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DEPARTMENT OF OVERSEAS TRADE.

REPORT

ON THE

ECONOMIC AND FINANCIAL  
CONDITIONS

IN

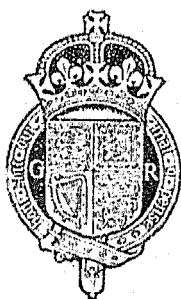
BRAZIL

*Dated September, 1923.*

BY

MR. ERNEST HAMBLOCH,

*Commercial Secretary to His Majesty's Embassy, Rio de Janeiro.*



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# DEPARTMENT OF OVERSEAS TRADE.

## COMMERCIAL REPRESENTATION ABROAD.

To foster British overseas trade, the Department has developed and controls the following Services of Commercial Intelligence Officers:—

### 1. IN THE EMPIRE.

#### *The Trade Commissioner and Imperial Trade Correspondent Services.*

At the present time there are 13 Trade Commissioners' offices. These are situated, four in Canada (Montreal, Toronto, Vancouver, Winnipeg); two in South Africa (Johannesburg, Cape Town); two in Australia (Melbourne, Sydney); two in India (Calcutta and Bombay—to cover also Ceylon); and one each in New Zealand (Wellington), British East Africa (Nairobi), and British West Indies (Trinidad).

The Trade Commissioners in the Dominions have the assistance of Imperial Trade Correspondents at a number of important centres.

In various parts of the Empire in which at present there are no commissioners, there are correspondents with whom the Department deals direct.

### 2. IN FOREIGN COUNTRIES.

#### (a) *The Commercial Diplomatic Service attached to the British Diplomatic Missions.*

This service consists of between thirty and forty posts in all, and the officers of the service are stationed in all the more important foreign markets of the world. The members of the Commercial Diplomatic Service are styled "Commercial Counsellors" in the highest grade, and "Commercial Secretaries" in the three lower grades. They are members of the staff of the British Embassy or Legation in which they serve.

The Commercial Diplomatic Officer has general supervision over the commercial work of the consular officers in his area, and, with the co-operation of these two services, a complete network of Government commercial representatives is thrown over foreign countries.

#### (b) *The British Consular Service.*

This service has been re-organized. Particular attention has been given to the commercial side of consular work.

Members of British firms are urged to call upon the Department's representative abroad when they visit an overseas country. It is also important that they should make a point of their representatives abroad keeping in close touch with the Department's officers.

A handbook giving fuller details of the overseas organization of the Department can be obtained on application at the Department of Overseas Trade, 35, Old Queen Street, S.W.1.

### NOTE.

*It should be understood that the views expressed in annual reports are the views of the officers themselves, and are not necessarily in all respects the views of the Department.*

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#### INTRODUCTORY NOTE.

*Area of Brazil* : 8,524,777 square kilometres, or 3,291,416 square miles.

*Greatest length* : 2,691 miles.

*Seaboard* : 4,060 miles.

*Population* : 31,000,000 inhabitants.

*Language* : Portuguese.

*Weights and measures* : Metric system.

*Other measures* :

1 Alqueire .. .. .	= 6 acres.
1 Arroba .. .. .	= 15 kilos.

*Currency units* : Milréis (1\$000). Conto de réis (1:000\$000).

*Exchange rate* : This is the rate on London in pence per milréis.

Rates on New York, Paris and other financial centres are expressed in terms of the value in milréis of the foreign unit.

*Legislative* : Two Houses of Congress, viz., Chamber of Deputies and Senate.

*Executive Government* : Vested in the President, elected for a period of four years and a Cabinet nominated by him and responsible to him only. Members of the Cabinet are not members of Congress. The Cabinet consists of the following Ministers :—

Justice and Home Affairs.  
Foreign Affairs.  
Finance.  
Traffic and Public Works.  
Agriculture, Industry and Commerce.  
War.  
Marine.

Brazil occupies 33 per cent. of the whole South American sub-continent. It comprises 20 autonomous States and the Federal District, in which is situated the capital of the country, Rio de Janeiro. Each State has its own elected President and Congress. The Federal District is administered by the Prefect (nominated by the President of the Republic) and an elected Municipal Council.

Export taxes are levied by the various States of the Union  
Import Taxes (Customs) are levied by the Federal Government.  
45 per cent. of all the inhabitants of South America are Brazilians.

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# REPORT

## ON THE

# ECONOMIC AND FINANCIAL CONDITIONS IN BRAZIL.

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### I.—GENERAL FINANCIAL AND INDUSTRIAL RETROSPECT.

**Brazilian Finances and Trade.**—The financial situation of Brazil is difficult, even critical. The resources and wisdom of the present Government will be severely taxed to place the country's finances on a sound basis. In spite, however, of this sombre position, the general condition of the country is sound in essence. Local industries are flourishing, and there is little doubt that their expansion is encouraged by low exchange which renders importation difficult. All coffee-growers have done well. Prices in currency have been high. The same applies to sugar. In no cases have the high prices been accompanied by a really corresponding devalorization of the circulating medium. Exports in 1922 exceeded imports by £19,000,000 in spite of low exchange. In other words, the balance in terms of currency is even more favourable.

The existing depression, then, is due purely to financial causes. With the present rate of exchange in the region of sixpence, it is perhaps natural that articles in Brazilian and foreign financial newspapers and reviews should assume an air of pessimism in dealing with the question of Brazilian finances. This attitude is even more comprehensible in the case of foreign companies, especially public utility and railway companies, which have for the most part invested their money here at rates above 12*d.*—in some cases at 16*d.* In such cases even increased earnings in currency do not compensate for the loss on exchange in remitting dividends at 6*d.* At the same time the investor who puts sterling or any other foreign currency into this country must be aware that exchange in Brazil has always fluctuated and that such fluctuations have at times been violent and large.

In writing on the question of capital investments in Brazil (in my last Annual Report\*), I hinted that in my opinion the real policy to be adopted was the purchase of milréis, *i.e.*, of local currency, to be invested in a locally constituted company in this country. That does not imply that the financial and technical administration of the local company should be other than British. But it does imply that the direction of such companies should be centred in Brazil where they would enjoy the benefits of being national companies. Brazil cannot develop as fast as she should without foreign capital, and adequate

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\* Report on the economic and financial conditions in Brazil, dated September, 1922. By Mr. E. Hambloch. To be obtained from H.M. Stationery Office, price 1*s.* 9*d.*, or 1*s.* 10½*d.* post free.

guarantees must be offered for the employment of that capital. But day by day local industrial developments, financed by local capital, are taking place and the habit is growing. Formerly, local capital found its almost exclusive employment in investment in house and landed property. To-day, although such investments are no doubt the principal repository for savings, there exists a large quantity of industrial undertakings financed locally and buying foreign machinery and technical help and advice with purely local capital. The habit of founding national companies is therefore growing, and it is probable that foreign capital will have far fewer troubles to face in the future if it comes into this country as national capital, or becomes "naturalized" by absorption and conversion into currency in a national company.

Except for the matter of importation and foreign commitments—admittedly an important exception—it is really not of very great importance to Brazil itself whether her exchange is at 6*d.* or at 15*d.* Importers of course suffer. The newspapers also suffer, for they too are importers. These two classes, and the foreign investor at a higher rate than 6*d.* (already referred to), are audible. The result is pessimism both in the foreign and the local press. That is quite natural, and it is not to be thought that 6*d.* is a normal or even a beneficial exchange for the country. But it is probable that 18*d.* exchange is far more dangerous to the country. It means, among other things, that local firms over-import for future deliveries, with the result that the rate of exchange swings back and the gradient of decline, always steeper than the rise, becomes even steeper if the Government, as happened in 1921/1922, is committed to a policy of enormous public expenditure, comprising ambitious and costly schemes of drainage near Rio, irrigation works in the north-east, the expropriation of privately-owned railway lines (estimated at over £50,000,000), the Centenary exhibition and celebrations, army and navy expenditure, the engagement of foreign missions for the army and navy, the construction of barracks, post-offices, and other Government buildings, and in the reception of Royalty and foreign missions.

It was therefore not surprising that the rate of exchange fell. What is surprising is that there was no panic. There was apprehension and there were failures. Firms that had ordered goods at 18*d.* exchange, found they could not pay for them at 10*d.* exchange and less, especially in a market which was over-stocked owing to over-importation.

The political disturbance of July, 1922, occurred: but such disturbances have had less effect on local trade than might be generally supposed. The present Government took office on the 15th November, 1922, in most difficult circumstances. Not only was Brazil's foreign and internal credit strained to the uttermost, but the incoming Government was saddled with vast contract responsibilities internally and with large foreign commitments with no immediate increase in public revenue in view.



Among the President's first acts was to alleviate the conditions of the so-called supervision of banks and of insurance companies. Relief under these headings was indeed the only direct act which the Government could perform at all likely to affect the existing financial situation, as that situation was not and is not susceptible to any empiric and extraneous action. The President's next act was to establish a small Government committee, of which three representatives of each House of Congress are members, to prepare the Government's Budget proposals for 1924 and to have them submitted to Congress by the end of May, 1923. Meanwhile the Minister of Finance published a short statement setting forth the financial situation as the present Government had found it. The moral effect was good, since it was felt that the Government was letting the public know the worst, but naturally no actual effect on the financial situation could be produced thereby. Public economy began to be practised. These are small economies, it is true, but in conjunction with many others too numerous to mention, they will help to diminish public expenditure and, above all, the moral effect is good. But the contractual obligations inherited from the last Government have to be met and there has therefore been a steady movement on the part of the Government to see that existing taxes are collected throughout the country. It was discovered, for instance, that in Rio de Janeiro alone there were over 4,000 firms that were not paying the taxes to which they were liable. The state of affairs prevailing in the outlying towns and districts of this vast country can be fairly accurately gauged from this effect. The tax on revenue is also to be collected rigorously. This tax produced 7,376:000\$ in 1920 and 10,157:000\$ in 1921.

In this tax is included the tax on commercial profits which alone, in 1922, produced 7,000:000\$. It will be much larger this year, whether the tax on "signed accounts" be taken as a separate tax or as included in and substituting the tax on commercial profits. Customs dues are now collected on a basis of 60 per cent. gold and 40 per cent. paper, instead of 55 per cent. and 45 per cent. respectively, as heretofore. But diminished importation may prevent any large increase in revenue from this source. Taking the revenue of the Federal Government by States, it will be found that out of 410,000:000\$ collected, São Paulo, Rio Grande do Sul, Pernambuco, Minas Geraes and Bahia (in the order named) contributed 340,000:000\$, or 83 per cent. of the total. If collection be severely applied to all the other States revenue from these sources will undoubtedly increase.

There is of course no doubt that money is "tight." Credit facilities are not easy to obtain locally. But the general situation, let it be repeated, is by no means bad. Besides the commodities—coffee and sugar—already mentioned, cacáo, tobacco and many other products are quoted at high prices. Brazil can soon get over her present difficulties if she practises economy and works

hard as a nation and in her individual life. The trade balance of £19,000,000 in 1922 did not cause a rise in exchange because of the enormous commitments, internal and abroad, of the Brazilian Government.

With increased revenue from taxation, however, and with rigid public economy, the financial situation should improve, and such improvement will not fail to give immediate relief to the country's commercial and industrial activities which are, on the whole, quite sound. But much will depend on the Government having the courage, and being allowed, to carry out a programme of real economy and on its having the foresight to attract foreign capital to the country by offering adequate guarantees for its employment.

**Financial Situation in August, 1923.**—The continued depression of the rate of exchange greatly preoccupied banking and commercial circles. Anxiety on this heading was intensified because, in the normal course of events, at this period of the year, coffee bills should be appearing and the tendency should be for exchange to become firmer. The contrary was the case. It was stated that exporters were holding up bills. The Bank of Brazil endeavoured to hold exchange, apparently in anticipation of the arrival in the market of such bills, and was undoubtedly oversold in the absence of coffee bills. It had recourse to a consortium of all the banks, which agreed to fix exchange at  $5\frac{1}{4}d.$  The result was that all business was paralysed and the consortium was dissolved after having existed for two days. The immediate result was that the milréis then slumped to about  $4\frac{1}{2}d.$ , but subsequently a reaction took place, and exchange remained in the neighbourhood of  $5d.$

Coffee has been, and is being, held up in the interior in pursuance of the policy of the Government to limit the daily entries to Santos and Rio de Janeiro to 35,000 and 12,000 bags respectively, with the object of preventing speculation in coffee and of keeping prices up. It is certain that coffee prices in currency are unduly high. In any case, coffee cannot be held up indefinitely and it is possible that prices will drop. Whether exchange will really improve as a result of coffee shipments remains to be seen. Many other factors have to be considered, and coffee probably plays a smaller part in the question of exchange than is sometimes alleged.

There is a considerable invisible exportation of gold from Brazil annually on the part of foreign colonies domiciled here, especially Italian and Portuguese. There is also the remittance of dividends abroad and there is the not inconsiderable amount (proportionately to the country's available wealth) which Brazilian residents abroad and Brazilian travellers to Europe and elsewhere take out of the country. But the root of the weakness of exchange must be sought in the expenditure and commitments, in the large floating debt and in the increase of the circulating medium during the period of office of the last Government.

The present Government's efforts to put order into public financial administration have resulted in the speedy compilation of returns, and a statement was published in August, 1923, showing that during the first six months of this year the Federal Government has a surplus of 74,684,000\$ over expenditure. This is proof that serious endeavour is being made to put economy into practice and to collect revenue. In foreign trade there is a considerable balance in favour of exports. If the commitments with which the Government were faced were not so heavy, this favourable position would have been reflected in the exchange rate. It is, however, not possible to state whether the present rate of exchange really expresses the correct position of Brazil as regards foreign countries. There is, of course, reason enough for exchange to be low, but whether 5*d.*, 6*d.*, 7*d.* or 8*d.* is the exact expression of the value of Brazilian currency in international finance it is impossible to determine. It may be anticipated that if exchange once starts to "firm up," there may be a sensible rise.

Meanwhile importation is difficult and national industries are in a very flourishing condition. The cost of living has risen, but is not commensurate with the depreciation in exchange.

**Loans.**—In July, 1923, the Brazilian Government advised its diplomatic representatives in London, Paris and Washington, that, whatever guarantee the Government of Amazonas might offer for the purpose of raising a fresh loan, the Federal Government discouraged the idea of such a loan being made, did not authorize any *démarches* in that direction, and would in no case hold itself responsible for any such operation.

On April 22nd, 1922, the State in question had signed a contract with an American group, the J. G. White Engineering Corporation, by which the latter was to raise a loan in favour of the former of 25,000,000 dollars and to underwrite and issue 35,000,000 dollars in State bonds. The syndicate or group was to undertake the amortization and liquidation of all the outstanding loans and debts of the State and to receive in perpetuity some 300,000 or 400,000 square kilometres of land, belonging to the State, to be chosen and worked by the syndicate. Petroleum, minerals, cacao, cotton, sugar, the cattle industry, and timber, were to be developed by the syndicate, which was to be appointed the financial agent of the State and was to establish banks in *Manãos* and other places. These banks were to operate, *inter alia*, as the holders of all the State funds and revenue.

The outstanding debts (foreign, internal and floating) of the Amazon State Government amount to approximately £5,350,000. It is clear, therefore, that the Federal Government has been well advised in discouraging the project for any further loans and in repudiating any future responsibility for such loans. This is a case where the President has shown sound judgment and a proper appreciation of the claims of the existing creditors of the State of Amazonas.

As was pointed out in the last annual report, the Federal Government has no legal responsibility for any loans contracted by State Governments in Brazil.

**Budget Proposals for 1924.**—The Budget proposals were submitted to Congress on May 31st, 1923. The proposals are tabulated in Appendix III, and a comparison of estimates for the years 1920, 1921, 1922 and 1923 is given in Appendix II. They constitute an honest attempt to estimate public revenue and expenditure. In past Budget proposals, and in the Laws themselves (since there has been practically no real discussion in Congress of the proposals, which have become law with the addition of innumerable further commitments) it has been the practice to estimate revenue in the most optimistic manner.

The present Government has, however, based its revenue estimates on actual revenue obtained during the past three years and not—as in the past—on previously estimated revenue which never reached the amount estimated. With the best intentions, however, some documents which should by law have accompanied the proposals had to be omitted. This was not the fault of the present Government, whose successful efforts to present the Budget proposals at such an early date are most praiseworthy. The documents which were not available when the Minister of Finance prepared his proposals were: the balance-sheet of the last financial year, a complete report of all the items of expenditure allocated, and a list of the headings under which payment for “matériel” had been made in advance.

What may be taken as certain is that the deficit as shown is an honestly estimated deficit. It is a large sum; but this, again, is not the fault of the present Government administration, which inherited gigantic obligations and commitments. The Minister of Finance has included in the estimated expenditure a number of long-outstanding accounts and payments, as well as an estimated amount for supplementary credits.

In presenting his proposals the Minister wrote:—

“A nation which seriously intends to place its finances in order cannot adopt methods of self-deception; its first duty is seriously to face facts as they are, fixing such expenditure as is deemed indispensable, calculating revenue with every reasonable care and basing such calculations on previous receipts. If from such an examination it is established that the expenditure cannot be covered by the probable revenue, it is essential that such position of deficit be proclaimed, in order that the national Congress, as the supreme power, decide what the Executive Government should do in such emergency: reduce expenditure, give it fresh sources of revenue or authorize credit operations.

“The essential thing is to face the problem squarely and not to deceive the nation with calculations which have no relation to the truth. Unless such a policy be adopted, the Budget Law, which should be the cornerstone of good finances, becomes a fraud, lowering the prestige of the public authorities in the eyes of the nation, which contributes or pays to receive orderly and sober service.”

As regards the budgeted deficit, the Minister is of opinion that the situation is by no means without remedy. Congress can vote

a reduction in expenditure, while the Government can, as it is trying to do, reduce expenditure and take measures for the strict collection of existing taxes. He points out that "the present organization of expenditure cannot easily be met from the present sources of revenue," but thinks it is quite possible to place Brazilian finances on a normal footing. The machinery in existence—Accountancy Code, Central Accountancy Department of the Republic, and the Government Audit Department—are, in his opinion, ample for that purpose.

It is interesting to note that for the period January to March, 1924, there is a surplus of revenue over expenditure of 4,204:000\$. As Wileman's *Brazilian Review* states, "that is the most eloquent proof of the present Government's untiring efforts to reconstruct the country's finances."

The estimated revenue for 1923 shows the following amounts in excess of those estimated for 1924:—

495,720\$ gold.

45,929:000\$ paper.

The reason for this is that, as already explained, the average revenue yield actually obtained in the past three years has been taken as the basis for calculating the estimates for 1924. As the amounts estimated for previous years have not been reached, there is clearly no reason to continue to base calculations on the amounts estimated, which have as a matter of fact never been reached, more especially in cases in which taxation has not been increased. For instance, Extraordinary Revenue is estimated at only 24,541:000\$ for 1924 as compared with 60,481:000\$ for 1923, because 2 per cent. (=2,000:000\$) on the amounts placed at the disposal of the Rediscount Department of the Bank of Brazil have not been included in the 1924 estimates, since that Department has been abolished; and 15,000:000\$, representing an amount loaned to the Bank of Brazil, and 15,000:000\$ issue of bonds (internal) for the construction of railways have also not been included, as they represent purely accountancy operations.

The payment of import taxes in the proportion of 60 per cent. gold, instead of 55 per cent., accounts for an increase (gold) estimated at 3,000:000\$.\*

A new item has been introduced, viz., tax on salaries, estimated at 10,000:000\$.

The Budget Law for 1923 authorized the Executive Government to impose a proportional stamp tax on mercantile sales, at usance or at sight, effected within Brazil, and also to impose a stamp tax on general revenue. These items therefore appear in the estimates for 1924.

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\* NOTE.—By the Budget Law for 1923 the gold quota payable for customs dues on imported goods was raised from 55 per cent. to 60 per cent. This increase became operative on the 4th April, 1923, and importers took every advantage of the delay thus allowed, since the increased percentage could by law have been levied as from the 1st January, 1923. It is probable, therefore, that the total importation for the year 1923 will not—especially in view of the continued low exchange rate—be as high as might be anticipated from the import figures for the first quarter of the year.

The taxes on net profits of factories and of merchant houses are also maintained, but it is suggested that Congress should again examine these taxes with a view to conciliating the interests of the Treasury and those of trade and industry.

The estimated expenditure for 1924 shows the following amounts in excess of those estimated for 1923 :—

	89,800:000 \$ gold	
	218,327:000 \$ paper;	
		Milréis (paper).
		1923.                      1924.
<i>Ministry of Justice.</i> —		
Federal Law Courts administration .. .. .	2,900:000 \$	3,541:000 \$
Public Health Department .. .. .	23,526:000 \$	24,953:000 \$
Percentage on salaries .. .. .	—	9,844:000 \$

*Ministry of Foreign Affairs.*—Increases are due to improvement in "matériel" and to increases in salaries as authorized by Congress.

*Ministry of Marine.*—"Matériel" accounts for increases, owing to the rise in prices, as also the reorganization of various services such as aerial coastal defence, lighthouses, etc., and increases in salaries.

*Ministry of War.*—*Mutatis mutandis* the same reasons as for increases in Ministry of Marine.

*Ministry of Agriculture. Ministry of Public Works.*—Salaries increased, as authorized by Congress, while outstanding accounts for past years have also been included in the 1924 estimates in accordance with the dispositions of the Accountancy Code.

*Ministry of Finance.*—Foreign debt service shows an increase of 410:960 \$ (gold); while the internal debt service shows an increase of 8,254:065 \$ (paper).

The amount set aside for interest on deposits in the Savings Bank and "Mont de Piété" has been increased by more than 4,000:000 \$, as the original amounts voted have proved insufficient for this service.

The Public Audit Department (Tribunal de Contas) has been endowed with 48:400 \$ (gold) and an increase of 815:650 \$ (paper). The former sum is for the installation of a branch of the department in London and the latter amount for the creation of branches of the department in all the States of the Union, as well as for improvement of "matériel."

A Central Accountancy Department has been created for the purpose of reorganizing the Federal public accounts. The sum of 617:500 \$ (paper) has been allocated to this department.

The budgeted expenditure of the Mint shows an increase of 2,121:592 \$ (paper): but this includes 1,500:000 \$ which, by a strange anomaly, had appeared under other headings, though the services for which this amount is allocated are actually a charge on the Mint and have therefore been included now under this heading. The net increase is accounted for by increases in salaries and "matériel" for the manufacture of notes. Other increases in this Ministry are due to better distribution of service, while in many cases reductions have been effected.

The amount allocated for inspection of the various departments of the Ministry has been raised from 500:000 \$ (paper) to 1,000:000 \$ (paper).

A new amount of 5,000:000\$ (paper) has been set aside for payment of claims against the Federal Government. Of this amount 2,000:000\$ are for account of claims by ex-employees of the Union for pensions, etc.

Increase in salaries to personnel of the Ministry accounts for 5,600:000\$ (paper).

Another new item has also been included, viz., "supplementary credits" amounting to 500:000\$ (gold) and 6,000:000\$ (paper), with the intention of providing greater regularity in public accounts for any supplementary credits which Congress may vote. The usual formalities will have to be observed to obtain money under this credit.

