the French merchant marine comprised 166 sailing vessels and 436 steamers. The vessels of more than two thousand tons, moreover, numbered only 256, of which 60 were sailing vessels.

[1] *Ed. note.* In the Introduction it is stated that the French merchant marine comprised approximately 1,629,000 net tons at the outbreak of the war, so that there was an increase of 46,484 net tons, or thereabouts, in the first half of 1914. Further on (p. 16) it is stated that there were 2,498,285 gross tons at the outbreak of the war, so that the increase of gross tons in the first half of 1914 amounted to 50,551.

In the course of the year 1913 these vessels were employed as follows :

DISTRIBUTION OF THE FRENCH MERCHANT MARINE ACCORDING TO SERVICE IN 1913

	No. of vessels	*Gross tons*	*Net tons*	*Crew*	*Firemen and Mechanics*
Inshore fishery	12,105	170,464	116,744	51,369	953
Offshore fishery	351	73,841	56,607	8,650	19
Coasting trade	1,436	117,263	95,303	4,933	556
Mediterranean and European seas	425	569,857	330,303	5,234	3,332
Ocean trade	469	1,411,460	940,917	11,679	6,590
Port service	868	63,167	17,199	2,942	1,006
Pleasure boats	347	14,983	6,672	1,198	269
Unemployed	1,718	26,699	18,671		
Total	17,719	2,447,734	1,582,416	86,005	12,725

The following table shows the tonnage entered and cleared at French ports in the year 1913 :

TONNAGE ENTERED AND CLEARED AT FRENCH PORTS IN 1913

		Net Tons
French vessels	Trade with foreign countries	11,185,375
	,, ,, French colonies	5,733,065
	Offshore fishery	150,761
	Total	17,069,201
Foreign vessels	Trade with foreign countries	52,990,920
	,, ,, French colonies	763,753
	Total	53,754,673
	Grand total	70,823,874

The above table comprises both vessels in ballast and vessels with cargoes ; if only the latter are considered, the figures are as follows :

TONNAGE OF VESSELS WITH CARGOES ENTERED AND CLEARED AT FRENCH PORTS IN 1913

	Net Tons
French vessels	15,781,000
Foreign vessels	44,837,000
Total	60,618,000

The movement of the coasting trade (vessels with cargoes only) is indicated by the following table :

TONNAGE OF FRENCH VESSELS ENGAGED IN COASTING TRADE IN 1913

		Net Tons
Headland to Headland	on the Atlantic	3,263,646
	on the Mediterranean	3,016,062
	Total	6,279,708
Intersea	from the Atlantic to the Mediterranean	197,868
	from the Mediterranean to the Atlantic	185,944
	Total	383,812
	Grand Total	6,663,520

The following table, finally, indicates the movement of ships and cargoes to and from French ports in the year 1913 :

PRINCIPAL FRENCH PORTS IN ORDER OF TONNAGE ENTERED AND CLEARED AND MERCHANDISE HANDLED IN 1913

Ports	*Rank according to tonnage entered and cleared*	*Tonnage entered and cleared (millions of tons)*	*Rank according to volume of merchandise handled*	*Volume of merchandise handled (millions of tons)*
Marseilles	1	21,254	1	9,516
Havre	2	11,109	4	4,434
Cherbourg	3	9,302	23	270
Boulogne	4	7,222	13	988
Bordeaux	5	6,647	3	4,672
Rouen	6	5,262	2	5,761
Dunkerque	7	5,140	5	3,699
Calais	8	2,543	9	1,073
La Rochelle	9	2,532	12	1,027
Cette	10	2,531	10	1,061
Nantes	11	2,255	6	2,012
St. Nazaire	12	2,229	7	1,885
Toulon	13	1,258	16	572
Dieppe	14	1,214	14	622
Nice	15	1,158	22	293
St. Louis-du-Rhône	16	1,109	15	596

The combined movement in and out of the other ports was less than a million tons ; among them was the port of Bayonne, which ranked No. 17 as regards tonnage entered and cleared and No. 11 as regards volume of merchandise handled (1,027 tons

of 1,000 kgs.), and the port of Caen, which ranked No. 21 in the first category and No. 8 in the second category (1,126 tons).

II. The French Merchant Marine during the War

During the war the French merchant marine lost nearly one-half of its tonnage, as shown by the following table :

Number and Tonnage of French Ships lost during the Period of Hostilities (1914–19)

	Losses due to enemy action		*Losses due to marine hazards*		*Total*	
	Ships	*Gross tons*	*Ships*	*Gross tons*	*Ships*	*Gross tons*
1914[1]	7	14,833·51	16	8,525·97	23	23,359·48
1915	42	96,880·01	66	37,421·96	108	134,301·97
1916	173	195,340·21	60	20,418·01	233	215,758·22
1917	373	442,167·51	61	40,221·83	434	482,389·34
1918	104	166,164·08	64	31,197·50	168	197,361·58
1919	1	4,334·29	41	24,913·26	42	29,247·55
date of loss unknown	11	6,250·79	—	———	11	6,250·79
Total	711	925,970·40	308	162,698·53	1,019	1,088.668·93

A large part of this loss was recovered, however, by the building of new ships both in France and abroad, as shown by the following table :

French ships built in France and abroad during the Period of Hostilities (1914–19)

	Ships built in France		*Ships built abroad for French account*		*Total*	
	Ships	*Gross tons*	*Ships*	*Gross tons*	*Ships*	*Gross tons*
1914[1]	12	12,893·05	4	5,410·98	16	18,304·03
1915	30	92,388·37	18	4,533·85	48	96,922·22
1916	18	13,059·59	4	5,289·43	22	18,349·02
1917	15	2,496·62	20	40,907·49	35	43,404·11
1918	24	21,846·07	10	30,712·36	34	52,558·43
1919	20	13,108·78	15	5,529·68	35	18,638·46
Total	119	155,792·48	71	92,383·79	190	248,176·27

To the ships built both in France and abroad, moreover, it is

[1] From August 1 to December 31.

necessary to add the ships purchased from foreign owners, the total tonnage of which was :

GROSS TONNAGE OF FRENCH MERCHANT SHIPS PURCHASED ABROAD DURING THE PERIOD OF HOSTILITIES (1914–18)

Year	*Gross Tons*
1914	717
1915	14,589
1916	47,930
1917	83,202
1918	42,399
Total	188,837

At the end of 1913, as already observed, the French merchant marine comprised 2,447,734 gross tons ; but in the first half of 1914 there was an increase of 50,551 gross tons, so that the total at the outbreak of the war was 2,498,285 gross tons. If from this figure we subtract the total losses during the war (1,088,668), and to the resulting difference (1,409,617) add the total tonnage of the ships built both in France and abroad during the war (248,176), that of the ships purchased from foreign owners (188,837), that of the ships of the State Fleet (342,947),[1] and that of the ships captured from the Germans and Austro-Hungarians (60,000), we find that the total amounts to slightly more than 2,249,000 gross tons, which may be said to represent the approximate gross tonnage of the French merchant marine at the present time.

It is necessary to take into account, finally, the ships ordered both built in France and abroad, and both by the Government and by private owners, since January 1, 1919. This is shown by the following table :

NUMBER AND GROSS TONNAGE OF SHIPS ORDERED BUILT BOTH IN FRANCE AND ABROAD SINCE JANUARY 1, 1919

	Ships	*Gross Tons*
Liners	67	706,692
Freight and passenger vessels	15	100,296
Freighters	223	791,845
Sailing vessels with auxiliary power	11	4,705
Sailing vessels	5	1,521
Total	321	1,605,059

[1] *Ed. note.* See explanation at top of page 32.

If the foregoing statistics bring to light only a slight recovery of tonnage (459,836 tons) [1] between 1914 and 1918, the fact is not to be forgotten that during that period France voluntarily ceased to build ships in order to use her shipyards for the manufacture of arms and munitions. Inasmuch as almost all of the allied and neutral governments issued decrees prohibiting transfers of flags, moreover, French shipowners found it extremely difficult to procure the tonnage necessary for the reconstitution of their fleets. Since January 1, 1919, nevertheless, despite the fact that this prohibition has remained in force, and that the conditions of shipbuilding and ship buying have been rendered most onerous by the rise of international exchange, nearly 150 vessels, representing an increase of 246,142 gross tons, have been added to the French merchant marine.

To sum up, the French merchant marine, which comprised 2,498,285 gross tons at the outbreak of the war, to-day comprises, notwithstanding its loss of 1,088,668 gross tons during the war, approximately 2,249,000 gross tons. It is necessary to bear in mind, however, that the old tonnage of 1914 was inadequate, since three-fourths of French exports were carried in foreign bottoms (a proportion larger than the normal); and the new tonnage will be still more inadequate on account of the enormous amount of maritime commerce which will manifestly be necessary for the restoration of the invaded regions and the general economic reconstruction of the country. The French Government has formulated great plans along this line, and according to declarations it has made in the Chamber of Deputies it proposes to increase the tonnage of the merchant marine to no less than 5,000,000—more than double the pre-war tonnage.

But of this proposed tonnage, however, less than half is now available; and even among the ships comprising the aforesaid 2,249,000 gross tons, moreover, there are several in a more or less unseaworthy condition. But it is estimated that the orders already placed by the French Government, as well as by

[1] *Ed. note.* This figure apparently includes ships built and purchased at home and abroad, plus a part of the State Fleet and captures during the war.

private owners, will increase the total tonnage to 4,000,000, and it is hoped that the recoveries from Germany, as well as the friendly cessions made by the United States and England, will bring it up to the aforesaid prospective figure of 5,000,000.

Before the last Chamber adjourned it voted a credit of 1,830,000,000 francs for the construction and purchase of approximately one million tons to take the place of worn-out tonnage or to increase that already in service. The Senate, however, has yet to pass upon this matter.

Finally, there is reason to believe that the French shipbuilding industry is now destined to undergo a great independent development. Heretofore, as a matter of fact, it has not been very productive, as shown by the following table indicating the total gross tonnage of the ships launched in France in the ten years immediately preceding the war :

GROSS TONNAGE OF SHIPS BUILT IN FRANCE IN THE YEARS 1904–13

Year	*Gross Tons*
1904	119,470
1905	75,179
1906	59,351
1907	75,852
1908	163,291
1909	70,454
1910	67,527
1911	83,093
1912	140,271
1913	138,287
Total	992,775

These figures are very small in comparison with those corresponding to England, Germany, the United States, and even Japan ; but it is more than likely that this situation will change. Already an important producer of sheet-iron and fashion-pieces, France is now destined to become one of the foremost mining countries. The iron deposits recently discovered in Normandy and Brittany will be added to those located in the recovered territory of Lorraine, and the probabilities are that France will be able to supply all the demands of the European countries. It is true that she will lack the

necessary coal to enable her shipyards to compete on absolutely equal terms with those of England or Germany; but by exchanging her iron-ore for foreign coal it is probable that she will be able to balance the scales. It is by no means impossible, indeed, that France will sooner or later become an active competitor of the great shipbuilding countries, that the Seine and the Loire will become actual rivals of the Clyde and the Tyne.

It may be added, finally, that the directors of the French shipbuilding industry have hitherto exhibited a certain timidity which is to be held at least partially responsible for the slowness of its development. The long-established system of protecting both shipowners and shipbuilders by the payment of bounties had the unfortunate and perhaps inevitable effect of making them relax, causing the owners to lose much of their one-time courage and energy and the builders to fall into somewhat negligent and dilatory habits. Then, too, not only was the annual budget appropriation for shipbuilding limited, but at the same time the law itself was of a temporary character, so that the closer the date of its expiration approached, the fewer were the orders placed for new ships owing to the uncertainty of the shipowners regarding the policy to follow. The construction of merchant ships was consequently neglected in favour of the construction of war vessels bringing a more regular return; and this led to the gradual acquisition of government administrative habits not at all favourable to a great industrial development. Inasmuch as the bounty laws have expired and are not to be renewed, however, it is safe to assume that this old timidity will soon disappear, and that the shipping business will quickly rise to meet the new conditions.

III. The Fluctuations of Maritime Freight Rates

It is difficult to give the freight rates individual to the French merchant marine, for the reason that the freight-rate market is in London and the rates prevailing in the French ports are modelled after those of the great English port. In

Circulars Nos. 1003 and 1028 of the Committee of French Shipowners (*Comité des Armateurs de France*) are to be found numerous items of information, from which the following characteristic data are taken :

FREIGHT RATES PREVAILING IN THE FRENCH MERCHANT MARINE FROM JANUARY 1913 TO DECEMBER 1917

Year	*Month*		*Per dead-weight ton*
			Francs
1913	January	Europe to Argentina and return	7·10
		Europe to United States and return	7·18
		United States to Mediterranean	11·25
		Europe to South Africa	7·50
		Oriental and Australian trade	8·12
	July	France to Argentina and return	5·93
		Glasgow to Argentina	6·25
		Baltimore to Alexandria	8·12
		Traffic in the Baltic	6·40
		Transatlantic trade	5·30
		Havana to Europe	7·50
	December	Antwerp to United States and return	4·70
		Hamburg to Calcutta	3·75
		Rotterdam to United States and return	4·54
		Gulf of Mexico to Europe	6·13
		Santos to Europe	3·86
1914	March	Hamburg to the Black Sea	3·59
		Argentina to the United States	2·65
		New York to Manchester	4·70
		Far East trade	4·21
		Cuba to Europe	4·84
	June	Baltimore to Mediterranean	6·55
		New York to Bristol Channel	4·54
		United States to Genoa	6·09
		New York to Brazil	3·75
		Transpacific trade	3·12
	July	Hamburg to Black Sea	3·26
		Nikolaiefsk to United Kingdom	3·43
		Baltic and White Sea trade	4·37
		Norfolk (U.S.) to Italy	6·55
		Transpacific trade	5·62
	August	Transatlantic trade	3·85
		New York to France (neutral flag)	6·55
		Galveston to United Kingdom	5·75
	September	Transpacific trade	4·35
		European trade	5·20
		United States to Mediterranean	6·25
		Glasgow to Canada	5·00
		United Kingdom to Australia	4·65

Year	*Month*		*Per dead-weight ton*
			Francs
1914	October	Mobile to Scandinavia	8·75
		Transatlantic trade	5·00
		New Brunswick to Italy	7·50
		Oriental trade	8·00
		New York to South America	4·65
	November	Philadelphia to United Kingdom	9·05
		Mediterranean trade	8·10
		Transatlantic trade	7·00
		Liverpool to Mediterranean	7·90
		Australia to United Kingdom	10·00
	December	Transatlantic trade	8·40
		Mediterranean trade	8·95
		United States to Mediterranean	25·00
		Buenos Aires to United Kingdom	12·15
		Singapore to United Kingdom	10·00
1915	January	Transatlantic trade	30·85
		European trade	13·22
	February	Transatlantic trade	18·75
		Coal trade from Iceland	23·31
		United States to Antilles	12·15
		Mediterranean trade (3 months)	15·60
		Mediterranean trade (9 months)	20·92
	March	Transatlantic trade	15·00
		European trade	14·35
		Italy to United States	20·00
		United States to Antilles	15·00
	April	Transatlantic trade	21·85
		White Sea trade	20·07
		Argentina to United States	22·50
		United States to United Kingdom	37·50
		Mediterranean trade	16·85
	May	Transatlantic trade	19·35
		New York to Argentina	18·75
		Java to United Kingdom	23·10
		White Sea trade	20·60
		Baltimore to Glasgow	31·25
	June	Transatlantic trade	18·75
		Liverpool to Australia	19·35
		Charleston to Liverpool	37·50
		Mediterranean traffic	18·10
		White Sea trade	21·55
	July	Haifong to United Kingdom	15·80
		New York to Argentina	16·25
		Dublin to White Sea	32·50
		Liverpool to Canada	19·35
		Oriental trade	17·50
	August	Wales to White Sea	36·40
		Transatlantic trade	19·60

FREIGHT RATES PREVAILING IN THE FRENCH MERCHANT MARINE FROM JANUARY 1913 TO DECEMBER 1917 (*continued*)

Year	*Month*		*Per dead-weight ton*
			Francs
1915	August	New York to Australia	21·00
		Traffic of the Antilles	17·70
		Mediterranean trade	18·20
	September	Australian trade	23·55
		European trade	22·20
		Transatlantic trade	19·50
	October	Transatlantic trade	22·95
		United States to Vladivostok	25·65
		Mediterranean trade	23·55
		French Atlantic trade	28·35
		United States to Europe	40·50
	November	Transatlantic trade	28·00
		Oriental trade	31·40
		Montevideo to the United States	25·20
		Far East traffic	30·08
	December	United States to Europe	63·00
		Far East trade	32·20
		Transatlantic trade	42·00
		United States to Italy	39·20
		United Kingdom to West Africa	36·40
1916	January	Transatlantic trade	34·75
		United States to United Kingdom	69·50
		Mediterranean trade	48·65
		Oriental–United States trade	55·60
	February	Transatlantic trade	39·20
		United States to Far East	38·50
		New York to South America	35·00
		United States to Mediterranean	56·00
	March	Transatlantic trade	45·82
		United States to South America	59·92
		United States to Far East	50·76
		United States to Antilles	39·48
	April	European trade	46·15
		Far East trade	60·35
		Archangel to the United States	85·44
		Mediterranean trade	71·20
		Transatlantic trade	64·08
	May	Mediterranean trade	74·02
		Transatlantic trade	52·95
	June	United States to Argentina	60·20
		United Kingdom to France	66·42
		Transatlantic trade	70·42
	July	New Zealand to United Kingdom	45·50
		Transatlantic trade	56·00
	August	Transatlantic trade	52·79

Year	*Month*		*Per dead-weight ton*
			Francs
1916	August	United Kingdom to Dieppe and Sicily	51·38
		United States to South America	49·27
		United States to Antilles	49·41
	September	Transatlantic trade	48·79
		United Kingdom to Mediterranean	48·79
		United States to South America	34·85
	October	United Kingdom to East Africa	45·15
		Dieppe to Sicily	62·53
		United States to Chile	31·26
		Transatlantic trade	45·15
	November	Transatlantic trade	62·52
		Japan to the United States	41·68
		Coal traffic with northern France	72·94
		United States to Antilles	53·84
	December	Liverpool to Alexandria	48·63
		United States to Chile	33·34
		United States to Antilles	59·35
		United Kingdom to Dunkerque and Sicily	83·37
1917	January	Transatlantic trade	56·96
		United Kingdom to Mediterranean	66·00
		United Kingdom to Dieppe and Gibraltar	86·44
		United States to Antilles	55·58
		United States to South America	60·85
	February	Transatlantic trade	41·68
		United States to Chile	24·04
	March	French coal trade	97·25
		Transatlantic trade	69·46
		United States to South America	62·52
	April	United Kingdom to Dunkerque and Brest	136·30
		" " " "	156·74
		Transatlantic trade	64·74
		United States to South America	68·15
	May	United Kingdom to Dunkerque and Brest	149·35
		United States to South America	67·88
	June	United Kingdom to Dunkerque and Brest	176·50
		United States to South America	67·88
		Transpacific trade	99·79
	July	United States to Far East	76·93
		United States to Antilles	67·88
		Transpacific trade	85·50
	August	United States to South America	74·67
		United States to Antilles	47·52
	September	United States to Argentina	67·88
		United States to Antilles	54·31
		United Kingdom to Dunkerque and Sicily	66·52
	October	United States to Antilles	50·91
		United States to west coast of England	57·70
	November	Transatlantic trade	63·13

FREIGHT RATES PREVAILING IN THE FRENCH MERCHANT MARINE FROM JANUARY 1913 TO DECEMBER 1917 (*continued*)

Year	*Month*		*Per dead-weight ton*
			Francs
1917	November	United Kingdom to Sicily	66·52
		United States to Antilles	47·52
		United States to South America	44·12
	December	United Kingdom to Dunkerque and Sicily	63·13
		United States to South America	54·31
		United States to Antilles	47·52

The figures for the year 1918 have not yet been published.

According to another computation made by the same Committee of French Shipowners, the average annual freight rates per day and per gross ton in the years 1911–17 were as follows :

AVERAGE MARITIME FREIGHT RATES PER DAY PER GROSS TON IN THE YEARS 1911–17

1911	0·291
1912	0·451
1913	0·372
1914	0·311
1915	1·220
1916	2·940
1917	4·083

As regards the period immediately before and after the armistice, the *Bulletin trimestriel de la Statistique générale de la France* (October 1919) gives the following figures indicating the maritime freight rates per metric ton in francs, but on the basis of London exchange :

MARITIME FREIGHT RATES PER METRIC TON, BEFORE AND AFTER THE ARMISTICE

(Francs, on basis of London Exchange)

	Nov. 8, 1918	*Nov. 29, 1918*	*Sept. 12, 1919*
Wheat and Maize :			
Northern Range to United Kingdom	289·62	68·06	44·24
Northern Range to French Atlantic ports	318·58	74·58	81·09
Northern Range to Genoa	434·28	—	130·28
Australia to United Kingdom	279·18	76·31	77·55
Argentina to United Kingdom	—	—	80·65
Buenos Aires to Genoa	—	—	142·60
Cotton :			
New York to Liverpool	670·81	671·16	333·61
New Orleans to United Kingdom	729·14	729·52	246·87
New Orleans to Havre	—	—	280·23

IV. Government Requisitions

The number and gross tonnage of the merchant ships requisitioned by the French navy during the war was approximately as follows:

Requisitions of French Merchant Vessels by the French Navy during the War

Year	*Ships*	*Gross Tonnage*
1914	109	205,450
1915	192	508,000
1916	56	136,960
1917	55	202,130
1918	5	6,380
Total	417	1,058,920

The requisitioning of so large an amount of tonnage interfered considerably with the commercial activity of the merchant marine, and the indemnities paid by the Government compensated only in small measure the actual losses of the shipping business.

The matter of the rates of compensation in the case of requisitioned ships is very difficult. The number of decrees and circulars issued in regard to it exceeds a hundred, and much litigation arising from it is still pending before the *Conseil d'État.*

The Central Committee of Shipowners, on its part, has devoted a dozen or more of its circulars to the clearing-up of the difficulties created by this abundance of official or legal texts. Circular No. 1,000, issued on July 20, 1917, contains some relatively clear statements indicating the manner in which the Government proposed to regulate the indemnities payable to owners of vessels requisitioned by it.

In order to make adjustments, three scales were established, the first relating to line freight vessels and varying according to their speed, the second relating to ordinary freight vessels (tramps) and varying according to their deadweight tonnage, and the third relating to mixed (passenger and freight) vessels, liners, and hospital ships, and varying according to their speed.

The scales include two kinds of compensation, that is, compensation for transfer of charter, fixed in 1917, and compensation for loss of use of vessel, applying to the four years 1914–17, and based on the compensation for loss of charter, for 1914 at the rate of 22 per cent. of the amount of the latter, for 1915 at 40 per cent., for 1916 at 42·50 per cent., and for 1917 at 45 per cent., for all classes of vessels.

All the rates are slightly lower than the English rates. The following tables furnish information in regard to them :

TABLE OF RATES OF COMPENSATION FOR REQUISITION AND USE OF LINE FREIGHTERS

(Per gross ton and per month)

Speed of Vessel	*Compensation for Transfer of Charter French Scale*	*Compensation for Loss of Use of Vessel*			
	1917	*1914*	*1915*	*1916*	*1917*
13 knots and over . .	17,347	3·82	6·94	7·37	7·81
12 ,, ,, less than 13 .	16,231	3·37	6·49	6·90	7·30
11 ,, ,, ,, ,, 12 .	15,072	3·32	6·03	6·41	6·78
10 ,, ,, ,, ,, 11 .	14,493	3·19	5·80	6·16	6·52
10 ,, ,, ,, ,, .	13,913	3·06	5·57	5·91	6·26
		Sur-Rates			
Vessels of 3,000 tons and less than 4,000 gross tons .	0·580	0·130	0·232	0·247	0·261
Vessels of 2,000 tons and less than 3,000 gross tons .	1·160	0·260	0·464	0·493	0·522
Vessels of less than 2,000 gross tons . . .	1·740	0·390	0·696	0·740	0·783

TABLE OF RATES OF COMPENSATION FOR REQUISITION AND USE OF ORDINARY FREIGHTERS

(per gross ton and per month)

Deadweight tonnage	*Compensation for Transfer of Charter French Scale*	*Compensation for Loss of Use of Vessel*			
	1917	*1914*	*1915*	*1916*	*1917*
More than 5,000 tons . .	13,043	2·87	5·22	5·54	5·87
From 4,001 to 5,000 tons .	13,623	3	5·45	5·79	6·13
,, 3,001 ,, 4,000 ,, .	14,202	3·12	5·68	6·04	6·39
,, 2,201 ,, 3,000 ,, .	14,782	3·25	5·91	6·28	6·65
,, 1,801 ,, 2,200 ,, .	15,362	3·38	6·14	6·53	6·91
,, 1,300 ,, 1,800 ,, .	15,942	3·51	6·38	6·78	7·17

TABLE OF RATES OF COMPENSATION FOR REQUISITION AND USE OF PASSENGER AND FREIGHT VESSELS AND LINERS

(Class II of the English scale: ships of the expeditionary forces)
and of
HOSPITAL SHIPS
(per gross ton and per month)

Speed of the Vessel	*Compensation for Transfer of Charter French Scale*	*Compensation for Loss of Use of Vessel*			
	1917	*1914*	*1915*	*1916*	*1917*
Passenger and Freight Vessels and Liners					
15 knots and less than 17 .	20,290	4·46	8·12	8·62	9·13
14 „ „ 15 .	19,130	4·21	7·65	8·13	8·61
13 „ „ 14 .	17,971	3·95	7·19	7·64	8·09
12 „ „ 13 .	16,811	3·70	6·72	7·14	7·56
Less than 12 knots . .	15,652	3·44	6·26	6·65	7·04
Hospital Ships					
14 knots and more . .	19,709	4·34	7·88	8·38	8·87
Less than 14 knots . .	18,550	4·08	7·42	7·88	8·35

V. THE PROFITS OF THE SHIPPING INDUSTRY

Before the war the financial condition of the shipping business in France was not as favourable as it was in certain other countries. The four great French navigation companies were the following (the last two having been consolidated during the war):

	Gross Tonnage
Messageries Maritimes . .	345,360
Transatlantique . . .	331,669
Chargeurs Réunis . . .	134,104
Sud-Atlantique . . .	101,603

And then there were also the *Transports Maritimes à Vapeur* (88,000 tons), the *Havraise Péninsulaire* (55,000 tons), the *Compagnie Cyprien Fabre* (49,000 tons), the *Navigation Mixte Touache* (44,000 tons), and the *Compagnie Paquet* (40,000 tons).

The dividends declared and distributed were as follows:

	1910	*1911*	*1912*
	Per cent.	Per cent.	Per cent.
Messageries maritimes . . .	5	0	0
Transatlantique	2·4	2·4	1·6
Cyprien Fabre	5	5	6
Transports maritimes . . .	5	6	6

These earnings are considerably lower than those of the large German navigation companies, as shown by the following table :

	1910	*1911*	*1912*
	Per cent.	Per cent.	Per cent.
Hamburg-American Line .	8	9	10
North German Lloyd . .	3	5	7
Hansa Line (Bremen) . .	—	—	20
Kosmos Line (Hamburg) .	—	—	14

It is impossible to determine to what extent the profits of the shipping business in France increased during the war. The opinions and estimates that have been given, both favourable and unfavourable, have been influenced by political considerations, and it will be possible to verify them only after the lapse of several years.

If one were to suppose that the shipowners used their profits entirely or largely for the reconstruction of their fleets, one might conclude that these profits exceeded a billion francs. The fact is that during the war the shipowners built or purchased some 459,000 tons and ordered some 1,242,000 tons, that is, a total of approximately 1,700,000 tons.[1] Reckoning the average cost per ton at 1,000 francs, it follows that the total cost of this reconstructed fleet would amount to 1,700,000,000 francs. But such a computation would be unreliable, for nobody knows how much of their profits the shipowners actually used for the reconstruction of their fleets.

As regards passenger rates, it may be said that they went up on all lines. By way of example, we reproduce the following table showing the percentage increases established by three of the larger French navigation companies :

Messageries Maritimes

	Per cent.
Indo-China, China, Japan, Madagascar, Australia . . .	139
North Mediterranean	200
South Mediterranean	140

[1] This figure does not include the orders placed by the Government, amounting to 340,000 tons ; if we add this figure to the total of 1,700,000 tons, the result approximates the 2,249,000 tons given on p. 16 as representing the total tonnage of the French merchant marine at the present time.

Compagnie Transatlantique

	Per cent.
New York	125
Antilles (with elimination of return tickets)	50 to 60
Algeria	60
Morocco	50

Compagnie Fraissinet

Corsica	(approximately) 5

VI. Crew Wages

The following table shows the increase in the wages of the crews of the vessels of the merchant marine, the figures given corresponding to vessels navigating in the North Sea and Atlantic Ocean (those corresponding to vessels navigating in the Mediterranean Sea being almost the same for long voyages and considerably less for coasting trade):

Crew Wages in the French Merchant Marine Before and After the War

	Before the War	*After August 15, 1919*	*Percentage increase*
	(Francs per month)		Per cent.
Boatswains	140	385	175
Boatswain's mate	118	370	213·56
Sailors	90	330	266·66
Apprentices	55	180	227·27
Cabin-boys	60	150	275
Head firemen	140	385	175
Firemen	118	360	205·08
Coal-passers	90	330	266·66

As regards the size of the crews and the number of working hours, no legislative modification of the previous conditions was made during the war, these matters having continued to be regulated by the law of April 17, 1907.

As regards the number of men employed by the merchant marine, it fluctuated very little during the forty years preceding the war. Whereas in 1873 it was 98,989, in 1913 it was 98,730. In 1914, however, it decreased slightly to 92,733, and during the war it fell off greatly in consequence of the requisitioning of a large part of the merchant marine.

Fuel and Labour. The increase in the price of coal during the war, according to the regular statements published in *La Réforme économique*, wes as follows :

INCREASE IN THE PRICE OF COAL IN THE YEARS 1914–18

Year	*Industrial Coal of northern France delivered on board ship*	*English (Welsh) coal c.i.f.*[1]
	Francs per ton	Francs per ton
1914	20·50	29·70
1915	33·00	41·85
1916	35·00	75·00
1917	40·00	101·25
1918	42·00	101·25

Refined petroleum, which cost 26·50 francs per hectolitre in 1914, had risen to 51·75 francs at the time of the armistice (November 1918), and is now (November 1919) worth 61·75 francs.

The cost of labour increased prodigiously during the war, wages having doubled, trebled, and here and there even quadrupled. At the present time (November 15, 1919) dockers and cranemen are being paid as follows :

WAGES CURRENT AT THE MORE IMPORTANT FRENCH PORTS ON NOVEMBER 15, 1919

Dunkerque :

Wages by the day :
- Ordinary day—20 francs.
- First half of the night—15 francs.
- Second half of the night—25 francs.
- Entire night—40 francs.
- Extra hours : 3 to 4·50 francs per hour according to time of day.
- Sunday (all day)—40 francs.

Salaries by the month :
- Cranemen—525 and 550 francs.
- Engineers—550 and 575 francs.

Havre :

Wages by the day :
- Dockers—18 francs.
- Draymen—18 francs and 5 francs for preparatory work.
- Extra hours : 2·50 to 3 francs per hour.
- Sunday—14 francs per half-day.
- Entire night—48 francs.

[1] *Ed. note.* c.i.f., technical abbreviation for cartage, insurance, and freight.

Rouen :

Wages by the day :

From 13 francs for rollers of empty casks

To 18 francs for coal-carriers.

Extra hours : 2·50 francs per hour.

Salaries by the month :

Cranemen (operators of hydraulic cranes)—400 francs.

„ (operators of steam cranes)—600 francs.

Bordeaux :

Dockers—15 francs per day (according to merchandise handled).

Saint-Nazaire :

Dockers—15 francs per day.

„ 22·50 francs per night.

Extra hours : 2·50 francs by day and 3·50 francs by night.