**Bank of Brazil.**—By a contract dated April 24th, 1923, and under legislative authorization for that purpose, the Federal Government authorized the Bank of Brazil to undertake the functions of an Issuing Bank for a period of 50 years. The issue of currency is therefore no longer an attribute of the Federal Government, but of the Bank of Brazil, which to issue notes must possess two definite assets:—(1) Gold corresponding to one-third of the issue to be made, viz., gold at the fixed price of 20:000\$ per £1 (*i.e.*, exchange at 12*d.*); (2) Bills of the soundest commercial houses in Brazil.

For instance, for the Bank to issue notes to the value of 60:000\$, it is essential that it possess, free and unencumbered in its strong-room: £1,000 of gold (which at 12*d.* exchange corresponds to 20:000\$), viz., a third of the proposed issue, and 40:000\$ in solid commercial bills bearing the signature of two business houses.

With such checks, it is maintained that the Bank will never be able to issue any excess of paper-money. For the purpose of the gold reserve for the issue to be made, the value of the pound sterling is fixed at 20\$000, and the Bank could, it is maintained, have no interest in buying sovereigns at over 40\$000 (which is their present value) to issue against them at 20\$000.

As regards the reserves in solid commercial bills, it is argued that if the banks have them in their portfolios and take them to the Issuing Bank, endorsed, to obtain money on them, it is a sign that the commercial operations which such bills represent are at such a state of development in the country that, having already absorbed the money they represent from the said banks, Brazilian crops and exportation require, provisionally, the use of larger resources. The Issuing Bank, by virtue of these positive and certain guarantees, furnishes such resources and, once the necessity has passed, withdraws the notes issued which will then cease to circulate.

In regard to the exchange of notes for gold, the Director of the Bank made the following statement:—

"The reserves against issues are substantially destined for this purpose: they are always liable to this contingency in all parts of the world. The prestige of the convertible bank-note derives from this fact. Public

authorities, however, surround such convertibility with various precautionary measures which give great security to the issuing banks. In the case of Brazil, and in accordance with the contract between the Bank of Brazil and the Government, the notes issued by the Bank will be legal tender, and cannot be converted into gold at the demand of the holder unless the following three conditions of guarantee for the country exist *simultaneously* :—

- “ (1) The official rate of 12d., or more, has been maintained without interruption for a period of not less than 3 years.
- “ (2) The gold reserves of the Bank represent not less than 60 per cent. of the value of the notes issued.
- “ (3) The Government have declared, by decree, that the economic conditions of the country permit the inauguration of the régime of convertibility, after an economic enquiry which, at the discretion of the Government, justifies such inauguration.

“ The concatenation of such circumstances will serve to demonstrate that Brazil has become a creditor-country in international commerce and not a debtor-country, as at present.”

The Bank of Brazil is granted many favours in the new contract with the Government. It is to have direct influence in the administration of the future National Mortgage Bank, the President of which is to be the President of the Bank of Brazil. The former bank is to be autonomous, but it will be backed by the Bank of Brazil, which is to receive half the net profits of the National Mortgage Bank, such profits to be placed to the reserve fund of the Bank of Brazil. The Agricultural portfolio of the Bank of Brazil is to be abolished (it never really operated), but the Bank of Brazil will, it is claimed, by its connection with the National Mortgage Bank, benefit even more than it might have done from the operation of this portfolio.

The Agricultural portfolio which had previously been organized in the Bank of Brazil had a capital of 400,000,000\$ in Federal bonds (apolicies) furnished to it by the Treasury. The creation of the Issuing Bank made it clear that such a portfolio would have to be abolished, more especially as the circulation of a large quantity of “apolicies” was deemed inexpedient. It was therefore decided that the Bank of Brazil should, in compensation, found the National Mortgage Bank.

**National Mortgage Bank.**—Generally speaking, the National Mortgage Bank, is, as explained by the Director of the Bank of Brazil, to be established as follows :—

It will be founded on :—

- (1) Real credit of agriculturalists and industrialists.
- (2) The credit of the Brazilian Treasury.

It will have no actual capital, at least there will be no shareholders. It will operate much in the same way as the Argentine Mortgage Bank (Banco Hypothecario Argentina), the agriculturalist or the industrialist hypothecating his property to the Bank and receiving in mortgage-scrip half the real value of the property. Interest and amortization of such scrip will be guaranteed by the Brazilian Treasury. Mortgages are to be for long periods at interest always less than the current rate.



Advances against mortgages will also be made in cash, but only to small agriculturalists and for periods of less than one year. To meet such cash requirements the Bank will have 50,000:000\$ placed at its disposal by the Government in bonds of the Federal public debt, and these will be gradually placed on the market by the Bank.

Mortgage-scrip may be issued up to a maximum of 1,000,000:000\$.

The Bank will operate on the following :—

- (1) Landed agricultural and pastoral properties which are being worked.
- (2) Property and factories in full operation.
- (3) Railways in full operation and showing an industrial profit.
- (4) City and suburban properties for the construction of hygienic dwellings.
- (5) Iron ore deposits having a percentage of metal higher than 50 per cent., for the foundation of blast-furnaces and iron and steel rolling-mills, and for iron and steel works for the improvement of and for addition to their machinery.

The Bank will be prohibited from making issues on :—

- (1) Mines and quarries.
- (2) Indivisible property, except with the consent of all the co-proprietors.
- (3) Property which does not produce a certain and durable income.
- (4) Waste lands, whatever their situation and value.

In the case of non-payment of his debt by the mortgager the property mortgaged will be sold immediately in public auction, *i.e.*, the Bank will not foreclose.

The Bank will exercise the right of seeing that the money lent be applied exclusively in the property mortgaged.

Mortgage-scrip will be issued in series of 50,000:000\$ each, and no other series will be issued until the previous series be quoted on the market at over 80 per cent. of its nominal value.

**Banks.**—On December 31st, 1922, the banks in Brazil (national and foreign) had cash in their safes amounting to 1,011,050:000\$ against sight deposits of 2,736,619:000\$, the proportion held by foreign banks alone being 536,495:000\$ against 746,810:000\$.

**Exchange.**—If the years 1891 to 1923 be considered (ignoring the years 1889 and 1890, when the rate of exchange was really an artificial and arbitrary rate fixed by the newly-formed Republican Government at  $27d.$ , which dropped to  $14\text{-}29/32d.$  in 1891 and to  $12\text{-}1/32d.$  in 1892) it will be found that Brazil's average rate of exchange is a fraction over  $12d.$ , *i.e.*, that £1 is equivalent to about 20\$. Recent exchange averages are as follows :—

	Highest.	Lowest.
1920 .. .. .	$18\frac{1}{2}d.$	$10\frac{1}{2}d.$
1921 .. .. .	$9\frac{1}{2}d.$	$7\frac{1}{2}d.$
1922 .. .. .	$7\frac{1}{2}d.$	$6\frac{1}{2}d.$
1923 .. .. .	$5\frac{1}{2}d.$	$5\frac{1}{2}d.$

(including August).

**Paper Money in Circulation.**—This was greatly increased by the last Government, 1918-1922, as the following table will show :—

	Milréis.
1914 .. .. .	980,000:000
1919 .. .. .	1,750,000:000
1922 .. .. .	2,220,000:000

**Gold Stocks.**—The amount of gold in possession of the Federal Government on May 31st, 1923, was as follows :—

Gold coin .. .. .	Rs. 58,986:034	\$306
Gold bars .. .. .	27,886:426	\$484
Convertible notes .. .. .	5,528:400	\$420
With London agents .. .. .	1,350:281	\$111
	<hr/>	
Amount at 30th June, 1922 .. .. .	Rs. 93,751:142	\$321
	85,724:930	\$945
	<hr/>	
Increase in 11 months .. .. .	Rs. 8,026:211	\$376

**British Capital in Brazil.**—The Editor of *Wileman's Brazilian Review* in a carefully compiled analysis, in the issue of June 27th, 1923, estimates such capital at £270,000,000 (in round figures), as follows :—

	£	£	£ in circulation.
Loans to Federal Government .. .. .	111,883,036		
„ State Governments .. .. .	14,688,146		
„ Municipalities .. .. .	14,186,040		
	<hr/>	140,757,222	
Industrial capital .. .. .		113,366,544	
		<hr/>	254,123,766
Estimate of capital actually engaged in Brazil by five British banks .. .. .			2,970,000
Ditto, by 14 British insurance companies .. .. .			667,000
Private companies, capital in Brazilian enterprises, etc., etc. .. .. .			10,000,000
			<hr/>
Total .. .. .			£267,760,766

This capital far exceeds that engaged in Brazil by all the other countries of the world put together.

Railway development, municipal improvements, lighting, port works, power-supply, drainage, mining, every kind of public service and many branches of agricultural and industrial development are included in the capital under the heading of “industrial capital.”

The average rate of interest on all British capital employed in Brazil is, according to Mr. Wileman's reliable estimate, only 4.1 per cent. With a higher exchange this return should be much better.

## II.—NATURAL RESOURCES AND ECONOMIC DEVELOPMENT.

### AGRICULTURE.

#### Production of the various States of Brazil—

*State of Para.*—Area, 442,200 sq. miles.

*State of Amazonas.*—Area, 643,460 sq. miles.

Principal exports: rubber and nuts, tobacco and cocoa, but the soil and climate admit of all kinds of agriculture. Cattle are reared on the Island of Marajó, in the estuary of the Amazon. Marajó is about the size of Belgium. The basin of the Amazon River comprises nearly 3,000,000 square miles. In the lower reaches the River measures 60 miles in width, and 600 miles above Para it measures over 1 mile in width. Fish is very plentiful in the River. There are enormous quantities of timber. The principal ports are Pará and Manaós (Amazonas).

*Acre Territory (Federal).*—Area, 54,000 sq. miles.

*State of Maranhão.*—Area, 172,000 sq. miles. Products: sugar, rubber, cotton, nuts, cattle-raising. Port: São Luiz do Maranhão.

*State of Piauhy.*—Area 90,000 sq. miles. Port: Tutoya (an island), in the estuary of the River Parnahyba, admits ocean-going steamers. There is also a small port at Amarração, but its maximum draught is only 10 feet. Chief products: carnaúba wax, rubber, rice and sugar, cotton, nuts. The cattle industry is important. The capital is Therezina.

*State of Ceará.*—Area 40,200 sq. miles. Droughts are common, chiefly owing to the narrow catchment area for rainfall. Cattle are raised, and cotton, carnaúba wax, maniçoba rubber, coffee, sugar and tobacco are cultivated. The soil is rich and, with irrigation, should yield good results. The port is Fortaleza.

*State of Rio Grande do Norte.*—Area, 16,000 sq. miles. Chief industries: salt (at Mossoró), supplied all over Brazil. Cattle-breeding is important. Long-staple cotton is grown. Port: Natal, connected by rail (The Great Western of Brazil Railway) with Pernambuco.

*State of Parahyba.*—Area, 25,000 sq. miles. The chief product is sugar; cotton, nuts coffee, and other crops are also grown. Hides are exported. Port: Parahyba do Norte.

*State of Pernambuco.*—Area, 49,560 sq. miles. The cotton, sugar and cattle industries are the most important, sugar and hides being exported from the port of Recife, which is the capital of the State. Coffee is also grown.

*State of Alagoás.*—Area, 10,000 sq. miles. Chief products sugar, cotton and nuts. Port: Jaraguá, which is the port of the capital, Maceió. The southern boundary of the State is the River São Francisco which divides it from the State of Sergipe. It is in this river that the famous falls of Paulo Affonso occur

The river is navigable from its mouth (ports : Penedo and Propriá) to near the falls, which occur some 300 kilometres from the mouth. Power from the falls is used to run a small cotton-thread mill at Pedra, some 50 kilometres from the falls.

*State of Sergipe.*—Area, 15,000 sq. miles. Sugar and cotton are cultivated. Aracajú is the capital, a small port in the River Cotinguiba, the bar of which is too difficult to allow of the capital becoming a port. Exportation is by rail to Bahia.

*State of Bahia.*—Area, 312,500 sq. miles. There are large mineral deposits in the State. Agriculture is the main industry, especially cacáo (cocoa) exported from Bahia and Ilhéos, and tobacco, coffee, hides, oranges, nuts, fibres and sugar are also shipped from Bahia.

*State of Espirito Santo.*—Area, 17,300 sq. miles. Chief products coffee, sugar and cacáo. Port : Victoria. There is much mineral wealth ; but communications are difficult.

*State of Rio de Janeiro.*—Area, 26,630 sq. miles. Contains within its borders the "Federal District of Rio de Janeiro," viz., the Capital of the Federal Union, which comprises an area of some 500 square miles. The chief industries are sugar and coffee growing. The centre of the sugar zone is Campos. The capital of the State is Nictheroy, on the Rio de Janeiro bay.

*State of Minas Geraes.*—Area, 221,894 sq. miles. No seaboard. Ports : Rio de Janeiro and, to a lesser extent, Santos (São Paulo) and Victoria (Espirito Santo). Coffee and agriculture of all kinds, mining, cattle and derived industries, are the principal products ; potatoes, rice, and sugar are grown. The most important gold-mining companies are British, viz., the St. John del Rey Mining Company, Limited, founded in 1830, which has large properties at Morro Velho, and the Ouro Preto Gold Mining Company, Limited, founded in 1880 (the working of this mine by English enterprise dates from a much earlier period). Diamonds and precious stones are worked in the State. Iron ore is dealt with elsewhere in this report. The cotton textile industry is well developed.

*State of São Paulo.*—Area, 112,307, sq. miles. Port : Santos. Railway and road communication is good. Chief agricultural products : coffee, cotton, sugar, vines and rice. The cattle and meat-packing industry is important. There are four large freezing plants. It is estimated that there are over 826,000,000 coffee trees planted in this State yielding an annual average production of over 10,000,000 bags of coffee (of 60 kilos. each bag). This annual average reached 16,000,000 bags in the period 1905-1910. Cattle farming occupies 20 per cent. of the total area of the State. The value of agricultural properties is estimated at nearly 2,000,000,000\$ and some 700,000 workers are engaged thereon. Local industries are numerous and thriving, the principal being textiles, boots and shoes, hats, beverages, matches,

earthenware and glassware. The growing importance of industries in São Paulo is clearly indicated by the following table, showing the value of industrial production in recent years:—

1900	..	..	..	..	..	..	67,752:000\$
1905	..	..	..	..	..	..	110,290:000\$
1910	..	..	..	..	..	..	189,370,000\$
1915	..	..	..	..	..	..	274,147:000\$
1920	..	..	..	..	..	..	795,915:000\$
1921	..	..	..	..	..	..	804,378:000\$

There are over 50 cotton mills in the State, some 50 large boot factories, 25 hat factories, 17 glassware, 4 earthenware, 6 paper and 6 match factories. The capital engaged in industrial enterprise is approximately 500,000:000\$, the value of the annual production being about 1,000,000:000\$.

*State of Paraná.*—Area, 73,200 sq. miles. The principal industry is the growing and production of Brazilian tea (Herva matte), which is exported in large quantities, especially to the Argentine and Uruguay, where it is much used in the camps in the interior. Lumber is plentiful, especially pine, which is exported in increasing quantities. There are large Polish settlements around Curitiba, the capital of the State, the ports of which are Paranaguá and Antonina. Wheat and potatoes are grown.

*State of Santa Catharina.*—Area, 28,600 sq. miles. Means of communication are wanted to develop the agricultural resources of this State. There are large German settlements. The ports are São Francisco do Sul and Florianopolis. Wheat, rice, potatoes, oranges, vines and tobacco are grown. Herva matte and timber are the principal products exported. Coal is mined: the State exported 30,000 tons in 1912.

*State of Rio Grande do Sul.*—Area, 92,355 sq. miles. Agriculture and cattle-breeding are the principal industries. The principal port is that of Rio Grande, but Porte Alegre, the capital and largest industrial centre, is being improved as regards port equipment. The exportation of hides is important. Coal is found and worked. Wheat, tobacco, rice, potatoes and vines are grown.

*State of Matto Grosso.*—Area, 530,000 sq. miles. Ports: Corumbá, on the River Paraguay, and the capital, Cuyabá (less accessible), on the River Cuyabá, a tributary of the Paraguay. There are vast camps in the whole of this territory, which is well watered, and innumerable cattle, the raising of which forms the principal industry. Herva matte and rubber are grown. The soil is fertile and all kinds of agricultural produce can be grown. There are vast timber and mineral resources awaiting development.

*State of Goyaz.*—Area, 300,000 sq. miles. Capital, Goyaz. Railway connection is proceeding towards São Paulo and will help to develop the large resources of the State, which are similar to those of Matto Grosso. Cattle-raising and tobacco at present constitute the principal industries.

*Note.*—Indian corn and beans are grown throughout Brazil.

**Coffee.**—Thanks largely to the valorization scheme, of which particulars were given in last year's report, coffee prices have continued firm and, owing to the low exchange rate prevailing, have been high in terms of local currency.

In March, 1921, type 4 was quoted at about 60\$ per bag.

“ “ 1922 “ “ “ “ “ “ 106\$ “ “

The average price in 1921 was 82\$400 per bag, and in 1922 118\$700 per bag. The coffee-loan bonds reached £110 in London in 1923.

There is reason to believe that permanent benefit will accrue to the Brazilian coffee industry by the Government scheme of valorization. Warehouses are now practically complete at various important centres in the State of São Paulo for the storage of coffee, the object being to prevent accumulation at the ports of shipment, Santos and Rio de Janeiro.

In June, 1923, there was a fall of prices in Santos and, to a lesser extent, at Rio de Janeiro, and some panic occurred; but that state of affairs is generally believed to have been due to speculative manipulations. Farmers, at any rate, have all obtained good and very remunerative prices for their crops. The following semi-official communiqué was published in the “*Jornal do Commercio*” on June 28th, 1923:—

“The disturbances recently caused in the coffee market by the action of speculators is well known. The coffee campaign of 1923-24 is now beginning with the arrival of this commodity at the ports of exportation. For this purpose the Government, in virtue of Decree No. 4548 of the 19th June, 1922, intends to organise at once the Institute of Permanent Protection of Coffee, equipping this institution with all the means necessary to ensure normal market conditions. As, moreover, regularity of supply is one of the fundamental bases of such protection, the daily entrance of coffee will be fixed at 35,000 bags in Santos and 12,000 bags in Rio de Janeiro. There is no doubt whatever that as a result of the adoption of such measures against the manoeuvres of speculators and by regulating arrivals of coffee, complete tranquillity will be afforded to all classes interested.”

In the Decree referred to, it is established that the permanent protection of coffee shall consist of the following measures:—

- (1) Loans to interested parties at low rates of interest against coffee stored in State or Federal Government warehouses.
- (2) The purchase of coffee to be withdrawn from the market when the Board of the Institute consider such a measure to be necessary to establish regularity in the supply of the product.
- (3) Propaganda with a view to increasing the consumption.

The fund for such permanent protection of coffee is to be 300,000,000\$.

A Decree was published by the Government of the State of São Paulo (July 4th, 1923) modifying the regulations governing the official coffee Exchange in Santos. This measure was passed with a view to checking speculation.

The position at July 15th, 1923, was as follows :—

*World's visible supply :—*

	Bags of 60 kilos.
June 30th, 1918 .. .. .	11,702,000
June 30th, 1919 .. .. .	10,336,000
June 30th, 1921 .. .. .	8,700,000
June 30th, 1922 .. .. .	8,639,000
June 30th, 1923 .. .. .	5,340,000

Bags of 60 kilos.

Year ending—	Consumption in Europe and U.S.A.	Consumption in other parts of the world.	World's consumption.
June 30th, 1921 .. .. .	15,530,000	1,270,000	16,800,000
June 30th, 1922 .. .. .	18,487,000	765,000	19,252,000
June 30th, 1923 .. .. .	18,943,000	800,000	19,743,000

*Estimated world's supply and consumption, 1923-1924 :—*

	Bags of 60 kilos.
Visible supply June 30th, 1923 .. .. .	5,340,000
Crop at Santos .. .. .	13,000,000
"    Rio .. .. .	3,500,000
"    Bahia and Victoria .. .. .	1,000,000
"    in other countries .. .. .	6,000,000

Total visible supply 1923-24 .. .. .	28,840,000
Estimated consumption 1923-24 .. .. .	20,000,000

Estimated visible supply June 30th, 1924 8,840,000

*Estimate for 1924-1925 crop—Rio and Santos :—* 10,000,000 bags.

*Area under cultivation :—*

State.	Square kilometres.
São Paulo .. .. .	12,800
Minas Geraes .. .. .	3,700
Rio de Janeiro .. .. .	1,910
Espirito Santo .. .. .	876
Bahia .. .. .	480
Pernambuco .. .. .	271
Paraná .. .. .	190
Ceará .. .. .	100
Parahyba .. .. .	96
Santa Catharina .. .. .	15
Alagoas .. .. .	6
Maranhão .. .. .	5
Total .. .. .	20,449

= 5,000,000 acres.

But fresh areas have been placed under cultivation since the above official census was issued.

**Cotton.**—Attention is now being devoted to the classification of cotton in accordance with the classification standards of foreign markets, especially Liverpool. Cotton classifiers (official) are now to be established at Maranhão, Ceará and Pernambuco (at the latter places they are to be British), while there is an official cotton classifier (also British) in São Paulo.

The cotton "stations," situated at present in the towns, are to be closed, and it is understood that they are to be established in the zones where they can be of practical use.

Hitherto, Brazilian cotton for local consumption has generally been classified with reference to the district of its production. This is now recognised as useless, at any rate for export purposes, and 5 types are now to be created, viz. :—

Type 1	..	..	..	..	Fully good middling.
" 3	..	..	..	..	Barely good middling.
" 5	..	..	..	..	Middling.
" 7	..	..	..	..	Low middling.
" 9	..	..	..	..	Good ordinary.

Local types may be divided into two classes :—

- (1) Cotton of fibres of more than 30 millimetres, viz., " Seridó " and " Sertão."
- (2) Cotton of fibres of less than 30 millimetres, viz., " Mattos," " Paraense," " Toda Sorte," " Dóres," " Itabaiana " and " Paulista."

To improve Brazilian cotton for the market, it is essential that the American saw-gin be substituted by the British roller-gin. Owing to the fact that about 95 per cent. of the gins in this country are American, it will be difficult, no doubt, to bring this about, but no effort should be spared.

Bad ginning and cleaning has in the past been responsible for the low quotations given to Brazilian cotton. The Cotton Service of the Ministry of Agriculture is actively engaged in trying to remedy these defects by distributing seeds, by instructions to planters and by various other means. There has been a decline in the export of cotton in the first six months of 1923, viz., 5,555 tons against 10,928 in the equivalent period of 1922. Brazil's yield of cotton amounts to only 5 per cent. of the world's output and Great Britain is the largest buyer thereof.

At the Cotton Conference held at Rio de Janeiro in 1922, the following resolutions were passed :—

- (1) To destroy all crynogenic diseases of the cotton tree.
- (2) To destroy any pernicious insects attacking this tree and to invite Brazil and other nations to wage a severe campaign against the pink boll worm and the " coruquerê "; furthermore, to advise farmers to follow modern methods of planting, insect-killing, cotton-ginning, etc.
- (3) To encourage co-operation among planters, for the purpose of gathering crops more effectively, warehousing them properly, and methodical planting of trees liable to be attacked by the pink boll worm.
- (4) To examine the problem of limiting the ports at which Brazilian cotton can be exported.
- (5) To request the Government to put up special stations for the cleaning of cotton in the zones of production.

The delegates at the conference stated that if Brazil would grow cotton on a large scale, Great Britain could import over 1,000,000 bales annually, or (say) £20,000,000 worth of cotton. Statistics relating to the exportation of Brazilian cotton will be found in Appendix V, Table E.



Exportation in the past has been as follows :—

Year.	Metric tons.	Value in milréis.	Average value per kilo.
1880 .. ..	11,360	5,186:700	\$475
1884 .. ..	32,690	12,738:400	\$390
1916 .. ..	1,070	2,400:000	2\$240
1917 .. ..	5,940	15,090:600	2\$540
1918 .. ..	2,595	9,700:000	3\$736
1919 .. ..	12,155	36,708:400	3\$020

Taking periods of 5 years, the following results are obtained :

	Average value per kilo.
1901-1905 .. ..	\$860
1906-1910 .. ..	\$930
1911-1915 .. ..	\$944
1916-1920 .. ..	3\$113

The Brazilian crop for the year 1922-1923 is estimated at 119,870 metric tons in an area under cultivation of 6,119 sq. kilometres.

The difficulty of expanding the production of cotton in Brazil would appear to be primarily lack of capital and labour. But it is thought that labour would be forthcoming if capital were attracted. To attract capital from England, it is essential that the Brazilian Government should find some means of settling various outstanding grievances alluded to elsewhere in this report. It was reported in June, 1923, that a company was to be organized in England, with a capital of £1,000,000, to develop cotton production in Brazil.

The present yield of cotton fibre per hectare (a little more than 2 acres) is estimated at 400 kilos. in Brazil, at 300 in Egypt, at 200 in the U.S.A., and at 100 in India, while Brazil's average total yield is about 500,000 bales of 225 kilos. each, or 2 per cent. only of the world's production.

There are three essentials to development of foreign sales of Brazilian cotton :—seed selection, proper classification, and good baling.

*Rio São Francisco*—Schemes are on foot to develop this region, and French cotton experts are now (August, 1923) on their way to investigate the zone.

The River São Francisco is one of the largest in South America, and some information concerning the river and the schemes referred to will be found in Appendix IX.

**Sugar.**—The following is an official estimate (comparative) of the crop in the various States of the Union :—

State.	1922. Tons.	1923. Tons.
Pernambuco .. .. .	246,000	171,000
Minas Geraes .. .. .	186,330	148,031
Rio de Janeiro .. .. .	95,401	77,737
Alagoas .. .. .	70,181	66,000
São Paulo .. .. .	39,246	45,000
Sergipe .. .. .	36,000	42,000
Bahia .. .. .	10,321	30,000
Santa Catharina .. .. .	14,000	13,570
Parahyba .. .. .	6,772	5,424
Ceará .. .. .	4,239	4,327
Matto Grosso .. .. .	1,395	1,390
Pará .. .. .	319	722
Amazonas .. .. .	66	80
Total .. .. .	710,270	605,281

The exportation of sugar from Brazil had declined considerably since 1884, but in recent years has begun to increase again. The following figures demonstrate this:—

	Annual average.	Tons.
1880-1884 .. .. .	.. .. .	226,500
1901-1905 .. .. .	.. .. .	78,280
1906-1910 .. .. .	.. .. .	51,240
1911-1915 .. .. .	.. .. .	27,480
1916-1920 .. .. .	.. .. .	97,330
1921 .. .. .	.. .. .	172,090
1922 .. .. .	.. .. .	252,110

According to recent estimates, the number of sugar factories in Brazil is 200, with an annual average production of 480,000 tons, valued at 324,000,000\$ (say £10,000,000). Home consumption accounts for about 350,000 tons annually.

The Brazilian sugar crop for 1923-1924 has been officially estimated at 10,673,500 bags of 60 kilos. each, the principal producing States being Pernambuco (3,000,000 bags), Minas Geraes (2,800,000 bags) and Rio de Janeiro (1,200,000 bags).

**Wheat.**—The Brazilian wheat crop for 1922-1923 has been officially estimated at 79,574 tons, viz., 76,625 tons in Rio Grande do Sul and the rest in Paraná and Santa Catharina. This is a reduction of 50 per cent. as compared with the 1921-1922 crop.

**Tobacco.**—The following table is based on statistics furnished by H.M. Consul at Bahia. German ports have recovered a large measure of the trade done in pre-war years, but French and Spanish ports now figure as large buyers owing to the fact that the Tobacco Leasing Company of Madrid and the French Régie are now making direct purchases instead of relying on Bremen and Hamburg merchants for their supplies.

## BALES OF TOBACCO SHIPPED FROM BAHIA.

To	Average year 1910-14.	Average Year 1915-18.	1919.	1920.	1921.	1922.
Amsterdam ..	1,000	47,300	89,700	19,300	42,400	20,300
Rotterdam ..	—	—	17,200	8,800	11,600	12,000
Bremen ..	102,500	—	16,800	28,900	60,800	81,500
Hamburg ..	140,100	—	13,000	50,300	83,900	76,400
Antwerp ..	500	—	68,600	13,900	8,400	9,700
Bordeaux ..	—	34,100	16,500	31,500	30,000	12,900
Havre ..	—	26,700	109,800	17,000	40,000	29,800
Marseilles ..	—	16,400	20,600	—	—	—
Cadiz ..	—	40,300	9,500	—	—	15,500
Santander ..	—	6,200	18,800	49,000	16,700	60,400
Genoa ..	—	3,200	38,700	15,200	8,300	5,200
Liverpool ..	4,100	2,600	11,600	150	400	—
London ..	300	900	3,900	80	300	900
Montevideo ..	3,300	8,300	5,800	13,300	21,400	39,400
Buenos Aires ..	33,600	90,600	60,700	146,400	49,800	127,300

Brazil is the second in order of tobacco producing countries of the world and its annual production approximates to 100,000 tons. The value of the 1920—1921 crop was estimated at 130,000,000\$ (£6,000,000).

**Forest Lands.**—The general percentage of forest-lands to the total area of Brazil is officially computed at 59 per cent. In this area are included lands on which the timber has been replaced by crops or removed for other purposes, viz., they are lands on which virgin-forest still exists or on which eucalyptus and other trees have been or can be planted. This area is therefore to be considered as the natural forest-land of Brazil. Of such lands the Acre territory contains 100 per cent. and Amazonas 91 per cent. Pará, Santa Catharina, Paraná, Rio de Janeiro and Espírito Santo, all contain over 75 per cent. The lowest percentage is in the three northern States of Rio Grande do Norte, Piauhy and Alagôas (about 26 per cent.), while Goyaz and Rio Grande do Sul also have a low percentage (about 29 per cent).

## MINERALS.

**Iron and Steel.**—For one reason or another Brazil has not developed her mineral resources on the scale that might have been expected in a country possessing such abundant supplies of iron and manganese as well as other minerals. Allusion has been made in previous reports to various aspects of this question. If there is one reason more than another why the iron and steel industry has not yet been established in this country, except in a small and tentative way, it probably consists in the fact that the problem has never been squarely faced by successive Governments and that local, reliable technical opinion

(with one exception) does not exist. Schemes have not been wanting, especially in more recent years, put forward by foreign interests; but in a matter such as this, where there is no experienced Brazilian opinion, these schemes have met with a limited measure of support, insufficient to guarantee any real development, and have dragged through years of protracted negotiations without any definite result being reached. Experience in other countries has shown that for the establishment of an entirely new industry, involving so many technical and financial factors as does the iron and steel industry, an ample measure of Government support must be forthcoming in the initial stages and for some time afterwards and adequate guarantees be given for the capital to be engaged, more especially as the capital necessary must be sought outside Brazil. The siderurgical problem has been frequently ventilated in the press and has been much discussed. Laws have been passed in Congress "granting facilities," but at the moment of putting matters on a concrete footing there has been wavering and hesitation, owing chiefly, as stated above, to the fact that the authorities have had no really defined policy in the matter. The exportation of iron-ore has, for instance, been opposed, not indeed on the ground that such exportation would exhaust the almost unlimited supplies of ore in Brazil (though even that objection has been raised), but on the assumption, which is indeed not illogical, that if the Government were to allow the unrestricted exportation of ore, Brazil would have to wait an indefinite time to arrive at, and might perhaps never obtain, the establishment of the iron and steel industry in the country. But in the meantime nothing practical has been done to secure the installation of a national iron and steel industry on a reasonable scale. The present Government is apparently engaged in an intensive examination of the whole problem and it is possible, therefore, that some definite solution may soon be expected.

The Budget Law for 1923 contained the following authorization given to the Government:—

"To encourage the coal and iron industries, and to aid concerns which mine coal and carry on siderurgy exclusively with national minerals and combustibles and hydro-electric energy, granting to such concerns, besides the favours established in the law of Mines (in force)—Decree No. 15,211 of 28th December, 1921—the special favours contained in Decrees Nos. 12,943 and 12,944 of 30th March, 1918. (The general terms of the decrees are given in the Report in this series for the year 1919, on page 41.)

"Sole paragraph: For this purpose the time-limits established in Decrees Nos. 12,943 and 12,944 of 30th March, 1918, are prorogued during the financial year 1923, the Executive Government being authorised to open the necessary credits.

"To grant, in lieu of the loans to which the said decrees refer, guarantee of interest for a period not exceeding 30 years, to such concerns or companies as be organised for the purpose of carrying on the siderurgical industry in Brazil without privilege, and as undertake to manufacture rails, and material for the metal superstructure of railways and, further, the war material which the Government may require.

' Such companies shall employ national minerals and combustibles.

- " (a) In the reduction of the ore they shall give preference to the employment of national coke. The same favours may also be enjoyed by factories which employ hydro-electric energy and charcoal, provided they undertake to replant the forests."
- " (b) In the conversion of pig-iron into steel, the employment of iron sponge shall be preferred to avoid sending up the price of scrap-iron and 'succata' generally used in this operation.
- " (1) The guarantee of interest shall not exceed  $7\frac{1}{2}$  per cent. per annum on the capital effectively employed or on part of such capital.
- " (2) The Government shall establish in the contracts the conditions which it considers necessary to efficient supervision, and shall determine therein the conditions of temporary occupation, taking over (by the Government) and redemption of the factories.
- " (3) No transference of the contracts may be made, after the cessation of the régime of guarantee of interest, or even if the latter be desisted from as being thought unnecessary, without the Government's being indemnified in respect of the amounts advanced and of others resulting from the favours granted."

The Cia. Electro-Metallurgica de Ribeirão Preto, in São Paulo, is producing steel by the electric process and using charcoal. In the first half of 1923 it produced about 6,000 tons of steel bars and rods; its output will be greater when more power, now being installed, is available.

The output of the Cia. Belgo-Mineira, in Sabará (Minas Geraes) is small and somewhat irregular.

There are grave difficulties in the way of the successful working of the iron and steel industry in the interior of Brazil, viz., at an undue distance from the coast, one of the chief difficulties being lack of transport facilities and labour. In any case the existence of such works does not solve the problem of this industry in Brazil.

At the moment of writing (September, 1923), the Government have under consideration the proposals of a British group to establish iron and steel works on a large scale not far from Rio de Janeiro.

**Manganese.**—A larger exportation of manganese is rendered difficult by lack of adequate transport facilities on the Central Railway, the chief difficulty being lack of sufficient rolling stock. The export market is controlled by the U.S.A.

**Coal.**—Efforts continue to be made by the Brazilian Government to develop the consumption of national coal, but high freight rates—apart from its inferior quality—constitute the chief difficulty in such attempts, except of course for local consumption near the mines.

American locomotives of the "Mikado" type are stated to have made successful trials with national coal in Rio Grande do Sul.

At the Coal Congress held in Rio de Janeiro in 1922 it was stated that the carboniferous basins in the State of Santa Catharina and Rio Grande do Sul contained 2,000,000,000 tons

of coal. The employment on a larger scale of pulverized coal in Brazil was advocated. Among the resolutions at that Congress were:—that experiments should be made for the production of metallurgical coke; that the production of alcohol for industrial purposes should be encouraged; that railway and port facilities for the transport and hauling of national coal should be granted by the Government; that one of the southern ports of Brazil should be chosen to serve as a coal depot for the Brazilian navy; that taxes should be levied on all foreign combustibles, especially on fuel oil; that the use of a proportion of national coal in all Government concerns should be compulsory; that the Government should prospect for coal in the States of Goyaz, Matto Grosso, Minas Geraes, Piahy and Maranhão; that the Government have borings for coal made in the Amazon valley; that a protective tax of 5 per cent. *ad valorem* be levied on the importation of foreign fuels and sur-taxes of 400 réis (say 4*d.*) and 250 réis (say 2½*d.*) per litre on alcohol for consumption in beverages, the product of such taxes to be placed to a special account to meet the expenses which would be entailed by the adoption of the measures recommended.

**Petroleum.**—The Brazilian Congress of Coal and National Combustibles (1922) passed the following resolutions, among others:—that the Government should encourage the efforts made to discover petroleum in the States of São Paulo, Paraná and Rio de Janeiro (Campos district); that borings be made to discover petroliferous peat in the States of Sergipe (Villa Rica) and Bahia (Marabú) and that the zone in Amazonas be surveyed for the discovery of petroleum.

The discovery of bituminous schists in Piahy and other northern States is reported from time to time, while investigation continues to be made in others parts of Brazil, especially Paraná and São Paulo.

**Gold.**—The annual production of gold in Brazil averages about 4,500 kilogrammes, while the average value is calculated at £650,000.

Dating from 1824 various British companies have been formed for gold-mining with a total capital of over £5,000,000.

#### PASTORAL.

**Cattle and Allied Industries.**—The exportation of frozen meat from Brazil which began in 1914 owing to the requirements in Europe during the war-years, has not become the important factor in export trade that was hoped. There has, it is true, been a revival of this trade during the first six months of 1923 (exports being 44,000 tons as against 12,000 in 1922), but the trade is not a firmly established one. Recently experiments have been made in the shipment of chilled meat to England and it is possible that there may be some development of this trade. Much is also hoped from the development of the packing industry locally, especially in the State of São Paulo.

The Director of the Pastoral Service of the Ministry of Agriculture made a special study of the whole question and, in July, 1923, issued a report which was endorsed by the Minister. He considers that there are two main reasons for the inferior classification of Brazilian meat in foreign markets, viz., skilful propaganda carried out by Brazil's competitors who have studied and now supply the wants of the consumer, and lack of attention on the part of Brazilian breeders to the desiderata of weight, age and uniform aspect.

"In Rio Grande do Sul, breeding has been started with Hereford, Polled-Angus and Durham, but in the districts which supply the freezing plants established in São Paulo and Rio de Janeiro, there is a complete lack of comprehension of the requirements of the freezing industry.

"To correct existing mistakes breeders in Matto Grosso, Goyas, and the western zones of São Paulo and Minas Geraes should aim at:—

"(a) Producing an animal of more rapid development which should be ready for the freezing plant at between 3 and 4 years of age.

"(b) Producing an animal of better type and of more uniform quality, such as the markets demand.

"(c) Increasing the weight of the animal by from 20 to 25 per cent.

"These three requirements are dependent on two closely related measures, viz., the gradual improvement of pasture lands and the introduction of steers from breeds suited to the requirements of the freezing industry." National types may be carefully selected, but that is not sufficient and the States mentioned above should import both British and French breeding stock. "The Hereford and Polled-Angus steers should, however, not be imported either from England or from the River Plate, but from Rio Grande do Sul where the breeders can continue to import selected cattle from abroad. Rio Grande breeders, who possess excellent herds of Hereford and Polled-Angus, could supply annually large numbers of excellent steers, which are immune from the crises arising from the process of inoculation against 'tristeza' and are already acclimatised."

French breeding stock would have to be imported by the Brazilian Government and distributed to farmers in the various States. The product would be suitable for consumption in Central and Southern Europe.

The report concludes with a recommendation that 100,000\$ should be earmarked by the Ministry for the purchase in Rio Grande do Sul of Hereford and Polled-Angus steers. Direct importation in that State would thus be encouraged, while the stock purchased would be distributed to the Central States of Brazil above mentioned.

Recent statistics show that 2,867,387 cattle were slaughtered in South America in 1922. Of this number 651,020 were slaughtered in Brazil, 619,720 being applied for the production of jerked (dried) beef.

#### POWER.

**Hydro-Electric Development.**—The Rio de Janeiro Tramway Light and Power Company are developing fresh power at Pombos, on the River Parahyba, some distance from Rio de Janeiro. This development has in view the supply of the

increasing demand for power and light in the Federal district, already supplied by this concern from its installation at Ribeirao dos Lages.

Small local developments and the addition of new units to existing installations are to be recorded, especially in the States of São Paulo and Minas Geraes. Tenders have also been invited for the harnessing of the Jacuhy falls, in the State of Rio Grande do Sul. The falls are estimated to be capable of developing 40,000 h.p., but the present visible consumption of power from such development is small.

*Minas Geraes.*—By Decree No. 6273, dated March 23rd, 1923, the State Government issued regulations governing the concession, use and development of such water-falls as belong to the State, of such as are situated in undeveloped land and of such as, being privately owned, have been expropriated for public utility. There are over 100 regulations, but the most important would appear to be that concessions of falls for development are to be gratis and for a limited period, viz., from 30 to 60 years; that at any time after 20 years the State may take over the hydro-electric installation by payment in cash or in State bonds; that in any case at the end of the contractual period the falls and installation shall revert to the State Government, without payment of any indemnity to the concessionaire, and that in case the installations be taken over by the State before the end of the contractual period, the value of the water-fall shall not be included in the price paid by the State for the expropriation of the installations.

#### MANUFACTURES.

**Brazilian Manufacturing Industries.**—A considerable development in local manufactures of every description is to be noted since the year 1916. The difficulties of importation during the war years gave a great impetus to Brazilian industries, while the low rate of exchange, which has existed during the past two years, has also favoured the development of such industries. The textile industry is the most important in Brazil and the value of its annual production is estimated at over 800,000,000\$. The total annual value of production of Brazilian industries is more than 1,800,000,000\$. Where imported articles compete with similar locally produced articles, the proportion which the former supply is only 11 per cent.

The following table shows the extent of local production in 1922 :—

Cigars .. .. .	93,467,028
Cigarettes .. .. .	packets of 20 314,603,633
Tobacco and snuff .. .. .	Kilos 13,615,443
Mineral waters .. .. .	Litres 552,638
Soda and other waters .. .. .	19,250,521
Syrups .. .. .	2,701,500
Beer—	
High fermentation .. .. .	43,902,500
Low fermentation .. .. .	37,950,739



Bitters .. .. .	Litres	1,554,893
Liqueurs .. .. .	"	1,913,713
Cognac, etc .. .. .	"	1,950,930
Artificial wines .. .. .	"	15
Fruit wines .. .. .	"	10,323,330
Natural wines .. .. .	"	13,578,155
Alcohol—		
Up to 25° .. .. .	"	94,408,511
Over 20° .. .. .	"	25,688,650
From barley .. .. .	"	303
Matches .. .. .	Boxes	609,120,600
Riding boots .. .. .	Pairs	25,674
Other boots .. .. .	"	4,097,277
Shoes .. .. .	"	4,690,214
Slippers, sandals, etc. .. .. .	"	10,393,476
Bath shoes, etc. .. .. .	"	178,379
Leggings .. .. .	"	133,323
Perfumery .. .. .	Unit	27,150,051
Perfume squirts (for carnival) .. .. .	Grammes	42,152,430
Pharmaceutical products .. .. .	Unit	18,581,867
Preserves—		
Meat, fish etc. .. .. .	Kilos	5,635,747
Sweets .. .. .	"	10,714,788
Fruit and vegetables .. .. .	"	2,509,931
Dried fruits, etc. .. .. .	"	81,822
Mustard and other condiments .. .. .	"	159,551
Chocolate .. .. .	"	1,042,920
Vinegar .. .. .	Litres	18,186,842
Acetic acid .. .. .	"	3,498
Candles .. .. .	Kilos	4,511,344
Walking sticks .. .. .	No.	22,947
Textiles—		
Raw cotton .. .. .	Metres	162,360,565
Bleached cotton .. .. .	"	149,595,501
Dyed or painted cotton .. .. .	"	275,226,084
Jute, hemp, etc. .. .. .	"	54,862,637
Linen .. .. .	"	2,448,061
Alpacas, flannels, etc. .. .. .	"	401,202
Cashmeres, cheviots, serges, etc. .. .. .	"	2,756,144
Silk trimmings .. .. .	"	11,808
Vegetable or animal silk .. .. .	"	36,754
Carpets, from pure or part wool .. .. .	"	9,895
Cotton lace .. .. .	"	25,340
Cotton ribbons, laces, etc. .. .. .	"	21,727
Woollen or linen laces, etc. .. .. .	"	19,061
Silk laces, etc. .. .. .	"	45,964
Embroideries .. .. .	"	500
Cotton blankets, shawls, coverlets, etc. .. .. .	No.	3,268,485
Linen or woollen ditto ditto .. .. .	"	172,317
Silk ditto ditto ditto .. .. .	"	132
Cotton towels and napkins .. .. .	"	1,697,002
Linen and woollen ditto ditto .. .. .	"	20,452
Other ditto ditto .. .. .	"	107
Woollen or linen carpets, rugs, etc. .. .. .	"	49,707
Saddle-covers, rugs, etc. (various) .. .. .	"	99,800
Cotton shirts .. .. .	"	7,765,578
Linen shirts .. .. .	"	49,950
Shirts with silk trimmings .. .. .	"	5,235
Silk shirts .. .. .	"	5,465
Cotton drawers .. .. .	"	968,214

Textiles—*continued.*

Collars (mixture of cotton, wool or silk) .. .. .	No.	4,517,284
Mixed silk collars .. .. .	"	187,478
Cuffs (cotton, wool, silk) .. .. .	Pairs	296,192
Cotton handkerchiefs (embroidered or otherwise) .. .. .	No.	2,778,933
Linen handkerchiefs .. .. .	"	232
Silk or silk embroidered handkerchiefs .. .. .	"	958
Ties (cotton, wool or linen) .. .. .	"	25,575
Silk or silk-embroidered ties .. .. .	"	3,566
Carters .. .. .	Pairs	3,296
Corsets .. .. .	No.	37,198
Cotton stockings and socks .. .. .	Pairs	18,846,436
Lisle thread ditto ditto .. .. .	"	44,251
Silk ditto ditto .. .. .	"	163,500
Cotton woven caps .. .. .	"	1,448
Wallpaper and paper for lining trunks	Pieces	905,356
Playing cards .. .. .	Packs	1,017,884
Umbrellas and sunshades .. .. .	No.	778,596

## Hats—

Men's and boys'—		
Straw .. .. .	No.	1,004,139
Felt .. .. .	"	1,322,261
Panama .. .. .	"	1,136,409
Woollen, felt cotton, etc.	"	1,295,872
Felt, cotton, silk and other textiles	"	126,141
Ladies' and girls', of all kinds .. .. .	"	338,646
Caps of all kinds .. .. .	"	656,978
Gramophone discs .. .. .	"	262,271
Earthenware (various kinds) .. .. .	Kilos	2,753,554
Glassware (various kinds) .. .. .	"	2,451,380
Screws, nuts and bolts .. .. .	"	10,830,060
Coffee, roast or ground .. .. .	"	28,978,741
Butter .. .. .	"	8,620,633
Refined sugar .. .. .	"	43,221
Furniture .. .. .	Pieces	18,876

Consumption taxes are levied on all the above articles, usually by means of stamps affixed to the article or to the covering wrapper or container. The amounts collected under this heading of taxation during recent years are as follows:—

1917 .. .. .	117,719:000\$
1918 .. .. .	119,720:000\$
1919 .. .. .	131,880:000\$
1920 .. .. .	175,640:000\$
1921 .. .. .	170,420:000\$

As far as can be ascertained at present, the amounts for 1922 and 1923 will, when published, show progressive increases on the total for 1921.