Cranemen—450 francs per month.

Nantes :

Dockers—14 francs per day.

„ 20 francs per night.

Iron-workers—7 francs per day.

„ 10 francs per night.

La Rochelle-Pallice :

Dockers—13·50 francs per day (minimum).

Cranemen—12 francs per day (also 3 francs additional for high cost of living and 0·10 francs per hour of operation. Allowance of 10 francs per month for each child under 16 years and 15 francs per month after the third child).

Cette :

Cranemen—16 francs per day.

Cart-loaders—23 francs per day.

Extra hours : 3 francs per hour.

Marseilles :

Dockers—18 francs per day.

Carters and draymen—15·75 to 21 francs per day (according to number of horses).

Dock-guards—15 francs per day.

Extra hours : 3 francs for carters and 4 francs for dockers.

Sunday—24 francs.

Strikes. There were no strikes during the war for the reason that the personnel of the various divisions of the merchant marine was under military control. After the war there were a few individual movements of relatively minor importance : a short strike of the officers of the merchant marine in April 1919 ; a strike of the dockers at Havre on March 24, 1919 ; another strike in the same port in July and August ; a few short strikes in other ports.

The collective agreement which ended the strike at Havre in August contained the following provisions :

The employers consented to a minimum wage of 12 francs per day, and agreed not to reduce wages below that amount until it had been established that the cost of living had gone down at least 10 per cent.

A high-cost-of-living additional wage was temporarily conceded by the Employers' Association of Havre to the least favoured unions of that city, the amount having been fixed at 4 francs per day, payable from August 1 to September 30, 1919.

VII. Marine Insurance

A law of April 19, 1917, instituted compulsory war risk insurance on the hulls of all French vessels of five hundred gross tons or more. The terms of the decree of April 25, issued in execution of the said law, fixed the monthly premium rates as follows :

	Steamer	*Sailing Vessels*
	Per cent.	
(*a*) Navigation between all the ports of France, the United Kingdom, the Iberian Peninsula, and the western basin of the Mediterranean Sea (that is west of a line drawn from Cape Bon to Cape Boco of Sicily)	3	4·50
(*b*) Navigation between all the ports of the western basin of the Mediterranean Sea	2·75	4·15
(*c*) Navigation between all the ports of the Mediterranean Sea (excluding those of the Adriatic)	3	4·50
(*d*) Direct navigation between all the ports of France, the United Kingdom, the Iberian Peninsula, the western basin of the Mediterranean Sea, and all the Atlantic ports of Africa and America	2·25	3
(*e*) Direct navigation between all the ports of France, the United Kingdom, the Iberian Peninsula, the western basin of the Mediterranean Sea, and all the ports of the Pacific and Indian Oceans (via Cape Horn, Cape of Good Hope, or Panama Canal)	2	2·25
(*f*) Direct navigation between all the ports of the Mediterranean Sea and those beyond Suez	2·25	2·25
(*g*) Direct navigation between all the French ports on the North Sea, the English Channel, and the Atlantic Ocean and those beyond Suez	2·75	2·25
(*h*) Direct navigation between all the French ports and all the ports of Holland, Sweden (only Gothenburg), Norway, and Russia (only Arctic Ocean)	3·50	5·25

In the application of the rates it was provided that motor-boats were to be classed with steamers and sailing vessels with auxiliary power to sailing vessels; towed barges were likewise to be classed with sailing vessels.

The premium was to be reduced 3 per cent. if the vessel was armed, 2 per cent. if it was equipped with wireless telegraph, and 5 per cent. if it was both armed and equipped with wireless telegraph.

The decree further provided that if the insurance were demanded for a period of three months, a reduction of 5 per cent. in the amount of the premium would be made.

The rates specified in the above decree were reduced 75 per cent. by the decree of November 15, 1918.

The decree of January 20, 1919, provided that after the first of the following February the monthly premium rate was to be fixed uniformly at 0·25 per cent. per month.

Finally, a law of October 8, 1919, authorized the suspension of the above-mentioned law of April 19, 1917.

Conclusion

The French merchant marine was put to a severe test by the war; but although it was severely handicapped by the fact that the nation was forced to concentrate all its forces for the repulse of the enemy, we have seen that it was able to survive the long period of trial without significant destruction, and is now in process of reconstruction on a larger scale than ever. At the same time, however, there is no intention or desire to rival or compete with the merchant marines of other countries, such as those of England and the United States. On the contrary, there is only the wish to maintain its former rank and to prevent its being surpassed by the merchant marines of countries of smaller population and less wealth.

It is largely to private enterprise that the French merchant marine will be indebted for its recovery. The fact is that the public authorities of France have not always supported the efforts of private initiative as strongly as it seems they might

have done, and at times, indeed, they have actually obstructed them. At the beginning of the war more merchant ships were requisitioned than were actually needed, with the result that many of them lay idle in the ports for a considerable length of time. Had they been left in the hands of their owners, it is obvious that they would have done much toward maintaining the economic activity of the country. The shipyards, on their part, were completely diverted from their special work to the manufacture of arms and munitions; and here again it seems that the French Government would have exhibited more foresight if it had devised some means of increasing its output of arms and munitions to the utmost without at the same time completely arresting its shipbuilding industry.

In the course of the war some interesting but inopportune attempts were made by the public authorities completely to modify the shipping business. A socialist deputy placed at the head of the Administration of the Merchant Marine insisted that the profits realized by the shipowners were excessive, and called upon the National Assembly to adopt his great plans for the creation of a State Fleet (*Flotte d'État*). As a matter of fact, the National Assembly did vote him considerable sums, amounting to 850,000,000 francs, wherewith a certain number of ships were purchased by the Government and are still being operated by it; but the accounts relating to these purchases and operations have not yet been published, so that it is difficult to form an opinion regarding the results.

The French merchant marine is further handicapped by certain unfavourable conditions to which technical writers attribute the slowness and weakness of its development. In the first place, the Government departments having control of it are distributed among several ministries, so that there can be no unity of thought and action. The shipowners, moreover, are diverted from the practice of independent chartering by a custom which reserves this practice to administrative officers known as *courtiers maritimes* (ship-brokers). Thus the shipowners do not engage in tramp traffic, which is really the basis of the shipping business, but in line traffic, which calls for less

initiative and activity and gives rise to the necessity of Government subventions. In the second place, the navigators themselves might make progress in many ways—better professional instruction, better moral conduct, better health (tuberculosis and alcoholism are very prevalent among them), better discipline, and better understanding with their employers. In the third place, the French seaports leave much to be desired as regards their means of access (the water in some of the harbours being too shallow), as regards their equipment in the way of quays, docks, &c., and as regards their connexions with interior railways, canals, &c. In the fourth place, finally, the present regulations should be revised, modernized, and made more elastic; the merchant marine should get rid of the military traditions arising from its long subordination to the navy; and the agents of the Under-Secretaries of State should turn their attention to economic matters.

All these improvements will come sooner or later. The regulations are gradually being improved and modernized, and it would be unjust to say that the French merchant marine is still under a régime such as existed in the time of Colbert. The *maritimes inscrits* (registered mariners), as all navigators are called in France, are making progress in every direction, and are in no way inferior to the navigators of any other country. Great public works have been planned and begun for the improvement of the ports with reference to the new conditions, and the total contemplated expenditures amount to no less than three and a half billion francs. During the war the shipowners gave evidence of the greatest energy and tenacity, and it will be an easy matter, when desired, to reduce the rôle of the official *courtiers maritimes* in such a way as to give the shipowners the privilege of independent chartering. In the domain of public authorities, finally, great progress has also been made in the direction of the unification of the services of the merchant marine. The administration of the seaports, hitherto bizarrely separated from that of the merchant marine, has just been placed in the same hands by the re-establishment of the Under-Secretaryship of State of the Merchant Marine (January 20,

1920), and there is lacking only the bringing together of the registration and measurement of capacity services, now controlled by the Customs Administration under the supervision of the Ministry of Finance, to bring about the long-awaited establishment of a separate Ministry of the Merchant Marine.

THE EFFECT OF THE WAR UPON THE FRENCH TEXTILE INDUSTRY

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THE EFFECT OF THE WAR UPON THE FRENCH TEXTILE INDUSTRY

I. General Survey

On the eve of the war the condition of the French textile industry was for the most part satisfactory. It had perfected its equipment and increased its productive capacity. It is true, however, that it still had much progress to make and many improvements to inaugurate. In certain localities and in certain branches it had not had sufficient courage to discard machinery that was more or less worn or antiquated; but in other localities and branches it had an excellent mechanical equipment, as well as a technical and commercial organization which could stand comparison with the best there was in other countries.

Thanks to the development it had thus undergone, as well as to the existence of import duties protecting it against foreign competition, the French textile industry had succeeded in acquiring complete control of the home market. By the very nature of things, to be sure, it had to procure from other countries its entire supply of some of the necessary raw materials, such as cotton and jute, and most of its supply of the others, such as silk, wool, and flax. As regards manufactured textile products, on the other hand, there were only a few special articles which France had to purchase abroad. For her own manufactured textile products, moreover, she had succeeded in creating important outside markets, not only in her own colonies (Algeria, Indo-China, Senegal, Madagascar, &c.), but also in numerous foreign countries. In 1913, the year before the outbreak of the war, the value of her imports of raw textile materials and manufactured textile products combined totalled 2,127,000,000 francs, whereas the value of her corresponding exports totalled 2,135,000,000 francs. Thus France was able to pay with her sales for all of her purchases abroad, and at the

same time have all the raw material she needed for the satisfaction of her own requirements.

This state of affairs was completely disrupted, as we shall see in the course of this study, by the abnormal conditions created by the war. While this applies to a certain extent to all of the textile industries, in this immediate connexion it seems advisable to leave the silk industry out of consideration, since its fate was somewhat different from that of the others. As regards the wool, cotton, linen, and jute industries, however, if we glance at the figures indicating the imports of the corresponding raw materials we cannot fail to see the disastrous influence of the war upon them. The prodigious falling-off of these imports during the war is clearly revealed in the following table :

AMOUNT OF IMPORTS OF RAW TEXTILE MATERIALS INTO FRANCE IN 1913 AND 1918

	Metric Tons	
	1913	*1918*
Wool	286,000	44,000
Cotton	329,000	142,000
Flax	113,000	7,000
Hemp	30,000	16,000
Jute	122,000	9,000
Total	880,000	218,000

Thus from 1913, the year before the outbreak of the war, to 1918, the last year of the war, the imports of raw textile materials other than silk decreased from 880,000 to 218,000 metric tons—a decrease of more than 75 per cent. The significance of this decrease becomes apparent when it is recalled that all of the cotton and jute put through the process of manufacture in French textile mills came from abroad ; as regards wool, on the other hand, French clips produced scarcely a seventh or an eighth of the total quantity worked up in France ; and as regards linen and hemp, finally, the French production of raw material constituted less than a third of the total quantity received by the spinning mills. It is obvious, accordingly, that a falling-off of imports as pronounced as that indicated in the above table must necessarily have exerted a very restrictive influence upon the total production of manufactured textile products in France.

What do we observe as regards the country's foreign trade in manufactured textile products? The following table indicates the value of the exports thereof before and during the war: [1]

VALUE OF EXPORTS OF MANUFACTURED TEXTILE PRODUCTS FROM FRANCE IN 1913 AND 1918

	Millions of Francs	
	1913	*1918*
Yarn	212	57
Woollen (cloth)	220	40
Cotton (cloth)	385	244
Linen and Hemp (cloth)	27	4
Jute (cloth)	17	31
Total	861	376

Thus the value of the exports of manufactured textile products, whereof France was so proud before the war, decreased from 861,000,000 francs in 1913 to 376,000,000 francs in 1918—a decrease of more than 56 per cent. The above figure for 1918, moreover, takes into account the intervening rise of prices; and if we made no allowance for this, we would find that the figure corresponding to 1918 would amount to scarcely a sixth of that corresponding to 1913. During the war France lost a number of foreign markets in which she had previously secured a firm foothold; she ceased to be a factor in the world-market as an exporter of manufactured textile products.

As regards the imports of manufactured textile products, on the other hand, their value underwent a prodigious increase, as shown by the following table:

VALUE OF IMPORTS OF MANUFACTURED TEXTILE PRODUCTS INTO FRANCE IN 1913 AND 1918

	Millions of Francs	
	1913	*1918*
Yarn	64	884
Woollen (cloth)	51	544
Cotton (cloth)	56	648
Linen and Hemp (cloth)	10	101
Jute (cloth)	15	190
Total	196	2,367

[1] In the case of manufactured products we give figures representing value instead of quantity, for the reason that we consider them of greater interest.

Thus the increase was truly prodigious, the difference amounting to more than two billion francs, or almost twelve times the total value of the imports in 1913. It is true that the increase was considerably accentuated, as in the case of the exports, by the intervening rise of prices; apart from this, however, the imports for 1918 were not less than five times as heavy as those for 1913. In short, France ceased to be an exporter of manufactured textile products and became an importer thereof.

The foregoing tables complete and clarify one another, all three of them bearing witness to the disastrous influence of the war upon the French textile industry in general. In 1918 this industry received from abroad only 218,000 tons of raw material, as compared with 880,000 tons in 1913; it consumed for manufacturing purposes only a quarter of its normal pre-war consumption. Before the war France was able to supply not only her own needs, but also a part of the needs of other countries; during the war, however, she ceased to sell her goods abroad and at the same time was obliged to make large foreign purchases for the satisfaction of her own requirements. Whereas in 1913 the value of her exports of manufactured textile products exceeded the value of her corresponding imports by some 665,000,000 francs, in 1918, on the other hand, we find that the latter exceeded the former by more than two billion francs. Thus the entire French balance of trade with respect to manufactured products of the textile industry sustained a loss of some 2,654,000,000 francs between the years 1913 and 1918.

The causes of the greatly decreased production of the French textile industry are not difficult to discover. One of the chief difficulties was that which was common to almost all French industries, namely, the scarcity of workers caused by the mobilization, which in a country of forty million inhabitants took more than seven million persons away from productive occupations. Like the other industries, moreover, the textile industry suffered severely from the disruption of transportation and the shortage of coal.

But the severest blow suffered by the French textile industry was dealt by a more special factor, namely, by the German invasion of the northern and eastern departments, which placed a large proportion of the textile mills either in the hands of the enemy, or else within range of his guns. The *Département du Nord* is the principal centre of the French textile industry; according to the census of 1911, of a total of 805,000 persons employed in textile establishments throughout all France, 178,000, or nearly a quarter, were concentrated in that department. In several of the other invaded departments (Somme, Marne, Aisne, Pas-de-Calais), moreover, the textile industry had likewise acquired some importance. The silk industry was but slightly represented in this part of the country, so that it escaped the disastrous consequences of the invasion almost entirely. As regards the wool industry, however, nearly all of the country's combing machines, three-fourths of its spindles, and two-thirds of its looms were located either in invaded territory or else so close to the firing-line that they had to be shut down. As regards the linen industry, the same applies to almost all of the spindles and to more than half of the looms. As regards the cotton industry, finally, while it was less severely affected than the others, almost a third of the spindles had to be left idle. It is obvious that an enormous decrease in production necessarily resulted from this dispossession of so large a part of the country's mechanical equipment.

Toward the end of the war, moreover, the situation was aggravated by other factors. The total French imports of raw textile materials other than silk before and during the war are indicated by the following table:

AMOUNT OF IMPORTS OF RAW TEXTILE MATERIALS (EXCLUDING SILK) INTO FRANCE IN 1913 AND IN 1915–18

Year	*Metric Tons*
1913	880,000
1915	382,000
1916	457,000
1917	428,000
1918	218,000

These figures show that the French textile manufacturers,

after they had sufficiently recovered from the effects of the first terrible blow, took up production in the uninvaded parts of the country. Having slightly modified their personnel, they made an effort to increase the productivity of the mechanical equipment left at their disposal. The existing machinery was overhauled and in some cases even added to, while some of that which was so close to the firing-line that it could not be used was taken down and remounted elsewhere. Sometimes, indeed, but rather rarely, new mills were erected. All this accounts for the fact that the imports of raw materials in 1916 show a considerable increase with respect to those of the preceding year.

Beginning with 1917, however, a new falling-off in the imports of raw materials is to be observed; and it becomes especially pronounced in the following year. Whereas in 1916 some 457,000 tons of raw materials were imported, or approximately one-half of the quantity corresponding to 1913, in 1918 only 218,000 tons were imported, or approximately one-fourth of the quantity corresponding to 1913. In 1916 the industry suffered from the loss of a large part of its mechanical equipment; in 1918 even the equipment left available was inadequately supplied with raw material. This new decrease in importation, and consequently in production, was a result of the renewal of the German submarine activity in 1917.

When we compare the imports of raw textile materials with the imports of merchandise of all kinds, however, we note that the falling-off between 1916 and 1918 was greater with respect to the former than with respect to the latter. The total tonnage of the loaded ships that entered French ports decreased from twenty-six millions in 1916 to twenty millions in 1918—a falling-off of one-fourth. In the same period the imports of merchandise of all kinds decreased from forty millions to twenty-nine millions of tons—a falling-off of one-third. With respect to textile materials, however, we have seen that the falling-off amounted to one-half. The decrease was thus proportionately greater than that which should have resulted from the reduction of the merchant fleet available.

More than from the reduction of the merchant fleet, however,

the French textile industry suffered from a direct consequence thereof, namely, from the policy of restrictions which the Government adopted with respect to importation and exportation immediately after the renewal of the German submarine activity. France was determined that this should in no way detract from her military power, and accordingly she resolved to direct all her efforts toward the adoption of whatever measures were calculated to ensure victory. To this end, therefore, she deliberately and courageously sacrificed many economic interests which could be looked upon as thoroughly legitimate. It was because she was inspired by this predominant desire for victory, indeed, that in spite of and in the worst phase of the submarine activity she persistently refused to employ her shipbuilding establishments for their normal purpose and continued to use them for the manufacture of guns and ammunition.

These same considerations lay at the foundation of the policy of priorities that was adopted in the matter of maritime transportation. By virtue of this policy preference was given to the transportation of merchandise deemed essential to military success, such as munitions and certain indispensable food products. Wool, cotton, and jute intended to supply the needs of the civil population were consequently conceded but little space in the available ships. In fact, even the textile materials necessary for the manufacture of soldiers' uniforms, blankets, &c., were considered less essential than certain other kinds of war material and were accordingly accepted for transportation only in more or less limited quantities.

The same considerations further led, moreover, to the policy of transporting compact and easily handled manufactured products in preference to heavy and bulky raw materials. To a considerable extent, for instance, more flour and less wheat were transported, more oil and less oleaginous seeds, more paper and less cellulose, more powder and less nitrate, and also more yarn and cloth and less raw cotton and wool. The Government, and especially the Army Supply Service, was led to cut down its foreign purchases of raw materials in favour of manufactured products, notwithstanding the resultant disadvantages with

respect to the economic life of the country. Inasmuch as manufactured textile products required less cargo space than raw textile materials, more cargo space was thus left available for munitions. The burden of the higher cost was willingly borne, and foreign industries were deliberately permitted to thrive at the expense of domestic industries. Everything was held subordinate to that which was considered necessary for the achievement of victory.

Moreover, while the Government departments were economizing cargo space by increasing their purchases of foreign manufactured products, at the same time, in order to save money and prevent the rise of foreign exchange, they restricted the purchase of manufactured products for private accounts by prohibiting their importation.

It is necessary to add, finally, that besides these transportation difficulties there was still another factor that helped to reduce the supply of textile materials, namely, the ever-increasing restrictions placed by certain countries upon their exportation. This applies, for instance, to Australia, which reserved its wool production for England alone, having sold out its entire supply to her for a number of years in advance.

We have set forth, accordingly, the chief causes of the paralysation of the French textile industry during the war—the causes which made it necessary for France to rely upon foreign industries to supply her demand, both civil and military, for manufactured textile products. Following this general survey, we may now pass on to a brief consideration of each of the various branches of the textile industry.

II. The Wool Industry

Of all the French textile industries the wool and linen industries were the most severely affected by the war, due to the fact that they were more concentrated than the others in the regions invaded by the enemy. For the country in general, however, the paralysation of the wool industry had the most serious consequences on account of the very important position

which it had occupied in the economic life of the people. It is to this industry, accordingly, that we will turn our attention first.

Before the war the French wool industry had attained a high degree of technical development and at the same time had built up a splendid commercial organization. It showed a tendency to become concentrated in the region of Roubaix-Tourcoing, where it was conducted in large mills provided with excellent mechanical equipment and managed by men possessed of a genuine spirit of enterprise. Division of labour was correlated with frequent examples of integration, the same company in many cases importing its raw wool directly from the country of production, operating its own combing, spinning, and weaving mills, and even maintaining its own retail stores. French manufacturers of woollen yarn and cloth had not only succeeded in acquiring complete control of the home market, but had also developed a heavy export trade, shipping large quantities of combed wool, yarn, and cloth to England, Germany, Belgium, Italy, the United States, and other countries.

The war dealt the French wool industry a severe blow, permitting it to be continued only on a terribly reduced scale. The annual French clip, which before the war had amounted to some 35,000 tons, was greatly reduced in consequence of the loss of a large part of the country's ovine stock. In particular, however, it is the falling-off in the imports of foreign wool that accounts for the full gravity of the decreased production. The following table shows the French imports of foreign wool in bulk before and during the war :

Amount of Imports of Raw Wool into France in 1913 and in 1915–18

Year	*Metric Tons*
1913	269,000
1915	65,000
1916	78,000
1917	60,000
1918	40,000

Thus in 1916 the imports of foreign wool amounted to less

than a third of what they were in 1913. Beginning with 1917, moreover, we note a further falling-off; and in 1918 the total dwindles down to 40,000 tons, or a little more than a seventh of the pre-war figure.

Along with this decrease in the imports of raw material, moreover, there was an almost complete stoppage of the exports of woollen yarn and cloth and at the same time an astonishing increase in the imports thereof. France, no longer able to manufacture, ceased to sell to foreign countries, and was obliged to purchase in considerable volume from them.

Moreover, even before it is a question of yarn and cloth, so to speak, this same shift in trade is to be observed with respect to the combing industry—which in the other textile industries is more or less a part of the spinning industry, but in the wool industry constitutes a separate branch of special interest and importance. Before the war the annual exports of combed wool amounted to some 26,000 tons, representing a value of some 140,000,000 francs. During the war, however, this export trade ceased, one may say, entirely; according to French custom-house statistics, the exports of combed wool in the years 1915, 1916, 1917, and 1918 amounted to only 107, 228, 253, and 269 tons respectively. On the other hand, the imports of combed wool, which before the war had amounted to almost nothing, during the war acquired considerable importance; instead of the 100–200 tons received before the war, in 1916 the receipts amounted to 4,067 tons valued at 49,000,000 francs and in 1918 to 1,754 tons valued at 35,000,000 francs.

Thus wool combing was practically a dead industry in France during the war.

As regards woollen yarn and cloth, the same or similar phenomena are to be observed. In the first place, a falling-off in the exports: whereas in 1913 the value of the exports of woollen yarn was 102,000,000 francs, in 1918 it was not more than 1,000,000 francs; and whereas in 1913 the value of the exports of woollen cloth was 220,000,000 francs, in 1918 it was not more than 40,000,000 francs.

The imports of woollen yarn and cloth, on the other hand,

underwent an astonishing increase, as shown by the following table :

VALUE OF IMPORTS OF WOOLLEN YARN AND CLOTH INTO FRANCE IN 1913 AND IN 1915-18

	Millions of Francs		
Year	*Yarn*	*Cloth*	*Total*
1913	6	51	57
1915	63	500	563
1916	135	811	946
1917	182	609	791
1918	229	544	773

Thus whereas in 1913 the value of the imports of woollen yarn and cloth was only 57,000,000 francs, in 1916 it was no less than 946,000,000 francs—an increase of more than 1,500 per cent. It was in 1916, however, that these imports reached their high-water mark. In that year the value of the imports of woollen yarn and cloth underwent an increase of some 889,000,000 francs with respect to that of the corresponding imports in 1913 ; and if we add to this figure that corresponding to the imports of combed wool, we find that the total increase amounted to no less than 938,000,000 francs. On the other hand, the value of the exports of woollen yarn and cloth, as well as of combed wool, underwent a decrease of 434,000,000 francs. For the entire balance of trade, accordingly, the total loss amounted to the enormous sum of 1,372,000,000, or almost a billion and a half francs.

After 1916, despite the fact that the imports of raw material continued to decrease, the imports of manufactured products likewise decreased. The Government, to be sure, continued to purchase considerable quantities of manufactured products abroad ; but purchases of manufactured products for private accounts were restricted by import prohibitions established in France and export prohibitions established in other countries. As regards the imports of English cloths, in particular, the Anglo-French agreement of August 24, 1917, provided that they were to be reduced to a limited proportion equal to approximately one-third of the quantity imported in 1916. In reality, however, this proportion was considerably exceeded,

especially by reason of the direct and indirect purchases made for the account of the Government to supply the needs of the army. The decrease of the imports in 1918 as compared with 1916 was considerably less in the case of yarn and cloth than it was in the case of raw material.

The principal cause of this loss sustained by the French wool industry is already known; it was due to the fact that this industry was largely concentrated in the regions invaded by the enemy. According to the census of 1906 (the last offering information regarding the matter), of 171,000 persons actively employed in the wool industry throughout France more than one-half (85,619) were in the *Département du Nord* alone; and if we add to this the number of persons so employed in the other departments which were partially or wholly invaded, we find that the total is more than 116,000, or approximately two-thirds of the entire personnel.

The wool-combing industry was entirely confined to the *Département du Nord* and the *Département de la Marne*. Of 10,600 persons employed in this branch of the industry in 1906 no less than 7,200 were in the former department, which fell entirely into the hands of the enemy, and 1,400 were in the latter department, which was constantly within range of his guns. Thus wool combing, which had come to be one of the country's most flourishing industries, was practically wiped out during the war.

As regards the wool spinning industry, of 30,300 persons actively employed in it, according to the same census of 1906, some 20,500, or approximately two-thirds, were in the invaded departments. In the *Département du Nord* alone was concentrated one-half of the entire French spinning personnel, that is, 15,900 persons; and in particular three-fourths of the entire personnel engaged in the spinning of combed wool were concentrated there, that is, 12,000 out of 16,600 persons.

Moreover, the disastrous effects of the enemy invasion upon the wool spinning industry is further shown by the figures indicating the loss of mechanical equipment. Of approximately 2,000,000 combed wool spindles operating in France some 1,750,000, or seven-eighths, were in mills located in territory

which was either occupied by enemy troops or menaced by enemy gunfire; of 369,000 twisting spindles, moreover, 315,000 were in the same regions; while of 715,000 carded wool spindles, finally, 250,000 had to be abandoned. Altogether, therefore, the loss amounted to 2,315,000 out of 3,084,000 spindles; that is to say, during the war the French spinning-mills lost 75 per cent. of the mechanical equipment at their disposal before the war.

As regards the wool weaving industry, the situation was but slightly better. According to the same census of 1906, of 121,000 persons engaged in weaving wool throughout France, 61,000, or approximately one-half, were in the *Département du Nord*, and 82,000, or approximately two-thirds, were in all the invaded departments combined. As regards the mechanical equipment, of 55,000 looms throughout the country approximately 25,000 were in the region of Roubaix-Tourcoing, 4,000 in the region of Fourmies, and 6,500 in the region of Rheims; and there were also some in the *Département des Ardennes* and the *Département de la Somme*. Thus two-thirds of the country's looms were located in regions which were either actually invaded or constantly menaced by the enemy.

In general, accordingly, it may be said that during the war the French wool industry lost all of its combing machines, three-fourths of its spindles, and two-thirds of its looms.

An effort was made, nevertheless, to augment the means of production in the uninvaded parts of the country. It was not easy to create new plants, however, owing to the difficulty of procuring the necessary mechanical equipment. Before the war the machinery used by the French wool industry came from three centres of production—from the region of Roubaix-Tourcoing, from Alsace, and from England. Inasmuch as the first two sources were cut off, however, the only one left was the third, whence the delays in delivery were truly terrible. Where, moreover, was it possible to find the necessary operatives for new plants, when those already in existence were desperately short of help? As a matter of fact, the number of entirely new plants created was very small; one may cite a combing-mill

with some twenty combers, the installation of some 35,000 new carded wool spindles and a number of carded wool looms. Besides this, the machinery of certain mills located in and around Rheims was taken down and remounted in regions where it could be operated in security from the enemy gunfire —as at Elbeuf, Romorantin, Roanne, &c.

Towards the end of the war, however, these efforts put forth to the end of partially rehabilitating the French wool industry were rendered futile by the cutting off of the supplies of raw material, which made it impossible for the French textile manufacturers to use to their full extent even the greatly reduced means of production left at their disposal. As indicated above, the imports of wool, which decreased from 269,000 tons in 1913 to 78,000 tons in 1916, dwindled down to only 40,000 tons in 1918. The imports of wool from Australia, which was one of the most important sources of French supply, fell off in consequence of the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. French vessels were not authorized to make voyages as long as that to Australia for the purpose of procuring wool, so that the Government departments resigned themselves to the purchase of manufactured products in less distant countries, especially England, thereby economizing time and cargo space. The small supply of wool that continued to come from Australia was limited to the amount necessary for war purposes, and was brought to France largely by English vessels navigating in conformity with agreements concluded between the French Army Supply Service and the British Ministerial Departments. But it was not long before even these consignments were carried only as far as Port Said, where they were transhipped to French vessels; and later even this became difficult, so that considerable quantities of wool purchased in Australia were held up there indefinitely. According to the custom-house statistics for 1918, the imports of Australian wool in that year amounted to only 4,000 tons, or less than 5 per cent. of the annual pre-war imports. Moreover, the agreement whereby Australia reserved her entire wool production for England from November 1916

to the end of the year following the declaration of peace, made it necessary for French manufacturers to buy Australian wool in England, which, however, allowed them to have only very small quantities—7,000 tons in 1918, or only 25 per cent. of the amount ordinarily received from England before the war.

As regards the imports of wool from the Argentine Republic and Uruguay, the second great source of French supply, the shipping difficulties were not so great because the distance was shorter. But in this case difficulties of a financial nature were encountered, the unfavourable condition of French credits and French exchange in the Argentine Republic having led the more important business houses in that country, if not to reject, at least carefully to consider the orders for wool placed by the French Government. The credit of 100,000,000 *pesos* which the Government of the Argentine Republic agreed to open for us was reserved by preference for purchases of grain and linseed for military uses. The available funds left over for the purchase of wool were consequently insufficient, so that the imports in 1918 amounted to only 17,000 tons, or approximately 20 per cent. of the annual pre-war imports.

It will be seen, accordingly, that the French wool industry could not supply even the needs of the army during the war, making it necessary for the Army Supply Service to resort to the purchase of manufactured products abroad. This enables us to understand why it was that, whereas before the war the value of the exports exceeded that of the imports by some 400,000,000 francs, in 1916 and 1918 the value of the imports exceeded that of the exports by 966,000,000 and 768,000,000 francs respectively. And even so, moreover, the demand of the civil population for woollen clothing and furnishings was not nearly as well supplied as it was before the war.

III. The Linen, Hemp, and Jute Industries

The linen industry suffered no less than the wool industry from the disruptive influence of the war. Although of less importance than the latter, to be sure, it occupied a by no

means insignificant position among the various French textile industries. Protected by import duties, it had not only succeeded in eliminating foreign manufactured products from the home market, but at the same time had developed a considerable export trade, with the result that before the war it was shipping ever-increasing quantities of yarn and cloth to various foreign countries—even to England, the great competitor of France.

Like the wool industry, however, the linen industry was concentrated chiefly in the *Département du Nord*, so that during the war it was destined to suffer virtually the same fate.

The flax-spinning industry was confined almost entirely to the *Département du Nord*. According to the census of 1906, of 21,400 persons actively employed in spinning flax throughout the country no less than 19,500 were in that department, while of 572,000 flax spindles 510,000 were located there. The spinning mills were nearly all situated either in regions actually occupied by the Germans or else in regions constantly exposed to their gunfire—as, for instance, the region of Armentières, which for a long time escaped occupation, to be sure, but was completely devastated by bombardments.