Rio de Janeiro, viz., the Federal District, and São Paulo are, between them, responsible for more than 50 per cent. of the total Federal revenue from this source of taxation, followed by the States of Rio Grande do Sul, Rio de Janeiro and Pernambuco.

The following are the relative percentages contributed by the principal industries above enumerated, viz. :—

	Per cent.
Beverages .. .. .	30
Tobacco .. .. .	20
Textiles .. .. .	15
Matches .. .. .	11
Boots and shoes .. .. .	3
Perfumery .. .. .	2.5
Refined sugar .. .. .	2
Preserves .. .. .	2

*São Paulo.*—The manufacturing industry in the State of São Paulo deserves special mention. There are in that State some 3,000 factories, employing close on 100,000 hands, and the capital engaged therein is estimated at nearly 500,000,000\$ (say £25,000,000).

The most important industry in the State is that of cotton textile production.

The jute industry is important; the raw material is imported from India and the local production is about 40,000,000 metres per annum. There are about 12,000,000\$ capital engaged in this industry.

Silk and woollen factories exist. The boot and shoe industry is important, close on 8,000,000 pairs per annum being produced. Over 2,000,000 hats were made in São Paulo in 1921. The manufacture of beverages, biscuits, etc., is important.

There are 17 glass factories in the State and 4 earthenware factories. The local production of matches and paper is important. There are about 78 tanneries in the State. Good furniture is made.

The foregoing gives some indication of the industrial activities of the State. There are numerous other factories.

*Minas Geraes.*—There are numerous industrial establishments in the State, over 1,000 being engaged in producing butter and cheese. The textile industry is important. There are numerous small foundries.

*Federal District.*—Industrial activity is great and the textile industry is even more important than in São Paulo.

*Rio Grande do Sul* is also important from the point of view of manufactures.

*General.*—The development and, equally important, the cheapening of the supply of electric power, of which enormous quantities are available, will contribute to increase manufacturing production in Brazil which must in the future be regarded not only as a country of enormous agricultural and pastoral resources but as an ever growing centre of industrial industry.

**Hydraulics.**—An important development is the manufacture of turbines by a small but well-equipped local factory which has a working arrangement as regards designs and patents with some

important U.S.A. manufacturers. The only imported material used consists of forgings, plates and sections. All other material is obtained in Brazil and Brazilian workmen give satisfaction.

**Cement Works.**—Projects have been on foot to establish cement works locally in the State of São Paulo, and although nothing definite has been done so far, it is likely that something will materialise in this respect in the near future. The importation of Danish and of Italian plant has been contemplated. No doubt the question of capital outlay has been some difficulty, as also the coal question, but the use of heat from electricity has also been contemplated. Raw materials are obtainable, but the quantity constantly available does not yet appear to have been definitely established. During the Centenary Exhibition the Danish Commissioner gave a lecture at the local engineering club and showed by means of films the progress of Denmark in the manufacture of cement.

### III.—TRADE.

**Brazilian Foreign Trade, 1913-1922.**—Taking the ten year period 1913-1922, inclusive, the following results are obtained:—

—	Quantity.	Total value.	Value per ton.
	Tons.	£	£ s.
Exports .. .. .	18,220,000	711,300,000	39 0
Imports .. .. .	29,920,000	583,400,000	19 10

It will be seen that the value of one ton of Brazilian merchandise exported is double that of one ton imported, while the balance in favour of Brazilian exports during this period amounts to £127,900,000. The average exchange rate during this period was 11½*d.*

*The Balance of Trade.*—The balance of £127,900,000 may fairly be considered an addition to the national wealth of the country. However, Brazil's foreign commitments, viz., her foreign debt service, were estimated for the year 1923 to amount to about £7,000,000. Assuming that this amount had to be paid annually for the ten-year period under consideration, there would remain an effective increase to national wealth of about £60,000,000.

The sterling value of imported goods rose steadily until it reached its maximum point in 1920, when each ton of goods imported cost £38 6*s.* Since then the decline has been rapid. In 1920 Brazil imported 3,280,000 tons of goods, which cost £125,000,000, whilst for almost the identical quantity imported in 1922 she paid only £49,200,000, but she has had to use very nearly the same quantity of paper money to do so—a local proof of the deflation of prices in Europe and the United States.

The sterling value of Brazilian exports declined after the war and then rose to £67 18s. per ton in 1919.

All articles of Brazilian exportation, except rice, lard, frozen and preserved meat, manioc, beans, Indian corn, oils and tallow show increases in 1922, as compared with 1921. Brazil received £10,000,000 more for exports in 1922 than in 1921. The export of manganese in 1920 was 454,000 tons. It dropped in 1921 to 276,000 tons, owing, it is believed, to the United States being overstocked. This trade, however, picked up a little in 1922, when 341,000 tons were exported.

The export of cotton and sugar increased.

The rubber situation is serious, but there was a little improvement in 1922.

Coffee exports were maintained at much the same level, as follows:—

	Bags.	Value per bag.	
		£	s.
1913	13,268,000	3	1
1919	12,963,000	5	12
1920	11,525,000	4	11
1921	12,369,000	2	16
1922	12,673,000	3	10

Before the war Brazil supplied 75 per cent. of the coffee consumed in the United States. The export of coffee represented 59 per cent. of the total value of Brazil's exports in 1921 and 65 per cent. in 1922.

The following shows the ton value of exports and imports:—

Year.	Exports.	
	Tons.	Value per ton.
		£ s.
1913	1,382,100	48 2
1919	1,907,700	67 18
1920	2,101,400	52 14
1921	1,919,400	30 8
1922	2,121,600	32 6

Year.	Imports.	
	Tons.	Value per ton.
		£ s.
1913	5,922,300	11 6
1919	2,779,900	27 4
1920	3,275,900	38 6
1921	2,578,200	24 6
1922	3,263,500	15 2

Full tables of importation and exportation are given in Appendix V.

**Brazilian Foreign Trade in 1923 (January-June).**—A three months' comparison is given in the Appendices. Six months' trade is as follows :—

## EXPORTATION.

Year.		Quantity.	Value.	
		Tons.	Milréis.	£
1913	.. .. .	521,500	413,783:000	27,586,000
1922	.. .. .	974,700	1,008,709:000	31,753,000
1923	.. .. .	1,087,500	1,419,358:000	33,377,000

## IMPORTATION.

Year.		Quantity.	Value.	
		Tons.	Milréis.	£
1913	.. .. .	3,140,300	524,583:000	34,972,000
1922	.. .. .	1,597,600	707,017:000	22,291,000
1923	.. .. .	1,662,000	1,077,170:000	25,239,000

For the first six months of 1923 Brazil has a favourable balance of over £8,000,000. The increased tonnage of exports as compared with 1922 is 112,900 tons and is accounted for by the following products (chiefly) :—

	Increase of	
	Tons.	Value—£.
Frozen meat .. .. .	31,800	= 680,000
Hides .. .. .	11,200	= 431,000
Manganese .. .. .	4,000	= 98,000
Cacáo .. .. .	11,200	= 219,000
Table fruit	19,400	= 235,000
Fruits for oil }		
Tobacco .. .. .	2,000	= 23,000
Timber .. .. .	32,300	= 49,000
Indian corn ... .. .	22,000	= 122,000
Rubber .. .. .	200	= 445,000

Cotton has a decrease of 11,400 tons exported and corresponding to a diminution in value of £439,000; rice, 5,800 tons and £107,000 less.

Sugar exports declined by 15,800 tons, but value increased by £506,000.

Coffee exports were 260,000 bags less, equivalent to a decrease of £860,000, but in currency there was an increase, in value, of 180,859:000\$.

As regards coffee prices, it has been argued that the valorisation scheme has antagonised foreign, especially U.S.A., buying interests, because it represents an attempt on the part of the Brazilian Government to put the price up at the expense of the

consumer. Whether the valorisation scheme be a wise measure or not—and, as indicated in the preceding report, it was imperative for some measure to be taken to protect coffee—the purchaser has no cause for complaint at all, since he is not paying any more for Brazilian coffee than he was in 1922 and only one shilling more per bag of 60 kilos. than in 1913.

Price per bag of coffee,  
f.o.b. Brazil.

1913 .. .. .	51\$ =	£ 3 8
1922 .. .. .	110\$ =	3 9
1923 .. .. .	146\$ =	3 9

Other f.o.b. prices per ton are as follows:—

Manganese ore—			£	s.
1913 .. .. .	22\$ =	1	9	
1922 .. .. .	65\$ =	2	1	
1923 .. .. .	112\$ =	2	12	
Cotton—				
1913 .. .. .	899\$ =	59	19	
1922 .. .. .	2:519\$ =	79	6	
1923 .. .. .	5:529\$ =	130	0	
Rubber—				
1913 .. .. .	4:669\$ =	311	5	
1922 .. .. .	1:997\$ =	62	18	
1923 .. .. .	4:619\$ =	100	3	
Tobacco—				
1913 .. .. .	860\$ =	57	6	
1922 .. .. .	1:118\$ =	35	4	
1923 .. .. .	1:369\$ =	31	18	
Timber—				
1913 .. .. .	114\$ =	7	12	
1922 .. .. .	167\$ =	5	6	
1923 .. .. .	171\$ =	4	0	
Hides—				
1913 .. .. .	891\$ =	59	9	
1922 .. .. .	1:420\$ =	44	16	
1923 .. .. .	1:840\$ =	42	11	

The following table shows the percentage of trade done with Brazil by Great Britain and by other importing countries:—

### Foreign Competition.

*Brazilian Import Trade.*—Percentage of Brazil's total importation, based on official sterling values, supplied by the following countries:—

From	1913.	1919.	1920.	1921.	1922.
Great Britain .. .. .	24.4	16.3	21.8	20.4	25.8
U.S.A. .. .. .	15.7	47.9	41.6	31.6	22.8
Argentina .. .. .	7.4	15.4	8.4	11.4	13.8
Germany .. .. .	17.5	3	4.7	8	8.9
France .. .. .	9.8	3.8	5.5	6.2	5.9
Italy .. .. .	3.8	1.4	2.5	2.9	3.9
Belgium .. .. .	5.1	1	1.8	4	3.2
Portugal .. .. .	4.4	3	2.1	1.8	2.4

*Brazilian Export Trade.*—Percentage of Brazil's total exportation, based on official sterling values, sent to the following countries :—

To	1913.	1919.	1920.	1921.	1922.
U.S.A. . . . .	32.2	41.6	41.8	37	38.6*
France . . . . .	12.2	21	11.9	9.9	11.0
Great Britain . . . . .	13.2	7.3	8.1	7	10
Argentine . . . . .	4.7	4.5	6.6	6.6	6.9
Germany . . . . .	14	.5	5.7	9.5	6.2
Netherlands . . . . .	7.3	3.1	2.8	7.1	5.7
Italy . . . . .	1.3	3	7.3	6.5	5.4
Uruguay . . . . .	2.3	4.4	4.4	5.7	3.6
Belgium . . . . .	2.5	3.6	2.7	2.5	2.8
Sweden . . . . .	1	2.6	1.7	1.6	2
Portugal . . . . .	.5	.5	1.9	2.1	1.7

\* Of which 31.8 represents coffee purchases.

**Germany and U.S.A.**—Germany is rapidly increasing her tonnage of exportation to Brazil and is once more a serious competitor, if not the most serious competitor of Great Britain in the Brazilian markets. The foregoing table shows that Germany supplied only 8.9 per cent. of the value of Brazil's imports in 1922, as against 25.8 per cent. from Great Britain and 22.8 per cent. from the U.S.A., but the table that immediately follows will show that the volume of trade from Germany to Brazil is not to be judged merely from the values-table. Unfortunately, no official Brazilian statistics have been published in recent years showing tonnage of imports from Brazil's various suppliers and the greatest labour has been entailed in compiling not only these figures, but all the statistics of imports and exports which appear in the Appendices to this report.

If coal be excluded, the articles in the following list represent 28 per cent. of the total tonnage and 23 per cent. of the total value of Brazil's imports in 1922, and if gasoline, kerosene, mineral oils, wheat and wheat flour—which together represent £10,000,000 of Brazil's imports—also be excluded, the items below represent 30 per cent. of the value of Brazilian importation in 1922.



## IRON AND STEEL; MACHINERY AND APPARATUS. BRAZILIAN IMPORTATION IN 1922.

## TONNAGE AND PRICE COMPARISON OF 3 PRINCIPAL SUPPLIERS.

Article.	Great Britain.			U.S.A.			Germany.		
	Tons.	Value c.i.f. Brazil.		Tons.	Value c.i.f. Brazil.		Tons.	Value c.i.f. Brazil.	
		Total.	Per ton.		Total.	Per ton.		Total.	Per ton.
Steel; bar and rod .. .. .	3,021	£ 77,100	£ 25	740	£ 15,100	£ 20	920	£ 12,100	£ 13
Steel plates .. .. .	646	13,700	21	192	5,600	29	451	4,300	10
Iron; bar and rod .. .. .	2,057	35,500	17	2,292	33,300	15	4,798	45,900	10
Iron; plates and sheets .. .. .	2,205	44,700	20	3,606	80,000	22	2,345	24,600	10
Iron; cast, pig, puddled and filings .. .. .	583	5,100	9	242	2,800	12	342	2,100	6
Copper plates, ingots and bars .. .. .	583	59,800	103	572	55,100	91	261	23,600	90
Copper; cast, moulded, filings, etc. .. .. .	185	15,000	81	156	15,300	98	51	4,000	78
Railway cars and wagons .. .. .	757	130,700	173	1,777	127,600	72	1,157	18,400	16
Insulated electric copper wire .. .. .	155	16,100	104	453	50,000	110	381	28,000	73
Electric cables .. .. .	301	26,400	88	826	65,000	79	110	4,600	42
Barbed wire .. .. .	43	1,100	26	12,555	254,000	20	7,085	129,900	18
Wire, other than barbed wire .. .. .	1,564	40,800	26	7,472	129,800	17	8,348	143,000	17
Galvanised corrugated sheets .. .. .	4,205	114,300	27	3,226	73,800	23	474	8,600	16
Cutlery .. .. .	30	16,300	543	31	28,000	903	150	29,500	197
Axles, wheels, etc., for railway cars and wagons .. .. .	613	41,200	67	1,839	94,000	51	895	14,800	16

Article.	Great Britain.			U.S.A.			Germany.		
	Tons.	Value c.i.f. Brazil.		Tons.	Value c.i.f. Brazil.		Tons.	Value c.i.f. Brazil.	
		Total.	Per ton.		Total.	Per ton.		Total.	Per ton.
		£	£		£	£		£	£
Axles, wheels, etc., for other vehicles ..	120	13,600	113	457	24,300	53	328	7,300	22
Spurs, stirrups, buckles, horse-bits, etc. ..	38	8,200	216	6	1,600	267	28	2,400	86
Locks, padlocks, latches, hinges, etc. ..	60	6,800	113	490	43,000	9	460	32,200	70
Enamelled iron manufactures ..	40	5,600	140	22	4,700	214	270	20,600	76
Tin plate in sheets ..	9,622	253,400	26	3,842	100,600	26	241	6,400	26
Staples, screws and rivets ..	656	27,200	41	2,488	72,600	29	1,202	29,000	24
Iron superstructures for buildings ..	1,246	28,800	23	2,784	71,200	26	2,829	24,300	9
Telegraph and telephone posts and parts for bridges and fences ..	1,556	93,400	60	3,052	83,100	27	1,108	26,100	24
Rails, fishplates and railway accessories ..	2,090	35,300	17	6,125	94,700	15	21,848	174,800	8
Tubes, pipes and joinings ..	2,839	110,600	39	7,977	241,000	30	3,680	72,200	20
Iron and steel manufactures unenumerated	1,639	147,300	90	1,039	72,500	70	1,486	63,600	43
Scales ..	57	5,200	91	33	4,900	148	74	3,400	46
Boilers ..	480	35,400	74	30	2,500	83	135	3,400	25
Tools and utensils of all kinds ..	3,716	463,800	111	850	171,500	202	2,307	117,000	51
Cranes ..	731	59,400	81	87	10,700	123	146	5,200	36
Locomotives ..	384	58,100	151	3,246	447,000	138	640	18,100	28
Photographic apparatus and accessories ..	37	8,900	268	86	59,200	688	119	13,100	66

Article.	Great Britain.			U.S.A.			Germany.		
	Tons.	Value c.i.f. Brazil.		Tons.	Value c.i.f. Brazil.		Tons.	Value c.i.f. Brazil.	
		Total.	Per ton.		Total.	Per ton.		Total.	Per ton.
Machinery for electricity and electric light	376	£120,800	£321	974	£280,300	£288	844	£81,300	£96
Electric dynamos and generators .. ..	60	20,100	335	162	33,000	204	48	3,200	67
Electric motors .. .. .	134	35,000	261	148	34,000	230	617	57,800	94
Electric transformers .. .. .	45	8,900	198	220	38,700	176	162	15,000	93
Sewing machines .. .. .	4	1,000	250	637	111,400	175	524	39,600	74
Spinning and weaving machines .. ..	3,086	369,000	120	40	14,900	372	441	24,600	56
Looms .. .. .	937	58,500	62	—	—	—	100	5,700	57
Parts for spinning and weaving machines..	1,415	308,400	218	15	6,200	413	86	7,000	81
Industrial machinery .. .. .	1,258	146,300	116	286	55,900	196	1,950	72,400	37
Machinery, not classified .. .. .	2,189	276,500	126	2,819	444,700	158	4,705	197,000	42
Motors, unclassified .. .. .	175	29,000	166	28	7,000	250	154	4,000	26
Totals and average c.i.f. prices per ton ..	51,938	3,372,300	65	73,922	3,560,600	48	74,300	1,620,100	22

Of the total importation into Brazil of the articles mentioned in the foregoing table, the following is the tonnage percentage supplied by each of the three countries under consideration, in 1922 :—

	Per cent.
Great Britain .. .. .	18·5
U.S.A. .. .. .	26·3
Germany .. .. .	26·4

In all the above classes of goods, Great Britain, the U.S.A., and Germany may be said to compete on equal terms, *i.e.*, no article is included therein in which any of these countries specialises more than another. It is quite clear that Germany is able to undersell both Great Britain and the U.S.A. in all the above articles.\*

*Other Countries.*—The relative position of all countries in Brazil's import trade has been analyzed in Appendix V.

**Centenary of Brazilian Independence.**—This was commemorated throughout the country on September 7th, 1922, and the following days. The principal celebrations took place in the Federal Capital, where special complimentary missions from all parts of the world were the guests of the Brazilian Government. Various nations sent warships to Rio de Janeiro, *viz.*, Great Britain (H.M.S. "Hood" and H.M.S. "Repulse"), the U.S.A., Japan, Argentina, Portugal, Uruguay and Mexico. A number of members of the House of Commons also visited Rio de Janeiro in October, 1922.

**Exhibition at Rio de Janeiro.**—This was officially inaugurated on September 7th, 1922, and officially closed on July 2nd, 1923. The original intention had been to make it a National

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\* During the last few months the industrial position in Germany has undergone a complete change, and, generally speaking, German manufacturers and merchants are now no longer able to offer goods at ridiculously cheap and non-competitive rates. The change began in August last when the heavy fall of the mark was followed by an immediate increase in the cost of materials and wages, and resulted in an acute shortage of working capital and credit. Conditions became worse during September, when German prices reached or exceeded world's market prices in many spheres of industry. During October the position was intensified by the uncertain currency situation and dismissals of workmen took place. At the beginning of November many works were idle and others were working on short time. In some instances special price reductions were being made for spot goods and sales effected, but quotations for newly manufactured articles still remained high and unattractive.

The German market is now in a state of chaos and German manufacturers, in their endeavour to base their production and sales on a gold basis cannot compete in the same way as they have done during the past year.

Exhibition and to ask foreign nations to erect temporary pavilions, but at the suggestion of the Belgian Commissioner-General, and with the approval of the Commissioners of other nations, the title was changed to "International Exhibition." One of the most interesting sections from an industrial point of view was the Brazilian section, where the progress of manufacturing industries of all kinds in this country was a revelation to most visitors. In connection with the Exhibition, a new foreshore has been obtained by excavating the Castello hill and filling in a mole, and the value of this foreshore for subsequent building purposes is claimed to be great. Furthermore, the base of the hill (two-fifths of which still remain to be demolished) will also furnish valuable building sites. But the cost already incurred has been enormous and the expense still to be met to complete the work will be very large. Three esplanades were laid out, an hotel (never occupied owing to legal difficulties as regards expropriation rights in connection with the land on which it was constructed) was erected, and the filling in of a large brackish lake (Rodrigo de Freitas) was begun.

Great Britain was worthily represented by its Pavilion, officially opened on October 11, 1922. Part of the cost was raised by private subscription in London and part was a grant by the Treasury. It has been handed over as a gift to the Brazilian Government. The exhibits were all excellent and the percentage of diplomas and awards very high. The number of exhibitors was, however, only 59, and, owing to the limited range of the exhibits, they gave an incomplete impression of Great Britain's industrial capacity.

The following nations also erected pavilions :

The Argentine Republic; France (a copy of the "Petit Trianon" at Versailles, handed over to the Brazilian Academy of Letters); Japan, presented to the Municipality of Rio de Janeiro; the U.S.A., which is to house the American Embassy; Italy, which it is proposed to hand over to the Italian community in Rio de Janeiro; Norway, presented to Brazil; Sweden, bought by the State of Rio de Janeiro; Denmark; Mexico; Czecho-Slovakia; Belgium; Netherlands, and Portugal, which is one of the largest and probably contained the completest range of exhibits.

Special industrial exhibits were also shown by the U.S.A., France and Belgium in separate pavilions adjoining the commercial port.

The Brazilian Pavilions included the Palace of the States (of the Union)—an imposing four-storied, permanent building; the Palace of (national) Industries, a permanent building in the colonial style, converted from an old arsenal; the Fishing and Industries Pavilion and the Statistical Pavilion. There were

many other smaller pavilions, as well as a large Recreation Pavilion (with stage and ball-room). Appropriate public use is to be made of such of these buildings as are of a permanent character.

A special section of the Exhibition was devoted to amusements.

British participation in the Exhibition has been appreciated and our Pavilion is held by many to merit pride of place over all the foreign pavilions. It was suggested that the Brazilian Government should make use of the British Pavilion as a centre for the Brazilian cotton service, but it now appears likely that it will be used for and known as a "Museum of Agriculture and Industry."

**Customs Preference.**—It is satisfactory to note that in the current year (1923) the Customs rebates on certain articles of U.S.A. and Belgian manufacture entering Brazil have not been renewed, and all goods entering the country are now liable for duty on exactly the same footing. A small exception has been made in the case of the Argentine, fresh fruit from that Republic being admitted duty-free. But the principle of equality of treatment for all nations would appear to be the settled policy of the present Government.\*

**Customs Duties.**—The only noteworthy change is that machinery entering Brazil is now liable to duty by weight and not *ad valorem*. This is to the advantage of British exporters, who were often penalised by unscrupulous competitors in the declaration of values for Customs purposes.

**Brazilian Consular Invoices.**—British exporting and shipping houses are advised to pay the utmost attention in filling in Consular invoices. Literal observance of the regulations is of the utmost importance. Trouble, for instance, has arisen, and importers in Brazil have had at times to pay large fines because, in the two columns "country of origin" and "country of shipment" the shipper has written *across* these two columns the words "Great Britain" instead of writing the words *separately* in each column. The offence is, it is true, merely a technical one, and no responsibility appears to attach to the Brazilian Consular officer who legalises the invoice. But the Customs authorities in Brazil have their own reasons for insisting on strict and literal compliance with the regulations, and non-compliance results in severe fines being imposed on the importer.

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\* Since this report was written, Brazil has signed a most-favoured-nation agreement with the United States. No advantage is gained by the United States beyond the favourable duties, previously extended to Argentina only, for fresh fruit.

**Commercial Travellers.**—As stated in the previous report in this series, no Federal tax is levied.

The following information has been collected as regards some of the States of the Union :—

	Tax.
Amazonas .. ..	1:000\$ (annual)
Maranhão .. ..	200\$ (half-yearly in advance)
Rio Grande do Sul .. ..	300\$ (annual)
Pará .. ..	418\$ (annual)
Ceará .. ..	400\$ (half-yearly in Fortaleza.)
Ceará .. ..	200\$ (half-yearly) in the interior.
Goyaz .. ..	200\$ (annual)

In other States of the Union no tax is levied.

In the cases above, however, where taxes are leviable, it is doubtful if they are collected, since exception is made in favour of travellers attached to some locally established firm which already pays taxes.

**Aniline Dyes.**—Germany remained the principal supplier in 1922, followed by the U.S.A. The average c.i.f. prices per kilo. were :—Great, Britain, 18\$200; Germany, 58\$00; U.S.A., 13\$600; and France, 20\$200. This market is growing in importance on account of the development of the local textile industry.

5\$800

**British Chambers of Commerce.**—Apart from the services which the two sister Chambers at Rio de Janeiro and São Paulo render to their members throughout Brazil and to their Associates at home, they perform much useful work in the general interests of British trade in this country. Their corporate activity was much in evidence during the period under review (which included the Centenary celebrations and the visit to Brazil of many British official, parliamentary and other representatives), when the many claims made on the generosity and disinterested service of the members, and especially of the Councils of both Chambers, were loyally and readily met.

**Cinematograph Films.**—American films dominate the market. French and Italian films come next, while the Germans have also been showing indifferent films. British films are conspicuous by their absence. The Americans did a great deal of propaganda work during the Centenary Exhibition by showing gratis a large series of films of every description, *i.e.*, of general and of special interest. If it is not possible for British play-films to be sent to Brazil, it is thought that news-films would greatly interest the Brazilian public. It may be noted that the Portuguese wording of American films is very well done and that successful efforts are made to make the wording pithy and, where suitable, amusing. Such British films as have been shown are

weak in this respect. It is understood that American film distributors offer very considerable help to local agents and importers in the matter of advertising. There is more than one local review devoted almost entirely to propaganda and forward Press-notices and photographs of American films and film-artists.

**Patents and Trade-marks.**—British manufacturers should have their patents and trade-marks registered in Brazil. Brazil adhered to the Madrid arrangement of April 14th, 1891 (revised in Brussels in 1900 and in Washington in 1911), but Great Britain is not a member of the convention.

It should be noted that, under Brazilian law, labels in a foreign language may not be imported into Brazil. The intention of the law was that foreign labels should not be used to give a false impression of origin of the goods labelled, but it has recently been decided locally that even where such labels are intended for the purpose of honest description of goods imported they may not be imported separately.

#### TRADE AT VARIOUS CENTRES.

Notes on trade at various Brazilian centres based on information furnished by H.M. Consular officers at the various places named.

**Para.**—Five months' trade (January-May, 1923):—

##### *Imports*—

	Tons.
Great Britain .. .. .	12,130
U.S.A. .. .. .	5,137
Mexico .. .. .	1,013
Portugal .. .. .	872
Germany .. .. .	867
Belgium .. .. .	621

Of imports from *Great Britain*, 10,435 tons were coal, 296 tons jute, 156 tons tin-plate, 145 tons caustic soda, and 72 tons of gasoline.

*U.S.A.* supplied flour, 2,212 tons; kerosene, 368 tons; oils, 256 tons; coal, 214 tons; jute, 124 tons; and wire for the manufacture of nails, 270 tons.

*Mexico's* supplies consisted of 913 tons of kerosene, 54 tons of gasoline and 42 tons of oils.

*Germany* supplied cement, 336 tons, and 123 tons of paper and cardboard.



Portugal's principal supplies were wire (572 tons), lime, garlic, olive oil and olives.

Denmark supplied 448 tons; and

Belgium 421 tons of cement.

*Exports—*

					Tons.
U.S.A.	..	..	..	..	11,668
Great Britain	..	..	..	..	6,397
Portugal	..	..	..	..	6,161
France	..	..	..	..	2,012
Spain ..	..	..	..	..	1,793
Germany	..	..	..	..	1,364
					Quantity bought.
					Tons.
Nuts—					
Great Britain	..	..	..	..	3,887
U.S.A.	..	..	..	..	5,030
Germany	..	..	..	..	304
Rubber—					
Great Britain	..	..	..	..	555
U.S.A.	..	..	..	..	3,579
France	..	..	..	..	801
Germany	..	..	..	..	702
Timber—					
Portugal	..	..	..	..	4,480
U.S.A.	..	..	..	..	1,895
Spain ..	..	..	..	..	1,790
Italy ..	..	..	..	..	193
France	..	..	..	..	239

Other more important products exported were :—Cotton-seed (266 tons to Great Britain), cocoa (552 tons to France), vegetable ivory (146 tons to France), manioc flour (1,037 tons to Portugal), and oil-seeds (532 tons to Italy).

*General Remarks.*—The shipments of timber to the U.S.A. consisted almost entirely of cedar logs for the manufacture of cigar boxes. Also small lots of sawn boards for flooring and panelling and for billiard cue butts. Timber shipped to Portugal and other countries is suitable for wine barrels, furniture, etc. Large quantities of railway sleepers were shipped to the south of Brazil, as well as all kinds of wood for furniture and building purposes.

In the figures referring to flour from the U.S.A., Canadian flour (shipped from New York), which is becoming more popular as it becomes better known, is included. Probably 25 per cent. of the flour shipped from New York to Pará is Canadian.

The crop of nuts proved a very good one, and high prices prevailed throughout the season.

The rubber market was normal and steady.

The consumption of tea has increased owing to the extremely high price of coffee. Coffee is retailed at 4\$000 per kilo.

**Pernambuco.**—Great Britain is the largest foreign purchaser of sugar and an important buyer of cotton. German competition is active in import trade supplying such articles as cement, hardware, tools, machinery, chemicals and dyes, toys, pianos and cutlery. Importation of articles of national manufacture (from Rio de Janeiro and São Paulo and other southern markets) has been encouraged by the low rate of exchange which renders imported foreign articles too expensive. Such articles consist principally of boots and shoes, textiles, enamelled ware and hardware.

**Bahia.**—Statistics regarding the tobacco trade have been given elsewhere in this report.

**Cocoa.**—Exports from Bahia during recent years were as follows :—

	Bags.
1918 .. .. .	718,513
1919 .. .. .	864,323
1920 .. .. .	852,395
1921 .. .. .	670,024
1922 .. .. .	722,095

In 1922, New York took 270,351 bags, Hamburg 140,930 bags, and Amsterdam 66,014 bags.

The value of the principal exports from Bahia in 1922 was as follows :—

Cocoa .. .. .	55,300:000\$
Tobacco .. .. .	39,600:000\$
Coffee .. .. .	20,300:000\$
Hides .. .. .	10,000:000\$
Piassava.. .. .	2,500:000\$

Other important exports are :—Cigars and cigarettes, carnaúba wax, diamonds, sugar and cotton.

**Rio de Janeiro.**—*Wireless for port services.* In December, 1922, a radio-telegraphic station was inaugurated at Arpoador for the purpose of announcing the arrival and departure of ships to the Maritime Police, the shipping companies and the public generally.

**Stocks.**—Importing houses and agents are holding only minimum stocks on account of the adverse exchange rate, and it is not thought likely that important orders will be placed in advance until market conditions improve.

**Sao Paulo.**—*Local industries.* The continued development of local manufactures is alluded to elsewhere, and it is sufficient to note here that nowhere is that development so marked as in São Paulo.

*Railway and road extension.*—From 2,172 kilometres of line in 1890, the length of railways in São Paulo has risen in 1923 to nearly 7,000 kilometres. But perhaps the most marked modern development is in road construction, as follows:—

	Kilometres,
State roads .. .. .	745
Municipal roads .. .. .	4,825
Private roads .. .. .	294
Total .. .. .	5,864

Further, there are 203 kilometres under construction and 288 kilometres projected.

*Imports (six months' trade) at Santos:—*

Suppliers,	1922. Milréis.	1923. Milréis.
Great Britain .. .. .	41,800:000	80,400:000
U.S.A. .. .. .	37,200:000	68,300:000
Germany .. .. .	16,300:000	32,500:000
Italy .. .. .	18,700:000	32,100:000
France .. .. .	10,000:000	17,000:000
Belgium .. .. .	4,500:000	12,100:000
Total—all countries..	198,000:000	347,500:000
= £	6,242,200	8,135,900

*Exports (six months' trade) at Santos.*—Besides coffee, of which 3,864,872 bags were exported in 1923, as against 4,131,173 bags in 1922, the chief articles of export were meat, raw cotton, bananas, lard and rice, in the order named.

The largest buyer was the U.S.A. (368,000:000\$), followed by France (101,600:000\$), the Netherlands and Italy. Great Britain's purchases amounted to 26,000:000\$ in 1923, as against 59,600:000\$ in 1922, the figure for the latter year being unusually high owing to shipments under the terms of the coffee valorisation loan.

**Rio Grande do Sul (Porto Alegre).**—The trade of Rio Grande do Sul, normally one of the most flourishing States of the Union, has been seriously hampered by a long period of local political strife which is not yet at an end.

In spite of these adverse circumstances, the State is developing rapidly. The new port at Porto Alegre has five bonded warehouses with electric cranes; the erection of six more warehouses and the installation of 18 electric cranes is projected. Vessels drawing 26 ft. can navigate the Patos Lake to reach Porto Alegre.

National manufacturing industries are extending.

There was some restriction in the importation of pure-bred horned cattle in 1922.

There are 2,632 kilometres of railway line in traffic.

Three coal mines are worked in the State of Rio Grande do Sul, producing about 250,000 tons annually. This coal is used locally for State railways, municipal gas and power works, electric tram services, national steamship lines and for small industries.

Exportation has been very much hindered by the political disturbances above referred to and finance and commerce generally have suffered. Communication and transport have been irregular owing to interruptions of railway service. From the beginning of the year 1923 up to September, 1923, political disturbances continued and no great improvement in the local commercial conditions of the State can be anticipated until these disturbances cease. The solidity of local trade may, however, be gauged from the fact that no failures of importance have occurred. Germany has been the chief supplier of foreign goods during the period under review and is followed by the United Kingdom.

**Conferences.**—Various conferences were held at Rio de Janeiro in 1922. Among the most important, at which Great Britain was represented, were :—

*Americanists.*—The 20th International Congress of Americanists, in August, 1922.

*Coal.*—The First Brazilian Congress of Coal and National Combustibles, in November, 1922, at which 53 resolutions were passed, the principal being given elsewhere in this report.

*Foot-and-Mouth Disease.*—The Second International Congress of Foot-and-Mouth Disease, in October, 1922.

*Cotton.*—The International Cotton Conference. Special delegates from England attended, including representatives of the Master Spinners' Federation, Manchester Cotton Association, Liverpool Cotton Association, and the Industrial Cotton Federation, the General Secretary of which, Mr. Arno Pearse, organised and acted as General Secretary of the Conference. The resolutions passed are given elsewhere in this report.

*Commercial Associations of Brazil.*—This was a local congress, but deserves mention as it is characteristic of the growth of corporate feeling in the trading community in Brazil. Its sessions lasted from October 18th to November 13th, 1922. It was organised with a number of committees which dealt with a large variety of subjects and passed resolutions relating to ports, banking, shipping, postal and telegraphic services, customs formalities, taxes and exchange.

**U.S.A. Commercial Mission to the Amazon.**—As the result of previous negotiations, in which both public and private

interests in the U.S.A. participated with the Brazilian Government, a group of Americans arrived in Pará in July, 1923, with the immediate object of investigating the possibilities of increased rubber development by plantation or otherwise, as a set-off to the alleged domination of the world's rubber markets by the Eastern rubber plantations.

A commission of eight Brazilian members was nominated by the Minister of Agriculture to accompany the American Mission, whose work in the Amazon region is to occupy several months.

The Governments of Pará and Amazonas are stated to be offering every facility to encourage the development of rubber-collecting on "public lands," and have stated that taxes on rubber and other products will be reduced. They are apparently prepared also to abolish the export-tax on rubber, and to offer all kinds of favours and concessions to concerns wishing to engage in any branch of "agricultural, forest, pastoral, mineralogical, industrial and railway" development. The harnessing of water-power is to be encouraged.

As the chief source of revenue of each of the States of Pará and Amazonas is the export duties, it is difficult to see how they propose to abolish them. It is thought that the Federal Government would also be willing to forego the export tax on rubber from the Acre district, which is directly administered by it. Export taxes, it should be noted, are levied by the State Governments and not by the Federal Government, whose sole prerogative it is to levy import (Customs') taxes.

**U.S.A. Coffee Mission.**—In September, 1922, a Commission, composed of members of the Board of the National Association of Coffee Importers and Roasters (of the U.S.A.) visited Brazil. The interest attaching to this visit was naturally very great, especially in São Paulo, in view of the position of the U.S.A. as Brazil's largest market for coffee.

**German Trade.**—Germany's position as a large buyer of Brazilian products, *e.g.*, coffee, cacão, sugar, etc., and as a large seller to Brazil, especially of machinery, has given to the German merchant a very high place in the commercial intercourse of both countries, and important German firms are established in all the large commercial centres of Brazil. The Germans have always interested themselves in Brazilian national industries by participation and initiation. On the other hand, the Germans have seldom undertaken any large public contracting works, though they have on occasion supplied machinery to the contractor.

**France and Italy.**—There has been talk of both these countries sending Trade (exhibition) ships on world cruises, calling at Brazilian ports.

**Japanese Trade.**—The Japanese exporter is losing ground, except in special articles, viz., cheap coffee cups and saucers, “knick-knacks” and some fancy goods.

**Higher Council of Commerce and Industry.**—This body was created by Decree No. 16,009 of April 11th, 1923. It has long been a complaint that there was no Federal department specially equipped to deal with commercial questions. It is true that the full title of the Department usually known as the Ministry of Agriculture is Ministry of Agriculture, Industry and Commerce, but its activities have in the past been limited for the most part to questions affecting agriculture, geology and mineralogy. The creation of the Council referred to is intended to meet this difficulty. The Minister of Agriculture is to be President of the Council, which is to be “the consulting organ of Brazilian public authorities as to what it may deem advantageous to commerce and industry and to the economic prosperity of the country.” The Council is to have power to deal specially with the following questions :—

- New markets and the development of existing commercial relations.
- Commercial enquiries.
- Taxes and imposts.
- Customs and railway tariffs.
- Conventions and commercial treaties.
- Land, sea and river transport and the respective freights.
- Navigation and system of commercial ports.
- Stock, merchandise and shipping exchange.
- Banks and savings banks.
- Issue of bonds and credit instruments.
- Fiduciary circulation.
- Class-associations and co-operative societies.
- Drawbacks and warrants.
- Propaganda at home and abroad.
- Industrial and commercial statistics.
- Insurances afloat and ashore.
- Development of large and small industries.
- Exhibitions and fairs, national and international.
- Economic congresses.
- Industrial property.
- Education, technical-commercial and industrial.

The Council is to be composed of 36 members, including five Heads of Departments, of the Ministry of Agriculture, and a similar number from the Ministry of Finance, three officials of the Ministry of Public Works, and one of the Ministry of Foreign Affairs. Other members are to be as follows :—

- The President of the Bank of Brazil.
- The Director of the Lloyd Brasileiro.
- Four representatives of the Federation of the Commercial Associations of Brazil (Chamber of Commerce of Brazil).
- Three representatives of the Commercial Association of Rio de Janeiro.
- Three representatives of the Industrial Centre of Brazil.
- One representative of the Centre of Commerce and Industry.
- One representative of the League of Commerce.

One representative of the Industrial Centre of Cotton Spinning and Weaving.

Two representatives of the National Society of Agriculture.

Two persons of recognised competence in economic questions, chosen by the Minister of Agriculture, Industry and Commerce.

There is to be a small paid staff, under a General Secretary. The Council in question was officially installed on September 8th, 1923.

#### IV.—LEGISLATION.

**Taxes Affecting Business.**—Under the Budget Law for 1923, income tax is to be collected from every person resident in Brazil. Persons not residing in Brazil, and companies with head offices outside Brazil, shall pay the tax on the net income which has been derived or earned within Brazil. The Budget Law also authorizes the collection of a stamp tax on mercantile sales, commonly known as "signed accounts" (*Contas assignadas*) and the tax on commercial profits (*Lucros commerciaes*). This tax on "commercial profits" in reality forms part of the income tax, instituted by previous laws. Regulations governing the incidence of these taxes were authorised by decree of July 29th, 1922.

There has been considerable difficulty in collecting this tax generally, including the commercial profits tax. In view of the situation the following authorisation was given to the Government in the Budget Law for 1923, viz., Law 4,625 mentioned above :—

To levy a proportional stamp tax on sales of merchandise, at credit or at sight, effected within Brazil, with authority to apply, *in toto* or in part, the provisions adopted regarding this matter in the First Congress of the Commercial Associations of Brazil, held in this Capital (Rio de Janeiro) in 1922, or others which it deem suitable so as to render signature by the purchasers obligatory. (Note.—This means the signature of the purchaser on the stamped invoice, which thus becomes a negotiable instrument.)

The taxes will be levied on the maximum basis of 2\$000 per Conto de réis on sales at credit and on the maximum basis of 500 réis per Conto de réis on cash sales.

The payment of the present tax shall be initiated only after January 31st, the Government having authority to suspend, on the date on which it comes into operation, the tax on net profits of commerce and industry dealt with in Law No. 4,230 of December 31st, 1920.

The Minister of Finance received a representative of the Commercial Association of São Paulo and informed him that the Federal Government would publish a final declaration to the effect that both taxes, viz., "*Contas assignadas*" and "*Lucros commerciaes*," would be maintained until the end of the year. If at the end of the year the Government should find that the

tax on "Contas assignadas" had produced the revenue which they expected, viz., 35,000 Contos (according to Budget estimate) for the "Lucros commerciaes," the Minister would abolish the latter tax and maintain the former only. Should the amount budgeted not be reached, the Government would hold itself free to maintain both taxes or not.

The local Commercial Association is endeavouring to insist that the only tax to be imposed shall be that of the "Contas assignadas," alleging that the larger business houses enjoy better guarantees under this tax and better legal bases for banking transactions. It appears, however, that the small dealers prefer the "Lucros commerciaes" tax.

Regulations were issued on May 22nd, 1922, and the Stamp tax on mercantile sales (Contas assignadas) came into force on July 1st, 1923.\*

**Customs Code.**—A commission has been appointed by the Ministry of Finance, and is at work, to revise the Customs Code. Their work is as yet incomplete, but one of the questions that has occupied them most is that of avoiding fraud in declarations, on Consular invoices, of values for the purpose of *ad valorem* duties.

## V.—TRANSPORT AND COMMUNICATIONS: PUBLIC WORKS.

### Railways.

*Electrification Schemes.*—The project to electrify the suburban section and part of the main line of the Central of Brazil Railway was not carried into effect by the late Government, though a special loan of 25,000,000 dollars for that purpose was raised in the U.S.A. The scheme is still under consideration, but the money from the loan referred to is no longer available, and it is not known for what purpose the late Government spent it. Two British and two American groups presented tenders. Electrification is an urgent necessity if the railway is to cope successfully with the continuous increase of its traffic. The number of passengers carried in 1915 was 650,000,000, and in 1921 had reached 1,175,000,000.

The Paulista Railway opened a section of its main line (from Jundiáhy to Campinas, 45 kilometres) to electric traction, and is now electrifying a further section of 50 kilometres, from Campinas. The contract was given to an American firm.

The State Government of São Paulo has appointed a commission to investigate and present plans for the electrification of the Sorocobana Railway.

The electrification of the Campos de Jordão Railway was awarded, after a public call for tenders, to a British Company, in competition with American, German and Swiss groups. The contract was given by the Government of the State of São Paulo.

\* A list of legislation and further details of the taxation measures, may be consulted at the Department of Overseas Trade.