The linen-weaving industry was more than half confined to the *Département du Nord*. According to the same census of 1906, of 66,000 persons actively employed in weaving linen cloth 34,000 were in that department; of 17,500 power-looms, moreover, approximately 10,000 were located there, while of 20,000 hand-looms 12,000 were located there. Thus the only weaving establishments that were destined to remain in the possession of France during the war were those in the west and in the *Département des Vosges*—which means that the country was deprived of more than three-fifths of the mechanical equipment at its disposal before the war.

Even the mills located in the uninvaded sections, moreover, were destined to be inadequately supplied with raw material. The region of the Lys, which is the agricultural centre of the production of French and Belgian flax, fell entirely into the hands of the Germans. Italian hemp, on the other hand, was

received only in limited quantities, chiefly because of the restrictions placed upon its exportation by the Italian Government. Of special importance, however, was the cutting-off of the supply of flax previously received from Russia, the greatest flax-producing country in the world; but since Russian flax could be forwarded to France only via Archangel, the submarine activity necessarily had the same disastrous consequences with respect to it as it had with respect to the other raw textile materials. Then, too, there were the difficulties created by the Russian revolution.

Under the influence of all these factors the French linen and hemp industries came to an almost complete standstill during the war. Instead of exporting manufactured products, accordingly, it became necessary to import them—especially for military purposes, for the Aeronautical Service in particular.

The following table shows the imports of flax and hemp before and during the war:

AMOUNT OF IMPORTS OF FLAX AND HEMP INTO FRANCE IN 1913 AND IN 1915–18

	Metric Tons	
Year	*Flax*	*Hemp*
1913	113,000	30,000
1915	3,000	8,000
1916	15,000	24,000
1917	8,000	14,000
1918	7,000	6,000

Thus the imports of flax and hemp combined decreased from 143,000 tons in 1913 to 39,000 tons in 1916, and again to only 13,000 tons in 1918, so that in the last year of the war they amounted to approximately one-eleventh of what they were in the year before the war. At the same time, moreover, the French agricultural production declined on account of the shortage of labour, as well as of seed, and the lack of facilities for the processes of retting and scutching.

Deprived of its means of production and of its supply of raw material, accordingly, the French linen industry could produce only limited quantities of merchandise. It could no longer be a question, so to speak, of shipping linen yarn and cloth to

foreign countries, so that whereas in 1913 the value of the exports thereof amounted to some 73,000,000 francs, in 1918 it amounted to only 7,000,000 francs. In order to supply her domestic needs, on the other hand, it was necessary for France to make large foreign purchases, as shown by the following table:

VALUE OF IMPORTS OF LINEN YARN AND CLOTH INTO FRANCE IN 1913 AND 1915–18

	Millions of Francs	
Year	*Yarn*	*Cloth*
1913	7	10
1915	15	13
1916	42	23
1917	121	55
1918	42	101

In the case of the linen industry the weaving mills suffered much less than the spinning mills from the effects of the German invasion, so that it is in the imports of yarn that the most pronounced increase is to be observed, namely, from 7,000,000 francs in 1913 to no less than 121,000,000 francs in 1917. In the same period, however, the value of the imports of linen cloth increased from 10,000,000 francs to 55,000,000 francs.

In 1918, when France received but little flax from Russia on account of the chaotic conditions prevailing in that country, she also received less linen yarn from abroad, with the result that the French weaving mills, which had been forced by the lack of domestic yarn to make use of foreign yarn, found themselves deprived of the latter as well. England, in particular, in order to keep her own weaving mills supplied, greatly limited her sales of linen yarn; at the same time, however, she continued to sell linen cloth, having actually sold France considerably more in 1918 than in 1917—47,000,000 and 21,000,000 francs worth respectively. In general, the value of the imports of linen cloth of all origins increased to 101,000,000 francs.

If we compare the foreign trade of 1917 with that of 1913, accordingly, we find that, whereas in 1913 the value of the exports of manufactured products of the linen industry exceeded that of the imports by some 56,000,000 francs, in 1917

the value of the imports exceeded that of the exports by some 163,000,000 francs, the difference representing a loss of some 219,000,000 francs with respect to the entire French balance of trade. In 1918 the loss was not quite so great, but was nevertheless appreciable.

Notwithstanding this decrease of exports and increase of imports, it may be said that the consumption of linen goods by the French civil population practically ceased during the war, due to the fact that the people, instead of buying new things, got all the use they possibly could out of what they already had. And this also signifies a loss which, could it be evaluated, would be found to represent a considerable sum.

With the linen industry, and especially the hemp industry, is to be classed the jute industry, which is closely allied with them technologically.

The jute industry suffered much less than the linen industry from the effects of the German invasion. In this case, moreover, the imports of raw material underwent a much less pronounced decrease in the early part of the war, as shown by the following table:

AMOUNT OF IMPORTS OF JUTE INTO FRANCE IN 1913 AND IN 1915-18

Year	*Metric tons*
1913	122,000
1915	75,000
1916	78,000
1917	67,000
1918	9,000

Thus in 1916 the imports of raw material amounted to approximately two-thirds of what they were in 1913; but here again a new decrease is to be observed in 1917, and another much greater one in 1918, due again to the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. France chose to employ her ships for other purposes than for the conveyance of cumbersome cargoes of jute from British India. The Government, which

had great need of jute bags for military purposes, decided to import the manufactured product, instead of the raw material. The following table shows the value of the imports of jute cloth before and during the war:

VALUE OF IMPORTS OF JUTE CLOTH INTO FRANCE IN 1913 AND 1915-18

Year	*Millions of francs Value*
1913	15
1915	49
1916	43
1917	54
1918	90

Thus the value of the imports of jute cloth in 1918 was six times as high as it was in 1913. On the other hand, the value of the exports of jute cloth increased from 17,000,000 francs in 1913 to 31,000,000 francs in 1918.

IV. THE COTTON INDUSTRY

Having considered the wool and linen industries, which were the two textile industries most seriously affected by the German occupation of the northern and eastern departments of France, we may pass along to a consideration of the cotton industry, upon which the war exerted a considerably less disastrous influence.

Like the wool industry, the cotton industry had acquired complete control of the home market before the war. There is little doubt, however, that this was in large measure due to the existence of import duties protecting it against foreign competition. Like the wool industry, moreover, it exported a considerable part of its output; but unlike the wool industry, it consigned three-fourths of its exports to French colonies, where they were still under the protection of French import duties, and only one-fourth to foreign countries.

The war was destined to place in the hands of the Germans portions of the cotton industry which, though not as large as

in the case of the wool and linen industries, were by no means insignificant.

As regards cotton spinning, of a total of 47,700 persons so employed throughout France, according to the census of 1906, some 18,600 were in the *Département du Nord*, which was one of the three great centres of the French cotton-spinning industry, the other two being the *Département des Vosges* and *Normandie*. Of a total of 7,500,000 spindles throughout France more than 2,000,000 were in the north.

As regards cotton weaving, the census of 1906 gives only 3,200 persons so employed in the north out of a toal of 118,000 throughout France. On the eve of the war the number of power-looms throughout the country was 140,000 and only 13,000 of them were in the north ; but it is necessary to take into account the fact that these figures refer to textile mills manufacturing cotton cloth only and not to those manufacturing mixed weaves. In reality, however, cotton yarn was used by the weaving mills of the north to an appreciable extent not indicated in the above figures—especially at Armentières and Lille for the manufacture of cotton-linen mixtures, and in the Roubaix-Tourcoing region for the manufacture of cotton-wool mixtures.

The manufacture of cotton yarn and cloth in the north of France came to a complete standstill during the war, while at the same time the country lost the output of a certain number of mills in the east which fell into the hands of the enemy or had to be shut down by reason of their proximity to the firing-line.

In consequence of this curtailment of the means of production it was to be expected that there would be a decrease in the imports of raw material and in the exports of manufactured products, as well as an increase in the imports of manufactured products. It was also to be expected, however, that these changes in the case of the cotton industry would be much less pronounced than they were in the case of the wool and linen industries, since the former fell to a less extent into the hands of the enemy.

The following table shows the imports of raw cotton and cotton waste before and during the war :

AMOUNT OF IMPORTS OF RAW COTTON AND COTTON WASTE INTO FRANCE IN 1913 AND IN 1915–18

Year	*Metric tons*
1913	329,000
1915	228,000
1916	255,000
1917	273,000
1918	142,000

In the first three years of the war the falling-off, although appreciable, was not enormous. In 1917 the imports show a decrease of only 56,000 tons with respect to those in 1913, that is, a decrease of approximately one-sixth. In 1918, however, there is to be observed a new and very pronounced decrease, due, as in the case of the other textile industries, to the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. The French public authorities were of the opinion that for a nation at war and intent upon victory the available merchant ships could be used for more urgent purposes than for the transportation of raw cotton from abroad. In order to leave more cargo space for war materials, accordingly, and despite the resulting disadvantages for domestic industry, they decided to restrict the importation of raw cotton and to buy foreign manufactured products, which were less cumbersome and could be obtained from less distant countries, notably England. But if this shipping policy thus led to an increase in the purchases of foreign manufactured products intended to supply the needs of the army, the commercial and financial policy adopted with reference to the requirements of the civil population was calculated to diminish the supply ; for the foreign purchase of cotton cloth for private accounts was prohibited.

However that may be, if not in 1918, at least in the preceding years of the war, the imports of raw cotton fell off very little as compared with those of raw wool and flax. In view of this

fact one would expect a correspondingly small decrease in the exports of cotton yarn and cloth, as well as a correspondingly small increase in the imports thereof. We shall see, however, that such was not the case; that well before 1918, on the contrary, these two movements showed a very pronounced tendency to become accentuated.

In the first place, as a matter of fact, the above figures representing the imports of raw cotton are deceptive for the reason that they comprise both raw cotton (cotton wool) and cotton waste, the custom-house statistics making no distinction between the two. During the war, however, the imports of cotton waste increased considerably for the reason that the Ammunition Service used large quantities of it in the manufacture of gun-cotton; thus the imports of raw cotton underwent a much more pronounced decrease than is indicated in the above table. The quantity of raw cotton received by the spinning mills, and consequently the production of the French cotton industry, decreased markedly in the first years of the war, due not only to the enemy invasion, but also to the scarcity of operatives, to the ever-increasing internal and external transportation difficulties, to the shortage of coal supplies, &c.

In the second place, moreover, it is necessary to take into account a considerably increased demand for cotton cloth during the war. In addition to the normal demand, there was the enormous requirement of the army, which consumed a very large quantity of cotton goods. With respect to both the army and the civil population, furthermore, the great scarcity and high cost of woollen and linen goods caused the law of substitution to work in the manner in which it ordinarily works with respect to textile products; that is, cotton goods were largely used in place of woollen and linen goods. In the case of manufactured products of the cotton industry, therefore, this accounts for the double phenomenon of a pronounced decrease of exports and an enormous increase of imports.

The following table indicates the value of the exports of cotton yarn and cloth before and during the war :

VALUE OF EXPORTS OF COTTON YARN AND CLOTH FROM FRANCE IN 1913 AND IN 1915–18

	Millions of francs		
Year	*Yarn*	*Cloth*	*Total*
1913	24	385	409
1915	5	185	190
1916	11	302	313
1917	13	275	288
1918	10	244	254

Thus even before the year 1918 the decrease in the exports of manufactured products was appreciable. In 1917 it amounted to 121,000,000 francs with respect to 1913 ; and in 1918, owing to the shortage of the supply of raw cotton, it was still greater, amounting to 155,000,000 francs with respect to 1913. The French colonies, deprived of French cotton cloth, had either to procure what they needed from foreign countries or else to restrict their consumption.

As regards the imports of manufactured cotton products, the movement was as follows :

VALUE OF IMPORTS OF COTTON YARN AND CLOTH INTO FRANCE IN 1913 AND IN 1915–18

	Millions of francs		
Year	*Yarn*	*Cloth*	*Total*
1913	33	56	89
1915	129	383	512
1916	230	366	596
1917	283	324	607
1918	486	648	1,134

Thus well before 1918 the imports of cotton yarn and cloth had increased prodigiously. In 1917 they already amounted to more than six times what they amounted to before the war ; and with respect to 1917, if we reckon the increase of imports with the decrease of exports, we find that the total loss for the entire balance of trade was about 639,000,000 francs.

In 1918 there was a new increase in the imports of cotton yarn and cloth, notwithstanding the fact that the foreign purchase of cloth for private accounts was restricted by the

import prohibitions established in April 1917. English cloths, in particular, which constituted two-thirds of the total imports, were to be imported into France, according to the above-mentioned Anglo-French agreement of August 24, 1917, in a proportion equal to only one-half of the imports corresponding to the years 1914, 1915, and 1916. This was a very small proportion, being equivalent to only two-fifths of the imports of English cotton cloths in 1916. If the imports of English cotton cloths had been kept within the proportion fixed, they would have amounted to only 9,600 tons; as a matter of fact, however, they totalled three times that amount, or 29,400 tons. The excess over and above the specified proportion was due chiefly to the direct and indirect purchases made for the account of the Government. As stated above, the public authorities of France, in order to economize cargo space in the vessels available and thereby leave room for the transportation of war materials, in 1918 adopted the policy of purchasing foreign manufactured products instead of foreign raw materials, and in pursuit of this policy they bought English cotton cloth instead of American raw cotton.

Moreover, French imports of cotton cloth manufactured in the United States underwent a considerable increase, especially because of the purchases made by the Government; whereas in 1917 these imports amounted to only 800 tons, in 1918 they totalled nearly five times that amount (3,800 tons).

In consequence of this self-sacrificing shipping policy which France resolved to pursue to the end of strengthening her military power to the utmost, the French cotton industry was inadequately supplied with raw material; and at the same time the country ran heavily into debt as a result of its increased purchases of foreign manufactured products. Thus in addition to the losses France sustained in direct consequence of the enemy invasion, there were the losses which she voluntarily and courageously accepted to the end of ensuring the triumph of the common allied cause. If we compare the foreign trade in manufactured cotton products of 1918 with that of 1913, taking into account the decrease of exports and the increase

of imports, we find that the total loss for the French balance of trade was more than a billion (1,200,000,000) francs.

In the case of the wool industry we have seen that the loss was more than a billion francs in 1918 and almost a billion and a half francs in 1916. This affords an index to the extent of the disaster suffered by the French textile industry during the war. And in the case of cotton, as in the case of wool and linen, it is necessary to remark that the demand of the civil population, despite the large purchases made abroad and the great decrease in the exports to foreign countries, was very inadequately supplied.

V. The Silk Industry

The history of the silk industry in France during the war is quite different from that of the other textile industries for various reasons, chief among which is the fact that it escaped, for the most part, the disastrous consequences of the enemy invasion. It did not, to be sure, escape them entirely. It was deprived of some 60,000 schappe spindles in the occupied regions, and it also lost the production of the looms in the *Départements de la Somme, de l'Aisne, du Nord,* and *de la Marne* —a production by no means insignificant. Proportionately, however, these losses were not nearly as great as those which were sustained, as we have seen, by the wool, the linen, and even the cotton industry.

The silk industry was the only one of the French textile industries which was able to maintain a heavy export trade throughout the war. Before the war, despite the fact that foreign competition had somewhat interfered with the development of French spinning and throwing mills, and despite the fact that foreign markets for French fabrics were becoming harder to create by reason of the efforts which numerous other countries were putting forth to increase their production (especially the United States, where a truly remarkable progress had been made along this line), the French silk industry had succeeded in maintaining its important position in the world. Thanks to the skill of its directors and workers, as also to its

good taste, and especially to its extreme adaptability, which permitted a continual adjustment of its output to the ever-changing demands of its clientele, it was able constantly to increase the great variety of its products. During the war it continued to exhibit the same traditional qualities for which it was famous, and at the same time managed to adapt itself with the same facility to the greatly altered commercial and economic conditions.

This does not mean, however, that the silk industry escaped the blows of the war entirely. On the contrary, it was brought face to face with difficulties of all kinds ; and while it managed to surmount many of them, to be sure, at the same time it is not to be denied that its productive activity was considerably lessened.

This appears from the following table showing the movement of the imports of raw material, that is, raw silk and floss-silk, before and during the war :

AMOUNT OF IMPORTS OF RAW SILK AND FLOSS-SILK INTO FRANCE IN 1913 AND IN 1915–18

Year	*Metric quintals*[1]
1913	198,000
1915	93,000
1916	132,000
1917	124,000
1918	145,000

In the first part of the war the decrease was very pronounced, due to the fact that transportation from Japan and China became very difficult. Later on, however, there was a recovery ; the imports increased somewhat, and we do not note here, as we did in the case of the other textile industries, any new and pronounced falling-off in 1917 and 1918 due to the renewal of the German submarine activity and the French shipping policy adopted in consequence thereof. In 1918 the imports reached 145,000 metric quintals, or approximately three-fourths of what they were in the year before the war.

The fact is that the silk industry had fewer ships at its disposal than the other textile industries. Before the war it had about

[1] *Ed. Note* : Metric quintal = 100 kilograms = 222·5 pounds.

20,000 tons per annum, as compared with nearly 300,000 tons for the wool industry and with more than 300,000 tons for the cotton industry. Thus the maintenance of the available tonnage at approximately the same level was less difficult for the silk industry than for the other textile industries. Furthermore, although raw silk is a very bulky material for its weight, and one which consequently requires more cargo space, at the same time it is a material of very great value, so that persons engaged in the transportation of it, whether French or Japanese, are always glad to accept it as a cargo because of the high freight rates which they can charge. It is necessary to take into account, finally, the fact that the Army Supply Service, and especially the Aeronautical Service, had need of ever-increasing quantities of floss-silk, so that the French merchant marine carried considerable quantities of this material by priority. From 1915 to 1918 the imports of floss-silk nearly doubled, increasing from 42,000 to 79,000 quintals, whereas the imports of raw silk increased but very little, namely, from 48,000 to 54,000 quintals.

As in the procurement of silk, so also in the manufacture of silk, the industry had serious obstacles to surmount. The chief difficulty was that created by the scarcity of workers, which in the first few months of the war left idle two-thirds of the looms and the majority of the spindles. Here again, however, the correct solution of the problem was discovered and applied, with the result that a notable recovery was made.

But the greatest danger that confronted the French silk industry lay in the marketing of its manufactured products. Silk being essentially a luxury product, what the French silk manufacturers had most to fear was abandonment by their old clientele, not only in France, but also in other countries—especially in the belligerent countries impoverished by war and forced to economize. This danger was increased by the fact that some of the allied countries, notably England, in conformity with a general policy of restriction rendered necessary by the war were destined to prohibit the importation of foreign merchandise deemed non-essential, especially silk articles.

In this connexion, however, it is necessary to remark that

not all of the manufactured products of the silk industry are luxury articles, and that for a long time before the war this industry had sought to democratize its production. It continued its efforts along this line in the first part of the war, and in so doing was aided by the great scarcity and high prices of the other textile products, so that silk came to be looked upon almost as an article of prime necessity, taking the place of wool, linen, &c. As already stated, moreover, considerable quantities of silk products, especially floss-silk, were required for military purposes, especially for the Aeronautical Service. Furthermore, the war, which was impoverishing the world in general, had the effect of greatly increasing, first in the neutral countries, and then in the belligerent countries, the incomes and purchasing power of certain persons who became the natural clients of the silk industry, especially as regards high-grade fabrics. With regard to the import prohibitions established in England, finally, it may be said that the suspension of this prohibition with respect to French silks was to become one of the chief aims, from the French standpoint, of the negotiations entered into in 1917—an aim which came to be fully realized by the Anglo-French agreement of August 24 of that year.

Likewise in the case of manufactured products of the silk industry the movement of the foreign trade shows considerable fluctuations. The value of the imports of silk thread and silk fabrics before and during the war are indicated by the following table:

VALUE OF IMPORTS OF SILK THREAD AND FABRICS INTO FRANCE IN 1913 AND 1915–18

	Millions of francs	
Year	*Thread*	*Fabrics*
1913	5	49
1915	1	23
1916	4	46
1917	19	58
1918	38	50

The increase was especially pronounced, as will be seen, in the case of silk thread, and it related almost entirely to floss-silk thread, which, owing to the loss of the schappe spinning

mills in the north could not be produced in quantities sufficient to supply the demand of the Army Supply Service. In the case of silk fabrics, unlike what we observed in the case of the manufactured products of the other textile industries, the war-time figures show no pronounced increase over the pre-war figure.

Of special interest in the case of the silk industry, however, are the figures corresponding to the exports. Before the war this industry was exporting approximately two-thirds of its output; that is to say, of some 600,000,000 francs' worth of merchandise produced it was shipping some 400,000,000 francs' worth to foreign countries. The following table indicates the value of the exports of silk thread and silk fabrics before and during the war:

VALUE OF EXPORTS OF SILK THREAD AND FABRICS FROM FRANCE IN 1913 AND 1915–18

	Millions of francs		
Year	*Thread*	*Fabrics*	*Total*
1913	24	386	410
1915	21	341	362
1916	33	514	547
1917	27	494	521
1918	17	498	515

Thus the total exports, after having fallen off somewhat in the first part of the war, recovered rapidly, and in 1916 attained an unprecedented maximum; and in 1917 and 1918, despite a slight decrease with respect to 1916, they were still greater than they were in the year before the war.

As regards the exports of silk fabrics to England, France's great foreign market, in the first few months of 1917 they underwent a considerable decrease with respect to 1916 under the influence of the English import prohibitions; but in the last few months of 1917, as well as in 1918, they recovered somewhat in consequence of the above-mentioned Anglo-French agreement of August 24, 1917, whereby French silks were given free access to the English market. The result was that the value of the exports to England alone, having amounted to 252,000,000 francs in 1916, increased to 281,000,000 francs in 1917, and again to 341,000,000 francs in 1918.

But if in place of these value figures, which are influenced by the rise of prices that took place during the war, we substitute the corresponding quantity figures, we find the situation less favourable with respect to the exports of silk; whereas before the war they ranged from 50,000 to 60,000 quintals, in the last two years of the war, on the other hand, they averaged only 40,000 quintals.

Thus the silk industry, while it maintained a greater power of resistance than the other textile industries during the war, was nevertheless put to a very severe test. Owing to the rise of prices, to be sure, the value of its exports, despite an actual decrease in the quantities, remained about the same. At the same time, however, the price of raw material also increased, and consequently the total amount paid for foreign purchases of raw silk and floss-silk. If we compute the total value of the imports and exports of silk products of all kinds, including raw silk, floss-silk, silk thread, and silk fabrics, we find that in 1913 the value of the foreign purchases amounted to 415,000,000 francs, and the value of the foreign sales to 589,000,000 francs, the value of the exports thus exceeding that of the imports by 174,000,000 francs. In 1918, on the other hand, the foreign purchases, under the influence of the intervening rise of prices, amounted to 774,000,000 francs, while the foreign sales amounted to 775,000,000 francs, the value of the exports thus exceeding that of the imports by only 1,000,000 francs. The difference between the excess value of the exports of 1913 and 1918, amounting to 173,000,000 francs, represents the loss to the French balance of trade as regards the silk industry.

VI. Summary

Thus even in the case of the silk industry, the most favoured of the French textile industries during the war, the balance of trade shows a considerable loss with respect to the pre-war figures. But it was in the wool, cotton, and linen industries that the greatest losses, applying particularly to manufactured

products, were sustained, amounting, as they did, to nearly three billion francs.

But we have several times pointed out that the consumption of textile products by the French civil population, despite the decrease in exports and the enormous increase in imports, fell far below the normal. This was due to the fact that voluntary restrictions, and especially enforced restrictions resulting from the rise of prices, import prohibitions, transportation difficulties, &c., greatly reduced the number of purchases made for private accounts. The majority of the manufactured products received from abroad consisted of war materials, such as uniforms and military equipment for soldiers, steel, powder, rails, cars, camions, automobiles, wire, motors, material and parts for flying-machines, &c.

It would be a mistake to judge the private consumption of textile products in France solely on the basis of what was to be seen on the main streets of Paris and the other large cities; for it is likewise necessary to take into account what was to be seen in the smaller cities, as well as in the towns, villages, and rural districts. If one could have entered the houses occupied by the greater part of the French people, and compared the condition of their wardrobes and linen-closets as it was during the war with what it was before the war, one would have been surprised to find how little there was in them, how little of that which had been worn out and thrown away had been replaced.

But if the war left the French civil population without manufactured textile products, it also left the French textile industry without means of production, due to the incredible depredations committed by the enemy. Thus the replenishment of the wardrobes and linen-closets is not the task of to-day or to-morrow. The most immediate task is the reconstitution of the textile equipment, which alone will permit a re-establishment of the pre-war balance of trade. Despite the serious difficulties that are constantly arising, this work is being carried on with the utmost energy in the liberated regions, especially in the north, the principal centre of the French textile industry.

THE EFFECT OF THE WAR UPON FRENCH FINANCE

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THE EFFECT OF THE WAR UPON FRENCH FINANCE

Introduction

Before we enter upon a discussion of French finance during the war, it is necessary that we say a few words regarding the financial condition of the country on the eve of the war. We must recall, as a matter of fact, that even before the period of hostilities the status of French public finance was rather abnormal. The budget did not balance; the fiscal system was archaic; and the general income tax, just voted, had not yet been put into effect when the war began. On the other hand, the monetary situation was excellent and the exchange favourable. The Bank of France had a stock of gold amounting to four billion francs (four times as large as that of the Bank of England); and while its note circulation amounted to nearly six billion francs, the fact is that it could have doubled this amount, in case of need, without exceeding the ratio customarily maintained between the paper issue and the metal reserve.

At the beginning of the war, accordingly, the French Government could easily obtain the funds it needed without having recourse to loans or taxes. It was not until 1915, as a matter of fact, that the first long-term loan was issued, and not until 1916 that the Government began seriously to concern itself with the development of the public resources.

First we shall briefly consider the budgetary expenditures during the war, and then we shall take up in somewhat greater detail the budgetary receipts. After that we shall inquire into the problem of the balance of the French budget, and finally we shall devote a separate chapter to the rôle of the Bank of France and the question of foreign exchange.

I. Public Expenditures

In the first years of the war the French Government did not lay a regular budget before the chambers. It was not until November 13, 1917, indeed, that the Minister of Finance submitted the draft of a budget for the fiscal year (*l'exercice*) 1918,[1] setting forth the expenditures considered ordinary and the corresponding receipts. It seems none the less expedient to give here, at the very start, a general summary of the appropriations voted by the French parliament since the beginning of the hostilities, representing, as they do, a long series of 'provisional twelfths' (*douzièmes provisoires*), original credits and supplementary credits:

Fiscal year	*Francs*
1914[2]	8,898,583,901
1915	22,804,486,525
1916	32,945,145,169
1917	41,679,599,629
1918	55,192,338,060
1919	44,180,456,444[3]
Total	205,700,609,728

This total of more than two hundred billion francs corresponds to some estimated expenditures the amount of which was not all paid out before the end of the year 1919, the estimates slightly exceeding the actual disbursements. It is, nevertheless, interesting to observe their apportionment, as indicated by the following table:

	Francs
Ordinary civil service expenditures	15,726,550,339
Expenditures for the public debt	25,415,971,375
Military expenditures and extraordinary civil service expenditures	164,558,088,014
Total	205,700,609,728

[1] *Ed. note*: 'L'exercice' refers to a fiscal year for which accounts are kept on the basis of accrued assets and accrued liabilities, as distinguished from actual receipts and disbursements.

[2] From August 1 to December 31.

[3] These figures, submitted by the Minister of Finance to the General Reporter of the Budget in the Chamber of Deputies in May, 1919, are incomplete. According to a statement made by the Minister of Finance on December 30, the appropriations of 1919 amounted to 48,300 millions, instead of 44,180 millions, so that the total appropriations amount to nearly 210, instead of 205, billions.

II. Sources of Public Revenue

At the end of the year 1919 the revenue received by the French Government since the beginning of the war totalled as follows:

	Billion francs	*Per cent.*
Ordinary receipts:		
Taxes, Government monopolies and enterprises	31	16·4
Extraordinary receipts:		
Advances of the Bank of France and the Bank of Algeria	25	13·3
Treasury bills and short-term bonds	49	25·0
Foreign credits	33	17·0
Consolidated debt	53	27·7
Total	191	99·4

This table shows that the ordinary receipts of the French Government sufficed to cover only a small proportion of the total expenditures during the period specified. It also brings to light the very great relative importance of the advances made by the banks of issue, as well as the high proportion of the floating and short-term debt with respect to the consolidated debt.

Following these general observations, we will now examine the development of the various categories of receipts in order.

A. *Ordinary Receipts—Taxes and Government Monopolies and Enterprises*

The receipts of the French budget, that is, those corresponding to the fiscal mechanism in operation before the war, aggregated slightly less than five billion francs per annum. Accordingly, we may estimate at approximately twenty-five billions the revenue which could have been obtained from taxes and from Government monopolies and enterprises between April 1, 1914, and the end of 1919, if the fiscal system had not been modified and if the returns had continued to be made on a normal basis. As a matter of fact, the figures given above indicate a total of thirty-one billions, that is, an additional six billions over and above the estimated total for the period specified; but

it is necessary to bear in mind that in consequence of the mobilization, as also of the enemy invasion of a large and valuable part of the territory of France, the actual receipts were at first much less than the budgetary estimates—the deficit having amounted to 38·6 per cent. for the last five months of 1914, 19 per cent. for 1915, and 3·5 per cent. for 1916. It was not until 1917 that a surplus appeared, amounting to 20·9 per cent. in that year, 33 per cent. in 1918, and almost 100 per cent. in 1919.

It is to be observed, moreover, that this increase of receipts in the last two years of the war and in 1919 is not attributable solely to the recovery of the economic activity of the country. From the figures furnished by the Minister of Finance, as a matter of fact, it appears that the revenue derived from the old taxes levied on the basis of the pre-war rates would have resulted, despite the increased return from customs duties after 1915, in a deficit of some two and a half million francs for the entire period considered. It is therefore to increases in the rates of existing taxes and to the establishment of new taxes, that is, to the fiscal measures that were adopted while the war was in progress, that the difference between the returns that would have been made on the basis of the pre-war fiscal system and those that were actually made on the basis of the modified system is to be attributed—a difference amounting to approximately eight and a half billion francs for the entire period considered. And although the efforts put forth in France to increase the public revenues were perhaps less vigorous than those put forth in some of the other belligerent countries, it is to be borne in mind that the combined effect of the fiscal measures adopted during the war and of the steady return to normal economic conditions enabled the French Government, in 1919, to draw up a budget comprising receipts aggregating nearly ten billion (instead of five billion) francs.

It therefore seems expedient to examine here the measures adopted by the French Government since the commencement of the period of hostilities to the end of increasing the ordinary public revenues. These measures consist, on the one hand,

of the increase of the rates of existing taxes, and, on the other hand, of the establishment of new taxes.

As regards the new taxes established since August 1, 1914, the first to be mentioned is the general income tax, which was voted a few days prior to the commencement of the hostilities (law of July 15, 1914), but was not put into effect until January 1, 1916, and was afterwards supplemented by further schedules created in conformity with the law of July 31, 1917. Aside from the income tax, the first great fiscal measure adopted in France during the war was the establishment of the war profits tax (law of July 1, 1916). Then comes the military war tax (law of December 30, 1916), an assessment upon citizens exempt from military service and levied on the basis of the income tax.

The other sources of public revenue created during the war consisted of a number of indirect taxes: consumption taxes on colonial wares, mineral waters, patent medicines, and amusements (law of December 30, 1916); tax on commercial payments and luxuries (laws of December 31, 1917, and June 28, 1918); special tax on goods shipped into and from the country under special derogation from the established import and export prohibitions (decree of June 15 and law of September 29, 1917).

On the other hand, numerous increases in the rates of existing taxes were voted during the period of hostilities. The general income tax rate, increased first by a law of December 30, 1916, was again increased by a law of July 31, 1917, and once more by a law of June 29, 1918.[1] The rate of the war profits tax was likewise increased by the first two of these laws. Several assimilated taxes were doubled and the securities tax was considerably increased by the law of December 30, 1916. The inheritance and bequest taxes were also increased by the law of December 31, 1917, and the tax on corporate holdings by that of June 29, 1918. The same applies to several indirect taxes: tax on alcohol (law of June 30, 1916); tax on sugar, light alcoholic beverages, chicory and coffee substitutes (laws of December 30, 1916, and June 29, 1918); tax on vinegars

[1] This law at the same time abolished the two old direct taxes, the personal property tax and the door and window tax.

(law of June 29, 1918); tax on transportation (laws of March 31 and June 29, 1918); tax on verification of weights and measures (law of June 29, 1918). The registration and stamp taxes were also several times increased and extended to new objects (laws of December 31, 1917, and June 29, 1918). Finally, the selling price of Government monopoly products and services was increased: the price of gunpowder by the law of September 29, 1917; the price of matches by the decrees of October 1, 1917, and May 26, 1919; the price of tobaccoes by the laws of December 30, 1916, January 17, 1918, and May 27, 1919; and the postal, telegraph, and telephone rates by the law of December 30, 1916.

All of these fiscal measures were calculated to produce, according to official estimates, an increase of ordinary receipts amounting to approximately three billion francs per annum. Farther on, when we come to study the conditions of the budget equilibrium, we shall find that these receipts are altogether inadequate for the requirements of the normal post-war budget.

In concluding this brief exposition of the fiscal measures adopted since the commencement of hostilities, it is sufficient for us to set forth the essential features. The fact is that it would be very difficult to discover here any indications of a new fiscal policy in France. If the general income tax was not put into effect until the war was in progress, the principle of it, on the other hand, was established beforehand; and despite the successive increases in its rate, the comparatively small return from it proves that it has not yet become a fundamental part of the French fiscal system.[1] Likewise the war profits tax, weakly applied, has produced absurdly little revenue;[2]

[1] The estimated return from the income tax was only 40,000,000 francs in 1916, the rate having been 2 per cent. on all incomes exceeding 5,000 francs. This rate was increased to 10 per cent. by the law of December 30, 1916, and then to 12·50 per cent. by the law of July 31, 1917 (with exemption only of incomes of less than 3,000 francs). Finally, the law of June 29, 1918, established a progressive rate which rose as high as 20 per cent. on incomes exceeding 550,000 francs. The estimated yield on this basis amounted to 250,000,000 francs for 1918 and 370,000,000 francs for 1919, but the returns were not made regularly.

[2] The rate of the war profits tax was originally 50 per cent. It was increased

and it constitutes, moreover, an essentially temporary measure. In general, accordingly, it is to be recognized that the French fiscal system, both before and since the period of hostilities, has been characterized by a predominance of taxes on articles of consumption.[1]

B. *Extraordinary Receipts—Advances of the Banks of Issue, Treasury Bills, Short-term National Defence Bonds, Long-term Loans, Foreign Credits*

It follows from what has been said that the funds required by the French Government for the prosecution of the war had to be raised for the most part by means of public borrowing and especially by treasury operations.

Advances of the Banks of Issue. Of the extraordinary sources of revenue to which the French Government had recourse during the war the first to be mentioned are the advances made by the Bank of France. A law passed a few days after the commencement of hostilities (August 5, 1914) ratified a clause in the convention concluded with the Bank of France on November 11, 1911, whereby the latter bound itself to advance a sum of 2,900,000,000 francs to the Government in the event of a mobilization. The stipulated amount of the advance was increased to six billions by a new convention concluded on December 21, 1914, and ratified by a law of December 26, 1914. The conventions concluded on May 4, 1915, February 13 and October 2, 1917, April 5 and June 5, 1918, and March 5 and April 24, 1919, and ratified by the laws of July 19, 1915, February 16 and October 4, 1917, June 7, 1918, and March 5

to 60 per cent. by the law of December 30, 1916, for profits exceeding 500,000 francs. A subsequent law of December 31, 1917, applied the original rate only to profits of less than 100,000 francs, and increased it to 60 per cent. on profits from 100,000 to 250,000 francs, to 70 per cent. on profits from 250,000 to 500,000 francs, and to 80 per cent. on profits exceeding 500,000 francs. But the returns made on April 30, 1919, scarcely exceeded 800,000,000 francs.

[1] According to the budget estimates for 1919, the indirect taxes were to yield approximately 1,000,000,000 francs, the customs duties 1,500,000,000 francs, the sugar tax 1,000,000,000 francs (corrected to 300,000,000 francs), the securities tax 285,000,000 francs, the registration tax (which includes the inheritance tax) 1,000,000,000 francs, and the stamp tax 260,000,000 francs.

and July 17, 1919, successively increased the maximum of the advances of the Bank of France to nine, twelve, fifteen, eighteen, twenty-one, twenty-four and twenty-seven billion francs respectively.

Conventions of the same nature were likewise concluded with the Bank of Algeria, the advances of which to the Government, fixed at a maximum of 200,000,000 francs by the convention of September 6, 1915, were increased to 300,000,000 and then to 400,000,000 francs (convention of September 23, 1918, ratified by the law of October 8, 1918).

The advances actually made by these two banks are summarized in the following table :

ADVANCES MADE TO THE FRENCH GOVERNMENT DURING THE WAR BY THE BANK OF FRANCE AND THE BANK OF ALGERIA

Year	*Bank of France*	*Bank of Algeria*	*Total*
	Francs	Francs	Francs
1914 . . .	3,900,000,000	—	3,900,000,000
1915 . . .	1,100,000,000	75,000,000	1,175,000,000
1916 . . .	2,500,000,000	50,000,000	2,550,000,000
1917 . . .	5,000,000,000	60,000,000	5,060,000,000
1918 . . .	4,650,000,000	130,000,000	4,780,000,000
1919 (Jan.–Apr.) .	5,250,000,000	80,000,000	5,330,000,000[1]
Total . .	22,400,000,000	395,000,000	22,795,000,000

These advances were made on conditions favourable to the Government, which was to pay interest on them at the rate of 1 per cent. for the period of the duration of the hostilities and the year following their cessation, and 3 per cent., including amortization, thereafter.

Short-term National Defence Bonds. Recourse to public borrowing was first had in the form of an issue of short-term bonds, which were different from ordinary treasury bills and were called *Bons de la Défense Nationale.* The issue of these bonds was authorized by a decree of September 13, 1914, and their interest, payable in advance, was fixed at 4 per cent. for the three-months' issue and 5 per cent. for the six-months' and

[1] Figures submitted by the Ministry of Finance to the General Reporter of the Budget of 1919. On December 31, 1919, the advances totalled approximately twenty-five billion francs.

one-year issues. That they were very well received by the public is shown by the following table indicating the amounts subscribed for them :

SUBSCRIPTIONS TO THE SHORT-TERM NATIONAL DEFENCE BONDS ISSUED BY THE FRENCH GOVERNMENT DURING THE WAR

Year	*Francs*
1914	1,288,334,000
1915	4,974,584,000
1916	6,311,458,000
1917	6,946,624,000
1918	2,813,981,000
1919 (Jan.–Apr.)	7,454,134,000
Total	29,789,115,000 [1]

The ordinary treasury bills, carrying a lower rate of interest, ceased to be subscribed for until 1918, when two successive ministerial decisions increased the interest on them to 3 per cent. for those running from one to less than two months, 3·50 per cent. for those running from two to less than three months, 4·50 per cent. for those running from three months to less than one year, and 5 per cent. for those running one year. Thanks to these new provisions the subscriptions for the ordinary treasury bills increased to more than 500,000,000 francs in 1919.

Long-term National Defence Bonds. It was not until February 13, 1915, that the Government had recourse to a long-term loan by the promulgation of a decree authorizing the issue of ten-year bonds at 5 per cent. Another decree of February 9, 1917, provided for the issue of a new type of bonds known as *Obligations de la Défense Nationale.* These bonds, called ' quinquennials ', were to fall due at the end of five years, but were in reality to be redeemable at the end of the first year. They were accepted in payment of subscriptions to the great consolidating loans, whereof we shall have something to say further on, and their issue was several times suspended, this accounting for the irregularity and steady decrease of their

[1] On December 31, 1919, the total amount for that year corresponding to the *Bons de la Défense Nationale* was nearly 10,000,000,000 francs, making the total floating debt amount to approximately 49,000,000,000 francs.

circulation. So it was that the amount of the ten-year bonds outstanding, after having reached almost four billions before the negotiation of the first consolidating loan, afterwards declined to a few hundred millions.

The Four Consolidating Loans of the National Defence. In the course of the year 1915 it seemed necessary to consolidate a part of the short-term debt; and the Government decided to issue an unlimited loan in the form of *rentes perpétuelles*, that is, in the form of annuities redeemable at Government option by repayment of the capital sum (law of November 16, 1915). The nominal interest was fixed at 5 per cent. and the issue price at 88 francs. Subscribers, moreover, were secured against early conversion by a provision according to which this loan was not to be redeemable prior to January 31, 1931. The nominal capital subscribed was 15,204,959,052 francs, and the amount realized 13,380,367,662 francs, of which nearly one-half was paid in cash.

A second loan was authorized by the law of September 15, 1916, and it was of the same character as the first—unlimited in amount, with no fixed date of maturity, bearing interest at 5 per cent., irredeemable before January 31, 1931. The issue price, however, was fixed at 87·50 francs. The nominal capital subscribed was 11,513,978,260 francs, and the amount realized 10,082,452,967 francs, of which more than half (5,425,000,000) was paid in cash.

The third loan was issued in conformity with the law of October 26, 1917, and was likewise without a fixed date of maturity, the rate of interest being 4 per cent. and the issue price 68·60 francs. It was irredeemable before January 1, 1943. The period of subscription began on November 26 and closed on December 16, the nominal amount subscribed having totalled 14,803,096,000 francs, and the amount realized 10,171,202,000 francs, slightly more than half of which (5,133,894,000 francs) was paid in cash.[1]

[1] The law of November 26, 1917, also created a special fund constituted by budget appropriations amounting to 60,000,000 francs per month to be used for the purpose of buying in the *rentes* on the market, with the object of enabling the holders of these securities to negotiate them.

The fourth loan, authorized by the law of September 19, 1918, was issued, like the first three, in the form of *rentes perpétuelles*. The rate of interest was fixed at 4 per cent. and the issue price at 70·80 francs. The amount of the subscription was unlimited, and the redemption was not to take place prior to January 1, 1944. The proceeds of this loan were much greater than those of any of the preceding loans, the nominal capital subscribed having totalled no less than 30,690,456,000 francs, and the amount realized 21,743,885,000 francs. The payments in cash, however, represented only a third of this amount (7,099,283,000 francs), the payments in treasury bills alone representing nearly 13,000,000,000 francs. Thus it is, more than any of the preceding issues, in the nature of a consolidating loan.

The combined product of the four great National Defence loans thus amounts to some 55,000,000,000 francs, this representing a nominal subscribed capital of 72,000,000,000 francs and an annual interest charge of 3,000,000,000 francs. Although the success of these issues cannot be denied, the existence of a short-term or floating debt of 82,500,000,000 francs (not including the advances of the banks of issue) brings to light the imminent necessity of making a new appeal to the public, to take place in the early part of 1920.[1]

Foreign Credits. Besides the advances of the Bank of France and the Bank of Algeria, the issue of treasury bills and short-term and long-term National Defence bonds, and the loans offered for public subscription in the form of *rentes perpétuelles*, the French Government also had recourse to foreign loans, which constitute a small part of the floating debt and a greater part of the consolidated debt of the country.

The two countries which gave France by far the largest

[1] The first post-war consolidating loan has not yet been issued, but it was authorized by a vote of the two chambers on December 30, 1919. This new loan is to be issued in 5 per cent. bonds redeemable in sixty years by means of semi-annual drawings. The issue price is to be close to 100 francs, and the redemption rate 150 francs. These bonds, like those of the preceding issues, are to be exempt from taxation, and similarly the subscriptions for them are to be payable in treasury bills. The repurchase fund created by the law of October 25, 1917, will be able to support the market value of these bonds by permitting the Government to buy them in at a figure not lower than the issue price.

amount of financial aid were England and the United States. At the end of the first quarter of 1919 the treasury bills discounted by the British Treasury amounted to 11,484,000,000 francs,[1] while those taken by the Bank of England amounted to 1,639,000,000 francs.

The loan operations conducted in the United States were much more complicated, the most important being the following:

1. Issues of ordinary treasury bills.

2. A Franco-British loan made in 1915 at 5 per cent., whereof the proportion falling to France, fixed at 250,000,000 dollars, represents 1,243,000,000 francs.

3. An advance of 10,000,000 dollars made by a group of American banks at 7·50 per cent., placing 518,000,000 francs at the disposal of the French Government.

4. A credit of 427,000,000 francs proceeding from loans of French cities (Paris, Lyons, Marseilles, Bordeaux) passed to the Government.

5. Advances made by the United States Government at 4 per cent., totalling 12,710,000,000 francs at the beginning of 1919.

It should be added, finally, that the French Government also obtained, to cover certain necessary purchases, numerous credits from Japan and various neutral countries. These credits, which amount to scarcely 500,000,000 francs altogether, have already been repaid in part.

III. Conditions of the Budget Equilibrium

The period of extraordinary war expenditure and of military occupation may now be looked upon as terminated, but from this time on the problem will be that of raising funds to meet the enormous temporary and permanent obligations which the war has left. In order to appreciate the full importance of this problem it is necessary to bear in mind, first and foremost, that France, which is only half as wealthy as England, was called upon to bear a burden of expense almost equally heavy

[1] These bills are in terms of pounds sterling and are renewable up to the end of the third year after the cessation of the hostilities.

and at the same time has to provide for an equally large public debt. We have seen, as a matter of fact, that the actual expenditures of the French Government during the period of hostilities amounted to approximately two hundred billion francs, of which only about thirty billions were covered by ordinary receipts. The public debt before the war having also been approximately thirty billion francs, it follows that the entire public debt after the war is equal to the cost of the war, that is, about two hundred billion francs, and represents an annual charge of some ten billion francs.

Thus even if we assume that the defeated enemy will be able to make the reparations demanded of him, inasmuch as the re-establishment of peace conditions implies a discontinuance of the policy of borrowing, the problem now is that of devising ways and means of balancing the budget with only the ordinary receipts proceeding from taxes and from Government monopolies and enterprises.

A first step toward the adoption of an ordinary budget was taken in 1918. While continuing to vote the quarterly credits for the defrayal of the war expenses, in that year the French parliament was called upon to vote an ordinary civil service budget, the first draft of which had been submitted to it on November 13, 1917. This budget theoretically comprised the permanent expenditures necessary for the maintenance of the civil service, the public debt, and the corresponding ordinary receipts. In the bill submitted to the chamber by the Minister of Finance the civil service expenditures for 1919 were estimated at 2,870,775,276 francs and the public debt (pre-war debt, the 5 per cent. loans of 1915 and 1916, the floating debt, and the consolidated debt, including annuities and pensions) at 4,889,042,759 francs, the two together making a total of 7,769,818,035 francs. As regards the receipts, on the other hand, the revenue proceeding from sources provided in the existing legislation was estimated at 6,542,513,930 francs and that proceeding from new fiscal measures under consideration at 1,266,500,000 francs, the two together making a total of 7,809,913,930 francs.

On September 24, 1918, the draft of a second regular budget was laid before the chamber, comprising the civil service expenditures for 1919 and the corresponding ordinary receipts. The expenditures and receipts provided for in this budget amounted to almost nine billion francs (8,926,534,330 francs in expenditures and 8,931,825,205 francs in receipts), thus exceeding those of the preceding budget by more than a billion francs. Like the preceding budget, this budget was severely criticized by the parliamentary committees and this led to the submission of a revised draft by the Minister of Finance on April 17, 1919. The revised draft increased the estimated expenditures to 10,305,361,755 francs, chiefly by taking into account the arrears due on the new loan, and the estimated receipts to 10,607,332,784 francs, by reducing the estimated return from the tax on commercial payments and at the same time taking into account two billion francs of extraordinary receipts.

In the last analysis the balance of the regular budget, which was adopted with but a few slight modifications, was effected in a purely factitious manner by the inclusion of receipts of an essentially temporary character; and this budget itself was incomplete, for it nowhere near provided for all the permanent expenditures, since it included no appropriation for military expenditures.[1]

To meet the expenses of 1920 the Government provided itself with the credits necessary for the first quarter of the year by calling upon the chamber for three 'provisional twelfths'. These credits were approved by the chamber on December 30, 1919, and they amounted to 12,788,850,378 francs, which sum was apportioned as follows:

	Francs
Ordinary civil service expenditures	3,684,413,833
Supplementary budgets	394,403,424
Military expenditures	2,735,000,000
Extraordinary civil service expenditures	5,975,033,119
Total	12,788,850,376

[1] A bill submitted by the Minister of Finance on June 20 to procure a billion and a half francs of new revenue was voted down.

It was not until January 13, 1920, that the draft of a complete budget for the fiscal year 1920 was submitted. It was divided into three parts as follows :

1. An *ordinary budget* comprising all the ordinary expenditures, both civil and military, for the year 1920, and calling for appropriations amounting to 17,861,140,000 francs.

2. An *extraordinary budget* comprising, on the one hand, the ' extraordinary expenditures resulting from the war ', and, on the other hand, ' the extraordinary expenditures properly so-called ' ; the former were estimated at 6,615,279,055 francs and the latter of 951,804,000 francs, the two together making a total of 7,508,083,055 francs.

3. An account of expenditures recoverable from the payments due in conformity with the terms of the peace treaty—virtually a separate budget totalling 22,089,597,500 francs.

Thus the total estimated expenditures for the fiscal year 1920 amount to some 47,500,000,000 francs.

In order to meet this outlay the French Government, in so far as the account of recoverable expenditures is concerned, will have recourse to loans, the amount of which will be recovered from Germany and her allies. The extraordinary budget will be met, up to the amount of three billions, with funds proceeding from the sale of national bonds and the balance with funds proceeding from new loans. As regards the ordinary budget, it is to be balanced by fiscal resources estimated at 17,861,140,000 francs.

The return from taxes actually in force having been estimated at only 9,367,800,000 francs, certain new taxes were established which were calculated to yield 6,516,406,000 francs in 1920, leaving a sum of two billion francs to be raised on provisional account for the balancing of the budget. These taxes, however, will amount to 8,271,000,000 francs in 1921.

The increased receipts provided for in the budget of 1920 were to be derived, according to a plan submitted by M. Klotz together with the draft of the 1920 budget, from an advance of the income tax rate and the securities tax rate ; also from the establishment of various taxes on capital (notably on increments

in the value of real estate and additions to commercial capital), and on articles of consumption (notably beverages); from the modification of several taxes, such as that on amusements; from the constitution of a Government monopoly for the purchase and importation of refined oils; and finally from the establishment of a tax on the turnover of commercial enterprises, which alone was calculated to yield some 4,200,000,000 francs.

The coming into power of a new Minister of Finance, whose fiscal ideas appear to differ considerably from those of his predecessor, does not permit us at the time of this writing to foretell with certainty what fiscal measures will finally be submitted to parliament to be voted upon. *A fortiori* we can make no definite prophecies regarding the probable return from the taxes which will be established. We can merely recall here that the aggregate of private incomes in France was estimated at approximately thirty-five billion francs before the war; but inasmuch as the ordinary post-war budget has to provide for some twenty billion francs, it is manifestly possible to raise such a sum only if it is admitted that incomes on the average have nominally increased in consequence of the general rise of prices and the augmentation of the monetary circulation. In order to balance the budget, therefore, it will apparently be necessary to retain in circulation for a considerable length of time a large part of the paper currency issued during the war; and it will also be necessary to take into account the change in the distribution of private incomes brought about by the war in such a way as to throw the burden of the new fiscal requirements as much as possible upon those whose incomes have undergone the greatest increase. It must be recognized, however, that owing to the absence of a general estimate of each income before the war, it is in practice very difficult to make a rigorous application of this principle in the establishment of new taxes. The chief question at the present time seems to be: Is the French fiscal system finally going to develop in a manner analogous to the British fiscal system by the development of the income tax or taxes on gains in wealth, or is it

going to continue to be based primarily on consumption taxes? Assuming the last hypothesis to be realized, one may ask, finally, whether by an ingenious combination of 'real' taxes, affecting chiefly articles of luxury, the new French fiscal system would not succeed in realizing the principle of progression to a degree equal to that which would result from a broader application of the income tax.

IV. Paper Currency and Foreign Exchange

At the beginning of this study we called attention to the important rôle played in French public finance during the war by the advances made to the Government by the Bank of France. The maximum of these advances, as we have seen, was fixed at twenty-seven billion francs by the law of July 17, 1919, with the reservation, however, that a payment of three billions was to be made out of funds proceeding from the next consolidating loan. These advances of the Bank of France had as a necessary counterpart a corresponding increase of the maximum authorized issue; and so it was that the note circulation was successively increased up to the maximum limit of forty billion francs established by the same law of July 17, 1919.[1]

This figure appears very large when compared with that corresponding to other countries, especially England. In regard to France, however, it is to be observed that the note circulation was already six billion francs in 1914, and that from three to four billions of gold and silver disappeared from circulation. All in all, accordingly, the note circulation was merely quadrupled. On the other hand, it is necessary to bear in mind that the rapidity of the monetary circulation is much lower in France than it is in England, because of the inadequate development of the practices of deposit banking and clearing, this necessitating a larger volume of currency for the same volume of business. Finally, it is to be observed that the issue

[1] In January, 1920, as a matter of fact, the note circulation amounted to thirty-eight billion francs.

of notes not only enabled the French Government to secure immediate advances and thus meet a part of its expenses directly, but at the same time, by increasing the amounts available as savings, permitted it to meet an increase of fiscal obligations which it would have been unable to meet with the supply of currency that existed before the war.

In a discussion of French public finance during the war it is necessary to include a brief survey of French exchange and of the measures adopted by the Government itself, as well as by the Bank of France, to support it. Thanks to the solidity of the French monetary system, as also to the position of France as a creditor nation, at the beginning of the war the rate of exchange with respect to all countries was favourable. The decline did not commence until the month of February, 1915, from which time it continued almost steadily until the end of the year, until it reached approximately 10 per cent. with respect to the English pound sterling, 12 per cent. with respect to the American dollar, and 26 per cent. with respect to the Dutch florin. In 1916 the rate of exchange remained approximately where it was at the end of 1915 with respect to England and the United States, while it continued to fluctuate with respect to the neutral countries. In 1917 and 1918 the value of the franc remained stable with respect to the pound and the dollar, but the exchange value of the latter began to decline and to fluctuate with that of the franc in the neutral markets.

All this is easily explained. French exchange declined at first in 1915 in consequence of the necessity of increasing the imports when it was no longer possible to use gold for international settlements. It was then that the Bank of France intervened for the purpose of obtaining foreign credits chiefly in England and the United States. Afterwards the French Government obtained the right to have its treasury bills accepted first by the British Treasury and then by the United States Treasury, the credits thus obtained enabling the French Government, through the mediation of the Bank of France, to supply exchange to French importers.

The allied Governments adopted similar measures to the end

of facilitating the settlements corresponding to their purchases in neutral countries; but these measures were not sufficiently concerted or on a sufficiently large scale to maintain a stability of their currencies in neutral markets equal to that maintained in their own markets.

After the armistice the French Government did not have sufficient credits in allied markets to furnish French importers with exchange, so that the value of the franc began to fluctuate independently in all foreign markets, finally declining to a point lower than it had ever reached during the war. The lowest point was reached on December 9, 1919, when the pound sterling was quoted at 45·15 francs, the dollar at 11·80 francs, the peseta at 2·45 francs, and the Swiss franc at 2·35 francs.[1]

The enormous excess of imports which has appeared since the armistice, however, averaging approximately two billion francs per month, leads one to suppose that French merchants and manufacturers have succeeded in obtaining credits in foreign markets. But it is obvious that credits obtained individually and under varying conditions, and coming on the exchange market as bills carrying the risk of private transactions, do not have the same effect upon the exchange market as large national credits affording a supply of exchange when commercial bills are lacking.

The future of French exchange is therefore rather uncertain. It appears only that it is dependent, until the undoubtedly rather remote time when France will have a normal balance of accounts, upon the possibility of obtaining sufficient foreign credits and upon the manner in which these credits are used. The writer is therefore of the opinion that, if the credits obtained are sufficient for the present and do not rest too heavily upon the future, the creation of a central agency, such as a bureau of foreign exchange with sufficient resources at its disposal to become a factor in the market, would constitute the most efficacious means of stabilizing the rate of exchange and progressively raising it to its normal level.

[1] On February 7, 1920, it declined to 48·99 francs to the pound and 15 francs to the dollar.

THE EFFECT OF THE WAR UPON FRENCH COMMERCIAL POLICY

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PROFESSOR OF POLITICAL ECONOMY IN THE UNIVERSITY OF LILLE

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THE EFFECT OF THE WAR UPON FRENCH COMMERCIAL POLICY

The Foundations of the new Policy pursued during the War

It was not until some time after the declaration of war that French commercial policy as regards importation began to acquire a character quite different from that which it had before the war.

At first it was the old policy, that is, the existing tariff legislation, that was applied. This policy was modified, however, in two important ways. In the first place, a series of measures, laws and decrees promulgated in 1914 and 1915 interdicted all commerce with the enemy and prohibited the importation into France of all merchandise of German or Austro-Hungarian origin; and later on this same prohibition was extended to cover, under certain conditions, all merchandise manufactured in neutral countries with materials of enemy origin. In the second place, a number of decrees and a law promulgated in 1914 and 1915 favoured the importation of certain kinds of merchandise, especially food products, by suspending or reducing the ordinary customs duties applicable to them.

Otherwise, it may be said that the principles in application before the war were maintained in the early part of the war. In other words, French tariff legislation at first preserved its well-known protective character.

After 1916, however, the long duration of the hostilities, coupled with the efforts which they caused to be put forth and the general transformation of economic conditions for which they were responsible, led to the adoption of a new policy which was inspired by very different principles. The policy of

protection began to give way to a policy of prohibition; that is to say, instead of levying duties on merchandise imported from abroad, it was deemed expedient to prohibit its importation altogether. The prohibition was no longer applied to enemy products alone, as in 1914 and 1915, but to those of the neutral and allied countries as well. It was no longer a question of an act of war, of directing blows against the enemy; it was a question of safeguarding the great national interests with a view to facilitating the prosecution of the war.

In 1916, however, only a weak effort was put forth in the direction of prohibition, and it was not until 1917 that the new policy reached its full development. In that year prohibition became general; in theory, at least, it became the established rule. It remained in force, moreover, until the cessation of hostilities and even for some time after the signing of the armistice. Nor was it peculiar to France; for measures of prohibition were likewise adopted by several of the other allied countries, including England, Italy, Russia, and even the United States.

Two closely related ideas lay at the foundation of the new policy in France; in the first place, the scarcity of the country's financial resources, of its means of payment; in the second place, the necessity of giving priority to imports of the products considered most useful to a nation at war. On the one hand, therefore, were reasons of economy dictated by the unfavourable condition of the national finances—reasons which rendered desirable the adoption of measures to decrease the imports of foreign products for the sake of the direct saving of money resulting from a curtailment of foreign buying. On the other hand, was the necessity of restricting or suspending the importation of non-essential products in favour of essential products. These two policies—the policy of economy and the policy of priorities—combined to result in the closing of the French frontiers to a very large number of foreign products.

The unfavourable condition of the country's finances was due to the grave modifications which the war had brought about in its general balance of trade and balance of foreign accounts.

Before the war, to be sure, France imported more than she exported. In the first place, however, the amount of the excess imports was always very moderate; it never exceeded two billion francs per annum and was ordinarily much less than that. In the second place, moreover, the country had various resources on which it could rely to pay for these excesses, notably the interest and the profit accruing from large amounts of capital it had invested abroad. During the war, however, the revenue from these foreign investments decreased more and more as the hostilities continued, this applying especially to those in the East European countries, Russia, Turkey, Rumania, and Bulgaria. At the same time, moreover—and this is the most important, the most alarming point—the excesses of imports became greater than would formerly have been considered possible; instead of amounting to one or two billion francs, as in previous years, the excess amounted to seven billions in 1915, fourteen and a half billions in 1916, twenty-one and a half billions in 1917, and eighteen billions in 1918, making a total of some sixty billion francs for the four years of the war.

The fact is that the simultaneous decrease in the capacities of domestic production and increase in the requirements of domestic consumption were more pronounced in France than in most of the belligerent countries. The productive capacities were greatly lessened both in consequence of the mobilization and in consequence of the occupation by the enemy of several of the country's foremost industrial departments. Out of a total population of only forty millions no less than eight million men were called upon to leave the fields and factories in response to the call to arms. At the same time, furthermore, France lost her beautiful wheat and beetroot land in the departments of Nord, Pas-de-Calais, Aisne, and Somme, the majority of her iron ore (which is extracted principally from the deposits of Lorraine), half of her coal (the majority of her coal mines falling either into the hands of or else under the fire of the enemy), her great metallurgical establishments of the north and east, almost all of her flax spinning mills and her wool combing and spinning mills, a large portion of her cotton spinning mills, her

glass and faience factories of the north, and many other industrial establishments.

During the same period in which the country was so gravely deprived of its resources of men and materials, moreover, it was called upon to satisfy the requirements of a disproportionately increased consumption. Not only was it necessary to supply the ordinary demands of the civil population, which had probably not decreased a great deal, and certainly not as much as the means of production ; but at the same time it was necessary to satisfy that formidable mass of new requirements created by the prosecution of a war which was destined to last so long and to be conducted with such prodigious energy and such powerful armaments.

It was inevitable that such disproportion between the greatly reduced capacities of domestic production and greatly augmented requirements of domestic consumption should bring about a considerable decrease of exports and a very pronounced increase of imports. This is indicated by the following table showing the relative value of the imports and exports in the year before the war and in the four years of the war :

VALUE OF FRENCH IMPORTS AND EXPORTS IN 1913 AND IN 1915–18

	Millions of francs	
Year	*Imports*	*Exports*
1913	8,421	6,880
1915	11,036	3,937
1916	20,640	6,215
1917	27,554	6,013
1918	22,301	4,723

Thus the value of the exports, which in the year before the war had amounted to nearly seven billion francs, remained well below that figure during the war, notwithstanding the pronounced rise of prices that intervened. On the other hand, the value of the imports, which had never exceeded eight and a half billions, increased to no less than twenty-seven and a half billions in 1917. This accounts for the enormous excess of imports referred to above.

The pronounced increase in the imports at a time when the

exports were declining, and the income from foreign investments diminishing, brought to light, and aggravated more and more every day, the unfavourable condition of the national resources; and this, in turn, resulted in a slow but continuous depreciation of French exchange.

In order to check this depreciation, and at the same time to strengthen its foreign financial status, the French Government had recourse to various measures. Many of the foreign securities held in France were resold abroad, while the Bank of France released a part of its gold reserve for the purpose of opening new foreign credits. Later on, moreover, the Government itself solicited and obtained numerous important credits from several of the allied and neutral countries. The sums advanced to France by England and the United States (after its entrance into the war) averaged more than a billion francs per month;[1] and smaller credit accounts were likewise opened with other countries, including Switzerland, Spain, Argentine Republic, Brazil, and others. In this manner the stability of French exchange was maintained in England and the United States in 1917 and 1918; and the same result was achieved to a less extent in the neutral countries.

But these credit arrangements, while they helped to remove some of the contemporary difficulties of the war, were at the same time calculated to make things worse for the future. Formerly noted for the amount of her foreign credits, France was destined to become a debtor, to see a daily increase, moreover, in the amount of an outstanding obligation of which she could not hope to rid herself for many years to come. It was obviously necessary to prevent this steady accumulation of more and more indebtedness, therefore, or at least to moderate the rate of accumulation; and inasmuch as it was largely due to increased foreign buying, the only thing to do was to put a stop, in so far as possible, to the purchase and importation of foreign products.