The following are revised official statistics of railways in Brazil at December 31st, 1922 :—

—	In traffic.	Under construction.	Plans for extension approved.	Total.
	Kiloms.	Kiloms.	Kiloms.	Kiloms.
Belonging to and administered by the Federal Government..	7,934	1,258	—	9,192
Belonging to the Federal Government and leased ..	8,971	440	—	9,410
Concessions from the Federal Government, with guarantee of interest .. .. .	3,330	52	—	3,382
Ditto without guarantee ..	1,770	41	—	1,811
Concessions from various State Governments .. .. .	7,210	261	—	7,471
Federal and State .. .. .	—	—	8,048	8,048
Total .. .. .	29,215	2,052	8,048	39,315

The following is the computed revenue per kilometre of various railways in Brazil :—

	Milréis.
São Paulo Railway .. .. .	124:579 \$
Central of Brazil Railway .. .. .	28:831 \$
Paulista Railway .. .. .	25:176 \$
Mogyana Railway .. .. .	13:539 \$
Sorocobana Railway .. .. .	12:071 \$
Leopoldina Railway .. .. .	9:206 \$
Great Western of Brazil Railway .. .. .	6:601 \$
Rio Grande System .. .. .	6:397 \$
Oeste de Minas Railway .. .. .	5:913 \$
Paraná and Santa Catharina Railway .. .. .	5:659 \$
Sul Mineira System .. .. .	4:121 \$
Ceará System .. .. .	3:396 \$
Brazil Great Southern Railway .. .. .	1:810 \$
Caxias and Cajazeiras Railway .. .. .	1:664 \$

Some of the difficulties under which large railways such as the Leopoldina and the Great Western of Brazil operate are obvious from these figures. The first five railways are large coffee carriers and coffee is a commodity which can afford to pay freight rates which are remunerative to the railways. Suggestions that the freight rates of the two railways mentioned should be raised are always met with a large outcry of opposition from interested parties, who contend that their products cannot bear increased rates. As a matter of fact, ability or inability to pay is not often tested, because the Government generally refuses, in deference to such outcries, to allow the railways to raise freight rates. In the absence, however, of other measures such a policy operates unfairly, since in some cases the railways in question are transporting goods at a dead loss. If these railways, therefore, are not to be treated on a purely commercial basis, viz., that they

must be allowed, within reason, to raise their rates when circumstances compel them to do so, then they should be considered as political-economic concerns acting as public utility agents in the zones which they serve and which cannot themselves afford to pay for the benefits they derive from railway transport. There is a limit beyond which freight-rates cannot be raised without producing the contrary effect by reducing traffic receipts, but the requests of the railways in question have usually been quite moderate. If, however, dislocation and stoppage of local production is feared as a result of increases in freight-rates, then it is clearly no more than just that the public authorities which forbid the application by the railways of commercial measures should devise some other form of compensation for the railway companies. It is not to be expected that foreign capital, in these cases British, should be engaged in developing large tracts of country, by means of railway transport, without its due reward. That is a service which the body politic should, in such cases, undertake in the interest of the whole nation and shoulder the financial responsibility therefor by guaranteeing in some form or another that the foreign capital so employed shall receive a reasonable interest for its investment. A large proportion of Brazil's railway system was constructed under a system of guarantee of interest on the capital employed, and this was found much more successful than kilometric subsidy, which often led to abuses. The difficulties of the railways in question have been rendered even greater by the low rate of exchange of milréis, so that even where receipts have increased the net available sums remitted in sterling have been woefully small.

It is hoped that the Brazilian Government will be able without delay to arrive at a definite policy with regard to railway development in this country, and especially in regard to the railways mentioned, which serve zones that, for whatever reason, but through no fault of the railways themselves, do not pay freight-rates on a scale sufficiently high to allow even a modest return in interest to be paid to those who have invested their capital therein.

The settlement of the problem would be in the best interests of Brazil itself, since it is obvious that, were the difficulties enumerated definitely removed, encouragement would be given to the investment of fresh British capital in this country.

During the year 1922, 350 kilometres of line were opened to traffic, and there were 2,000 kilometres under construction, viz., of lines administered or controlled by the Federal Government.

The Budget Law for 1923 authorises the following expenditure :—

Federal Railways—	
Central Railway—	
Staff and personnel . . . . .	46,881:000 \$000
Material, including fuel, lubricating oils and waste, supply of wood-fuel and its transport . . . . .	43,200:000 \$000
	<hr/>
	90,081:000 \$000

Oeste de Minas Railway .. ..	13,026:000\$000
North-West of Brazil Railway (São Paulo) .. .. .	10,993:580\$000
Ceará System .. .. .	3,590:747\$000
São Luiz (Maranhão) to Therezina Railway .. .. .	4,345:180\$000
Central of Piauhy Railway .. ..	1,250:000\$000
For purchase of rails, etc., abroad (gold) .. .. .	100:000\$000
Central of Rio Grande do Norte Railway	1,000:000\$000
Petrolina to Therezina Railway ..	2,000:000\$000
Purchase of material abroad (gold) ..	200:000\$000
Therezopolis Railway .. .. .	1,990:400\$000
Goyaz Railway .. .. .	1,400:000\$000
Bahia System .. .. .	2,500:000\$000
Railway extensions—	
Doubling the line of the Central Railway (São Paulo Branch) .. .. .	2,000:000\$000
Extension of existing lines of the Central Railway .. .. .	7,500:000\$000
North-West Railway (São Paulo): Conclusion of works up to the bridge over the River Paraná .. .. .	1,000:000\$000
Branch lines—	
Ceará System .. .. .	5,532:000\$000
Bahia System .. .. .	11,680:000\$000
West of Minas Railway: Branch line to be constructed from Barra Mansa to Angra dos Reis .. .. .	2,500:000\$000
Various other extensions, etc. ... ..	20,250:000\$000

The above schemes to be met out of the yield of an increase of tariffs up to 10 per cent. on the railways administered by the Federal Government, and by the issue of bonds (apolicies).

## Ports.

*Mandos (Amazonas).*—To construct this port the Manãos Harbour Limited (British), was formed, authorised to operate in Brazil in September, 1902, and, as early as May, 1903, the port was ready for trade. The recognised capital is 18,408:316\$333.

*Pará.*—The concession for the construction of this port was transferred from an American concessionnaire to the Port of Pará Company (British) in February, 1907.

The inauguration of the first portion of the quay wall (120 metres in length) was made in October, 1909. By 1911 an extent of quay wall amounting to 600 metres had been completed, as well as several warehouses.

The recognised capital is 117:056:527\$387.

*Maranhão* (or Maranhão: full name: São Luiz do Maranhão).—A concession for port improvements was given to a Brazilian engineer in 1890 and transferred successively to the Empresa Industrial de Melhoramentos no Brasil and the Cia. Geral de Melhoramentos no Maranhão in 1891.

In 1918 a contract was signed between the Federal Government and the State Government of Maranhão and subsequent decrees

modified the general scheme for the construction of a port there. The last decree (June 21st, 1921) established the estimated expenditure at 23,242:009\$500, and in December, 1921, the contracts made by the State Government with Messrs. C. H. Walker and Co., of London, were consolidated. The time-limit for the initiation of work was extended to 1924.

*Ceará (or Fortaleza, being the Capital of the State of Ceará).*—Sir John Hawkshaw had, in 1875, made plans for the construction of a port at Ceará and also at Maranhão. Based on these plans, a contract was signed in 1884 with a concern, organised in London, under the title of the Ceara Harbour Corporation, Limited. The cost was estimated at 2,500:000\$ and work was begun in 1886. The strong currents, however, caused the anchorage to be blocked with sand, and in 1892 the capital of the said corporation was raised to 4,874:000\$ for the purpose of remedying this defect. In this, however, the contractors do not appear to have been successful, and in February, 1900, the Government expropriated the port-works. Fresh studies were made, but no practical result ensued. In December, 1920, however, a contract was signed with Messrs. Norton Griffiths, Limited, of London, and work was begun in September, 1921.

*Natal (Rio Grande do Norte).*—The first plan of the establishment of port works at Natal was elaborated by Sir John Hawkshaw in 1877, and, in 1890, the Government studied the question again.

In January, 1922, the Government approved plans and a contract was signed with Messrs. C. H. Walker and Co., of London, for the construction of this port.

*Cabedello and Parahyba (Ports of Parahyba do Norte).*—A Brazilian Commission inaugurated work at Cabedello in March, 1910.

But the town of Parahyba was accessible only to shallow-draught vessels, and in the beginning of 1921 work was begun to render this port available for ocean-going steamers. The cost is estimated at 12,000:000\$.

*Pernambuco (or Recife, being the Capital of the State of Pernambuco).*—This port is the nearest in South America to Europe and to Africa. Access to it always presented difficulties. After various plans had been made, a concession was given locally for the construction of the port, and for the purpose thereof the concessionaires organised a French company, Société de Construction du Port de Pernambuco, in 1909. In 1918 the contract was revised. Work was to be completed by April 30th, 1919, and the cost was estimated at Frs. 18,212,166; during the year 1919, however, the Société spent only Frs. 2,796,676·56, and in August stopped work. In October, 1920, the contract was declared rescinded. In December, 1920, the Federal Government and the Government of the State of Pernambuco signed a contract

by which the exploration of the port was transferred to the said State for a period of 14 years, as from December 27th, 1920. The property of the Federal Government at this port is estimated at 96,297:626\$898.

*Aracajú (State of Sergipe).*—Various studies have been made for the construction of a port, but nothing has eventuated.

*Bahia (or São Salvador).*—Port improvements were contracted with the Cia. Internacional de Docas e Melhoramentos no Brasil in September, 1905, the capital of the Company being fixed at 23,009:262\$100 (gold), and in 1908 the "Société de Construction du Port de Bahia" was organised to work the concession. The contract was revised in October, 1920. The extent of the quay wall is 880 metres of 8 m. draught and 337 metres of 10 m. draught.

The recognised capital is 43,066:968\$265.

*Victoria (State of Espirito Santo).*—A concession for port work was given to a Brazilian company in 1892 and was transferred in 1906 to the Companhia Porto de Victoria. Work was begun in June, 1910 (the capital being fixed at about £760,000), but stopped in August, 1914.

The capital recognised as having been spent up to that date is 5,290:104\$968.

*Rio de Janeiro.*—Various British engineers have made plans for the construction of a port at Rio de Janeiro (as, indeed, at almost every Brazilian port) since 1852.

In 1870 a contract was given to a Brazilian engineer and to Messrs. Stephen Bush and Co. to construct docks in Rio Harbour, and in this connection the Cia. das Docas de Dom Pedro II was also organised.

In 1890 a concession was given to the Empreza Industrial de Melhoramentos no Brasil to construct a quay wall in the direction of Cajú point, and this concern took over the concession of the Docas de Dom Pedro II Company.

A contract made with another concern, the Cia. Obras Hydraulicas no Brasil, and which had lapsed, was renewed and transferred to the Rio de Janeiro Harbour and Dock Company, Limited (British), which in turn was to link up with the Empreza above-mentioned and form the Cia. Docas do Rio de Janeiro. But in 1903 Congress authorised the Government to liquidate these contracts and to take steps to have the port-works construction put in hand. A loan of £8,500,000 for this purpose was raised in London by the Federal Government in 1903, and the contract was entrusted to Messrs. C. H. Walker and Co., Limited (British). Work was begun in March, 1904. In 1911 a contract for the lease and administration of the port was signed with a French group and the port services were thereupon inaugurated, the length of quays at that time completed being 2,692 metres.

A contract for the extension of the port-works by the construction of three large moles of a width of 180 metres each was

given to the *Société de Construction du Port de Bahia* in June, 1921, but little work has yet been initiated.

In October, 1921, a plan was approved for the construction of quays at Governor's Island (Bay of Rio de Janeiro) for the purposes of a free port, the initial extent to be 900 metres. The work was estimated at 29,969:840\$ and the contract given to a Brazilian concern.

The revenue of the port since its inauguration to the end of 1921 was 89,292:635\$293, of which the lessees received 37,667:339\$484 and the Government 51,625:295\$809.

Government landed and house property in connection with the port of Rio de Janeiro is computed at 303,983:067\$922.

On October 6th, 1922, an issue of internal Federal bonds was authorised to the amount of 15,000:000\$ (price 83, at 5 per cent.) for the purpose of extending the port works.

*Port Service at Rio de Janeiro.*—The administration of the port was handed over to Dr. Buarque de Macedo, a Brazilian engineer, on May 9th, 1923, the contract being dated June 15th, 1923. The port service comprises the shipment, landing and warehousing of goods. The contract is for 10 years and the port and its installations are handed over by the Government to the contractor for that period. The contractor receives 41·8 per cent. of the ordinary revenue from port charges on goods imported and 83·6 per cent. on goods exported and on coastwise traffic. The rest goes to the Federal Government.

*Santos (State of São Paulo).*—After various concessions had been given and lapsed a contract was signed in 1888 with a concern which in 1892 constituted a Brazilian Company, the *Cia. Docas de Santos*, to carry out the terms thereof. The time-limit for finishing the port works was five years and the capital of the concessionaires fixed at 14,627:194\$707. The company mentioned administers the port service. Its recognised capital in December, 1920, was 135,101:155\$008, and the gross revenue in 1921 was 25,452:362\$899.

*Paranaguá (State of Paraná).*—A proposal to construct a port was put forward by the *Cia. Nacional de Construções Civas e Hydraulicas*, of Rio de Janeiro, and accepted. The contractual time-limit for beginning work was extended by a Decree of December, 1921. No work has yet been initiated.

- |   |   |  |
|---|---|--|
| <ol style="list-style-type: none"> <li>1. <i>Florianopolis</i></li> <li>2. <i>Sao Francisco</i></li> <li>3. <i>Itajahy</i></li> <li>4. <i>Laguna</i></li> </ol> | } | Ports of the State of Santa Catharina. |
|---|---|--|

Some work at No. 1 was begun in 1903 by widening the approach channel, but large steamers cannot use it.

The wall necessary at No. 2 is estimated to cost 9,736:000\$.

At No. 3, 110 metres of quay had been built up to the end of 1921 on the right bank of the river and 158 metres on the opposite bank.

A mole is being built at No. 4 and 874 metres have been completed. The mean depth at the bar in 1922 was 3 m. 83.

*Rio Grande do Sul.*—In 1886 the Government called for tenders, based on a plan elaborated by Dr. Honorio Bicalho, for the construction of port works, and awarded the contract to a French company, which began work in 1891. The contract was, however, rescinded in 1893, and the Government proceeded with part of the work itself. Eventually the Government signed a contract, in July, 1908, with the Cie. Française du Port de Rio Grande do Sul. The completed port works and moles were expropriated by the State Government of Rio Grande do Sul, in agreement with the Federal Government and the contractors, in September, 1919, at the price of 208,640,546 francs, of which the Federal Government paid about 67 per cent. and the State Government the remainder. The 2 per cent. gold (port) tax is ceded by the Federal Government to the State Government, which undertakes to continue the construction of the quays and moles.

**Military Port.**—This project (referred to in the previous report in this series) has not materialised, and the present Government is not likely, at present at any rate, to proceed with the idea, both from motives of economy, and because it is probable that it will desire to have settled its policy as regards the establishment in Brazil of iron and steel works, without which a military port would scarcely be an economic proposition.

**Lloyd Brasileiro.**—This concern has undergone many changes since its foundation in 1890, when various existing companies were amalgamated with it. Various successive loans were made to it, and it was at one time incorporated with a local concern, *Empreza de Obras Publicas*. The loans were excessive in relation to its liquid capital; exchange fell, and for these and a variety of other reasons the Lloyd was declared bankrupt in 1899. Its assets were eventually (1901) sold in public auction and realised only 9,000,000\$. It is estimated that the debenture holders and creditors suffered a loss of 30,000,000\$. The Lloyd was bought in by a broker acting on behalf of the Bank of Brazil, which, through nominees, contracted the services of the Lloyd with the Federal Government. In 1903 the Lloyd was reorganised under the title of *Cia. Novo Lloyd Brasileiro* with a capital of 13,500,000\$. It paid a dividend of 4 per cent. in 1903 and of nearly 14 per cent. in 1904. The Company was liquidated in 1906 and the shares of the Bank of Brazil purchased by M. Buarque and Cia., which received a concession from the Federal Government to administer the services of the Lloyd Brasileiro. M. Buarque and Cia., and a loan was negotiated with Messrs. A. M. Rothschild and Co. (with a guarantee of the Brazilian Government) of £1,100,000. A fleet of steamers was contracted with the following British firms:—Messrs. Workman, Clark and Co., Craig, Taylor and Co., Mackey Bros., Cammel, Laird and Co., and Yarrow and Co. Steamers for immediate use were purchased from other locally existing

shipping companies. To pay for these ships the Lloyd had recourse to loans from the Bank of Brazil. In 1909 the Lloyd was once again reorganised and became a limited liability company (sociedade anonyma), and a further loan of £1,000,000 was arranged with Messrs. Rothschild in 1910. The financial situation of the Company continued to be very bad. Various changes were made in the Board of the Company, and in 1913 the Government decided to take over the Lloyd as a temporary measure. The Company owed, at that time, £3,276,300 abroad and 31,485:484\$060 to the Bank of Brazil. There were also other large creditors. In December, 1913, the Government endeavoured to lease the Lloyd, the assets of the Company being estimated at 43,913:630\$. No proposals were received. The Government continued to administer the services of the Lloyd, which received a subsidy of 2,000:000\$ (gold). The long series of annual deficits, which had obtained since 1906, ceased in 1915, and various ships were chartered owing to the increased coastal and foreign trade handled by the Lloyd as a result of the war. The German ships which had sought refuge in Brazilian ports at the outbreak of war were also taken over subsequently.

Credit balances were shown on paper during the war years, but no amounts were reserved for depreciation or for amortisation of capital, and the deficit for the year 1920 was 23,326:854\$565. In 1921 (January) the Lloyd Brasileiro once more became a limited liability company under the title "Companhia de Navegação Lloyd Brasileiro," the share capital being 30,000:000\$, of which the Government holds shares to the value of 29,900:000\$ and has certain preferential rights, such as that of nominating the Director.

In March, 1922, the fleet of the Lloyd Brasileiro consisted of 38 coasting steamers (74,568 tons\*) and 38 foreign service steamers (207,801 tons)\*. It also had four small auxiliary steamers.

It runs lines to Europe and to the U.S.A., the former service having been more recently instituted. The European service to the Mediterranean, and especially to Italy, is to be augmented for the purpose of offering emigration facilities to Brazil. The project of a line to South Africa was also discussed, but came to nothing.

The present Director is Admiral Cantuário Guimarães, nominated by the President of the Republic.

#### Post Office Administration.—Constant deficit since 1840.

Recent years :—

	Revenue.	Expenditure.
1913 .. .. .	11,549:000\$	21,407:000\$
1914 .. .. .	10,676:000\$	23,501:000\$
1918 .. .. .	11,047:000\$	19,113:000\$
1919 .. .. .	10,680:000\$	23,823:000\$
1920 .. .. .	15,473:000\$	24,533:000\$
1921 .. .. .	20,000:000\$	36,000:000\$

Attributed to lack of means of communication and high cost of transport service.

\* Gross registered tonnage.



**Telegraph, Submarine Cables, etc.**—Introduction in Brazil dates from the middle of the nineteenth century, the Rio-Petropolis line, inaugurated in 1857, being the first regular line to be installed.

1869	...	65 kilometres of line	233 telegrams.
1921	...	80,805 " " "	6,131,510 " "

The Paraguayan war of 1865 gave a great impetus to the extension of telegraphic lines.

The first submarine cable in Brazil was between Brazil and Portugal, and was successfully laid in 1874 by the Telegraph Construction and Maintenance Company, a British firm, from Caravellas viâ Lisbon, Madeira, St. Vincent and Pernambuco. This line to-day belongs to the Western Telegraph Company (British). There are in operation to-day in Brazil besides this company the Compagnie des Cables Sud-Américains and the All-America Cables (U.S.A.).

The development of telegraphic communication with the interior of Brazil owes much to the engineering section of the Brazilian Army, and especially to General Candido Rondon.

The submarine cable between Pará and Manãos was laid by Messrs. Siemens Brothers, of London, under contract with the Amazon Telegraph Company (British), which had a concession for this purpose. The service was installed in 1896. From Manãos to the interior of Amazonas and the Acre district telegraphic communication is carried on by wireless—since 1913. There are 10 radio-telegraphic stations in that district, viz. :—

Pará	.. .. .	The Capital (Belém) and Santarem.
Amazonas	.. .. .	Manãos and Labréa.
Frontier of Matto Grosso and Amazonas.	.. .. .	Porto Velho (terminal point of the Madeira-Mamoré Railway).
Acre territory	.. .. .	Cruzeiro do Sul, Senna Madureira, Taraucá, Xapury and Rio Branco.

The Manãos and Porto Velho stations have a radius of 750 nautical miles (1,400 kilometres).

Brazil adhered to the International Telegraphic Union on October 1st, 1877, and has been represented at all international conferences subsequent to the Conference at St. Petersburg in 1875.

The telegraphic service has always shown a deficit. The figures for recent years are :—

	Revenue.	Expenditure.
1913	12,257:700 \$	21,203:200 \$
1914	11,403:100 \$	20,685:100 \$
1918	17,658:600 \$	18,968:900 \$
1919	19,299:700 \$	20,411:000 \$
1920	22,951:200 \$	24,757:400 \$
1921	29,425:200 \$	30,861:400 \$

The system of pneumatic letters (petit bleu) is employed only in Rio de Janeiro.

It is estimated that there are more than 100 telephone concessionaires in Brazil and that about 25,000,000\$ capital is employed in this service here.

**Wireless Telegraphy.**—The first experiments in wireless telegraphy in Brazil were made in 1904, between the fort of Santa Cruz (Rio de Janeiro) and Castelhanos (Ilha Grande), a distance of 110 kilometres. The system used was Telefunken, a system much in use in Brazil to-day.

Wireless stations began to be erected in Brazil in 1910. The principal coastal stations are:—

Olinda (Pernambuco) .. .. .	} Belonging to the Ministry of Traffic and Public Works.
Amaralina (Pernambuco) .. .. .	
São Thomé (Bahia) .. .. .	
Rio de Janeiro .. .. .	
Monte Serrat (São Paulo) .. .. .	
Junção (R. G. Do Sul) .. .. .	
Natal (Rio Grande do Norte) .. .. .	} Belonging to the Ministry of Marine.
Fernando de Noronha (off Pernambuco)	
Anhatomirim .. .. .	
Governor's Island (Bay of Rio)	

The apparatus in use is Marconi, Telefunken, and Cie. Française de Télégraphes.

There are no Brazilian stations having a very large radius but radiographic communication is maintained by Brazil with Bolivia and Peru.

The first public installation was inaugurated on the peak of the Corcovado mountain (Rio de Janeiro) in September, 1922, and listening-in apparatus was also installed in the grounds of the Exhibition.

The Companhia Nacional de Comunicações sem Fio, under British auspices, is installing a powerful station a few miles from Rio de Janeiro, and radio-telegraphic communication between Brazil and all the other countries of the world will, as a result, be definitely established.

On September 5th, 1923, the Brazilian Press began to receive a wireless news service from France through the Sociedade Nacional Radioelectrica.

**Aviation.**—Recently a concern called the Cia. Nacional de Navegação Aérea has been formed with a nominal capital of 2,000,000\$ (say, £50,000). It has a concession for ten years for mail, passenger and cargo services, and is reported to be backed by the Brazilian Government. It contemplates purchasing machines, and is stated to be desirous of having British aviators for the first few years.

Both France and Germany have had schemes on foot for aerial communication between Europe and Brazil, France contemplating a hydroplane service and Germany a Zeppelin service.

Various local flights were made in 1923, viz., Rio-São Paulo, Rio-Curitiba, Rio-Aracajú.

A certain amount of private exhibition flying has been done, while the Army and Navy are flying regularly, but there has been no serious move whatever to establish definite air routes.

A German Junkers machine landed near Ceará, *en route* from Cuba to Buenos Aires, in June, 1923. On the journey being resumed the motor exploded.

The Centenary flights of 1922 from Lisbon to Rio de Janeiro in British machines and from New York to Rio de Janeiro should also be noted.

**Irrigation Works in the North-East Zone.**—The Decree authorizing the works was signed on December 25th, 1919, and up to November 15th, 1922, viz., at the termination of the period of office of the last Government, the following work was officially reported as having been completed:—

The jetty at Fortaleza (Ceará) has been repaired and fitted with powerful cranes and an aerial ropeway.