The existing protective tariff was insufficient for the accomplishment of the purpose. In the first place, it had lost much of its force. French customs duties are not *ad valorem* duties, as

[1] Up to the end of the year 1918 France had contracted a foreign debt of more than thirty billion francs.

is well known, but specific duties levied according to the nature of the merchandise involved. The general rise of prices that became more and more accentuated throughout the war brought it about, accordingly, that the duties collected represented an ever-decreasing proportion of the value of the merchandise to which they were applied. That is to say, their protective power gradually diminished. In the second place, it was no longer a question of protection; it was no longer a question of safeguarding domestic production by preventing a lowering of prices due to foreign competition. For prices were already high enough, and nobody had any desire to favour a further rise. No, it was merely a question of putting an end to an increase of imports for which the country lacked the necessary means of payment—a question of checking the increase of the national debt and the depreciation of French exchange. In order to accomplish this purpose the Government was not content merely to levy ordinary, even increased, import duties; it was impelled to go still further and prohibit importation altogether.

The second of the two ideas referred to above, namely, the policy of priorities, led to this same solution. Inasmuch as the country's foreign financial resources proceeding both from its exports and from its credit arrangements were limited, it was obviously necessary to reserve them for the purchase of the most useful kinds of merchandise. The degree of utility was gauged with reference to the end to which everything was subordinated: victory in the war. From this standpoint, accordingly, there appeared a hierarchy, as it were, in the requirements of the country. First and foremost, it was imperative that it should be able to purchase all the materials necessary for the prosecution of the war; and after that, within certain limits, the materials and products essential to its economic life. It was obvious that the procurement of the merchandise comprised in these two categories could be favoured by restricting or suppressing the purchase and importation of other less essential products. The Government was therefore led to establish prohibition of importation with respect to the products considered least useful to a nation at war; and the latter were in reality the only products

to which the measures adopted were intended to apply, howsoever general the prohibition may have become in appearance.

In a neighbouring domain, that is, in the domain of maritime transportation, the same reasons—the unfavourable status of the national resources and the necessity of giving priority to imports of the most useful character—gave rise to a policy similar to the new commercial policy. The measures adopted varied, to be sure, according as it was deemed sufficient merely to license a part of the merchant marine, or as it was decided to resort to outright requisitioning; but in both cases general programmes were established with reference to the country's tonnage resources, and in these programmes a decrease was made in the number of ships to be used for the transportation of non-essential merchandise, while an increase was made in the total tonnage reserved for the necessary imports of the Government departments. Among the latter as well, moreover, priorities were established, and provision was made for the transportation of those kinds of merchandise in particular which were calculated most effectively to satisfy the requirements of a nation at war.

The same reasons gave rise to the war-time shipping policy, accordingly, as gave rise to the war-time trading policy, causing them to pursue similar ends. The action of the former, moreover, reinforced that of the latter; for the products to which the prohibition of importation was made to apply were generally the same products to which the means of transportation were denied. The shipping policy was even more rigorous than the trading policy, as a matter of fact, since many kinds of merchandise which were authorized to enter the country by way of exception to the rule could not be brought there for lack of cargo space in the available ships.

The Principles and Development of the New Policy

It was not until the second or third year of the war, as we have already observed, that the policy of prohibition was generally adopted and applied.

At first, it was precisely the reverse policy that was pursued;

that is to say, far from even dreaming of the closing of the country's ports to foreign products, the Government actually opened them still further by the suppression or reduction of various import duties. Such was the object of a series of decrees issued immediately after the declaration of war, in the months of August and September, 1914, with a view to facilitating the importation of a number of necessary products, such as cattle, horses, meat, and various cereals and dry vegetables. In 1914 and 1915, moreover, there followed other decrees whereby the import duties applicable to certain other food products, as well as to certain products of importance to the national defence, such as rails, bridges, nitrates, jute bags, &c., were either considerably reduced or entirely suspended. Finally, a law passed on August 14, 1915, favoured in a similar way the importation of the raw materials (paper and cellulose) used in the making of newspapers.

We have remarked that certain measures of prohibition were enforced from the very beginning of the war. The fact is, however, that these measures had nothing in common with the general prohibition policy subsequently adopted; for they related only to enemy merchandise and were merely a consequence of the regulations interdicting all commerce with the enemy countries. The decree of September 24, 1914, and the laws of April 5 and August 17, 1915, contained rigorous provisions designed to prevent the importation into France of all products of German or Austro-Hungarian origin. Later on, moreover, in consequence of a decision of May 15, 1916, the same provisions were extended to cover merchandise manufactured in the neutral countries with materials of enemy origin, when the value of the latter amounted to a proportion of more than 25 per cent. (subsequently changed, with certain exceptions, to 5 per cent.) of the total value of the product. With respect to the two categories of merchandise just mentioned, however, it was stipulated that the prohibition might be suspended at any time by virtue of a special decision of the Minister of Finance—which meant that the Government reserved the right to authorize the importation of certain products of

special importance to the national defence or to the economic life of the country.

It was not until the year 1916 that there appeared the prohibition regulations which gave the country's commercial policy an entirely new character, that is, the regulations affecting the merchandise of the neutral and allied countries.

The fundamental object of the law of May 6, 1916, was to give the Government the necessary authority to check the increasing invasion of foreign products. Two means of accomplishing this purpose were placed at its disposal: it might, by decree, either increase the customs duties or establish prohibition of importation. Prior to the middle of the year 1919 it has had recourse to the first of these two means only in a somewhat exceptional manner, that is, only with respect to alcohol and automobiles. It was destined to make very extensive use, on the other hand, of its legal authorization to prohibit importation altogether.

During the year 1916, however, the policy of prohibition did not become general. The decree of May 11, as well as the decrees subsequently issued in the course of that year, closed the French frontiers only to a relatively small number of products, chiefly luxury articles or articles of a more or less superfluous character.

It was not until the year 1917, as a matter of fact, that prohibition of importation was actually inaugurated as a general policy with a broad application. It was in conformity with a decree of March 22 of that year, to be precise, that the commercial policy of France as regards importation really entered into a new phase.

The decree of March 22, 1917, established the principle of general prohibition of importation with respect to all products not purchased for the account of the Government. At the same time, however, it made provision for two series of exceptions to this rule; that is to say, it provided that derogations from the prohibition might be granted either in a general way or within the limits of certain specified amounts. A Committee

on Derogations from the Prohibition of Importation was created in the Ministry of Commerce with the object of considering, and submitting to the Minister, propositions concerning any general derogation to benefit certain products and the limited imports to be authorized for certain other products.

The system provided for in the decree in question made distinction between three categories of merchandise.

The first category comprised those products which were to be looked upon as indispensable to the country, and of which it was to be feared that only rather inadequate quantities, at best, could be procured from abroad. In the case of these products of prime necessity a general derogation from the prohibition was established; that is to say, it was provided that their importation was to be subject to no restrictions whatsoever.

The second category comprised products which it was deemed necessary to procure from abroad only up to a certain limit, beyond which they would cease to be indispensable. This idea is found to be a practical application of the theory of the decreasing utility of products so familiar to contemporary economic science. In the case of certain products, therefore, the decree provided for limited imports and for prohibition of importation beyond the limits specified.

The third category, finally, comprised products the foreign purchase of which was held unnecessary, either because they were less useful for the prosecution of the war, or because France herself, or her colonies, produced the necessary minimum of them. For these products prohibition was established. The question is: Was this prohibition absolute? While the decree itself did not definitely settle this question, certain it is that absolute prohibition was the logical sequence of the system. For since the first category comprised products to be allowed to enter the country without any restrictions whatsoever, and the second category products to be admitted in certain limited quantities, it follows that the third category ought properly to have comprised products to be excluded altogether.

In a rational organization the second category would naturally comprise the largest number of products. Economists familiar

with the above-mentioned theory of the decreasing utility of products will agree that there are few kinds of merchandise whereof unlimited importation is desirable and likewise few whereof no importation whatsoever is tolerable. The fact is, indeed, that the utility of imports is generally great enough up to a certain limit, which is sometimes very high and sometimes very low; and beyond that limit the utility falls away.

The entire problem resolved itself, accordingly, into a question of the quantity of imports to be authorized—a quantity which it was necessary to determine from the standpoint of the given circumstances, that is, from the standpoint of a nation struggling to conduct one of the longest and most bitter of wars with decreased resources at its disposal, and ready to resort to almost any means calculated to ensure victory. For the majority of products the problem was to determine this quantity. The majority of products should have been placed in the category of merchandise to be allowed to enter the country in determined quantities.

The fixation of the limits constituted one of the chief functions of the aforesaid Committee on Derogations from the Prohibition of Importation created in conformity with the decree of March 22, 1917—which committee was afterwards divided into several narrowly specialized sub-committees comprising representatives of various Government departments, and representatives of industry, agriculture, and commerce. Having official statistics at their disposal, and being in a position to benefit by expert knowledge and experience, the committee and sub-committees were called upon to determine, on the one hand, the war-time requirements of the national consumption, and, on the other hand, the war-time capacities of the national production. But the difference between these two quantities could serve only as a basis or starting-point for the fixation of the limits, since for the totality of products it would probably have been too large in proportion to the country's means of payment. After the completion of this first task, accordingly, it was foreseen that it would be necessary to undertake a second; that is to say, it would be necessary to group the various products together

in a general limited importation programme. In this way the country's import requirements could be regulated with reference to its foreign resources, and the different kinds of merchandise could be compared with reference to their origin, whereupon the necessary reductions could be made in the case of those imports which were considered least useful, or which came from countries in which the national means of payment were proportionately smaller. Thus an effective effort could be made to curtail foreign purchases with a view to keeping them within, or as nearly as possible within, the limits of the national means of payment.

The work done in this way to regulate the imports of private parties, moreover, was designed to supplement and complete that done for the imports of the Government departments. A committee had been created to draw up a programme comprising the totality of the latter. The Government departments, such as the Ministries of War, Munitions, the Marine, Public Works, and Approvisionment, first made known their requirements of foreign products, whereupon their demands were assembled and classified and then carefully examined and compared with reference to their relative importance or urgency. The Ministry of Finance, in turn, made known the status of the national resources in the various foreign countries. In this way it was possible to reduce the less urgent requirements and to authorize the purchase only of those products which were considered the most useful or which could be procured from those countries in which the national resources were the greatest. An effort was made to adjust the importation programmes as closely as possible to the available means of payment by giving priority to the country's most urgent requirements.

At first limited to the purchases of the Government departments, the importation programmes were afterwards made to comprise certain private purchases, which were assimilated to the former and likewise permitted to benefit by the credits opened for the Government. In this way authority was given for private purchase made in execution of the orders of the

Government, as well as for purchases of *consortiums*, of which we shall have something to say farther on.

The fixation of the limits for a considerable number of products, a general application of the system of limited imports, would have led, for private purchases intended to meet the requirements of private consumption, to the establishment of programmes similar to those of the Government departments. Thus the combining of both would have produced a comprehensive programme covering all kinds of merchandise the importation of which into France would have been officially authorized.

As regards private purchases, however, the elaboration of the programmes, the generalization of the system of limited imports, was evidently a long and difficult undertaking. Not only did it call for a very large amount of documentation, which it would take a considerable length of time to assemble, but at the same time it involved the necessity of making some very delicate decisions. As provided in the decree of March 22, 1917, itself,[1] moreover, as soon as the limits were once fixed, a second series of operations would be created as a necessary corollary of the first; that is to say, it would become necessary to apportion the total amount of the authorized imports corresponding to each category of merchandise among the various importers or among the various industrial or commercial groups; and this would be a task sufficiently difficult in itself.

While waiting for the completion of all this work, that is, for the limits to be fixed and the corresponding amounts to be apportioned, was the prohibition regulation to be rigorously enforced, was all importation to be interdicted, at the risk of seriously disrupting the economic life of the country? This did not seem expedient. Furthermore, the orders issued in execution of the decree of March 22 authorized the aforesaid committee and sub-committees to make special exceptions in favour of certain products. Thus individual derogations, for which the decree referred to did not explicitly provide, and

[1] Last paragraph of Article 3.

which the logic of the system perhaps implicitly excluded, in reality became one of the most important measures adopted.

But it was well understood that the granting of individual derogations constituted a vicious measure. When there is no general plan of the national requirements to refer to, no comprehensive programme of the kinds and quantities of indispensable merchandise, there is no secure basis on which to draw a distinction between imports to be admitted and imports to be prohibited. The decisions made consequently seem more or less arbitrary ; and in order to escape this reproach, the authorities do not dare to deny to some what they concede to others. The derogations consequently multiply, with the result that the imports quickly reach an amount greatly in excess of that which would have been authorized by a definite programme drawn up in advance. All of the various comparisons which have to be made in the elaboration of a programme—comparisons of the nature of the merchandise, of the requirements it meets, of the quantities imported, of the countries of origin—are neglected when the derogation demands are successively considered, day by day, as fast as they are received. The utility of each one is examined separately, and since most of them are always found to offer some degree of utility, the result is that authorizations are given for the importation of numerous products without regard to those already given.

That is why, since the evils inherent to the practice of granting individual derogations were well known, an effort was made to circumscribe the field of their application by favouring limited imports of a certain number of products, pending the time when it might be possible to undertake the elaboration of a general importation programme.

It was the ideas just set forth that inspired the successive orders that were issued in execution of the decree of March 22, 1917. The most important of these orders were those of April 13 and September 8, 1917. The latter, which abrogated and replaced those preceding, is the one which remained longest in force and the one which constituted, as it were, the

code of the matter. It distinguishes, not three categories of merchandise, as did the decree of March 22, 1917, but only two.

On the one hand, there are the products to benefit by a general derogation from the prohibition of importation and hence to be allowed to enter the country entirely without restrictions. The number of these products is small; List A, which enumerates them, includes chiefly food products (cereals, rice, vegetables, potatoes, milk, fish), certain raw materials (phosphates, coal, crude oil, nitrates), and agricultural machinery.

On the other hand, there are the prohibited products. This category comprises the great majority, nearly all, in fact, of the materials and products falling under the general customs nomenclature. They are enumerated in Lists B, C, D, E, F, and G; that is, in reality, List B being itself divided into seven parts, in twelve lists, for the most part very long.

With respect to all the products in this second category, special or individual derogations from the prohibition of importation may be granted in conformity with the opinion of the qualified committees and sub-committees: the Committee on Derogations from the Prohibition of Importation, divided into seven sub-committees for the products of List B; the committee on fatty materials for List C; the Committee on wood for List D; the committee on diamonds and precious stones for List E; the interministerial committee on metals for List F; and the committee on chemical products for List G.

Aside from the products comprised in the two categories of merchandise just referred to, there are only ten or so articles of merchandise falling under special regulations—articles subject to absolute prohibition, generally speaking, either because they possess a noxious character (alcohols, liqueurs, brandies), or because the State reserves a monopoly on their importation (sugar, tobacco, matches).

For the great mass of merchandise, therefore, the régime was that of prohibition of importation, modified by the possibility of special or individual derogations.

As regards the fixation of the limits, the order of September 8, 1917, made no mention of it. The purpose was not forgotten, but

an effort was made to accomplish it by other means, especially by the general application of the policy of *consortiums*.

The *consortiums* were associations of joint purchase and distribution instituted in conformity with an agreement concluded between a number of merchants and manufacturers on the one hand, and the public authorities on the other hand. The latter established the regulation of their organization and supervised their activity. They were of the nature of cartels, operating under official sanction, with the understanding that they were to submit to Government supervision and abide by whatever rules were established in regard to prices, exchange, transportation, &c. The Government authorized them to make use of the credits opened by foreign Governments, even making payments for them in foreign money and accepting reimbursement in French money. In this way it sought to avoid the heavy demands on the market made by the individuals for foreign bills, and to stabilize exchange.

Likewise in the case of maritime transportation the Government favoured the merchandise of the *consortiums*. Finally it conceded them almost a monopoly of importation. It was with this very object that the prohibition policy had been extended to include a number of products of great utility, such as cotton, jute, petroleum, oleaginous seeds, &c., which might logically have been exempted from prohibition on account of the urgent demand for the small quantities of them available. It was not due to any desire to prevent their importation into France; it was due to a desire to reserve the control of their importation for the *consortiums*. Derogations from the prohibition, that is, authorizations to import, were granted only to the *consortiums*; they were refused, in principle, to those who abstained from associating themselves with the *consortiums* and from falling in with the policy of restrictions, priorities, and prices which the war imposed upon the country in general.

But if authorizations to import were given to the *consortiums*, they were given only within the limits of certain fixed proportions established by the Committee on Derogations on which they were dependent—proportions, moreover, which were

made subject to the approval of the organization charged with drawing up the importation programmes of the Government departments. There can be no doubt that the creation of *consortiums* greatly facilitated the establishment of the limited proportions. It lies in the nature of the *consortiums* to centralize the demands of their members in such a way that their total foreign purchase requirements may be easily known, whereupon the proportions may be reduced by making the eliminations deemed necessary under the given circumstances. In the same way there was facilitated the delicate task of apportioning the amount of the authorized limited imports among the individual buyers. It also lies in the nature of every joint-purchase association to establish the rules according to which the merchandise bought by it is to be distributed.

If, therefore, a very large number of *consortiums* had been created, as was at first hoped, the difficulties connected with fixing the limits and elaborating the rules of apportionment would have been lessened, and it would have been possible to draw up a general importation programme covering a very large number of products. But the creation of the *consortiums* itself brought up some very complicated and difficult problems, so that the number actually organized was in reality very small, including only those for cotton, jute, fatty materials, petroleum, paper pulp, print paper, and Swiss wood. The number of limited importation proportions established by the *consortiums* was likewise very small, accordingly, and the work of fixing the limits, which it was hoped would be realized by the multiplication of the *consortiums*, came nowhere near acquiring the scope which had been anticipated.

Besides the *consortiums*, however, other joint-purchase associations were constituted during the war, namely the so-called *comptoirs*. These were groups of manufacturers engaged in buying foreign raw materials and transforming them into the manufactured products required by the Government departments. They were often created for the purpose of meeting the conditions imposed by one or another of the other allied countries, notably the United States, which, after

its entrance into the war, decided to permit the exportation only of merchandise purchased by the allied Governments through representative missions sent to America. The missions made purchases for the *comptoirs*, paying for them out of the credits opened for the French Government, and the *comptoirs* reimbursed the French treasury in French money. The *comptoirs* established much looser bonds among their adherents than did the *consortiums*. They paid no attention to prices; they did not organize heavily capitalized companies; and they realized no profits. They merely assembled the foreign purchase requirements of their members—requirements which were themselves dependent upon the orders of the Government. This last point facilitated the establishment of the limited importation proportions permitted to the *comptoirs*. The proportions were determined by the committee on which they were dependent, that is to say, in reality, by reason of the merchandise involved, by the interministerial committee on metals, and were made subject to the approval of the organization charged with drawing up the importation programme of the Government departments.

The purchases of both the *consortiums* and the *comptoirs* were assimilated to those of the Government departments and hence given a place in the latter's importation programme. Aside from that, moreover, the committee and sub-committees on derogations were authorized (in conformity with the decree of March 22, 1917) to establish limited importation proportions to serve as a basis for the granting of special authorizations. For certain products they made use of this right; and they further decided that individual derogations from the prohibition should be granted only within the limits of the proportions established. But proportions were actually established, as matter of fact, only for a rather small number of products.

For the great majority of the products enumerated in the twelve lists mentioned above, therefore, there were no limited proportions; it was a question of individual derogations authorizing importation in unlimited quantities. But while this was true of a very considerable number of products, it is

necessary to take into account the fact that the total value of these imports represented a relatively small part of the totality of French imports. The greater part consisted of the imports of the Government departments and the assimilated imports of the *consortiums* and *comptoirs*.

However that may be, it is necessary to add that the practical application of the policy of individual derogations gave rise to the very difficulties that had been feared. Some of the committees and sub-committees were undoubtedly rather severe in the granting of the derogations, whereas others were more lenient. In general, however, it may be said that much liberality was shown in the authorizations given. The system of individual derogations did not permit of such rigorous restrictions as would have been necessary for effectively putting a stop to the invasion of foreign products.

If we seek to determine the influence of the prohibition measures by an examination of the custom-house statistics, we find that between the year 1917, in which these measures were applied only in part, and the year 1918, in which they were applied in full, there was a pronounced decrease in the country's imports. Computed on the same basis of values, in order to eliminate the price fluctuations in the two years, the imports decreased from 27,554,000,000 francs in 1917 to 19,915,000,000 francs in 1918. This represents a considerable decrease, since it amounts to seven and a half billion francs, or to more than a quarter of the total for 1917.

An examination of the custom-house statistics shows that the decrease applied to a very large number of products, especially to those largely intended for private consumption, such as perfumeries and soaps, pottery, glass and crystals, certain textiles, leather and leather goods, &c. But it is necessary to guard against attributing the decrease entirely to the prohibition of importation; for the fact is that other factors likewise had more or less to do with it. One of them was the decrease in the merchant tonnage left available in consequence of the German submarine operations. A second factor, more-

over, was the policy of priorities that was pursued in the matter of transportation, especially maritime transportation, which prevented the importation precisely of those products to which the prohibition applied. Finally, there was the ever-increasing scarcity of foreign products available for purchase, as well as the prohibitions of exportation established in many countries in consequence thereof. Thus the prohibition of importation was only partially responsible for the falling-off in the imports, and it is difficult to determine what was properly due to its influence alone.

The Commercial Agreements concluded with Foreign Countries

Our survey of the commercial policy of France during the war as regards importation would be incomplete if we failed to include in it, a brief account of the commercial agreements which were concluded with certain foreign countries.

Agreements of the kind referred to—creating, as they did, important exceptions to the general prohibition regulations—were entered into with England, Italy, Switzerland, and Spain. Each of them was negotiated with a particular object, however, and hence they differ from one another to such an extent that it seems expedient to examine them separately.

Owing to the important rôle played by English merchandise in the totality of French imports, our attention is drawn in particular to the Franco-English agreement of August 24, 1917. At the time of the commencement of the negotiations which led to the conclusion of this agreement, as a matter of fact, France had already inaugurated her policy of prohibition ; but England had likewise entered upon the same course, and perhaps with even more vigour. In the commercial relations between the two countries, accordingly, France found herself in danger of losing —on account of the falling-off in her exports of various products, such as silks, wines, Paris articles, &c.—all the advantages she had sought to gain by the adoption of measures to decrease her imports.

But the situation was not the same for the two countries. The war had dealt France a much more vigorous blow, depriving her of many of her most productive departments, as well as of a considerably larger proportion of workers withdrawn from production in consequence of the mobilization.

In the year 1913 the commercial relations between France and England were characterized by a considerable excess of French exports, as shown by the following figures :

English Exports to France	*French Exports to England*	*Excess of French Exports*
	Millions of francs	
1,115	1,454	339

In the year 1916 the state of affairs appears completely reversed, the balance of trade indicating an enormous excess of English exports, as shown by the following figures :

English Exports to France	*French Exports to England*	*Excess of French Exports*
	Millions of francs	
5,967	1,118	4,849

On the strength of these facts the French Government succeeded in inducing the English Government to abolish the prohibition of importation which it had established with respect to French products, doing so, moreover, at a time when France herself was enforcing rigorous restrictions with respect to the importation of a number of important English products.

The Franco-English agreement of August 24, 1917, provided for the free importation of French products into England, under reservation of the granting of a licence by the English Bureau of Paris—which constituted a mere formality. Exception was made only in the case of a small number of articles enumerated in Table A annexed to the agreement. The fact of the matter is, indeed, that French exports to England were actually cut off in the case of only two articles of considerable importance, namely, spirits (the value of the exports of which had amounted to some twenty million francs in 1916) and dress feathers (the value of the exports of which had amounted to some eleven and a half million francs).

As regards English merchandise, on the other hand, if the principle was likewise that of permitting its free importation into France under licence, the fact is that this principle was subject to more numerous and more important exceptions.

The principal articles of merchandise concerned were those enumerated in Table B annexed to the agreement—cotton, wool, and jute cloths, soap, oils and fats, wax and tallow candles. The limitation was important in two ways. In the first place, it involved products the imports of which from England were very heavy, representing a value of more than 850,000,000 francs in 1916, of which textiles alone amounted to more than 800,000,000. In the second place, the importation of these products was authorized only within rather restricted limits—fixed at 50 per cent., to be precise, of the average imports of 1914, 1915, and 1916. But the imports of 1914 and 1915 had been much lighter than those of 1916, amounting altogether, indeed, to less than those of 1916. For the entire list of products specified, therefore, the imports authorized by the agreement in question represented scarcely a third of those corresponding to 1916.

Almost absolute freedom of exportation from France to England; freedom of exportation from England to France with some rather important limitations—such, accordingly, were the outstanding features of the Franco-English commercial agreement of August 24, 1917.

As regards the results achieved, by drawing comparisons with the period immediately preceding the conclusion of the agreement, that is, the period in which the policy of prohibition was being pursued in both countries, one would be led to expect, on the one hand, a rather pronounced increase in French exports to England, and, on the other hand, a corresponding, but somewhat less pronounced, increase in English exports to France.

As a matter of fact, however, if we compare the commercial movement of 1917 with that of 1918, using the same basis of estimate for the two years, we note a falling-off in this last year with respect to both the exports and the imports of France; in the case of the former it is rather slight, but in the case of the

latter it is quite marked. As regards the exports, this falling-off was due to the general shortage of raw materials, coal, labour, and means of transportation, which paralysed French industry to such an extent that it was unable to take full advantage of the favourable conditions which the agreement created for it; and as regards the imports, on the other hand, it was due to the ever-increasing scarcity of purchasable merchandise in the belligerent countries.

A careful study of French custom-house statistics, however, shows that the Franco-English commercial agreement of August 24, 1917, produced to a certain extent, at least, the results which it was expected to produce, especially with respect to French exports. The shipments of French products to England had rapidly decreased in the first eight or nine months of 1917, owing largely to the influence of the English prohibition of importation which had just been established. After the conclusion of the agreement, however, the decrease stopped; and in the period immediately following, that is, in the last few months of 1917 and in 1918, an interesting increase is to be observed in the French exports of silks, wearing apparel, wines, and fruits. The agreement facilitated the exports, therefore, and did not increase the imports; in other words, it improved the French balance of trade. Altogether, accordingly, it may be said that the Franco-English agreement of August 24, 1917, was rather favourable to French interests during the war.

The agreement concluded with Italy on May 30, 1917, was of less importance in relation to the policy of prohibition than the agreements concluded with England and the other countries. This is to be accounted for by the fact that France was a creditor of Italy and a debtor of the other countries. French paper was at a premium in Italy. There was no reason, accordingly, for a rigorous enforcement of the prohibition regulations with respect to Italian merchandise; for since the fundamental object of the policy, from the standpoint of France, had been to prevent the increase of her foreign indebtedness, it could logically be applied only to those countries which were her creditors. She

could therefore allow Italian merchandise to cross her frontiers without suffering any great disadvantage therefrom; in one way, indeed, she even benefited by it, that is, in so far as it caused her imports from Italy to take the place of those from other countries in which her exchange was depreciated.

France could easily accept, therefore, the provisions of the agreement concluded with Italy on May 30, 1917, relating to the suspension of the prohibition which had been established in both countries with respect to the importation of certain products. The agreement seems to have favoured Italian imports of products such as wines, fruits, silks, &c., the amount of which was notably greater in 1917 than it was in 1918; and it did not prevent, on the other hand, decrease in French exports to Italy. For the reasons given, however, France had no occasion to be alarmed by this improvement of Italy's balance of trade. In one way, as already stated, she even benefited by it; for by purchasing 1,832,810 hectolitres of Italian wine in 1918, as compared with only 293,436 hectolitres in 1917, for example, she was able to decrease her purchase of Spanish wine, of which she imported only 1,198,573 hectolitres in 1918, as compared with 4,583,003 hectolitres in 1917.

The fundamental object of the agreement concluded with Switzerland on December 29, 1917, was to enable France to obtain credits in that country, of which she was very much in need owing to the unfavourable status of her exchange there. With respect to a certain number of Swiss products, on the other hand, including chocolate, watches and clocks, jewellery, embroidery, footwear, silk cloth and thread, and hat braids, the prohibition of importation was suspended in France up to a total monthly value of two and a half million francs.

The agreement did not prevent a decrease of Swiss imports into France in 1918; in the case of the majority of the above-mentioned products in particular, as a matter of fact, the actual imports were less than the authorized proportions, less, moreover, than the imports of the preceding year.

If the Franco-English agreement of August 24, 1917, was

intrinsically the most important of all the commercial agreements concluded with foreign countries during the war, the Franco-Spanish agreement of February 28, 1918, was certainly the most instructive, on the other hand, by reason of the effective manner in which it was applied. The fact is, however, that the instructive character of the commercial relations between France and Spain does not date from the conclusion of the agreement in question, but from the immediately preceding period. A study of the commercial relations between the two countries in this period shows what a rigorously pursued policy of prohibition could have accomplished, and a study of the facts corresponding to the following period shows what could be achieved by the establishment of a general system of limited imports, a general importation programme.

In the last few months of 1917 it was decided that the French frontiers, owing to the grave depreciation of French exchange in Spain, as well as to the fact that it was impossible for France to obtain credits in that country, should be strictly closed to Spanish products intended for private consumption, and that the granting of derogations from the prohibition of importation should be provisionally discontinued.

This measure was maintained in force for some time after the conclusion of the agreement of February 28, 1918, owing to certain delays in the putting of the latter into application. Its effects were uniformly characteristic, the total imports decreasing in the first half of the year 1918 to approximately a third of what they were in the first half of the preceding year. The decrease was especially pronounced in the case of products not intended chiefly for war industries. The imports decreased to 25 per cent. of what they were in the first half of 1917 in the case of yarns and textiles, to 8 per cent. in the case of wines, to 7 per cent. in the case of oils, and to 4 per cent. in the case of leather goods. This brings to light what could be accomplished by a rigorous application of the policy of prohibition.

The agreement of February 28, 1918, modified the situation. It enabled France to procure Spanish credits amounting to a total of 250,000,000 pesetas up to the end of the year, and

these credits, in turn, enabled her to resume the purchase of Spanish products. France, on the other hand, agreed to suspend the prohibition of importation in 1918 within the limits of certain specified proportions, the products involved including especially wines and fruits (bananas and oranges), as well as essences for perfumery, cork in the form of slabs and stoppers, and a few others.

After the agreement went into effect derogations from the prohibition were again granted; but the system of individual derogations was abandoned. It was decided to authorize the importation of Spanish products, both by the Government departments and by private parties, only within the limits of the credit of 250 million pesetas opened for the year 1918, in addition to credits of approximately 100,000,000 pesetas proceeding from French exports to Spain. In other words, it was decided to establish a general importation programme adjusted to the country's financial resources in Spain, amounting, as they did, to approximately 350,000,000 pesetas. Cognizance was taken of the purchase requirements of the Government departments and of private parties, and these requirements were carefully compared with reference to their urgency in relation to the prosecution of the war and the restrictions of private consumption for which the war was responsible. The necessary eliminations were made, and the 350,000,000 pesetas were properly apportioned with respect to the various categories of merchandise and the various classes of consumers. All importation of Spanish products was interdicted beyond the limits of proportions established in the programme.

The result was that in the second half of 1918 the imports in France from Spain, while they were heavier than they had been in the first half of that year, were considerably lighter than they had been in the second half of 1917. For the entire year of 1918, thanks to the suspension of the derogations from the prohibition of importation, as also to the execution of the agreement of February 28 and to the establishment of a general importation programme, French imports of Spanish merchandise amounted to scarcely two-fifths of those corresponding to the preceding year.

Their amount, computed on the same basis of valuation, totalled 568,000,000 francs in 1918, as compared with 1,348,000,000 francs in 1917. And a second result of the establishment of the importation programmes was the application it was found possible to make of the principle or policy of priorities, that is, the giving of preference to imports of products calculated to satisfy the most urgent requirements of the country.

If it had been found possible to generalize the system adopted with respect to Spain, as the French Government always wanted to do but was unable to do, there is no doubt that the policy of prohibition of importation would have been much more successful than it was, both in decreasing the country's imports and in favouring the procurement of those products which were considered most useful to a nation at war.

The Policy pursued after the Armistice

With the war, or rather the military operations, at an end, and the armistice signed, the problem of the importation policy to be pursued presented new aspects.

Some of the reasons which had led to the establishment of the prohibition of importation had disappeared, while the necessity of giving priority to war materials obviously no longer existed. It was to be hoped, moreover, that the invasion of foreign products and the increase of the outstanding debt would no longer be a cause for alarm, since the formidable purchases which it had been necessary to make for the prosecution of the war could now be discontinued.

When the situation was examined closely, however, it was perceived that the old reasons for prohibition, while they were somewhat modified, to be sure, and had lost some of their previous cogency, nevertheless continued to exist.

There was still reason to give priority, if not to war materials, at least to other materials and products essential to the economic reconstruction of the country and especially of the liberated regions—raw materials, industrial machinery, cattle and agricultural implements, and certain indispensable food products.

In view of the necessarily unfavourable status of the country's financial resources, the purchase of merchandise of this nature could obviously be facilitated by prohibiting the importation of other things of less utility.

There still existed, moreover, the danger of excessive foreign purchases, of large excesses of imports ; for there was no change in the great disproportion between the increased requirements of domestic consumption and the decreased capacities of domestic production. As regards the former, to be sure, the greatest requirement of all, war materials, was eliminated ; but in its place there appeared the requirements for the economic reconstruction of the country. Furthermore, the absorption power of the French market was very greatly increased by the many allowances conceded by the Government to the families of the mobilized, the demobilized, the widows, and the incapacitated, which, in addition to the income resulting from the production of merchandise, represented a supplementary purchase power of very great importance. The productive capacities of the country were very greatly lessened, on the other hand, both in consequence of the terrible devastations committed by the enemy and in consequence of the heavy losses of men.

Besides the old reasons for prohibition, moreover, new reasons also entered into consideration. It was clear that the foreign credits which had been opened for France during the war in the interest of the common allied cause would now be closed, or at least greatly restricted, while the sources of revenue on which she had been able to rely to pay for her purchases of foreign products would be cut off ; and this, in turn, would result in a further pronounced depreciation of her exchange.

While the national means of payment were thus destined to diminish, there appeared the danger of an increased importation of products of slight utility. The check upon the excessive purchase of products intended for private consumption furnished by the reduction of the merchant marine, as well as by the policy of priorities pursued in the matter of maritime transportation, was destined to be removed as soon as there was left available the large amount of cargo space that had been reserved for the

transportation of war materials. This was a supplementary reason for maintaining the prohibition regulations in force, constituting, as they did, the only means of preventing excessive foreign purchases.

In favour of the maintenance of the prohibition of importation, finally, there might be invoked the necessity of giving a more vigorous protection to domestic industry during the period of economic reconstruction. The renaissance of French industry was destined to be accomplished under especially difficult conditions, and with an inadequacy of workers, equipment, raw materials, and means of transportation calculated considerably to increase the net cost of the undertaking. To maintain the tariff schedule adopted before the war was to leave French industry without protection against the competition of foreign countries upon which the war had had a far less damaging effect. It seemed absolutely necessary, accordingly, to establish a protection which would have the double character of being particularly energetic and at the same time essentially provisional. Prohibition of importation could serve to accomplish this purpose; and more than an increase of the customs duties, it offered the double character required. Having appeared at a time when protectionist ideas were passing into the background, the policy of prohibition could now become a means of reinforcing the policy of protection; and at the same time it tended to accomplish the purpose for which it had originally been adopted, namely, to prevent the increase of the national debt and the depreciation of French exchange.

It was at first decided to maintain the prohibition regulations, accordingly, but only in part. The decree of January 20, 1919, provided for a revision of the lists of products the importation of which into France was interdicted; for some of them the prohibition was suspended, but for a very large number of them it was maintained in full force. In short, no radical change was made in the old system.

But the principle of free trade had made great progress in men's minds. It was progressively reintroduced in many interior transactions from which it had been excluded during

the war, and there was a demand that the same thing should be done in the case of exterior transactions. A protest was raised against a regulation which was accused of creating trouble, paralysing initiative, and at the same time tending to increase the cost of living.

Under the influence of these charges, doubtless, in the course of the year 1919 there were adopted a number of seemingly transitional measures constituting a preparatory step toward a return to free trade or rather toward a protective policy similar to that pursued before the war.

It will be remembered that the law of May 6, 1916, had placed two means of checking foreign importation at the disposal of the Government ; it might, by decree, either establish prohibition of importation, or else increase the customs duties. This latter means, whereof scarcely any use had been made during the war, was now employed to facilitate the renunciation of the former.

The decrees of June 13 and 14, 1919, suppressed the prohibition of importation for the great majority of products, but at the same time established *ad valorem* surtaxes of 5 to 20 per cent. over and above the amount of the customs duties in force. For the majority of products this meant an abandonment of the policy of prohibition and a return to the policy of protection.

As regards the surtaxes referred to, they were instituted by reason of the pronounced rise of prices affecting almost all commodities, and they were intended to re-establish, to a certain extent, the relation previously existing between the amount of the customs duties and the value of the merchandise to which they were applied.

The system of *ad valorem* surtaxes had only an ephemeral duration. The decrees of July 7 and 8, 1919, sought to accomplish the same purpose as those of the preceding month, but to do so by slightly different means.

But the prohibition regulations were destined to suffer severer blows than those dealt by the decrees of June 13 and 14. The decree of July 7 suppressed the prohibition for the majority of commodities (especially textile products) to which it had applied in June ; except for a very small number of products,

such as refrigerated meats, wheat, wines and liqueurs, and print paper, it was entirely abrogated. As regards the first two of the products mentioned, however, it was not so much a question of preventing their importation as it was a question of reserving the monopoly for the Government departments and permitting the execution of the international agreements concluded with reference to their purchase. As regards wines, except for certain kinds, a decree of September 4, 1919, was destined to authorize their free importation in unlimited quantities. As regards print paper, the prohibition of importation was likewise destined to be suspended by the decree of November 14, 1919.

Of whatever importance these special measures may have been with respect to certain articles of merchandise, it may be said that the policy of prohibition of importation was abandoned.

The Government therefore returned to its old protective policy; but in order to make allowance for the general rise of prices it adopted a method of procedure different from that of the *ad valorem* surtaxes, which were suppressed, by the decree of July 8, 1919. This decree, which was ratified by a law passed on January 9, 1920, provided for the establishment of specific duties, that is, duties levied according to the nature of the merchandise involved. It was deemed inadvisable, however, to establish a general increase of the existing duties with a view to harmonizing them with the new price conditions; in the first place, because this would be a long and laborious task, and one difficult to accomplish without the help of parliament; in the second place, and in particular, because it was felt that prices were in an extremely unstable condition, of a nature such that it would be more expedient to have recourse only to measures of an essentially provisional or temporary character. The specific duties established in the existing tariff schedule were accordingly maintained, but for a number of products they were increased according to certain specified coefficients, that is, they were multiplied, for example, by two or by three or by five. The coefficients were subjected to periodical revision with a view to permitting their frequent readjustment to the new conditions brought about by the fluctuating prices of commodities.

It will be seen that the adoption of the system of coefficients does not constitute the inauguration of a new commercial policy, but is merely a return to the old protective policy. It is merely a provisional measure calculated to adjust the customs duties to the new price conditions, pending the time when the latter become more stable. Then it will be possible to effect the complete revision of the tariff schedule rendered necessary by the general disruption of economic conditions in France and other countries.

The special war-time policy, that is, the policy of prohibition of importation, thus ceased to exist. The agreements concluded with certain foreign countries for the purpose of attenuating the rigour of the policy no longer had any *raison d'être*, consequently, and were therefore cancelled. The Franco-English agreement of August 24, 1917, as well as the subsequent covenant of May 15, 1919, which modified its terms, were denounced by England and were no longer effective after October 27, 1919. The agreement concluded with Spain on February 28, 1918, was not renewed at the time of its expiration. The Franco-Italian agreement of May 30, 1917, was not denounced, but it no longer had any importance with respect to the importation of Italian merchandise by reason of the almost general suppression of the prohibition regulations. As regards the agreement concluded with Switzerland on December 29, 1917, and renewed on March 25, 1919, it expired on December 31, 1919; but with respect to watches and clocks, as well as to embroideries, it was modified by two special agreements which were prolonged to January 31, 1920.

Thus the policy of prohibition of importation may be said to have won the day. The imports of foreign merchandise into France, no longer hindered by the prohibition regulations, or by the scarcity of cargo space, or by the policy of priorities, underwent a considerable increase in 1919. Notwithstanding the fact that the purchases of war materials ceased, the excess of imports was considerably greater in that year than it was in 1918, amounting to some 24,000,000 francs. Since the foreign credits which had been opened for the French Government during the war were either entirely suppressed or greatly reduced, on the other hand, the foreign rate of exchange rose, as far-sighted

people had foreseen would happen, to truly disastrous heights, the American dollar, the Spanish peseta, the Swiss franc, and the Dutch florin being now (last part of January 1920) quoted in Paris at two and a half times par, and the English pound and the Swedish krone at two times par. If it is impossible for France to return to the régime of prohibition of importation, it is of the utmost importance for her to obtain foreign credits while waiting for Germany to make reparations imposed upon her in conformity with the terms of the peace treaty. The definitive improvement of the country's economic condition can be brought about only by a considerable development of its productive capacity and export trade; but it is necessary to bear in mind that it will be a long time, owing to the condition in which the war has left the country in general, and the invaded regions in particular, before this development can be fully realized.

THE EFFECT OF THE WAR UPON LABOUR IN FRANCE

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THE EFFECT OF THE WAR UPON LABOUR IN FRANCE[1]

Introduction: The Mobilization and its Consequences

The mobilization decree came as a surprise when the people of France were hard at work. It was precisely at harvest time. The young and able-bodied men hurried from the fields and left the old men, women, and children to gather the crops. Three and a half million reservists flocked to the military dépôts. Almost half (47 per cent.) of the factories, stores, and offices closed their doors, and their personnel was either mobilized (22 per cent.) or discharged (44 per cent.). In the establishments left open only a third (34 per cent.) of the previous personnel remained.[2] Two million workers, soon to be reinforced by thousands of refugees from the invaded regions and from Belgium, found themselves without employment.

[1] The chief sources consulted in the preparation of this study were:

(*a*) *Le Bulletin du Ministère du Travail (français)*;

(*b*) *Le Bulletin des Usines de Guerre* (published from 1916 to 1918 by the Ministry of Munitions);

(*c*) *Le Bulletin de l'Association pour la Lutte contre le Chômage.*

Furthermore, the writer, who held an important position in the Ministry of Munitions during the war and was previously connected with the Ministry of Labour, has supplemented his personal observations and recollections with a large amount of material collected and formulated by him.

[2] Thus an investigation conducted by the Inspectors of Labour (an investigation hereafter to be conducted at regular intervals for the purpose of providing means whereby to measure the economic recovery of the country) shows that of 37,168 industrial and commercial establishments, employing 1,272,160 persons in normal times, 19,355 (53 per cent.), employing 439,346 persons (34 per cent.), remained active in August, 1914. The hardest hit were the building trade, in which the personnel decreased from 59,747 to 10,059 (16 per cent.), the wood industry (71,253 to 17,671—24 per cent.), the steel and iron industry (311,660 to 101,595—39 per cent.), the clothing industry (115,692 to 38,298—33 per cent.), and the textile industry (258,967 to 94,412—36 per cent.). The least affected were the carrying trade (24,468 to 13,052—53 per cent.), and the food industry (83,371 to 43,418—56 per cent.).

It was necessary to take action with all possible speed. No employment agency in time of peace could have met the situation created by this extraordinary combination of circumstances—a sudden afflux of workers, an absence of the means of production. The war industries were in the stage of experimentation and organization. The employment offices of the labour syndicates, which in the first half of 1914 had placed 49,302 workers, were deprived of their personnel; and they were especially concerned, moreover, with the placing of workers in the food industry. The public employment bureaus instituted by the law of March 14, 1904, were manifestly too few in number and too narrow in their range of activity. Of 200 cities with more than ten thousand inhabitants legally authorized to establish such bureaus, only 127 actually possessed them. Altogether they placed only 84,000 workers, chiefly in their own localities. These employment bureaus constituted but an inadequate resource, therefore, and it was imperative for the Government to adopt some measure calculated to furnish the immediate relief which the situation demanded. On August 20, 1914, it created the National Unemployment Fund (*Fonds National de Chômage*) by voting an appropriation of 20,000,000 francs to be used for the aid of unemployed workers. Shortly afterwards, on October 28, 1914, it established the Central Office for the Placing of Unemployed Workers and Refugees (*l'Office Central de Placement des Chômeurs et des Réfugiés*), which at first served as a genuine agency of direct placement and later became a model of inspiration for the unification and coordination of the regional and departmental bureaus that were in turn created.

In these two ways, that is, in the aiding and placing of unemployed workers, the French Government entered into an entirely new field of activity, a field in which it had been practically a stranger before the war. For this reason the step merits consideration at the very start—all the more so because the figures showing the number of unemployed workers aided and placed furnish a true index to the fluctuations of the country's economic activity during the war. The steady de-

crease in the number aided and the steady increase in the number placed indicate the efforts that were put forth and the results that were achieved.

Chapter I: Unemployment

The National Unemployment Fund was created by the Ministry of Labour. It was a veritable innovation, for previously the French Government had abstained from the granting of pecuniary aid to able-bodied workers, while in general the country's decreasing population had constituted an effective guarantee against chronic unemployment. The Fund referred to has been in existence since August 24, 1914, and its field of operation is limited chiefly to Paris. Its mechanism is as follows: In each department or in each city of at least five thousand inhabitants the local authorities are invited to establish, under the name of the Unemployment Fund (*Fonds de Chômage*), a service directed by a joint committee for the distribution of aid, either in money or in kind, to unemployed workers. The Government, represented by the National Unemployment Fund, reimburses the local authorities to the extent of one-third of the sums distributed by them, but with the understanding that the amount of their individual disbursements shall not exceed 1·25 francs per diem for the head of a family, plus 50 centimes for each person dependent upon him. This system is supplemented, of course, by the ordinary subsidies granted to the unemployment insurance societies and by governmental participation in the defrayal of the travelling expenses of persons out of work.

At the beginning of the war more than 400,000 unemployed workers were registered in the Paris Unemployment Fund. On October 15, 1914, only 293,824 persons were receiving allowances from it, and on December 31, 1914, the number had further decreased to 230,765. In five months it furnished pecuniary aid to the amount of 23,500,000 francs. After 1915 there was a gradual decrease in the number of unemployed

throughout the country. In the Department of the Seine (Paris and suburbs) it declined from 285,248 on January 1, 1915, to 97,229 on January 1, 1916; then to 35,238 on January 1, 1917, and again to 15,039 on January 1, 1918. The total disbursements, which amounted to 62,244,242 francs in 1915, decreased to 26,494,438 in 1916 and to 5,115,476 in 1917. Thus between January, 1915, and January, 1917, the number of unemployed workers and the amount of the disbursements underwent a decrease of 98 per cent.

The same applies in general to the rest of France, although the manner of distribution of the unemployment funds of the provincial districts differed considerably from that of Paris. In some of them aid was given only in money, whereas in others it was given both in money and in kind; and still others gave it in the form of work, sometimes supplemented by payments in money or in kind. The total number of unemployment funds operating in 1915 was 25, whereas in 1916 it was only 16; and in the same years their disbursements decreased from 3,910,894 to 1,244,686 francs. The number of unemployed workers aided by those funds which furnished information regarding the matter was 12,314 in January, 1915, 4,491 in December, 1915 (seven funds), and 5,011 in January, 1916, as against 1,705 in January, 1917 (four funds). At the end of 1917 four funds were giving aid to 1,423 unemployed workers, and their combined disbursements amounted to 502,248 francs. Thus the decrease was in the ratio of 100 to 14. While this decrease is less than that of the Paris Fund, it is nevertheless very pronounced; and the difference is to be accounted for by the fact that in Paris the control was more rigorous.

The foregoing figures are confirmed, both in a general and in a relative way, by the inquiries conducted by the Ministry of Labour in May and November, 1916, and again in May, 1917. Unemployment disappeared from the labour market and was followed by a general labour shortage. In April, 1916, the total number of unemployed workers and refugees throughout the country was 24,548 men and 88,839 women, whereas in the

following November it was only 8,704 men and 38,563 women. Approximately 75 per cent. of these figures, moreover, pertain to the Department of the Seine alone.

Another sign of renewed activity is to be seen in the gradual reopening of establishments that had been closed. As regards the 37,168 establishments mentioned in the footnote on page 139 as having been investigated, and as having employed 1,272,160 persons in normal times, the following observations are to be made : The number of establishments in active operation was 19,655 (53 per cent.) in August, 1914 ; 30,745 (82 per cent.) in January, 1915 ; 30,745 (82 per cent.) in January, 1916 ; 32,488 (87 per cent.) in January, 1917 ; and 33,336 (90 per cent.) in January, 1918. The number of persons employed in these establishments, on the other hand, was 439,346 (34 per cent.) in August, 1914 ; 744,145 (58 per cent.) in January, 1915 ; 1,037,064 (81 per cent.) in January, 1916 ; 1,226,480 (96 per cent.) in January, 1917 ; and 1,281,265 (more than 100 per cent.) in January, 1918. The increase in personnel amounted to as much as 166 per cent. (519,615 as against 311,668) in the metal trades, and 120 per cent. (74,167 as against 61,706) in the chemical industry. From 1917 to the latter part of 1918 there was a steady improvement as regards unemployment. On November 15, 1918, four days after the armistice, there were in existence 94 unemployment funds which had been created at various times in thirty of the departments of France. Of these 94 funds, 10 had never operated at all, 70 had ceased to operate for lack of unemployed workers to aid, while only 14 were still active ; and the latter were giving aid only to an insignificant number of persons. In Paris proper, for example, there were but 9,734 unemployed workers in November, 1918, as compared with 293,824 in October, 1914 ; and in its suburbs, but 316 as compared with 53,202 in January, 1915. It remains to be noted that of the 9,905 persons registered, 20 per cent. were of normal capacity and working, 31·8 per cent. were of normal capacity and not working, while 6·8 per cent. were sick or injured and unable towork. Thus the actual beneficiaries numbered scarcely three thousand in the Department of the Seine—which is

tantamount to declaring that at the close of the war there were no unemployed workers in Paris and its suburbs ; and the same was probably true of the provincial districts as well.

Chapter II : The Placing of Workers

By what means did France succeed in achieving this result ? In answering this question we must not, of course, fail to recognize the effect of the reestablishment of the country's commercial and industrial activity and of the consequent demand for labour of all kinds. Further on we shall consider the importance of these factors. It would be unjust, however, to overlook the efforts that were put forth to organize and develop in France a public employment service, which, as we have already observed, had been almost non-existent before the war. It was not sufficient merely to give pecuniary aid to the unemployed. It was also necessary to provide work for them ; and to that end it was necessary to maintain direct and uninterrupted communication between those offering employment and those seeking it. Such efforts, moreover, could not be limited to a single commune or department, but were necessarily extended to the country as a whole. This was all the more needful on account of the state of war and the extraordinary conditions resulting from it. The invasion of territory, together with the creation and development of industries in thinly populated regions, led to a continual displacement of labour and called for the introduction of order and method to the end of relieving the chaotic condition of the labour market.

In September and October, 1914, numerous relief organizations sprang into existence throughout the country, and in the general confusion public authorities and private groups competed with one another in disorganized activity. On October 26, the Central Office for the Placing of Unemployed Workers and Refugees (*l'Office Central de Placement des Chômeurs et des Réfugiés*) was created. Theoretically placed as the keystone of

the system of local employment bureaus, this institution was at first called upon to meet the most urgent needs. Among other things it made an effort to reestablish contact between the refugees scattered over the length and breadth of France and the disorganized business enterprises. For more than a year (from October, 1914, to the end of 1915) it negotiated direct placements, acting in concert with the prefects of the various departments in whose charge the refugees were placed and with the representatives of the great industries—coal, iron and steel, textile, railways, &c. In particular, it made arrangements for the transportation of workers and their families to the scene of their employment, first by entering the cost against the State, then by concluding agreements with the railway companies. At the same time (March 15, 1915) a National Office of Farm Labour (*Office National de la Main-d'œuvre Agricole*) was created through the mediation of the principal agricultural associations.

A second period of activity dates from January 1916. Workers were reclassed in their own callings, business activity was resumed, and unemployment practically disappeared as an economic phenomenon. The number of municipal and departmental bureaus also increased, and the Central Office, restored to its legitimate rôle, became the source of inspiration and control of the local employment bureaus. A cursory glance at the conditions and methods of this organization will reveal its nature and importance.

The slow development of the municipal bureaus was largely due to the fact that the municipalities were reluctant to incur the expense; and since they were not obliged to do so, it was necessary to encourage their participation in the scheme. After 1911 the Minister of Labour came to their aid by offering to every municipal bureau, subject to the control of a joint committee of employers and workers, a contribution proportional to the number of positions secured by it. This measure had produced but little result, however, when the stream of refugees began to flow toward Paris and the uninvaded departments. There was no longer time for tentative measures or for economy.

On February 5, 1915, the Minister of Labour invited the prefects of the departments to create joint committees of employers and workers 'for the study of questions relating to the maintenance of national labour'; and he suggested to them, for the accomplishment of this purpose, the organization of departmental employment bureaus. On December 29 he encouraged the creation of such bureaus by extending to those which were willing to subject themselves to the control of a joint committee, as well as to certain regulations, the State subsidies which until then had been reserved exclusively for municipal bureaus. The effect was instantaneous. Within a few weeks 57 departments were provided with employment bureaus, and 26 were awaiting a decision of the Council General. On December 1, 1916, of 77 uninvaded departments, 70 possessed such bureaus, and on November 1, 1918, just before the armistice, the entire system emanating from the Central Office comprised, aside from the Central Foreign Labour Service (*Service Central de la Main-d'œuvre Étrangère*), together with certain bureaus of Alsace-Lorraine, 6 regional bureaus (organs of control and administration) operating at Paris, Nancy, Toulouse, Marseilles, Nantes, and Lyons; 87 departmental bureaus performing in general the functions of municipal bureaus for the cities in which they were installed; 110 municipal bureaus; and 2 seamen's offices. In permanent contact, whether directly or through the mediation of the Central Office, their directors were brought together for the purpose of studying the general measures to be adopted in common to the end of increasing their activity and strengthening their association. Informed as regards the condition of the labour market by a weekly bulletin annexed to the *Journal Officiel*, the various bureaus witnessed a daily increase in the number and diversity of positions secured by them.

From 1914 to the end of 1915 the total number of workers placed by the National Office of Paris was 44,442, whereof approximately 32,000 were transported to other cities. The municipal bureaus of Paris placed 8,675; and the balance of the Department of the Seine, 775. It was not until the second

half of 1915 that the departmental and municipal bureaus of the provincial districts became active in like manner; during this period they placed 57,982 persons.

In 1916 the total number of workers provided with employment by the public bureaus of all kinds was 161,314, which number increased to 194,000 in 1917 and to 326,000 in 1918. Of this last number, 11,000 were wounded men, 24,000 agricultural labourers, and 34,000 persons employed in different services in the rear of the French and Allied armies.

These figures, applying, as they do, to an ever-increasing variety of occupations, call for an analysis. Men of special training, who had never secured positions save by direct solicitation or through personal influence, began now to have recourse to public employment bureaus. In the large cities, as in Paris, they were encouraged in this by the opening of professional bureaus and sections which specialized in different branches of activity—domestic servants, steel and iron workers, journeymen, clerks, &c.—and the personnel of which was thoroughly conversant with the situation and able to render service of value both to employers and to persons in search of work.

In general the method of joint committees was applied. The Paris and the provincial offices did not cover the same field. The provincial municipal bureaus placed especially domestic servants (42 per cent.), journeymen (15 per cent.), workers in the food industry (15 per cent.), workers in various mercantile trades (8·6 per cent.), and a very few agricultural labourers (4 per cent.). The departmental bureaus, on the other hand, specialized notably in the placing of agricultural labourers (25·8 per cent.); next came journeymen and unskilled workers (20 per cent.); and finally workers in the metal trades (10 per cent.). In Paris domestic servants also came first, but in a smaller proportion (29 per cent.); then followed journeymen (21 per cent.), workers in mercantile trades (4·6 per cent.), and lastly workers in the food industry (3 per cent.).

It will be seen, accordingly, that the war in France brought about a development of public employment bureaus which previous legislative measures had merely foreshadowed. True

it is that the results came far from equalling those achieved in Great Britain, where in 1916 more than 1,500,000 workers were placed by the 378 'labour exchanges'. Paris and the Department of the Seine led the movement and were followed by the provincial districts, which extended the benefits of the service to trades in which such practices were previously unknown. In 1914 these bureaus were unorganized and left to the discretion of municipalities which failed to appreciate their importance; in 1918 they secured employment for workers at the rate of 500,000 per annum and made it possible for the country successfully to meet the gravest labour crisis with which it had ever been threatened. Besides rendering satisfactory pecuniary aid—the foremost necessity in the face of a disorganized labour market—the public bureaus were able to adapt the resources of labour to demands which asserted themselves with an intensity entirely unprecedented. Following the cessation of hostilities, moreover, they were called upon to manifest their vitality in a still more impressive manner in the replacing of demobilized soldiers, the reclassification of persons newly trained for special trades, and the readjustment of workers from the war industries to the conditions and requirements of peace-time activity. In our final chapter we shall endeavour to set forth with what success these efforts were rewarded.

Chapter III: The Labour Market

At the beginning of the war, as we have seen, the industrial inertia, appearing, as it did, in the form of widespread unemployment, adapted itself more or less successfully to the general shortage of labour. Soon, however, the economic struggle for materials and the industrial mobilization, which was a corollary to the military mobilization, disclosed the scarcity of workers and the inadequacy of the precautions which had been taken. It had been thought that the war could be conducted with the materials and supplies already on hand, together with the

maintenance of the necessary repairs. The notion prevailed that the resources of the State establishments would suffice—construction works, shell factories, powder mills, &c.—assisted by certain large plants which specialized in the production of war materials, such as those of Creusot, Saint-Chamond, Firminy, and Montbard Aulnoye. The labour question did not even come up for discussion. The contingents were fixed and could easily be brought together. The only workers to be retained, provisionally or definitively, were certain highly skilled foremen (*agents de maîtrise*) and specialists of military age whom it would be difficult to replace. In the State establishments these did not number more than 1,400 ; and in the private establishments not more than 2,500. As regards the mobilized soldiers, they were to be replaced by old workers, specialists designated in advance, and by untrained workers of both sexes to be engaged immediately.

This programme was rigorously carried out. The State establishments employed some 30,000 workers, men and women, nearly one-half of whom were new ; the powder mills, approximately 10,000. As regards the private establishments, their personnel decreased from 8,808 to 5,352. Altogether the munitions factories did not employ more than 45,000 workers at the beginning of the war. One may form an idea of the importance of this figure by comparing it with the corresponding figure at the end of the war—approximately 2,000,000 workers, that is to say, an increase of 3,900 per cent. Moreover, after the first few battles had demonstrated the immensity of the industrial effort called for and the uncertain length of the struggle awaiting the country, the necessity of providing the establishments with an adequate working personnel was promptly recognized. The mobilization had gathered skilled workers of all kinds under the colours, and it was to them that the authorities of the Government first turned. It was soon seen, however, that their number was insufficient, the more so for the reason that it was imperative to maintain the full strength of the military effectives. Civil labour, of women as well as of men, was drawn upon, but it also proved unequal to the demand.

Recourse was finally had, accordingly, to the foreign and colonial labour market.

In this way there were gathered together the various elements whereof the working population of France consisted during the war, under conditions and in proportions which must be emphasized as we examine them, one by one, for the purpose of determining their true nature and importance, as well as the disposition made of them.

Section 1: Military Labour

A mobilization, disastrous as it may be to the economic activity of a country by reason of its general nature, nevertheless carries with it its own cure. It enables the public authorities to dispose of men under the colours in the manner most advantageous to the general interests of the country, either by retaining them in the army or by diverting them to war industries. This idea dominated the policy adopted in France as regards the employment of military labour. The ' inorganic ' or disorganized period, which we have just outlined, was succeeded by a period of transition and reorganization ; and this, in turn, was followed by an ' organic ' period wherein the system functioned with a minimum amount of friction.

(1) *The period of reorganization.* An embryonic organization appeared in the month of September 1914. In each region industrial groups were formed for the utilization of near-by establishments for the manufacture of munitions. To the end of providing the indispensable personnel—aside, of course, from the civil workers recruited on the spot and the female workers gradually brought together—the following measures were adopted : A complete list was drawn up of all the metal workers present in the military depôts of the interior—turners, fitters, tool-makers, countersinkers, smelters, moulders, hammerers, rollers, firemen, &c.—and an order was issued to withhold them from the army ; and with the exhaustion of this source, to recall from the army all workmen over thirty-five years of age. Blank orders were likewise issued to certain qualified manu-

facturers authorizing them to levy on the military depôts for such skilled and unskilled workers as they required. Finally, the control of detached factory workers began to take form.

These measures permitted a partial resumption of manufacturing activity, so that in May 1915, on the eve of the reorganization of the war industries by the creation of the Under-Secretaryship of Artillery, the total number of civil and military workers (men and women) attached to the artillery factories alone was 312,000, that is to say, six times as large as in August 1914. A notable result was thus achieved in less than a year.

(2) *The organic period.* The organic period began with the creation of the Under-Secretaryship of Artillery. The artillery programme was enlarged; the manufacture of powder, explosives, and chemical products was increased; and the requirements as regards personnel developed accordingly. The measures outlined in the preceding period were coordinated and regularized; at first purely administrative, they now acquired a legislative character. Among other things, an understanding was reached between the Under-Secretary of Artillery and the Commander-in-Chief of the military forces whereby the resources of the army were thrown open to the requirements of industry. In view of the pressing need for war materials of all kinds, the Commander-in-Chief agreed to surrender all the men demanded by the Under-Secretary of Artillery who were not absolutely indispensable for the maintenance of the military effectives. In the interior, the regional commanding generals received orders to satisfy the demands of industries from the available resources of the military depôts.

From the question of supply attention was then turned to the question of demand. Manufacturers were called upon to formulate their requirements. At the start a very simple method was employed. The heads of factories were requested to furnish the names of trained workers whom they knew and desired, and at the same time to state the total number of workers they required. The age limit was abolished. In less than two months more than 50,000 demands for particular men

designated by name were thus addressed to the Under-Secretaryship of Artillery; from July to December, 1915, this number increased to 150,000, and for the entire duration of the war it amounted to approximately 214,000. As a matter of fact, however, this method had many disadvantages and was subject to much abuse. The workmen selected by name sometimes could not be brought together, due to the fact that they had been killed or wounded or had changed their address. Moreover, fraudulence was facilitated and negligence encouraged. The employers showed a tendency to solicit the recall of their former workmen rather than to recruit new elements (civil and female workers). The demands for particular workers designated by name were therefore suppressed—save in special cases in which personal considerations played a more or less important rôle—and a system was adopted whereby manufacturers were called upon to make known only the number of workers they required. They limited themselves, for example, to demanding 10 turners, 20 smelters, &c. From June, 1915, to January, 1918, this system gave rise to some 345,000 numerical demands which were satisfactorily met.