For the transport of material the Baturité Railway was remodelled, large warehouses were built in Fortaleza, 227 kilometres of new roadways were constructed to bear the weight of 10-ton lorries, of which there are 70, and 212 kilometres of railway were built.

Messrs. Norton Griffiths are building the dams at Acarape, Quixeramobim and Patú, and up to October, 1922, had spent about 17,000,000\$000 on this work. They are also building the port of Fortaleza for account of the Caixa das Seccas (Drought Department).

Messrs. C. H. Walker and Co., Limited, are completing the dam at Gargalheira and building the dam at Parelhas, both in Rio Grande do Norte. The amount spent up to October, 1922, was 590,000\$ and £71,040, the latter amount for material bought in Europe. In the dam at Parelhas the amounts were 90,000x and £83,785.

Messrs. Dwight Robinson, Inc., are building the dams at Poço dos Pãos and Orós, in Ceará, and at São Gonçalo, Piranhas and Pilões, in Parahyba. The amounts expended up to October, 1922, were 17,039,000\$ and 4,644,630.17 dollars.

On railway improvements and extensions in Ceará close on 3,000,000\$ have been expended, while 428 wagons (8,800,000\$), 77 locomotives and 50,000 tons of rails have been purchased for railways in Ceará and Parahyba. In the latter State 11,141,800\$ have been spent in railways up to August, 1922, while in Pernambuco 3,563,000\$ have been spent. Railway expenses in Piauhý amounted to 69,500\$.

It is estimated that on the work so far done over 300,000,000\$ have been spent (say, £7,000,000), and the economic benefit to be derived therefrom still remains doubtful. The works were conceived on far too vast a scale and the whole conception was far too costly. Moreover, even under these conditions it is thought that no proper control of expenditure has in the past been exercised. The completion and upkeep of the work already done

demand large resources, of which the present Government does not dispose, while to develop the irrigation system, without which the construction of dams, railways and high-roads will be almost useless, still further large sums of money are required. It is difficult to see at what satisfactory conclusion the present Government can arrive. To stop work altogether may have disastrous results, in that the funds already spent will have been wasted, while it is difficult to see whence the money is to come to continue the work started on such a gigantic scale.

It is probable that a great deal of money will have to be spent in making canals for irrigation purposes in connection with the dams and reservoirs that are now being constructed. The idea has apparently been to let out the water from such dams along the old river beds, but it will probably be found impracticable, as the water will all be swallowed up before it reaches the mouths of the rivers.

A Committee was appointed by the late Government to examine and report on these works, and the following figures were published in February, 1923 :—

	Milréis.
Expenditure (not including material imported and payment of salaries to foreign engineers) incurred by the Federal Inspectorate for dams and roads .. .. .	206,713:000 \$
Estimated future expenditure necessary to complete the dams and roads .. .. .	295,153:000 \$
Estimated expenditure for irrigation works..	411,347:000 \$

## VI.—SOCIAL QUESTIONS.

**Education.**—Secondary and University education in Brazil is under the care of the Federal Government and of the States of the Union. There are, therefore, Federal (official) educational establishments and State educational establishments (subject to Federal supervision).

By virtue of Decree 11,530 of March 18th, 1915, a Federal university (the only Federal university in Brazil) was established in Rio de Janeiro. This university comprises, in Rio de Janeiro, the following educational establishments, viz., Faculty of Medicine Polytechnic School, and Faculty of Law.

The decree above referred to also created the Higher Council of Education and the University Council. The Higher Council of Education exercises jurisdiction over all educational establishments, both official and subject to official supervision, throughout Brazil.

The University Council is composed of the Rector of the University as President and two members of the educational establishments which form the University.

Besides establishments of higher education, attached to or affiliated to the University, both in Rio de Janeiro and in the States of the Union, there are other establishments of professional education under the immediate inspection and direction of the Federal Ministry of Agriculture and many agricultural colleges maintained by the Federal Government in various States.

The States themselves have various professional and educational establishments apart from such Federal establishments.

*Secondary Education.*—The Pedro II College in Rio de Janeiro is a typical establishment of secondary education in Brazil, and is the only official (Federal) establishment of this kind. Similar establishments exist in all the States. Such establishments are non-official, although subject to Federal supervision.

In the so-called "Gymnasios," which exist in the various States of the Union, education is given in a series of six years (in accordance with the German "gymnasium" system), and at the end of this period the student receives a diploma of "Bacharel em Ciências e Letras." In almost all the capital cities of the various States there is a State "Gymnasio," which closely follows the programme adopted at the Pedro II College.

*Primary Education.*—Primary education in Brazil is administered by the States and the Municipalities. The constitution of the various States provides for liberty of education. In each State there is a different programme and régime of administration of primary education, but such programmes of education tend to follow very much the same lines in each State.

*Military and Naval Education.*—This is administered by the Federal Government and is under the inspection and control of the Ministry of War and the Ministry of Marine, respectively. The following colleges and schools exist in the Federal District, viz.:—Escola Militar do Realengo, Escola Naval, Collegio Militar, Escola de Aviação and Escola de Aperfeiçoamento. Other military and naval schools exist in the various States of the Union under the direction of the Ministries mentioned above.

**Labour.**—It has often been stated that just as there is no race problem in Brazil, so there is no labour problem. Both statements are true, but with restrictions. There are ethnological difficulties in Brazil and there are also difficulties in regard to labour. But in neither case do these difficulties present the grave features which obtain in many other countries.

Industrial development is rapidly in progress in Brazil, and in the matter of labour legislation Brazil has laws relating to accidents, pensions for railway employees, while in April, 1923, a decree was published creating a National Council of Labour. One of the ideas in creating such a body was to supply the lack of any official department of the Government to deal specially with questions

affecting labour. As in the case of the Higher Council of Commerce, the Labour Council is to act as a "consulting organ" to the Government. It is to deal particularly with the following:—

- (a) Hours of work.
- (b) System of payment.
- (c) Collective contracts.
- (d) Arbitration or conciliation.
- (e) Employment of women and children.
- (f) Insurance.
- (g) Pensions for railway employees.
- (h) Popular and agricultural credit.

The Council is to be composed of twelve members nominated by the President of the Republic, and is to consist of two representatives of employees, two of employers, two officials of the Ministry of Agriculture, and six persons recognised as authorities on labour questions. A paid general secretary is to be appointed by the President of the Republic. There will be a Social Museum and Library.

The population of Brazil is only 4 per square kilometre. But industrial activity in São Paulo especially, and in the Federal District, is leading to a dense agglomeration of population in various localities.

**Savings Bank.**—A comparison of the operations of the "Caixa Economica" in Rio de Janeiro in 1913, 1921 and 1922 is as follows:—

			Deposits.	Withdrawals.
1913	..	..	24,435:618\$027	39,777:283\$961
1921	..	..	79,129:276\$277	73,917:950\$097
1922	..	..	89,934:846\$327	75,715:954\$741

The operations of the pawn-department of this bank in 1922 were 35,839 loans to the amount of 8,164:327\$ on valuables deposited, and 42,038 redemption-operations to the amount of 9,268:144\$.

Generally speaking, the maximum loan on any article is limited to 3:000\$ and the amount loaned does not exceed one-third of the intrinsic value of the article. At private pawn-shops, which are subject to licence and control by the Government, the amounts loaned are much higher, but whereas the loans made by the official department are at 9 per cent. or 10 per cent. interest per annum, those made by private shops are at 2½ per cent. or 3 per cent. per month.

**Cost of Living.**—The following comparative table of index numbers, based on the prices of the principal alimentary articles of local consumption, was recently organized by a reputable local review:—

	1909-13.	1914-18.	1919-23.
Sugar .. .. .	100	89.465	100.162
Coffee .. .. .	100	91.700	207.764
Cacao .. .. .	100	135.567	182.352
Rice .. .. .	100	345.000	363.260
Maize .. .. .	100	192.072	185.585
Lard' .. .. .	100	103.535	105.891
Jerked-beef .. .. .	100	222.537	272.348
Beans .. .. .	100	175.431	154.310
Wheaten flour .. .. .	100	200.000	308.290
Wheat .. .. .	100	209.649	374.561
Dried cod-fish .. .. .	100	185.336	315.275
Potatoes .. .. .	100	252.413	287.586
Salt .. .. .	100	208.571	242.857

**Social Movement from the U.S.A.**—During the early months of 1923 a large party of American doctors visited Brazil, the declared object being to encourage a "greater development of the relations between" North American and South American medical men and to make investigation as to the general condition of surgery in South America.

For some years past considerable and greatly increasing attention has been directed by the U.S.A. to social conditions in Brazil. The Y.M.C.A. has long been established here under North American auspices and is daily increasing in importance. Every facility is given to its members to learn English and to obtain appointments as clerks in business houses here. Its other activities follow the usual course. The Y.W.C.A. was established here in 1920 and has already developed to a marked extent.

The Rockfeller Institute is strongly represented in Brazil where it has established a very ample prophylactic organization.

**Immigration.**—The number of inhabitants of German origin settled in Brazil is estimated at about 700,000, of which some 500,000 are settled in Rio Grande do Sul and Santa Catharina and about 60,000 in Paraná. Certainly German enterprise has played a most important part in the development of these States, and the tobacco industry both there and in Bahia owes much to the activities of German merchants.

Japanese immigration has not been generally successful, and it is not welcomed locally for fear of further ethnological complications. There is at present no colour or race problem in Brazil, and it is felt that the immigration of Japanese on a large and organized scale would introduce a problem. The Japanese settlers do not assimilate, nor do they inter-marry with Brazilians.

Their customs are not understood, and where they settle they form a colony apart. An influential body of Japanese recently visited Matto Grosso and the rapidly developing north-west zone of São Paulo with the object of examining its possibilities for the purpose of establishing Japanese settlers there. But in spite of the local need for agricultural labour, there is little disposition to encourage Japanese immigration on a large scale. In any case the Japanese settler drifts to the towns at the first opportunity: and Brazilian agricultural labour will no doubt continue to be recruited from Italy, Portugal and Spain.

According to a report from His Majesty's Consul at São Paulo the number of immigrants arriving at Santos from January 1st to July 30th, 1923, was 13,570. The number at Rio during this period was a little over 1,000.

A suggestion put forward by a negro journalist who recently visited Brazil that the emigration of negro labour from the U.S.A. to Brazil should be encouraged was received with marked disapproval and mistrust in Brazil.

**Taxation.**—In 1922 the percentage of the total revenue raised from taxation was about 76 per cent. The total public expenditure per head of population was a few pence over £1, the proportion spent on the Army and Navy being just under 4 shillings. Revenue per head of population was 14s. 5d., of which 11 shillings were from taxation.

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## APPENDIX I.

## FEDERAL INDEBTEDNESS.

(A) BRAZIL'S EXTERNAL DEBT, 30TH JUNE, 1923.

*Sterling Debt.*

Loan—	Nominal Capital.			Capital in Circulation.		
	£	s.	d.	£	s.	d.
1883 .. .. .	4,599,600	0	0	2,713,100	0	0
1888 .. .. .	6,297,300	0	0	4,173,100	0	0
1889 .. .. .	19,837,000	0	0	17,468,300	0	0
1895 .. .. .	7,442,000	0	0	6,925,900	0	0
1898 (Funding) .. .. .	8,613,717	9	9	7,794,977	9	9
1901 (Rescission) .. .. .	16,619,320	0	0	11,296,160	0	0
1903 (Port Works, Rio de Janeiro) .. .. .	8,500,000	0	0	7,698,100	0	0
1908 .. .. .	4,000,000	0	0	1,889,400	0	0
1910 .. .. .	10,000,000	0	0	9,767,500	0	0
1911 (Port Works, Rio de Janeiro) .. .. .	4,500,000	0	0	4,042,900	0	0
1911 (Ceará Railways) .. .. .	2,400,000	0	0	2,400,000	0	0
1906-1911 (Lloyd Brasileiro) .. .. .	2,100,000	0	0	1,210,500	0	0
1913 .. .. .	11,000,000	0	0	11,000,000	0	0
1914 (Funding) .. .. .	14,502,396	10	3	14,502,396	10	3
Total .. .. .	£ 120,411,334	0	0	102,882,334	0	0
Net received .. .. .	£ 112,300,934	0	0			

*Franc Debt.*

	Francs.	Francs.
1908-9 Itapura-Corumba Railway .. .. .	100,000,000	98,785,000
1909 Pernambuco Port Works .. .. .	40,000,000	40,000,000
1910 Goyaz Railway .. .. .	100,000,000	98,464,500
1911 Bahia Railways .. .. .	60,000,000	60,000,000
1916 Goyaz Railways .. .. .	25,000,000	25,000,000
Total .. .. .	Frs. 325,000,000	322,249,500
Net received .. .. .	Frs. 291,731,284.	

*Dollar Debt.*

1921 .. .. .	50,000,000	43,908,500
1922 (Central Railway electrification) .. .. .	25,000,000	24,583,333·34
Total .. .. .	\$75,000,000	68,491,833·34
Net received .. .. .	\$68,250,000.	

(B) BRAZIL'S INTERNAL DEBT, 31ST DECEMBER, 1922.

Rs. 1,551,742\$300 (at 6d. exchange) .. .. . £38,793,557

(C) BRAZIL'S FLOATING DEBT, 31ST DECEMBER, 1922.

Rs. 900,000,000\$ (at 6d. exchange) .. .. . £22,500,000

(D) ANNUAL DEBT CHARGES (ESTIMATED FOR 1924).

Foreign .. .. .	£ 7,190,000 (gold).
Internal .. .. .	3,050,900 (currency, at 6d. exchange).
Total .. .. .	£10,240,900

## APPENDIX II.

## PUBLIC REVENUE AND EXPENDITURE.

		Gold.	Paper.
1920.			
Actual Revenue	.. ..	141,539:800 \$873	554,538:097 \$856
„ Expenditure	.. ..	153,590:067 \$363	827,708:050 \$030
Deficit	.. ..	12,050:266 \$490	273,169:952 \$134
		Converted at 14d. = 1 \$000 =	23,239:799 \$659
Total deficit	.. ..		Rs. 296,409:751 \$793 £17,290,600
1921.			
Actual Revenue	.. ..	76,403:040 \$713	510,637:787 \$509
„ Expenditure	.. ..	82,684:040 \$082	913,954:733 \$204
Deficit	.. ..	6,280:990 \$369	403,316:945 \$695.
		Converted at 8d. = 1 \$000 =	21,198:372 \$870
Total deficit	.. ..		Rs. 424,515:318 \$565 £14,150,500
1922.			
Actual Revenue	.. ..	74,266:941 \$376	568,944:149 \$201
„ Expenditure not yet established, but exceeds, estim- ated expenditure, which was	.. ..	85,931:211 \$579	831,193:762 \$780
Deficit	.. ..	11,664:270 \$203	262,249:613 \$579
		Converted at 6d. = 1 \$000 =	52,489:215 \$913
Total deficit	.. ..		Rs. 314,738:829 \$492 £7,868,500
1923.			
Estimated Revenue	.. ..	97,586:320 \$000	778,025:000 \$000
„ Expenditure	.. ..	88,482:479 \$024	791,386:050 \$435
Surplus	.. ..	9,103:840 \$976	Deficit 13,361:050 \$435
		Converted at 6d. = 1 \$000 =	40,967:284 \$392
Total surplus	.. ..		Rs. 27,606:233 \$957 £690,156

## APPENDIX III.

## BRAZILIAN BUDGET PROPOSALS FOR 1924.

PRESENTED TO CONGRESS BY THE MINISTER OF FINANCE ON 30TH MAY, 1923.

NOTE.—Revenue estimates have been based, by the Minister, on the actual revenue obtained in recent years and not on estimated revenue of past years.

From	(A) Revenue.	
	Gold. Milréis.	Paper. Milréis.
1. Import taxes and shipping .. .. .	86,225:000	58,650:000
2. Consumption dues on industrial products, <i>e.g.</i> , textiles, tobacco, fermented liquors, matches, salt, boots and shoes, perfumery, etc. . . . .	—	227,550:000
3. Stamps, taxes on passengers' tickets, and taxes on merchandise transport .. .. .	60:000	98,000:000
4. Income tax, <i>i.e.</i> , on dividends, net profits tax, etc. . . . .	—	—
5. Lottery taxes, 3½ per cent. on the capital of Federal lotteries and 5 per cent. on that of State lotteries .. .. .	—	1,060:000
6. Patrimonial Revenues .. .. .	100:000	1,070:000
7. Industrial Revenues, <i>i.e.</i> , Post Office, Telegraphs, National Railways, Consular fees, etc. . . . .	2,700:000	160,845:000
8. Extraordinary Revenue, including interest on loan of £3,000,000 to the State of São Paulo .. .. .	2,080:600	24,541:000
9. Sundry Revenue .. .. .	—	2,495:000
Total .. .. .	91,165:600	699,111:000

From	(B) Revenue specially earmarked.	
	Gold. Milréis.	Paper. Milréis.
1. Redemption and guarantee of currency fund (the 5 per cent. gold quota from import dues is included in general revenue) .. .. .	100:000	17,210:000
2. Fund for amortisation of railway bonds, from lease of railways .. .. .	—	3,500:000
3. Fund for port improvements .. .. .	5,825:000	5,630:000
4. Fund for sanitation work in the interior .. .. .	—	5,000:000
5. Revenue from immigration settlements .. .. .	—	1,645:000
Total .. .. .	5,925:000	32,985:000

Ministries—	By	(C) Expenditure.	
		Gold. Milréis.	Paper. Milréis.
1. Justice and Interior	.. .. .	3,373:200	100,505:200
2. Foreign Affairs	.. .. .	6,324:400	3,107:200
3. Marine	.. .. .	1,200:000	102,611:600
4. War	.. .. .	200:000	199,504:300
5. Agriculture	.. .. .	568:700	52,304:300
6. Public Works and Traffic	.. .. .	11,698:100	312,194:800
7. Finance	.. .. .	65,214:400	239,482:600
	Total	<u>88,569:800</u>	<u>1,009,710:000</u>

## (D) BALANCE (1924 PROPOSALS, AS IN TABLES A, B, AND C).

	Gold. Milréis.	Paper. Milréis.
Revenue	97,090:600	732,096:000
Expenditure	88,569:800	1,009,710:000
Surplus	8,520:800	Def. 277,614:000
Gold surplus converted at 6 <i>d.</i> = 1\$000	—	38,343:400
Net deficit	—	239,270:600
		<u>£5,981,800</u>

## APPENDIX IV.

NUMBER OF SHIPS (STEAM OR SAIL) ENTERING BRAZILIAN PORTS,  
INCLUDING REPEATED VOYAGES.

Flag.	Average Pre-war Year, 1909-11.	1920.	1921.	1922.
British .. ..	2,656	1,999	1,541	1,709
French .. ..	396	452	368	385
U.S.A. .. ..	10.	833	511	350
German .. ..	1,113	49	138	380
Italian .. ..	361	295	287	353
Dutch .. ..	147	253	240	325
Norwegian .. ..	162	246	233	239
Belgian .. ..	31	110	57	105
Swedish .. ..	46	107	81	147
Portuguese .. ..	8	37	124	72
Danish .. ..	50	60	73	93
Spanish .. ..	57	27	104	67
Japanese .. ..	1	69	70	55
Danzig .. ..	—	—	7	42
Argentine .. ..	545	568	507	561
Greek .. ..	4	22	12	30
Paraguayan .. ..	33	15	20	99
Uruguayan .. ..	72	66	54	51
Peruvian .. ..	3	13	6	12
Czecho-Slovakian .. ..	—	—	—	1
Hungarian .. ..	—	—	—	1
Finnish .. ..	—	—	5	—
Mexican .. ..	1	—	2	—
Yugo-Slav .. ..	—	—	2	—
Russian .. ..	16	5	—	—
Chilian .. ..	4	11	—	—
Rumanian .. ..	—	3	—	—
Cuban .. ..	6	1	—	—
Austrian .. ..	169	—	—	—
Bolivian .. ..	2	—	—	—
Total—Foreign .. ..	5,893	5,241	4,442	5,077
Brazilian .. ..	17,905	19,558	18,286	20,187
Total .. ..	23,798	24,829	22,728	25,264

TONNAGE OF SHIPS (STEAM AND SAIL) ENTERING BRAZILIAN PORTS,  
INCLUDING REPEATED VOYAGES.

Flag.	Average Pre-War Year, 1909-11.	1920.	1921.	1922.
British .. ..	7,817,800	6,970,600	5,852,600	6,344,700
French .. ..	1,264,300	1,767,800	1,572,200	1,674,900
U.S.A. .. ..	15,600	2,559,800	1,836,000	1,569,500
German .. ..	3,240,200	100,200	416,500	1,549,300
Italian .. ..	1,084,800	980,600	1,002,600	1,411,200
Dutch .. ..	482,100	1,085,300	1,090,000	1,288,400
Norwegian .. ..	153,400	578,900	557,800	563,100
Belgian .. ..	45,000	329,900	166,500	316,200
Swedish .. ..	95,700	249,700	184,400	285,800
Portuguese .. ..	6,000	30,400	379,000	218,200
Danish .. ..	42,500	132,700	149,200	210,300
Spanish .. ..	167,100	66,200	259,800	202,700
Japanese .. ..	6,000	245,900	250,300	199,800
Danzig .. ..	—	—	26,700	188,000
Argentine .. ..	196,300	153,400	147,100	145,800
Greek .. ..	10,800	55,200	29,100	73,000
Paraguayan .. ..	6,800	700	4,500	23,100
Uruguayan .. ..	70,600	18,200	16,400	9,400
Peruvian .. ..	1,400	4,400	500	8,700
Czecho-Slovakian .. ..	—	—	—	3,500
Hungarian .. ..	—	—	—	2,400
Finnish .. ..	—	—	8,600	—
Mexican .. ..	400	—	6,500	—
* Yugo-Slav .. ..	—	—	4,000	—
Russian .. ..	13,100	14,600	—	—
Chilian .. ..	3,800	12,600	—	—
Rumanian .. ..	—	7,200	—	—
Cuban .. ..	3,600	1,300	—	—
Austrian .. ..	448,400	—	—	—
Bolivian .. ..	50	—	—	—
Total—Foreign .. ..	15,175,750	15,365,600	13,960,300	16,288,000
Brazilian .. ..	8,795,000	9,575,700	9,152,900	11,172,000
Total .. ..	23,970,750	24,941,300	23,113,200	27,460,000

## APPENDIX V.

## FOREIGN TRADE.

TABLE A.—EXPORTATION FROM BRAZIL, WITH COUNTRIES OF DESTINATION.

(Brazilian official sterling values.)