In order that the system might be successfully applied, it was necessary to know the number of trained workers available in the various lines. To this end a general census was taken of all workers in the different industries (metal, wood, chemicals, &c.) in all army corps and divisions at the front and in the interior. All specially trained men were required to fill out, on their own responsibility, cards giving complete data concerning their particular line of work, and these cards were forwarded to the office of the Under-Secretary of Artillery to be classified and filed. In this manner there was rendered possible the preparation of a catalogue of names grouped according to the age and military aptitude of the persons involved. This catalogue, in which a few names were entered twice, finally contained some 700,000 individual cards. In each special line of work information was to be had as regards (1) the age, (2) the family conditions, (3) the origin, of all men in the industry; and every month a table was drawn up showing the number of men

available for each line and the age up to which they might be employed in the factories. At a given time, for example, the minimum age limit was twenty-six years for chemists, twenty-one years for turners, &c. This system of classification, which was of the greatest importance, for a long time served as a model for similar systems in other countries, and numerous foreign visitors who were aware of its existence took occasion to express great admiration for it.

(3) *The juridical status of mobilized workers.* The employment of men qualified for military service in factories involved a number of juridical problems. What was to be their status? Were they to remain soldiers and hence under the authority of the Ministry of War, or were they to regain a civilian status and hence be free to quit their positions, change their place of employment, take part in strikes, &c.? At the beginning of the war a certain diversity of opinion and policy prevailed in regard to the matter; and the first step, accordingly, was to establish uniformity. Articles 6 and 7 of the law of August 17, 1915 (more commonly known as the Dalbiez Law), stipulated the general conditions under which mobilized men might be employed in factories and laid down the broad lines of their juridical status. Although seemingly designed for a particular branch of workers, this law in reality exerted a decisive influence upon the disposition of the entire body of workers. As a matter of fact, it vested the public authorities with two kinds of control over the manufacturers: (1) it permitted them to grant or refuse the mobilized workers demanded; (2) it stipulated the working conditions and wages to be observed. This necessarily involved the adoption of a uniform system for the entire working class, and a few words concerning this important point are therefore in order.

As regards men qualified for military service to be employed in factory work, the law divided them into two groups: (1) specialists, that is, skilled workers; (2) labourers, that is, workers without special knowledge or ability. In the case of the former, it was stipulated that they might be diverted to factory work, regardless of age, provided they had been em-

ployed in their speciality for at least one year before the war. A declaration was signed by them certifying that they had fulfilled this requirement, and severe penalties (fine and imprisonment) were indicated for those found guilty of signing false declarations. In the case of persons in the second group, they were also required to show a year's employment, but their assignment was made subject to a certain order of precedence, viz.: (1) men not qualified for military service; (2) men from forty to forty-eight years of age belonging to the reserve of the territorial army; (3) men from thirty-five to forty years of age belonging to the territorial army. In each of these classes it was stipulated that the fathers of the largest families and the oldest men were to be employed first. Finally, in order to secure the application of these rules to persons already employed in the factories at the time of the promulgation of the law, investigations looking to their revision were undertaken by joint committees composed of equal numbers of employers and workers.

As regards their juridical status, the men of military age assigned to the munitions factories were regarded as specially detached soldiers, so that they possessed a double character—military and civil. In reality, they belonged to the army, for the Minister of War retained his authority over them. They could not change their occupation without permission, and during non-working hours they remained subject to military discipline and jurisdiction, and were bound to obey the orders of a controller of military labour. On the other hand, for the entire period of their industrial occupation, that is to say, while they were actually at work in yard or factory, they were treated as civilians. They received the wages current in the region, and their position in the factory was independent of their rank in the army.

(4) *The control of military labour.* An impartial board of supervision was required for the control and protection of these workers, whom it was necessary to safeguard against the pressure exerted by unscrupulous employers who were ready to take advantage of their position by threatening to send men back

into the army. This was the so-called 'control of military labour'. At the beginning of the war this control devolved upon the officers under whom the factories had been placed; and in May, 1915, a special corps was created, aided by delegates chosen from among the mobilized men belonging to the civil Labour Inspection Corps. Composed of 40 officers at the start, as compared with 66 officers and 392 assistant controllers in January 1918, this body was vested with powers both of a technical and of a military character. It was charged in general with the control of soldiers employed in factory work. It was called upon to see to it that advantageous use of their services was made, to discover all exploitation of military labour, and to exercise general supervision with respect to working conditions (wages, hours, days of rest, &c.). On the other hand, it played the rôle of commanding officer. It authorized transfers of men from one factory to another; it supervised the military personnel outside of the factories; it watched over the habits and deportment of workers; it made inquiries regarding general living conditions; it investigated the demand for labour; it discovered and prosecuted frauds; and finally, it established direct relations with the labour syndicates for the purpose of receiving the complaints and suggestions of military workers who were not allowed to go out on strike.

(5) *The numerical results.* The result of the recruiting efforts that were put forth, and of the systematic and limited use that was made of military labour in the munitions factories, may be measured by the increase in the number of men diverted to this work. On January 1, 1915, 244,847 workers were employed in the artillery factories, powder mills, and plants for the manufacture of chemical products, aviation supplies, mines, gun-carriages, &c. On January 1, 1916, this number had increased to 391,682, and on January 1, 1917, to 540,607. On January 1, 1918, thanks to certain recoveries, it had decreased to 528,250, after having reached in February, 1917, the maximum of 550,394. The apportionment by trades, on the other hand, was as follows: 97,000 skilled metal workers, 89,000 journeymen, 72,000 factory hands, 58,000 fitters, 46,000 wood-workers,

38,000 engineers, directors, foremen, &c., 37,000 turners, 27,000 miscellaneous workers, 17,000 powder and explosive makers, 16,000 moulders, 10,000 firemen, 9,000 office workers, 8,000 draughtsmen and chemists, 2,000 miners and quarrymen. Thus more than 500,000 men of military age and aptitude were deemed more useful in the factory than in the army.

Section 2: Female Labour

At the same time that recourse was being had to military labour, the employment of women was also becoming general; and in the organization and regulation of female labour the State likewise intervened. It facilitated the recruiting of women workers chiefly by authorizing or tolerating certain deviations from the general principles of labour legislation as regards working hours, minimum age for factory work, interdiction of night work, &c. Its intervention extended also to the organizing of employment offices, to the hiring, discharging, and installing of women workers in newly industrialized cities, to the creating of refectories, dormitories, canteens, day nurseries, foundling hospitals, medical clinics, &c.

(1) *The female effectives.* There is still lacking in France a general census indicating the total number of women engaged in industrial or agricultural war work and the number of women who abandoned domestic service and accessory occupations in order to take up a regular trade. On the other hand, a number of special investigations conducted by the Ministry of Labour, as well as by the ministries of the National Defence, furnish an abundance of sufficiently accurate information regarding the utilization and development of female labour, as also regarding its classification, productive power, and professional value, and the technical and economic consequences of its employment.

In July 1917, and July 1918, the Minister of Labour ordered a general investigation of private industries in France. The investigation took the form of inquiries, the first of which covered 52,278 establishments which had employed 487,474 women before the war. It showed that the number had fallen

to 199,107 in August 1914, but had risen again to 418,579 in July 1915, and to 626,881 in July 1917—an increase of 120 per cent. The second inquiry covered only 41,475 establishments. The war was then in full swing, and the German advance had reached its maximum. The absolute figures are lower, therefore, but the general movement remains constant. The 41,475 establishments employed 454,642 women in July 1914; 179,398 in August 1914; 543,025 in July 1917; 548,589 in January 1918; and 533,523 in July 1918. If we represent the pre-war figure by 100, we find that the variation on the dates specified was as follows: 100, 39, 119, 121, 117. The increase was especially pronounced in the industries of the National Defence, the personnel of which was recruited by levies made upon certain deserted branches. In July 1918, in seven of fifteen industrial groups the number of women employed was greater than it was in time of peace; thus for 100 women employed before the war, there were 677 employed in the iron and steel industries, 461 in transporting and handling merchandise, 150 in the wood industry, 141 in the chemical industry, 111 in the leather and hide industry, 301 in stone cutting and building, and 105 in various trades. On the other hand, there was a decrease in eight groups in which women are especially poorly paid; for 100 women employed before the war, there were only 69 in the food industry, 92 in the textile industry, 91 in the clothing industry, 85 in the fine-metal industry, 79 in the precious and non-precious stone industry, and 73 in the book industry. All told, the industries which gained in numbers did so to the extent of 118,614 additional workers (211,894 as against 93,280), whereas the industries which lost in numbers did so to the extent of 39,733 workers (321,629 as against 361,362). The net gain, therefore, was 78,881 (17·34 per cent.). Finally, in the total personnel of the establishments embraced in the inquiry the proportion of female workers, which before the war had amounted to 33 per cent., increased to 38 per cent. in August 1914, primarily in consequence of the departure of the men called into the army, and thereafter remained constant at approximately 40 per cent. In July 1918, there were

533,523 women to 785,380 men, as compared with 454,642 women to 929,407 men in July 1914.

In the above-mentioned industries of the National Defence analogous data were derived from a number of private investigations. For the powder mills and artillery factories alone are there figures for the entire duration of the war. On the eve of the mobilization, women were employed only in the State establishments, and to the very low number of 4,800; but immediately after the mobilization the employment of 8,400 women raised the total to approximately 13,000. Private industry followed suit. In January 1916 the war industries were employing 110,000 women; this number increased to 402,000 in August 1917; to 417,000 in January 1918; and to 445,000 in September 1918—or approximately 24·5 per cent. of the total working personnel. If we consider all the establishments working for the National Defence (armament, mines, commissariat, aviation service, sanitation service, navy, American army, great railway systems), with respect to which the general data run only to October 1917, we find that the number of women workers increased as follows: October 1917, 446,212; January 1918, 552,389; July 1918, 582,785; September 1918, 600,733. Finally, the number of women employed in various bureaus and services of the army as secretaries, stenographers, bookkeepers, &c., and not included in the above figures, amounted to 132,468 on January 1, 1918, whereas before the war not a single woman had been engaged in work of this kind.

(2) *Deviations from existing legislation.* This increase and the substitution of women for men was facilitated by relaxations of pre-war regulations. In a series of circulars issued on August 2, 3, and 14, the greatest leniency had been enjoined upon the Inspectors of Labour in the application of the laws governing working hours, night work, days of rest, &c., and a large number of industries had benefited thereby. An inquiry conducted in June 1917 showed that of 164,267 women working in 787 private establishments, 58,784 (35·78 per cent.) were employed at night; and that of these 58,784 more than 2,000 were less

than eighteen years of age. In April 1918, on the other hand, an inquiry covering 784 establishments working for the National Defence (each of them employing more than 100 women and all of them together employing 256,992 women out of a total of 653,124 workers) showed that 191 (26 per cent.) of these establishments kept their women employees working beyond the legal limit of ten hours daily. In numerous instances even the weekly day of rest had been neglected, especially at the commencement of the hostilities. In 1916, of 791 establishments 668 granted every Sunday as a day of rest, 16 granted another day of the week, while 107 allowed only a half-day on Sunday every week or every second week. In 1917 there were 781 establishments granting the weekly day of rest and only 10 refusing it. The country was 'installed in the war', and even the labour legislation was regaining its authority.

(3) *Female occupations.* In what particular kinds of work were women employed? What is the verdict regarding their output? What technical modifications did their employment involve?

In answer to the first of these questions it may be said that there was practically no kind of work in which women were not employed during the war, and that the diversity of occupations increased according to their adaptability. At first they were given light work calling for skill rather than for strength, later on heavy work, and finally skilled work demanding special knowledge and ability. They were employed especially in the operation of new machines, in which their apprenticeship was rapid and their work soon became more or less automatic. Turning, countersinking, drilling, threading, the making of shells, cases, relays and fuses, the operating of steam engines, presses, &c.—all these were entrusted to them. Afterwards, and even at the start, they were charged with the shifting of commodities of all kinds, with loading and unloading raw materials in the steel mills, foundries, shell factories, &c., as also at boat landings and railway stations, where they likewise handled boxes, packages, and baggage. Inside the factories they were called upon to carry objects of various kinds, and

intervention was frequently necessary to prevent them from overexerting themselves. Moreover, it was imperative to facilitate their work by the use of trucks, barrows, wagonettes, miniature drays, automobiles, electric cars, &c.

Their chosen employment was the inspection of products. They examined and tested the detached parts of automobiles, munitions of all kinds and their various elements, sometimes with the help of delicate measuring instruments, such as calibre-gauges, &c. In the munitions factories the operations of control and verification were reserved for them almost exclusively. Everywhere they took stock, weighed, marked, hauled, piled up, packed and wrapped the products of the factories. They excelled in the loading and packing of cartridges, as well as in the counting and checking of percussion caps, shrapnel balls, &c. In the divisions of clothing, food, and chemical products they were employed in sewing, bagging, &c.

For the first time it was possible to study the relative value of the work of men and women on a large scale. The formula ' like pay for like work ' passed from the domain of theory to that of practical application. As was to be foreseen, the production of women workers, stimulated by the enthusiasm which they brought to the work as beginners, by their desire for gain, and even, it is said, by their ignorance of the necessity of conserving their strength, was highly satisfactory when they were employed according to their special aptitudes. Sometimes they produced more than men, as, for example, in weaving; and frequently they produced fully as much as men, as in the operation of automatic machinery. In general, however, although one takes pleasure in recognizing their courage, their fidelity to duty, and their skill, it must be admitted that they were lacking in strength, power of resistance, assiduity, and regularity. Their absences were much more frequent than those of men, and they adapted themselves poorly to night work, especially when married and called upon to perform domestic duties during the day.

Great pains have been taken to estimate the relative production of men and women engaged in the same kind of work.

In masonry, for example, it has been found that four women are required to do the work of three men. For manual labour in series, the production of women is inversely proportional to the effort called for in each operation; favourable for small, light pieces, it becomes unfavourable for large, heavy pieces. In firing, for example, two women can not accomplish as much as one man. On the other hand, they show remarkable ability in the use of delicate measuring instruments, electric control appliances, travelling cranes, &c. In general, therefore, the employment of women may be said to necessitate an increased number of workers in any particular branch, either because the required number of women is greater than the required number of men, or because the women have to be supplemented and assisted by men skilled at certain kinds of work which women can not do, such as the regulating or the mounting of machinery. The necessary increase in personnel averages a quarter or a third. Thus a workshop in which thirty-two lathes are operated by sixteen men and sixteen women may be operated by thirty-two women and seven men. This liberates nine men, but they have to be replaced by sixteen women. Herein, accordingly, lies the justification of the difference between women's and men's wages, caused, as it is, by the general increase of expense involved in the employment of women.

In order to render the employment of women possible and to qualify them to take the place of men, manufacturers were obliged to modify considerably their equipment and methods. Mechanical contrivances were multiplied to lighten the labour of women workers—hoisting devices for lifting and carrying heavy objects, special machines for tightening and removing sand from shells, for filling bottles, for piling sand in foundries, &c., rotating bridges, travelling cranes, tackle on mono-rails, mechanical advancement of lathes, machines to cut wood, cloth, &c. The working models were simplified by the division of labour, the organization of production in series, and extreme specialization. The schedule of hours was modified, the composition of gangs was altered, workshops were organized, products were taken apart to facilitate their handling,

tables and seats were installed, special clothing was distributed, &c.

(4) *Factory hygiene and welfare.* In order to overcome the difficulties created by the presence of women in factories, and to diminish the evil effects which intensive day and night work were calculated to have upon their own health, as well as upon that of the children which they might later bear, numerous measures were successively adopted as the war progressed, some of them purely administrative, others practical. On April 21, 1916, a Committee on Female Labour was appointed by the Ministry of Munitions ' for the study of women's wages, the recruiting, employment, and organization of female labour, and the measures calculated to improve the material and moral condition of women factory workers.' The investigations and recommendations of this committee are extremely interesting. Composed of public officials, health officers, parliamentarians, physicians, and employers and employees, it made a careful study of the hygienic conditions and security of workshops, the protection of maternity, nursing-rooms, nurseries, play-rooms, the housing of workers, relief stations, &c., &c. Its recommendations were either anticipated or adopted, and factory hygiene reacted to the presence of women, who are ordinarily more exacting than men in such matters. Dressing-rooms, lavatories, and well-kept toilets were provided ; medical service was created or extended ; and in accordance with the law, nurseries, nursing-rooms, and play-rooms were installed in all factories employing more than one hundred women. Several factories, moreover, even went beyond the requirements of the law and established recreation rooms (in imitation of those in England), canteens, cooperative lunch-rooms, &c. Moreover, supervision was also provided by calling in women of culture and refinement who were versed in the relations of employers and employees and in the study of factory welfare in general. In this way an effort was made to render factory life less onerous, less irksome, and less injurious to the women workers. A beneficial effect of these measures is revealed in the reaction of the birth-rate to them. Medical visits, the employment of

pregnant women at less difficult and equally well paid work, pecuniary allowances, rewards for new-born children—all this encouraged and facilitated the rise of the birth-rate. Boards of intelligent and experienced men assumed control and supervision of the matter, and thus the war, destroyer of men, indirectly helped to secure the welfare of posterity.

Section 3: Foreign and Colonial Labour

Even before the war the disproportion between the economic development of France and the low national birth-rate had necessitated recourse to the employment of foreign labour. In 1911, of the 39,191,133 inhabitants of the country some 1,160,000 were foreigners; that is to say, there were 296 foreigners for every 10,000 inhabitants. In 1906, the corresponding proportion was 275 per 10,000. Ranging in age for the most part from twenty to thirty years, almost all of these foreigners had a specific calling, and altogether they represented 3·24 per cent. of the 21,000,000 persons constituting the total working population. They were employed especially in various industries, in which they numbered approximately 265,000 (7·47 per cent.), and in agriculture, in which they numbered 44,753 (1·85 per cent.). The Italians came first with 151,241, followed by the Belgians with 98,376, the Spaniards with 35,823, the Germans with 27,624, and the Swiss with 24,839. Their immigration was not always spontaneous or of individual initiative, but was stimulated and intensified by a systematic effort. The *Comité des Forges*, for example, caused large contingents to come from Italy to work in the mines and factories of Meurthe and Moselle. Numerous mining and agricultural companies made extensive use of foreign and colonial labour—Belgians, Luxemburgians, Germans, Poles, Algerians, &c.

(1) *Immigration.* The war accentuated the scarcity of labour, so that colonial and foreign workers were placed under contribution. The State mobilized for industrial purposes the native populations of French colonies and protectorates—Algeria, Tunis, Indo-China—and even organized the recruiting of

workers in China. Manufacturers, on their part, hired Italians and especially Spaniards, while the National Committee on Farm Labour undertook the organization of immigration bureaus at the frontier of the Pyrenees.

This triple effort deserves analysis. An appeal was first made to the Algerians and Chinese. Toward the end of 1915 several convoys brought 4,500 Annamese workers into France—military and civil, skilled and unskilled. This undertaking was so successful that an additional 20,000 were called for from Indo-China. At the same time an effort was made to develop the recruiting of unskilled Algerian workers, who were considered especially valuable by reason of their extraordinary physical powers of resistance. A first attempt through the mediation of private agencies proved disappointing, so that the method of recruiting was modified and a scheme of judicious selection adopted. By means of a veritable industrial mobilization, the Government of Algeria itself took charge of the rounding-up and selection of the Kabyles destined to go to France. At the same time, moreover, a mission was sent to China to make arrangements with the Chinese Government for the recruiting of labourers in that country. Finally, recourse was had to other North Africans (Tunisians and Moroccans), Madagascans, and West Africans. By January 1, 1917, there had been obtained from these sources 34,179 North Africans (23,032 Algerians, 7,219 Moroccans, 3,856 Tunisians), 29,937 Annamese, 901 Madagascans, and 5,965 Chinese. The work of recruiting was entrusted to a special committee, together with the duties of administration, surveillance, and enrolment. A certain unification of employment was also established. The Indo-Chinese and Madagascans were all ' militarized ' and engaged for the duration of the war, with an additional period of six months following the conclusion of peace. As regards the North Africans, while theoretically engaged as civilians, they were as a matter of fact subjected to a rather strict discipline and enrolled under French sub-officers familiar with their language and customs. The same was true of the Chinese labourers, who were employed in gangs and

placed under the control of native and French officers. The number of labourers thus recruited totalled 140,373 at the end of the war, of which 59,558 were North Africans (34,506 Algerians, 12,695 Moroccans, 12,357 Tunisians), 42,751 Annamese, 3,469 Madagascans, and 34,595 Chinese, all of whom were employed at different kinds of industrial and agricultural work for the support of the army.

Meanwhile, the Minister of Munitions, who had charge of the manufacture of war materials, undertook to organize the recruiting of foreign labourers of the white race. Owing to the inadequacy of the measures adopted by private manufacturers, whose efforts were hampered by the existence of the state of war, he encouraged and facilitated the immigration of Italian, Greek, Swedish, Polish, Portuguese, and Spanish labourers, in addition to such workers of those nationalities as came of their own volition.[1] In certain cases it was necessary for the State to enter into negotiations with the interested Governments to the end of insuring the arrival of foreign labourers in sufficient numbers. Agreements were thus concluded with the Governments of Italy and Portugal regarding the conditions of recruiting, transportation, and remuneration, and the protection of their citizens in France. These agreements became the basis of later international social laws and of numerous labour and immigration treaties into which France was called upon to enter as soon as the war ended. At the same time French consuls assisted in the recruiting of various classes of foreign workers. Numerous Greek refugees were taken from the islands off the coast of Asia Minor by ships returning from Salonika and transported to Marseilles, there to be apportioned among the establishments working for the National Defence. In general, the direct recruiting of workers in foreign countries was effected by official representatives of the French Government, without

[1] The number of these from May to December, 1915, was 28,966 men, 4,362 women, and 3,701 children, whereof 27,196 altogether (21,650 men, 3,153 women, and 2,393 children) went into agriculture and the balance into industry. During the first half of 1916 this number increased to 30,106 (17,916 for agriculture and 12,190 for industry).

private intermediaries, with the result that much expense and many mistakes were avoided.

(2) *Immigration depôts and bureaus.* The introduction of large numbers of foreign labourers into France gave rise to numerous difficulties and complications. Until put to work, in the first place, it was necessary for them to be fed and housed. Accordingly, immigration depôts were established at various places (Marseilles and Bayonne, later at Perpignan and Nantes, and in the interior of the country at Lyons) for the care of foreign workers temporarily without employment or moving from one locality to another. These depôts also helped to secure the proper selection of foreign workers with reference to their physical and mental qualifications, as well as to the nature of their work. Their existence, moreover, helped to stimulate immigration, since the assurance of being cared for and provided with work under favourable conditions was naturally calculated to attract foreign labour. The depôts received from manufacturers definite demands for workers to be employed under fixed conditions, and they were thus able to provide work immediately for foreign workers, who would have found lengthy detention in labour camps extremely irksome.

(3) *Working conditions.* The foreign workers thus placed were for the most part taken from contingents numbering from a few dozen to several hundred men. These contingents were formed in such a way as to obviate the necessity of employing a large number of interpreters, and to enable the labourers to adapt themselves to a new environment and avoid the sudden change of habits resulting from a rapid dispersion throughout the country. Although in principle, in order to avoid all semblance of competition, the working conditions offered to foreigners were the same as those offered to native Frenchmen (equal pay, equal hours, &c.), it was nevertheless frequently necessary to provide quarters and food for foreign workers with reference to their peculiar habits and requirements. These measures of detail facilitated the acclimation of foreign workers, who, once they were in France, made constant and successful use of the bureaus for obtaining employment.

(4) *Supervision and control.* The state of war necessitated the adoption of special measures affecting foreign workers, and at the same time it provided numerous means of action which the Government was able to utilize in the interest of the National Defence. The movements of the foreign labourers had to be controlled. A decree of April 21, 1917, while confirming and completing the previous measures, aimed also to facilitate justified transfers of workers from one place to another, but at the same time to restrict ill-considered movements which would have caused the stream of foreign labour to flow toward Paris. An appropriate system of identification cards, issued at the frontier and viséd at intervals during the holder's sojourn in France and according to his movements, rendered such control more effective.

Police measures alone, however, were not sufficient to insure the necessary stability. A serious effort looking toward the adaptation of foreign workers to existing conditions was especially needed. The resources of the mobilization furnished the means for the enrolment and control of foreign labour. A corps of interpreters, familiar not only with the language, but also with the mentality, of the workers of the different nationalities, was organized, and its intervention forestalled many conflicts. Frequent visits of inspection on the part of these interpreters enabled the foreigners to make known their grievances and at the same time gave their employers an opportunity to make the necessary explanations. By persuasion, as well as by more forcible means, the principle of equal pay for foreign and French workers was applied. The foreigners saw their savings increased by the organization of canteens, 'soup-kitchens,' cooperative stores, &c., while at the same time their housing conditions were improved, they were helped to acquire a knowledge of the French language, the sick were cared for in hospitals, &c. Finally, as a result of these efforts, a sense of union was created among the different elements of the population.

The effect of all this activity soon revealed itself in a favourable manner. From July, 1916, to July, 1917, approximately 25,000 foreigners (12,500 Greeks, 6,500 Portuguese, 3,500

Italians, 1,600 Spaniards, 241 Montenegrins, 186 Swedes, 37 Japanese) were introduced into France exclusively for industrial work. The movement was continued until the end of the war, by which time more than 100,000 foreign labourers had been brought into France through the direct efforts of the Government. The Central Foreign Labour Service was created, and its vitality was such that it was continued after the war was over. It is obvious that France, bled almost white, will for a long time have more need than ever before of foreign workers.

Chapter IV: The Rôle and Control of the State

In all these domains, as we have seen, the State gave very valuable assistance to industry. In the first place, it determined the proportion in which the various classes of workers were to be employed in establishments working for the National Defence, specifying the operations to be entrusted to women or to foreigners and limiting the proportion of military labour to the total number of workers. In the second place, it prohibited the unregulated transfer of certain classes of skilled workers. In the third place, it intervened authoritatively in the fixing of wages and in the arbitration of differences between employers and employees.

Section 1: The Control of Labour

(1) *The use of labour.* Inasmuch as each worker withdrawn from the army decreased precisely so much the military strength of the country, employers were expected to resort to such measures in moderation and so far as possible to make use of other workers. This, of course, called for a constant effort of adaptation and innovation; and, like all such efforts, it required exterior constraint. This constraint applied not only to the workers themselves, by forcing them to seek and accept employment in the munitions factories, but also to the employers, by urging them to make a maximum use both of the regular and of the supplemental labour resources. Special

employment offices were created for the munitions factories; unemployment allowances were suspended or denied to workers who refused to accept a position in line with their speciality; all replacement of civil labour by military labour was prohibited when there was a shortage of the latter; and military labour was refused when civil labour was already available. Controllers were charged with the enforcement of these rules, and frequent visits of inspection insured the wise employment of military labour and its exclusive assignment to the munitions factories.

The results of this control were soon manifest. Whereas military labour showed a marked decline toward the end of the war, civil labour showed a steady rise. From 129,429 on August 31, 1915, the number of civil workers increased to 256,602 on January 1, 1916; to 545,688 on January 1, 1917; and again to 641,677 on January 1, 1918. In order to enable the inspectors to determine at a glance whether military labour was being diverted from its proper employment, an enumeration was made of the operations to be entrusted exclusively to civil workers, women and children. A circular issued by the Minister of Munitions on July 20, 1916, enumerated in detail the kinds of work for which the employment of women was obligatory: operation of presses for the manufacture of forged steel shells of 75 mm.–120 mm.; verification and measurement of the temperature of the cast; control before moulding; hydraulic tests; placing of the moulds, &c. These rules were sanctioned by adequate measures. Not only were military workers employed at these tasks withdrawn on short notice, but all military labour demanded by manufacturers in default was refused until the rules were complied with.

(2) *The suppression of 'enticing.'* The scarcity of good workers illustrated in a practical way the famous saying of Richard Cobden that 'when two employers compete for a single workman, wages rise'. The enticement of workers on the part of manufacturers became a common practice. Paid agents of the heads of certain business establishments distributed handbills or posted up notices informing the workers that

they could find elsewhere 'good wages, steady employment, and congenial work'. This was a form of unfair competition and an encouragement of instability on the part of the workers. The State, however, did not remain indifferent to such action. It had at its disposal two weapons, the simple menace of which was sufficient to put an end to all such practices: (1) the right to requisition workers, which enabled it to restrain those contemplating departure and to force deserters to return; (2) the possibility of considering such enticements as clandestine placements prohibited by law. Without exaggerating the practical scope of these measures, it is evident that they constituted a serious derogation from the principle of free labour, but that they were fully justified by the circumstances of the war.

Section 2: Wages

(1) *The causes of wage fluctuations.* According to the public belief, the labouring people were the greatest profiteers of the war. The rise of wages, it is claimed, was chiefly responsible for the rise of prices. The fact is, however, that public belief does not always conform to the truth, and that there is a widespread tendency on the part of the popular masses to generalize hastily from superficial observation. The fact is that wages by no means followed the rising curve of prices. The rise of prices, on the contrary, preceded and exceeded the rise of wages, which advanced at a slower rate in an effort to close up the intervening distance. As a matter of fact, wages are not as mobile as prices; appertaining to the person of the labourer, they have borrowed from him a certain fixed character. They are traditional and but slightly elastic. On analysing their movement during the war, we find that they did not immediately follow the rise of prices, which manifested itself rather quickly; and from the start the curve was fairly true to the rising form which it still conserves.

At the beginning of the war, on the other hand, there was a pronounced decline of wages. Unemployment was general. Certain establishments discontinued their operations, and workers were forced to seek employment at the best pay ob-

tainable. But it was not long before the reverse movement began. Economic activity recovered; the war industries were created and developed; production was intensified; soldiers were brought back from the trenches to the factories; women and foreigners were employed to fill vacancies, &c. The result was that wages rose, but in an unequal manner; that is, the rise was not uniform throughout the country. Regional rates persisted; and in one and the same locality they varied greatly according to trades.

The rise of wages was caused by three main factors: (1) the general rise of prices; (2) the decreased supply of labour; (3) the increased demand for labour. This accounts for the divergences that are encountered. Although the rise was general, it was by no means uniform, because the intensity of the supply and demand was different. In some industries, as in those directly concerned with the National Defence, no efforts were made to prevent it; for the purchaser, in this case the State, was ready to meet all increases, even to provoke them. The rise varied also according to regions, since the cost of production likewise varied. But this observation, well founded in time of peace, tended to lose its value in the course of the war. It is undoubtedly true that the isolation of the interior markets resulted in a diversity of prices which in time of peace would have been equalized by transportation facilities; but in stirring up the French population, the war tended to make wages independent of the region, to make them personal to the worker. Military workers coming originally from Paris and sent to the Loire demanded Parisian wages; and in spite of opposition it was often necessary to accede to their demands. Regional wages were thus unified, thanks to the general rise of prices.

Let us now take up the wage movement in detail, distinguishing, as required by tradition, between the nature and the rate of the wages paid both in industry and in agriculture. In the former we distinguish between the established and organized trades, on the one hand, and those more affected by the war, on the other hand. To illustrate this distinction, let us take: (1) wages in the munitions factories; (2) wages in the building

and clothing trades, each employing an important class of workers; (3) wages in agriculture.[1]

(*a*) *Munitions factories.* The workers in the war industries were particularly favoured in the matter of wages. Nevertheless, it is necessary to distinguish between Paris and the provincial districts. In the region of Paris the minimum wages were fixed by the Ministry of Munitions, whereas in the departments they were fixed by agreements between employers and workers. The agreements were validated by the Minister of Labour, and thus acquired an official or legal character. It was a genuine innovation and its importance we shall consider further on.

A comparison of these data with wages previously registered enables us to form an idea of the rise. Frequently, to be sure, these rates indicate merely the basic or so-called 'living' wage. They also indicate, however, the minimum remuneration of an average piece-worker, or else specify that the piece-work rate must be sufficient to assure the labourer of a definite average premium of 20 to 30 per cent. above the basic wage. Finally, when a workman, by reason of his speciality, is unable to do piece-work, as, for example, a tool repairman, his minimum wage is fixed by adding a minimum increase to the basic wage.

The wage proper is not the only remuneration of the labourer, but is supplemented in time of war by the so-called 'high-cost-of-living bonus.' The object of this is simple. In the hope that wages will fall, and in order not to make official and permanent recognition of the rise, employers prefer to resolve their labour compensation into two elements—the one fixed and corresponding to the value of the labour as a commodity, the other variable and corresponding to the cost of

[1] The data here utilized are taken from the *Statistique générale de la France* and are impartial and disinterested. Moreover, they rely on documents of various origins for mutual completion and control, viz.: (1) for small business, some questionnaires addressed to expert advisers and covering fifty-two trades (forty-five male and seven female); (2) for certain trades of big business, the wage estimates of the Inspectors of Labour; (3) for average day wages of the lower labourers, the data of the prefects; (4) for the military establishments of the State, an investigation conducted in 1917 and the memoranda of wages fixed by agreement between the workers and the employers; (5) for the clothing industry, the current rates fixed by law.

living. This represents, in reality, a combination of the two great economic theories regarding wage rates, namely, the iron law of wages, and the law of productivity. The high-cost-of-living bonus is, in general, inversely proportional to the wage. Starting from a maximum corresponding to a low wage, it decreases according as the wage increases and disappears when the wage reaches a certain maximum.[1] Reckoning the wages and the bonuses together, the remuneration of factory workers before and during the war is shown by the following table :[2]

APPROXIMATE EARNINGS (WAGE PLUS BONUS) OF FACTORY WORKERS IN FRANCE BEFORE AND DURING THE WAR

Workers	*Remuneration by the hour*							
	Region of Paris				*Other regions*			
Men	*Before the War*	*End of 1917*	*End of 1918*	*Percentage increase*	*Before the War*	*End of 1917*	*End of 1918*	*Percentage increase*
Unskilled workers .	0·50–0·60	0·95 ..	1·30	116	0·38	0·63	0·93	145
Fitters .	0·80–1·20	1·45–1·50	1·75	75	0·57	1·00	1·30	128
Turners .	0·80–1·20	1·50–1·55	1·70	70	0·63	1·00	1·30	105
Machinists	0·80–0·95	1·45 ..	1·65	91	0·53	0·93	1·73	135
Borers .	0·65–0·95	1·40 ..	1·60	100	0·49	0·85	1·15	130
Blacksmiths	0·80–1·10	1·45 ..	1·65	74	0·57	0·97	1·27	123
Smelters .	0·75–1·00	1·40 ..	1·60	98	0·59	0·96	1·26	112
Sawyers .	0·80–1·00	1·50 ..	1·70	89	0·55	0·93	1·23	119
Spinners .	0·90–1·10	1·70 ..	1·75	75	0·61	1·00	1·30	113
				85				123
Women								
Unskilled workers .	0·30–0·35	0·75 ..	1·15	241	0·23	0·51	0·81	250
Skilled workers .	0·35–0·40	0·95 ..	1·25	211	—	—	—	—
Machinists	0·50–0·60	1·20 ..	1·45	241	—	—	—	—
Mechanics .	0·50–0·60	0·95 ..	1·25	108	—	—	—	—
				175				250

[1] The figures in the table are taken from the *Bulletin de la Statistique générale de la France* (April, 1918), and are completed for 1918 from the records of the Ministry of Munitions.

[2] Thus the high-cost-of-living bonus fixed by the Ministry of Munitions on July 24, 1918, was 3 francs per diem for workers earning less than 10 francs per diem, the total earnings not to exceed 12·50 francs ; and by the progressive decrease it fell to 50 centimes per diem for a wage of 17 to 18 francs, the total not to exceed 18 francs. As regards women, the bonus was 2 francs per diem for those earning less than 9 francs, the total not to exceed 10·50 francs, and decreased to 50 centimes for those earning 13 to 14 francs.

It will be seen from this table that the wages of labourers underwent an increase of approximately 70 per cent. between 1914 and 1917 in the region of Paris and in the other regions, and an increase of 176 and 145 per cent., respectively, for the other regions between 1914 and 1918. For skilled workers the increase averaged 60 per cent. in Paris in 1917 and from 70 to 120 per cent. in the other regions, thus confirming the tendency toward equalization. As regards women employed in factories, on the average their wages more than doubled in 1917 and almost trebled in 1918. It is proper to remark, however, that for certain classes of women workers, such as skilled mechanics and machinists, it is difficult to draw a comparison with the pre-war period for the reason that skilled women workers at that time were extremely rare. Production in series was not widespread in industry. At the present time women receive compensation nearly equal to that of men, after taking into account the supplementary expenses incident to their employment.

(*b*) *Building trades.* Before the war wages in the building trades were periodically verified by memoranda based on public works. During the war the official wage was extended to such work in consequence of a pronounced labour movement. The comparison between the wages paid before the war and the wages current at the end of 1917 reveals the following differences :

WAGES IN THE BUILDING TRADES BEFORE AND DURING THE WAR IN FRANCE

Workers	*Remuneration by the hour*					
	Region of Paris			*Other regions*		
	Before the War	*End of 1917*	*Percentage increase*	*Before the War*	*End of 1917*	*Percentage increase*
Masons. . .	0·95 ..	1·50	58	0·51	0·76	49
Carpenters . .	1·00 ..	1·50	50	0·53	0·78	47
Joiners . .	0·85 ..	1·40	65	0·51	0·76	49
Locksmiths . .	0·75–0·90	1·35	64	0·50	0·73	46
Plumbers . .	0·90 ..	1·35	39	0·53	0·77	45
Painters . .	0·85 ..	1·40	65	0·49	0·70	43
Navvies . .	0·80 ..	1·40	75	0·40	0·71	77
			60			50

Thus the increase averaged 60 per cent. for all workers in the building trades in the region of Paris and 50 per cent. in other

regions. The navvies alone benefited by an increase of 75 to 77 per cent., respectively.

(*c*) *Clothing and petty trades.* Finally, it was not until 1917 that the wages of the workers in the petty trades underwent an increase. Until then they had varied but little, and they rose very slowly. According to the Clothing Trade Syndicate, at the time of the Paris strikes of 1917, the apprentices were earning 50 centimes per diem, the small hands 1·50 francs, the second hands 2·50 francs, and the first hands from 3·50 to 5·00 francs. These were genuine war wages. Afterwards the increase was fairly pronounced. In 1917 the first hands were earning from 6 to 8 francs per diem, and in March 1918, in consequence of an agreement concluded in the clothing industry, the second hands were earning from 4·50 to 6 francs. The increase averaged 65 per cent. above the pre-war wages.

In the clothing industry for home workers the wages remained very low, so that in 1917 the best paid workers of this kind were earning from 45 to 50 centimes an hour in the departments of la Seine, les Bouches-du-Rhône, le Gard, and la Seine-et-Marne. In eleven departments their wages averaged 30–35 centimes an hour, and in sixty-two departments they averaged 20–29 centimes an hour. Finally, in the departments of Allier and Tarn they were as low as 15–19 centimes an hour.

(*d*) *Agriculture.* The movement of agricultural wages may be determined on the basis of an extensive inquiry conducted in 1918. The general figures may be grouped as follows :

DAILY WAGES OF FARM WORKERS IN FRANCE IN 1914–1916 AND 1918

Section	*Wages by the day*					*Percentage increase workers not boarded*	
	Workers not boarded			*Workers boarded*			
	1914	1916	1918	1914	1916	1914–16	1914–18
Northwest .	3·25	4·66	5·88	1·86	2·80	50	81
North . .	3·44	4·93	6·00	2·11	3·28	55	75
Northeast .	3·75	5·35	6·00	2·48	3·29	37	60
West . .	3·34	5·45	6·40	2·46	4·08	60	90
Central. .	3·87	5·92	6·40	2·83	4·53	60	65
East . .	3·43	5·15	7·25	2·14	3·46	62	107
Southeast .	2·87	4·51	7·75	1·56	2·53	62	120
South . .	3·46	5·19	7·90	2·29	3·83	67	128
Southwest .	3·42	5·15	7·33	2·34	3·77	61	115
Average .	3·43	5·15	6·75	2·23	3·54	50	97

From 1914 to 1916, accordingly, the increase averaged 50 per cent.; and from 1914 to 1918, 97 per cent. Geographically, however, the increases were not equal. The smallest rises were in the regions of the north-east, while the largest were in the west and, more recently, in the central regions.

(2) *Wages and the cost of living.* It is now important, in conclusion, to compare these wages with the cost of living. It is impossible, however, to follow the variations of the latter with the precision befitting a study of price movements. We shall take as the basis of comparison the points of departure and arrival. Furthermore, it is difficult to establish a comprehensive deduction for wages in general owing to the lack of a possible standard, which would imply a coefficient of correction based on the number of workers to which the various established rates would apply. None the less, it follows that if by way of exception certain trades or, more correctly, certain workers, especially unskilled workers, saw their wages more than double, the great mass of industrial and agricultural workers benefited by an average increase of scarcely more than 60–75 per cent.

Thus, if for the sake of comparison, and without attempting to enter into a detailed analysis, we estimate the average increase in all trades during the war at 100 per cent., we arrive at this conclusion, namely, that wages doubled, whereas the prices of articles of the retail trade increased from 300 to 350 per cent. On the average, therefore, if the nominal wage increased, the real wage not only did not increase in the same proportion, but even underwent a relative decrease. Undoubtedly, under the pressure of the high cost of living, wage demands were accentuated and led to an increase that was especially pronounced between 1916 and 1918 in the munitions factories and in agriculture. But the difference in the price curve and the wage curve is still large.

(3) *Improvement of living conditions.* From this there resulted an incontestable evil which the rise of wages alone could not prevent. For although an increase of compensation is the first means of adapting the condition of the working people to

a new economic situation, it is not always a satisfactory means. In this respect the intervention of the State, together with the efforts of employers and workers looking to the improvement of living conditions, served to limit wage demands during the war.

In the industrial centres the increase of the working population rendered the question of food and shelter most acute. At Marseilles, for example, the number of inhabitants nearly doubled, increasing from 550,619 to 947,000; at St. Etienne it increased from 148,656 to 212,000, and at Bourges from 49,000 in 1914 to 130,000 in 1917. A few insignificant villages, such as St. Médard in Jalles, became populous centres of industry. Barracks were erected, dormitories constructed, land requisitioned to circumvent the excessive demands of the owners, &c. For the providing of food a serious effort toward organization was made by the interested parties themselves, the directors of State establishments, and the heads of private industries, notably in the creation of restaurants, canteens, cooperative stores, &c. These different institutions were soon grouped under the supervision of the Ministry of Munitions, which coordinated their efforts, facilitated their provisioning, and helped them financially by the establishment of a Food Office and a Cooperative Fund with the aid of employers' contributions and cooperative societies. Parliament, on its part, on June 29 and 30, 1917, voted an appropriation to be used for the making of repayable advances to the institutions created with a view to bettering the general living conditions of workers employed in munitions factories.

In January, 1918, the cooperative institutions numbered 932 (119 restaurants and 813 stores); the canteens of the State establishments numbered 45 (42 restaurants and 3 stores); the patronal institutions numbered 328 (161 restaurants and 167 stores). Altogether, accordingly, there were 322 restaurants and 983 stores, which during the first three months of 1918 did business to the value of: cooperative institutions, 91,672,116 francs (restaurants, 7,866,657 francs; stores, 83,805,459 francs); canteens, 4,944,028 francs (4,298,724 and 645,304 francs,

respectively); patronal institutions, 16,071,427 francs (6,807,436 and 9,263,991 francs, respectively). In only three months these institutions did a combined business amounting to more than 112,000,000 francs, this corresponding to a total annual turnover of more than 450,000,000 francs, of which five-sixths represented sales in the stores and one-sixth food in the restaurants.

The comparison of two sets of figures shows the creative effort that was put forth. Of 680 institutions which made known their business figures, 444 (108 of them restaurants) were created during the war and did business totaling 45,400,000 francs in the first three months of 1918. Only 136 (45 restaurants) were in existence before the war, and their figures, which were 20,500,000 francs for the first three months of 1913, show an increase to 46,000,000 for the first three months of 1918. Here again the war revealed the advantages of a great social institution—consumers' cooperation.

Section 3: Strikes, Syndical Action, and Arbitration

(1) *The number of strikes.* In paralysing the economic life of the country the war at first completely put an end to strike movements. The sense of danger aroused by the German invasion, together with the thought of defending the national territory, also helped to bring this about. Gradually, however, these movements began to increase again at the end of the year 1916, reaching a crisis in the spring of 1917, to be followed by relative quiet until the end of the war. In July, 1914, there had been 109 strikes affecting 15 industries. In the first nine months of the war, that is, from August 2, 1914, to April 30, 1915, there were reported but 32 strikes involving only 1,723 workers; and the longest of these did not last more than three days. After the latter date, however, they became more and more frequent. In 1915 there were 98 strikes, 71 of which were due to wage demands. Moreover, their duration also increased, one of them lasting two weeks. They involved 9,361 workers, and resulted in 16 successes, 44 failures, and 38 compromises. In 1916 the number was still greater—394 strikes involving

41,409 workers. Thus for the first two and a half years of the war there were altogether 430 strikes involving 51,830 workers. They were especially frequent in the textile industry (89), in the transportation business (80), in the metal trades (56), in the leather and hides industry (41), in the building trades (36), and in the chemical industry (25). The majority (348) were caused by wage questions. Of the total 430 strikes, 102 (involving 30 per cent. of the strikers) were successful, 178 (21 per cent. of the strikers) were unsuccessful, and 150 (49 per cent. of the strikers) resulted in compromise. The year 1916, however, was not comparable in this respect with the pre-war years, since in 1913, for example, there had been reported no less than 10,073 strikes involving 220,000 workers, and resulting in a loss of 2,223,000 days of work.

The year 1917, on the other hand, opened in an atmosphere of strikes. At first they attacked the munitions factories, where they were due to the new schedule of wages and to a system of bonuses to which the workers were opposed. In order to put an end to this, the Minister of Munitions ordered the establishment of a minimum wage and compulsory arbitration of wage questions—a matter to which we shall refer further on. The immediate result was not favourable. The order even had the effect of causing strikes, due to the impatience of workers to see the new rates put into force. In the months of May and June strikes became most numerous, especially among women workers. They began with the cloth-cutting branch as affecting luxury articles, and gradually involved the entire clothing and fine wear industry, finally spreading even to the munitions factories. In the cutting and clothing branches, as a matter of fact, wages not only remained low, but were even lower than in time of peace. The first struggle that took place in Paris tended to place them on the pre-war level. Dressmakers were found to be earning 3 francs per diem, excluding Sundays—that is to say, scarcely 80 francs a month in the height of the season. Another demand was that of the 'English week'—that is, a half day's rest on Saturday with pay. The strike lasted 12 days and resulted in: (1) a rise

of wages and the granting of the high-cost-of-living bonus; (2) the voting and enactment of the law of June 11, 1917, providing for the introduction of the English week.

At the same time, 171 strikes involving 58,571 workers (40,775 men and 17,796 women) took place in the munit ons factories. They caused the loss of 142,339 days of work, and were due to wage demands (131) and the question of workingmen's solidarity (35). Altogether, however, despite the fears to which they gave rise, they involved only 3·38 per cent. of the men and 12·06 per cent. of the women employed in the manufacture of munitions. Later on, toward the end of 1917, a number of strikes occurred in the steel and iron industry of the Loire, but they were quickly checked.

(2) *The causes of strikes.* The causes of these strikes have been much discussed. Some people saw in them the hand of the enemy, and to this argument the arrest of a few foreign workers among the strikers lent colour. In reality, however, these strikes were due both to economic and to psychological causes. The misunderstanding of certain workshop regulations by workers new to the industry; unjust dismissals of workers; the state of lassitude brought about by the prolongation of the war and the difficulties to which it gave rise; excessive profits of employers; demands of the retail trade; the rising cost of living; the increased demand for distractions and luxuries; the dissatisfaction of certain workers who considered themselves misplaced, or who were jealous of newcomers in the trade better paid than themselves; the question of the regulation of work; the demand for shorter hours; and finally, imitation and contagion—all these were elements in the problem.

The truth is, however, that it was especially economic considerations, rooted in the increasing disproportion between the reward of labour and the cost of living, that caused and sustained the discontent. Proof of this lies in the fact that the principal demand was for the so-called 'high-cost-of-living bonus.' The female workers in the clothing industry could not see why their former companions, who had entered the munitions factories, were earning from 12 to 15 francs a day, while

they were forced to content themselves with 4 or 5 francs a day. Many workers, moreover, felt themselves wronged by the continual changing and refixing of wages. Their fears were sometimes imaginary, but often real. As regards piece-workers, an increased production was often followed by a reduction of the price per piece. The Minister of Munitions was forced to insist on greater fairness on the part of manufacturers. The substitution of time-work for piece-work at first led to a diminution of remuneration. Taking advantage of their authority and of the workers' fear of being sent back to the army, certain employers did not hesitate to reduce the wages of skilled military workers, who were jealous of the higher earnings of the newly arrived civil and female workers. The docking of wages and the imposition of fines increased, and the workers were deprived of certain advantages which they had enjoyed for a long time. The rates of compensation were obscure, secret, imperfect, or indefinite. All this accounts for the recrudescence of strikes in 1917, the total of which was 697 for the year, with 190 to 270 in May and June, respectively, against an average of not more than 40 a month in 1918.

(3) *The action of the Government.* The Government considered the ways and means of combating strikes from all standpoints. It first took up the matter of wages, fixing a minimum wage to be paid by munitions manufacturers. On the other hand, it demanded that the workers should submit all differences to arbitration and conciliation. It also improved the living and working conditions of the working class by organizing social war activities, encouraging collective agreements, and seeking to establish closer relations between workers and employers. In constant touch with the labour syndicates, it listened to their grievances, and at the same time called upon employers to lend an ear to the representatives of their workers in regulating an institution which the war had developed, namely, that of the factory delegates.

(*a*) *Official regulation of wages.* Even before the war employers working for the State were subject to the regulation of wages. The Millerand Decrees of August 10, 1899, stipulated

that in the execution of contracts with the State, the Departments, and the Communes, the wages paid should be equal to the normal current wages of the region as fixed by joint committees of employers and workers. The law of August 17, 1915, legally established this principle by declaring it applicable to mobilized workers. The Inspectors of Labour were therefore bound to confirm and establish basic wages ; and in doing so they took as a basis the most liberal wages paid in the factories—this not alone with the object of improving the condition of the working class, but also with the object of avoiding labour competition between factories and the frequent displacements resulting therefrom.

On January 16, 1917, a further step was taken in the form of a decision by the Minister of Munitions—the importance and pioneer character of which was not at first appreciated—whereby the rates and conditions of compensation applicable to all male and female workers engaged in the manufacture of guns, munitions, and war materials under the control of the Ministry of Munitions were officially fixed.

Thus it was no longer a question of confirming a pre-established wage, but of recognizing an official authoritative minimum wage. A twofold conception was introduced by this decision of the Ministry of Munitions : on the one hand, that of a uniform basic wage for all workers of one and the same specialty ; on the other hand, that of an additional bonus as compensation for the production of the more skilled workers. As regards compensation for piece-work, it was calculated in such a manner as to permit piece-workers of average skill to attain the basic salary of time-workers plus a certain premium. The least favoured workers were thus assured of a fixed compensation which should serve as a basis of adjustment in case of a dispute. These wages, moreover, possessed a double character : first, they were regional wages commensurate with the local living conditions, but made flexible through premiums and allowances adjustable to the displacements caused by the war ; second, they were wage-schedules perfected and subdivided in such a way as to secure remuneration for workers in

proportion to their skill. The first schedule established was that for the region of Paris, approved by the Minister of Munitions on March 2, 1917. The entire year of 1917 was employed in the elaboration of analogous schedules, called 'wage memoranda' (*bordereaux des salaires*), in the different regions of France. By February, 1918, no less than 153 of these had been established in the various industries—the steel and iron industry, the cement, chemical products, machinery, electricity, aviation, &c.

Besides the question of wage-rates, the memoranda regulated various accessory questions, such as deductions for poor workmanship, payment of workers in case of involuntary stoppage of work, posting of rates and use of explicit payment sheets for the avoidance of disputes.

This decision was received in varying spirit. Very little criticism was made of the principle involved, but its application gave rise to numerous difficulties. The workers found fault with the distinctions made as to trades. Certain employers attempted to elude the regulation, some on the ground of exemption from its application, others through subterfuges of one kind and another. This provoked numerous protests and strikes on the part of the workers. On the whole, however, the results of the regulation of wages by superior authority were successful. Everywhere an improvement of wages was felt, especially in the case of female and unskilled workers. In nearly all cases the wages paid were higher than the official rates. Even in the non-involved industries, such as the building trade and naval construction, it resulted in a favourable repercussion leading to an interministerial conference for the regulation of wages from the standpoint both of uniformity and of arbitration.

(*b*) *Arbitration.* The regulation of wages is in effect a matter for arbitration, which is necessary for the establishment of a scale of wages either in advance of or in consequence of strikes. It was not by pure coincidence that on the same day on which the minimum wage rates were fixed there were established by the decree of January 17, 1917, permanent

arbitration and conciliation commissions inspired by the desire to insure both the indispensable continuity of war manufactures and the equitable adjustment of labour conflicts. The decree in question began by prohibiting the breaking of labour contracts previous to conciliation and arbitration. In each region it created joint committees of workers and employers before which the grounds of dispute were to be laid by the Labour Control. The committees called together the parties concerned, undertook to bring about conciliation, and in case of failure pronounced a decision which became obligatory. If the employer refused to acquiesce in the rates of compensation as fixed by the decision, the wages were to be advanced to the workers by the State and retained on the completion of the contract. In case either employers or workers refused to abide by the decision, the factory might be requisitioned and placed at the disposal of the military authorities. Further, with the aim of standardizing wages, the Minister was given the right of extending to an entire region the decision rendered in a special case.

This machinery for arbitration and conciliation was no novelty in France. It had already been set up by the law of December 27, 1892. This law, however, was devoid of sanction and without compulsory character, so that in practice it had been almost entirely neglected. The Minister of Munitions assured to workers a minimum wage, but at the same time he imposed conciliation and arbitration as a measure to which it was necessary to have recourse prior to all concerted cessation from work. Opposition of two kinds was encountered: first, from employers, who protested against an encroachment on their right to control wages; second, from workers, who resented the curtailment of their right to combine and strike. The chief difficulty, however, was that of finding men for these committees who enjoyed the confidence of both sides. Nevertheless, the task was undertaken and its success was immediate. The first committee was constituted in Paris on February 2 and speedily divided into four sections—metals, chemical products, building, and leather. By August 24 each industrial region

possessed one of these committees, and their range of activity rapidly extended. They did not confine themselves to adjusting disputes that had already arisen; but they also anticipated disagreements by facilitating direct collaboration between employers and workers, by fixing wages, by issuing recommendations as to working conditions of labour, &c. Their competence and impartiality were effective guarantees of fair and impartial treatment in the eyes of labour.

In November, 1917, there were sixty-one of these committees in existence which had adjusted numerous disputes—among others, through a decision rendered in September, 1917, a serious conflict involving the aviation factories in the region of Paris.

(*c*) *Factory delegates.* While the State was thus endeavouring to diminish the importance and frequency of disagreements, the war, by introducing entirely new elements into the factories, was developing the factory delegate, who represented a more or less retrograde movement. He was a worker chosen by his companions in the factory or workshop to represent their particular demands. His field of action was more restricted than that of the syndicate or trade-union, since it was confined to the limits of the factory or workshop and did not comprise the entire trade. In this sense his work was useful, since it rendered the demands and issues clear cut. On the other hand, the factory delegate was more easily swayed by the unthinking masses, who had not been progressively educated up to the less egoistic syndical conception.

The presence of women from other trades and of a mass of unskilled labourers thus led to the choice of the factory delegates. The attitude of these delegates was often provocative, and their relations with the labour syndicates were often difficult. The syndicates looked askance upon this intrusion on the authority of their special representatives; and they strove to unite in the person of the delegate the quality of both factory and syndical delegate. The attitude of the Government was of a twofold nature: in the first place, it tended to encourage the institution, in order to provide the workers with

a means of giving expression to their grievances, and without syndical action; and in so doing, it merely imitated certain large employers who admitted the delegate but not the syndicate. In the second place, when the factory delegate, chosen without restrictions, became an agitator, it undertook to point out the danger of his course. Since the factory delegate exists, we must perforce recognize certain virtues in him. The Committee of Arbitration of the Seine (*Comité d'Arbitrage de la Seine*) in its session of June 28, 1917, expressed the unanimous desire to see factory delegates, instituted in the war industries, charged with the task of insuring permanent intercourse between the workers and the directors, and of preventing, by means of timely discussions, disputes which might become envenomed. The Minister adopted the idea and put it into operation, while seeking to minimize its disadvantages. The right to become a delegate was not open to every worker in the factory or workshop, but was limited to workers who had been attached to the factory for a certain length of time, generally a year. The election of delegates was by vote, the electors being exclusively French workers, men or women, twenty-one or more years of age, and employed in the factory for at least three months. The vote was taken, as in a political election, by an absolute majority on the first ballot and by a plurality on the second ballot. For each group of 25 to 100 workers there was to be one delegate and one assistant delegate, or by corporations at the rate of one delegate for each 100 workers. For more than 100 workers in the workshop or corporation the number of delegates was doubled. The duration of the mandate was for one year, with eligibility for reelection.

The circular instituting the factory delegates was followed by others which set forth the difficulties to which their existence gave rise. Their rôle was not defined. When the election as held was accepted as valid, the employers nevertheless saw in it only the selection of an authorized intermediary charged with transmitting the individual demands of his companions. The workers, on the other hand, sometimes regarded him as the mandatory of the syndicate charged with examining, not

only questions of interest to the workshop, but also questions touching the entire factory or trade. They manifested a tendency to unite in committee the delegates of the various workshops of the factory and to submit their demands through a single syndical delegate. This is in substance, as has been said, 'the soviets of the factory.'

Little by little, however, the institution acquired recognition and the wisdom born of experience. The delegates were received at a fixed time by those in authority, when they were invited to explain the operations and working conditions of the workshops and factories and to set forth their views and the general demands of their constituents. Their task was facilitated by authorizing them to employ their working hours, for which they were paid, for receiving their companions and hearing their grievances. But nothing is so delicate as this institution, which depends essentially upon the character of workers who enjoy the confidence of their fellows. Often the choice falls upon a glib talker or a man of pleasing manner and appearance; but at other times the most worthy are selected, and in the latter case the results are highly satisfactory.

Chapter V: Labour and the Demobilization

The armistice found France in full industrial activity. Her efforts and achievements have already been described. In a single day her munitions factories became useless. Whatever diligence may be shown, it is obvious that a certain time will be needed to adapt her industries to the conditions and requirements of peace-time production. Special qualifications are required for the work; innumerable technical and economic difficulties must be surmounted, machinery must be transformed, markets recovered, future uncertainties discounted, supplies of raw materials replenished, &c. Having devoted all her thoughts and energies to the prosecution of the war, and having been constrained, during the last few months of the hostilities, to bend all her efforts toward the defence of her

territory and the final victorious offensive, France was unable to establish a programme of demobilization and reconstruction. She was therefore surprised by the armistice. In the labour market the conditions were virtually the same as those resulting from the declaration of war. The munitions-factory workers were left without employment, and to these were added the demobilized soldiers; and then, too, the war cripples were involved in the economic struggle for existence. In the absence of a preestablished programme, opportunistic measures were quickly taken. Varying according to the class of workers, these measures sought to decrease the amount of unemployment by making the demobilization of the soldiers and the releasing of workers gradual, by assisting them to find reemployment, and finally by giving to those crippled a technical education befitting their condition.

It is difficult, apparently, to compel employers to retain unprofitable workers. They are inclined to discharge the least useful of their hands, especially unskilled women workers. Again the State intervened, first by way of example, then by acts of authority. It issued orders that in its own establishments no dismissals were to be made except in cases of extreme necessity. Everything else was preferable: the completion of urgent work; the reduction of working hours, as far as possible, down to five hours per day; the suppression of night work; the suspension of work on Saturday, with corresponding reduction of wages, but with maintenance of the high-cost-of-living bonus, &c. When dismissal became necessary, a certain order of precedence was to be observed. The first to be released were country women, then single women, then married women whose husbands were working, then women who were heads of families, and finally women coming from the invaded territory. All were granted a fixed indemnity and a supplementary sum proportional to the length of their employment in the factory, without prejudice to the right to receive the pecuniary aid granted to all persons out of work. This example set by the State provoked among the workers in private industries an agitation to obtain like treatment. Here, too, the State

assumed in part the payment of an indemnity for dismissal, the balance falling upon the employer.

The war had given promise of lasting so long that France had taken no steps toward a systematic tabulation of the intentions of the demobilized soldiers regarding the resumption of their economic activity nor of the employments open to them. It was necessary to await the signing of the armistice before the law could be passed regarding the legality of labour contracts made by mobilized soldiers. Finally, so jealous is the watch maintained in France for violations of the principle of equality that the economic necessities were not taken into consideration in determining the order of the demobilization of the men. It is true that the example of England in this respect was not very encouraging. It was decided, accordingly, to demobilize the men according to age, the oldest first. The number of children was also taken into account, each child being fictitiously supposed to add one year to the father's age. On the other hand, the law of November 22, 1918, provided that 'employers and public and private establishments shall guarantee to their demobilized personnel, should the latter so desire, that within a month following demobilization, barring impossibility, the proof of which devolves upon the employer, they shall be reinstated in the employment which each held at the time of mobilization at the normal rate of compensation current in the trade at the present moment.' Finally, on the strength of a first appropriation of funds to enable them to regain a footing in civil life, the law of March 22, 1919, awarded to soldiers a fixed bonus of 250 francs, together with an indemnity varying according to the duration of military service and the length of time under arms and at the front (20 francs per month in the latter case). These measures did not preclude a certain vacillation. A number of demobilized soldiers were either unable or unwilling to resume their pre-war employment. This is not the place to analyse the causes; but the demand for labour is such that unemployment threatens only such of the demobilized soldiers as have no definite trade.

Finally, consideration had to be given to those unfortunates,

the cripples, whom the war had rendered physically incapable of resuming their trade. Their case was dealt with to some extent during the war. Their professional reeducation was assured by granting it to them as a right subject to demand. As regards pensions, on the other hand, provision was made that they should in no case be curtailed on the ground of the pensioner's reeducation or readaptation.

The law of January 2, 1918, created a National Bureau for the Crippled (*Office National des Mutilés*), with a view to connecting all private and public institutions concerned with the welfare of these unfortunates. Professional schools were created; centres of agricultural reeducation were established; learned societies and national congresses made a study of the employments open to them; positions were reserved for them; the law concerning accident compensation was modified by that of November 25, 1916, lest manufacturers might be led to discard it from fear of too heavy responsibility; special branches of employment offices were devoted to their needs, &c. These combined efforts led to favourable results. In 1919 some 25,000 war cripples were provided with work by the employment offices, and some 10,000 attended the centres of reeducation and secured positions through these channels.

In a short sketch of this character no attempt can be made to enumerate all the questions involved and all the measures of a social nature taken during the war. We will seek only to set forth the results in the most summary manner possible. The war left the French labour market in a lamentable condition. Already underpopulated before the war, the country today is bled white. The active population is reduced by the loss of 1,400,000 killed and 500,000 mutilated. The depopulation of the provincial districts and the overpopulation of the cities is accentuated. Female labour in the factory, rendered necessary by the mobilization of the men and prolonged by male labour shortage and by the disappearance of the present and future heads of families, will react unfavourably upon the health and upon the demographic and the moral future of the country. Social cleavage has increased. A census showing the industriali-

zation of France would reveal a reversal of the former ratio between agriculture and industry and the aggravation of social conflicts. Such misfortunes can be obviated by the State, with the memory of its former successful intervention, by bringing to bear upon the disputes between capital and labour the weight of its equitable authority. If such proves to be the outcome, if the conquests of the war—compulsory arbitration and a general minimum wage—are conserved and extended, then the sacrifice will not have been in vain, and the terrible drama that was enacted in France will result for her in an immense social progress.

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