To	1913.	1920.	1921.	1922.
U.S.A. . . . .	21,103,000	44,987,000	21,665,000	26,457,000
France . . . . .	7,992,000	12,850,000	5,798,000	7,572,000
British Empire—				
Great Britain . . . . .	8,623,000	8,759,000	4,074,000	6,812,000
Ports in Great Britain (to order)	412,000	552,000	64,000	31,000
Union of South Africa . . . . .	333,000	889,000	528,000	664,000
Canada . . . . .	33,000	119,000	71,000	83,000
Gibraltar . . . . .	28,000	39,000	47,000	77,000
Malta . . . . .	11,000	2,000	3,000	10,000
Barbados . . . . .	—	27,000	19,000	21,000
Argentina . . . . .	3,104,000	7,094,000	3,848,000	4,694,000
Germany . . . . .	9,159,000	6,184,000	5,570,000	4,203,000
Netherlands . . . . .	4,784,000	3,011,000	4,165,000	3,892,000
Italy . . . . .	837,000	7,827,000	3,810,000	3,744,000
Uruguay . . . . .	1,513,000	4,778,000	3,342,000	2,447,000
Belgium . . . . .	1,666,000	2,884,000	1,455,000	1,936,000
Sweden . . . . .	657,000	1,788,000	962,000	1,410,000
Portugal . . . . .	326,000	2,049,000	1,258,000	1,196,000
Denmark . . . . .	151,000	895,000	449,000	647,000
Finland . . . . .	—	99,000	316,000	518,000
Algeria . . . . .	220,000	258,000	320,000	413,000
Chile . . . . .	180,000	457,000	105,000	282,000
Spain . . . . .	350,000	662,000	115,000	282,000
Norway . . . . .	99,000	131,000	142,000	209,000
Cuba . . . . .	—	344,000	73,000	104,000
Japan . . . . .	3,000	19,000	11,000	16,000
Other countries . . . . .	3,867,000	816,000	377,000	858,000
Total . . . . .	65,451,000	107,520,000	58,587,000	68,578,000
Total tonnage . . . . .	1,382,100	2,101,400	1,919,400	2,121,600

TABLE B.—IMPORTATION INTO BRAZIL, WITH COUNTRIES OF ORIGIN.

(Brazilian official sterling values.)

From	1913.	1920.	1921.	1922.
British Empire—	£	£	£	£
Great Britain .. .. .	16,436,000	27,275,000	12,337,000	12,545,000
India .. .. .	551,000	1,172,000	837,000	448,000
Newfoundland .. .. .	787,000	1,301,000	620,000	367,000
Canada .. .. .	274,000	705,000	570,000	337,000
U.S.A. .. .. .	10,553,000	51,939,000	19,148,000	11,082,000
Argentine .. .. .	4,999,000	10,545,000	6,903,000	6,738,000
Germany .. .. .	11,737,000	5,876,000	4,864,000	4,309,000
France .. .. .	6,572,000	6,848,000	3,775,000	2,896,000
Italy .. .. .	2,544,000	3,080,000	1,760,000	1,887,000
Belgium .. .. .	3,432,000	2,207,000	2,456,000	1,553,000
Portugal .. .. .	2,948,000	2,644,000	1,102,000	1,177,000
Mexico .. .. .	25,000	1,269,000	1,614,000	857,000
Uruguay .. .. .	1,450,000	1,682,000	828,000	747,000
Netherlands .. .. .	728,000	640,000	523,000	739,000
Spain .. .. .	641,000	1,683,000	519,000	533,000
Switzerland .. .. .	791,000	1,481,000	596,000	501,000
Norway .. .. .	706,000	1,299,000	478,000	491,000
Sweden .. .. .	294,000	1,476,000	335,000	445,000
Denmark .. .. .	118,000	128,000	140,000	285,000
Finland .. .. .	—	632,000	404,000	173,000
Czecho-Slovakia .. .. .	—	126,000	114,000	122,000
China .. .. .	34,000	123,000	140,000	81,000
Japan .. .. .	36,000	592,000	221,000	77,000
Other countries .. .. .	1,510,000	282,000	184,000	251,000
Total .. .. .	67,166,000	125,005,000	60,468,000	48,641,000
Total tonnage .. .. .	5,922,300	3,275,900	2,578,200	3,263,500



TABLE C.—EXPORTATION FROM BRAZIL, WITH COUNTRIES OF  
DESTINATION.

(Brazilian official sterling values.)

JANUARY—MARCH (INCLUSIVE).

To	1913.	1921.	1922.	1923.
U.S.A. . . . .	£ 6,619,000	£ 6,175,000	£ 5,668,000	£ 9,069,000
France . . . . .	1,900,000	1,278,000	1,525,000	2,316,000
British Empire—				
Great Britain . . . . .	3,183,000	1,109,000	2,771,000	1,247,000
Ports in Great Bri- tain (to order) . . . . .	50,000	—	—	—
South Africa . . . . .	89,000	55,000	101,000	93,000
British S.W. Africa . . . . .	—	—	—	335
Barbados . . . . .	—	1,200	4,500	1,700
British India . . . . .	—	—	—	1,340
Gibraltar . . . . .	7,800	6,550	17,130	26,300
Malta . . . . .	2,540	1,210	1,650	910
Netherlands . . . . .	853,000	784,000	1,221,000	1,078,000
Argentine . . . . .	614,000	866,000	1,039,000	893,000
Italy . . . . .	237,000	1,144,000	765,000	781,000
Germany . . . . .	2,395,000	961,000	1,105,000	779,000
Total, all countries . . . . .	17,793,000	14,651,000	16,702,000	18,926,000

TABLE D.—IMPORTATION INTO BRAZIL, WITH COUNTRIES OF ORIGIN.  
(Brazilian official sterling value.)

JANUARY—MARCH (INCLUSIVE).

From	1913.	1921.	1922.	1923.
British Empire—				
Great Britain . . . . .	£ 4,349,000	£ 4,758,000	£ 2,542,000	£ 3,971,000
British India . . . . .	162,000	399,000	40,000	279,000
Canada . . . . .	125,000	215,000	116,000	167,000
U.S.A. . . . .	2,754,000	8,799,000	2,407,000	2,193,000
Argentine . . . . .	1,101,000	1,835,000	1,811,000	1,629,000
Germany . . . . .	3,001,000	1,758,000	730,000	1,478,000
France . . . . .	1,838,000	1,677,000	468,000	873,000
Italy . . . . .	732,000	797,000	397,000	573,000
Belgium . . . . .	985,000	789,000	383,000	449,000
Total, all countries . . . . .	17,777,000	24,173,000	10,182,000	13,220,000
Total tonnage, all countries . . . . .	1,396,013	675,870	680,626	837,605

TABLE E.—BRAZILIAN EXPORTATION.

PRINCIPAL PRODUCTS, CLASSIFIED IN ORDER OF IMPORTANCE, AND SHOWING  
PRINCIPAL OVERSEAS PURCHASING MARKETS IN 1913 AND IN 1921  
AND 1922.

Markets.	1913.	1921.	1922.
<b>I.—COFFEE.</b>			
Great Britain .. .. Bags*	251,080	52,770	513,970
South Africa .. .. "	120,440	217,330	224,200
Gibraltar .. .. "	10,110	17,540	25,560
Canada .. .. "	9,750	21,460	19,410
U.S.A. .. .. "	4,914,730	6,136,810	5,966,220
France .. .. "	1,846,940	1,555,950	1,631,740
Italy .. .. "	237,130	754,380	970,690
Netherlands .. .. "	1,483,100	1,087,190	902,950
Germany .. .. "	1,865,630	922,520	444,540
Belgium .. .. "	444,990	382,160	420,650
Sweden .. .. "	212,030	323,450	397,630
Argentina .. .. "	249,060	296,380	353,500
Denmark .. .. "	47,270	97,270	171,020
Finland .. .. "	—	134,070	138,120
Algeria .. .. "	79,280	119,960	126,190
Egypt .. .. "	36,500	43,280	81,260
Chile .. .. "	35,860	12,710	52,550
Norway .. .. "	33,110	26,220	47,700
Uruguay .. .. "	37,350	35,140	37,930
Turkey (European) .. .. "	77,700	5,600	25,710
Greece .. .. "	5,750	14,380	14,350
Portuguese East Africa .. .. "	3,930	—	11,680
Other countries .. .. "	1,266,050	112,040	94,970
Total .. .. "	13,267,790	12,368,610	12,672,540
F.o.b. value .. .. £	40,779,330	34,693,820	44,242,200
Ditto ditto .. .. Milréis	611,690:000	1,019,060:000	1504,170:000
<b>II.—SUGAR.</b>			
Great Britain .. .. Met. tons	5,140	81,940	135,800
Uruguay .. .. "	230	31,260	32,560
Argentina .. .. "	10	26,340	33,370
Portugal .. .. "	20	23,030	22,210
Total (all countries) .. .. "	5,400	172,090	252,110
F.o.b. value .. .. £	65,330	3,292,500	3,322,500
<b>III.—COTTON (RAW).</b>			
Great Britain .. .. Met. tons	29,960	10,360	17,720
Portugal .. .. "	3,210	3,290	6,040
France .. .. "	1,910	3,040	6,010
Germany .. .. "	980	1,560	1,820
U.S.A. .. .. "	80	790	1,200
Total (all countries) .. .. "	37,420	19,610	33,950
F.o.b. value .. .. £	2,308,000	1,556,080	3,058,900

\* Bags of 60 Kilos.

Markets.	1913.	1921.	1922.
<i>Cotton seed residues—</i>			
Great Britain .. Met. tons	3,980	*	680
France .. .. "	30	*	—
U.S.A. .. .. "	10	*	11,600
Denmark .. .. "	—	*	3,450
Germany .. .. "	—	*	1,700
Norway .. .. "	—	*	—
Total (all countries) .. "	4,020	23,430	17,430
F.o.b. value .. .. £	36,060	152,910	97,200
<i>Cotton seed.</i>			
Great Britain .. Met. tons	48,850	24,370	24,300
Total (all countries) .. "	49,780	24,470	29,060
F.o.b. value .. .. £	239,100	95,820	115,450
IV.—HIDES, SALTED AND DRIED, OX.			
Great Britain .. Met. tons	8,820	4,000	6,200
Germany .. .. "	10,280	14,440	14,900
France .. .. "	10,540	1,930	5,980
Uruguay .. .. "	6,120	6,730	4,970
U.S.A. .. .. "	1,160	9,970	11,370
Total (all countries) .. "	41,470	42,440	47,990
F.o.b. value .. .. £	2,546,000	1,766,580	2,140,210
<i>Skins, goat, sheep, deer, etc.</i>			
Great Britain .. Met. tons	230	7	4
U.S.A. .. .. "	2,370	2,490	1,960
France .. .. "	480	130	200
Total (all countries) .. "	3,580	2,910	3,300
F.o.b. value .. .. £	834,000	746,900	988,000
V.—COCOA.			
Great Britain .. Met. tons	7,950	260	990
U.S.A. .. .. "	10,050	19,370	18,610
Germany .. .. "	3,680	9,990	8,440
Netherlands .. .. "	970	3,920	4,090
France .. .. "	4,780	2,580	5,210
Argentina .. .. "	1,020	1,940	2,440
Total (all countries) .. "	29,760	42,880	45,280
F.o.b. value .. .. £	1,593,330	1,682,210	1,979,000
VI.—RUBBER.			
Great Britain .. Met. tons	13,840	1,890	4,290
U.S.A. .. .. "	16,510	10,130	9,480
France .. .. "	2,790	2,420	2,380
Germany .. .. "	690	2,160	2,530
Total (all countries) .. "	34,440	17,070	19,900
F.o.b. value .. .. £	10,023,670	1,195,450	1,407,700

\* Details not available.

Markets.	1913.	1921.	1922.
<b>VII.—TOBACCO, LEAF.</b>			
Great Britain .. Met. tons	40	530	65
Germany .. .. "	24,020	9,040	13,540
Argentine .. .. "	4,360	3,340	8,690
Spain .. .. "	—	—	6,850
France .. .. "	—	5,590	3,580
Uruguay .. .. "	600	1,910	3,210
Netherlands .. .. "	—	5,210	2,510
Belgium .. .. "	10	2,800	2,390
Total (all countries) ..	29,120	32,160	44,710
F.o.b. value .. .. £	1,617,330	1,858,060	1,390,800
<b>VIII.—BRAZIL NUTS.</b>			
Great Britain .. Met. tons	2,020	7,520	15,050
U.S.A. .. .. "	1,800	14,320	18,430
Total (all countries) ..	4,110	22,150	34,580
F.o.b. value .. .. £	164,260	905,800	1,178,000
<b>IX.—FROZEN MEAT. (a)</b>			
Great Britain .. Met. tons	14,820	9,830	50
Ports of Great Britain, to order ..	12,530	1,290	810
Italy .. .. "	29,370	19,230	12,390
France .. .. "	3,800	4,710	8,950
Uruguay .. .. "	—	17,420	3,580
Germany .. .. "	—	5,510	3,390
Netherlands .. .. "	—	3,930	1,070
Total (all countries) ..	60,520	61,930	32,310
F.o.b. value .. .. £	3,326,400	2,376,170	982,950
<b>X.—RICE. (b)</b>			
Great Britain .. Met. tons	4,250	120	100
Argentina .. .. "	31,450	20,570	24,310
Uruguay .. .. "	6,760	6,450	10,210
Portugal .. .. "	7,790	4,670	1,820
Germany .. .. "	51,700	22,030	—
Total (all countries) ..	134,550	56,600	37,870
F.o.b. value .. .. £	5,803,050	1,079,490	679,600

(a) No exportation prior to 1915.

(b) Exportation prior to 1917 was negligible.

Markets.	1913.	1921.	1922.
<b>XI.—MANGANESE.</b>			
Great Britain .. Met. tons	16,800	—	6,400
U.S.A. .. .. "	59,400	260,100	298,400
Germany .. .. "	5,000	—	1,800
France .. .. "	—	—	31,700
Total (all countries) .. "	122,300	275,700	340,700
F.o.b. value .. .. £	181,300	828,380	673,600
<b>XII.—TIMBER AND LUMBER.</b>			
Argentine .. .. Met. tons	10,060	64,270	96,790
Uruguay .. .. "	5,410	16,760	18,820
U.S.A. .. .. "	790	9,180	6,700
Total (all countries) .. "	20,310	100,500	130,960
F.o.b. value .. .. £	134,660	618,590	659,380
<b>XIII.—CARNAUBA WAX.</b>			
Great Britain .. Met. tons	690	800	940
U.S.A. .. .. "	940	2,180	2,480
Germany .. .. "	1,710	550	630
France .. .. "	510	250	430
Total (all countries) .. "	3,870	3,900	5,000
F.o.b. value .. .. £	439,510	355,700	422,800
<b>XIV.—WOOL.</b>			
Great Britain .. Met. tons	50	50	1
Uruguay .. .. "	1,910	2,190	2,660
Germany .. .. "	10	—	590
Total (all countries) .. "	2,950	3,230	3,560
F.o.b. value .. .. £	179,300	448,400	405,600
<b>XV.—BRAN, ALL KINDS.</b>			
Great Britain .. Met. tons	2,150	5,100	8,880
Germany .. .. "	42,930	—	10,010
Netherlands .. .. "	280	—	7,540
Belgium .. .. "	7,330	—	5,020
Denmark .. .. "	—	—	1,850
France .. .. "	—	—	1,290
Total (all countries) .. "	54,830	5,190	35,930
F.o.b. value .. .. £	323,890	36,270	187,050

TABLE F.—BRAZILIAN IMPORTATION.

PRINCIPAL ARTICLES, CLASSIFIED, SHOWING GREAT BRITAIN'S POSITION IN RELATION TO OTHER IMPORTANT SUPPLIERS IN EACH ARTICLE, IN 1913 AND IN THE YEARS 1921 AND 1922.

Suppliers.	1913.	1921.	1922.
<b>I.—COTTON, JUTE, WOOL AND LINEN (RAW, YARNS, AND TEXTILES).</b>			
<i>Cotton yarn.</i>			
Great Britain .. Met. tons	750	650	912
Germany .. .. "	360	40	17
Total (all countries) ..	1,540	730	1,000
C.i.f. value .. .. £	226,700	468,300	439,600
<i>Cotton sewing thread.</i>			
Great Britain .. Met. tons	1,220	325	270
Total (all countries) ..	1,350	335	283
C.i.f. value .. .. £	405,000	515,400	319,500
<i>Cotton piece-goods.</i>			
Great Britain .. Met. tons	6,990	1,400	2,400
U.S.A. .. .. "	160	130	280
France .. .. "	310	300	180
Total (all countries) ..	9,850	2,020	3,000
C.i.f. value .. .. £	2,570,000	1,994,400	2,183,500
<i>Cotton manufactures (unspecified)</i>			
Great Britain .. Met. tons	610	(a)	230
U.S.A. .. .. "	70	(a)	100
France .. .. "	200	(a)	40
Germany .. .. "	590	(a)	50
Total (all countries) ..	1,780	280	600
C.i.f. value .. .. £	677,100	220,200	232,400
<i>Jute yarn. †</i>			
Great Britain .. Met. tons	7,550	3,280	4,530
India .. .. "	1,440	370	800
Total (all countries) ..	9,540	3,710	5,430
C.i.f. value .. .. £	428,840	351,500	308,300
<i>Jute (raw). ‡</i>			
Great Britain .. Met. tons	140	290	1,170
India .. .. "	9,140	12,130	10,670
Total (all countries) ..	10,390	12,420	11,880
C.i.f. value .. .. £	333,400	785,000	446,200

(a) Unavailable.

† Including hemp yarn in 1913. ‡ Including raw hemp in 1913.

Suppliers.	1913.	1921.	1922.
<i>Wool (unprepared, combed, carbonised and dyed).</i>			
Great Britain .. Met. tons	100	19	80
U.S.A. .. .. . "	—	—	190
Total (all countries) .. "	470	70	370
C.i.f. value .. .. £	49,300	19,500	85,300
<i>Wool, yarn.</i>			
Great Britain .. Met. tons	330	170	240
Belgium .. .. . "	200	70	180
France .. .. . "	890	140	170
Total (all countries) .. "	1,710	400	650
C.i.f. value .. .. £	509,400	455,200	492,000
<i>Woollen piece-goods.</i>			
Great Britain .. Met. tons	860	240	220
Germany .. .. . "	200	10	15
Total (all countries) .. "	1,250	330	320
C.i.f. value .. .. £	562,000	706,400	400,300
<i>Linen piece-goods.</i>			
Great Britain .. Met. tons	740	160	290
Belgium .. .. . "	330	16	36
France .. .. . "	220	8	17
Total (all countries) .. "	1,380	190	350
C.i.f. value .. .. £	358,000	216,200	225,200
<b>II.—IRON, STEEL AND TINPLATE.</b>			
<i>Iron bars and rods.</i>			
Great Britain .. Met. tons	6,750	2,400	2,100
Germany .. .. . "	15,920	5,000	4,800
Belgium .. .. . "	12,950	4,500	3,000
U.S.A. .. .. . "	1,920	7,500	2,300
Total (all countries) .. "	40,560	20,090	16,370
C.i.f. value .. .. £	380,500	548,100	183,600
<i>Iron plates and sheets.</i>			
Great Britain .. Met. tons	1,770	900	2,200
U.S.A. .. .. . "	860	4,500	3,600
Germany .. .. . "	4,310	2,200	2,350
Belgium .. .. . "	2,200	650	1,300
Total (all countries) .. "	9,440	8,340	10,690
C.i.f. value .. .. £	109,600	326,100	179,600

Suppliers.	1913.	1921.	1922.
<i>Iron, cast, pig, puddled and filings.</i>			
Great Britain .. Met. tons	17,930	500	580
Belgium .. .. "	10	170	620
France .. .. "	20	—	400
Germany .. .. "	340	180	340
U.S.A. .. .. "	1,330	80	240
Total (all countries) ..	19,620	1,080	3,060
C.i.f. value .. .. £	111,500	18,900	23,400
<i>Steel bars and rods.</i>			
Great Britain .. Met. tons	3,450	2,650	3,020
Belgium .. .. "	1,500	500	920
U.S.A. .. .. "	810	2,200	740
Germany .. .. "	860	240	460
France .. .. "	380	1,400	80
Total (all countries) ..	7,200	7,280	5,750
C.i.f. value .. .. £	150,700	322,400	142,100
<i>Steel plates.</i>			
Great Britain .. Met. tons	1,710	580	650
Belgium .. .. "	600	420	560
Germany .. .. "	70	160	450
U.S.A. .. .. "	480	610	190
France .. .. "	2	3	60
Total (all countries) ..	3,000	1,860	2,040
C.i.f. value .. .. £	39,300	62,500	41,200
<i>Axles, wheels, etc. (for railway cars and wagons).</i>			
Great Britain .. Met. tons	2,940	1,750	610
U.S.A. .. .. "	2,110	4,000	1,840
Belgium .. .. "	2,400	1,500	950
Germany .. .. "	3,370	980	900
France .. .. "	160	—	360
Total (all countries) ..	10,980	8,800	4,700
C.i.f. value .. .. £	247,000	493,000	177,700
<i>Superstructure for buildings.</i>			
Great Britain .. Met. tons	9,270	480	1,250
Germany .. .. "	30,050	4,150	2,830
U.S.A. .. .. "	8,140	5,020	2,790
Belgium .. .. "	15,880	890	2,190
France .. .. "	6,780	2,090	240
Total (all countries) ..	71,360	12,730	10,480
C.i.f. value .. .. £	938,000	410,600	174,900



Suppliers.	1913.	1921.	1922.
<i>Rails, fishplates, etc.</i>			
Great Britain .. Met. tons	13,930	2,520	2,090
Belgium .. .. "	59,960	65,780	25,430
Germany .. .. "	46,860	5,930	21,850
France .. .. "	93,160	660	7,440
U.S.A. .. .. "	46,640	25,370	6,130
Total (all countries) ..	261,550	100,280	67,740
C.i.f. value .. .. £	2,313,700	2,369,700	767,300
<i>Telegraph and telephone posts and parts of bridges and fences.</i>			
Great Britain .. Met. tons	4,690	1,180	1,560
Germany .. .. "	6,870	220	1,110
U.S.A. .. .. "	3,090	1,710	3,050
Belgium .. .. "	8,310	65	1,030
Total (all countries) ..	23,880	3,300	7,540
C.i.f. value .. .. £	384,000	140,100	229,600
<i>Staples, screws and rivets.</i>			
Great Britain .. Met. tons	990	330	660
U.S.A. .. .. "	900	800	2,490
Germany .. .. "	960	390	1,200
Belgium .. .. "	440	720	400
France .. .. "	320	160	130
Total (all countries) ..	3,640	2,490	5,000
C.i.f. value .. .. £	83,300	141,700	144,000
<i>Tubes, pipes and joinings.</i>			
Great Britain .. Met. tons	24,180	2,240	2,840
U.S.A. .. .. "	3,420	4,850	7,980
Germany .. .. "	20,830	2,590	3,680
France .. .. "	17,020	5,400	3,200
Belgium .. .. "	7,710	730	480
Netherlands .. .. "	—	—	1,150
Total (all countries) ..	73,460	16,120	19,600
C.i.f. value .. .. £	925,000	659,600	519,600
<i>Barbed wire.</i>			
Great Britain .. Met. tons	230	190	40
U.S.A. .. .. "	15,290	5,450	12,560
Germany .. .. "	8,560	1,830	7,090
Netherlands .. .. "	—	—	990
Belgium .. .. "	6,280	—	460
Italy .. .. "	—	—	320
France .. .. "	100	860	120
Total (all countries) ..	30,720	8,750	22,080
C.i.f. value .. .. £	381,300	327,400	415,700

Suppliers.	1913.	1921.	1922.
<i>Wire (not including barbed wire).</i>			
Great Britain .. Met. tons	1,330	740	1,560
Germany .. .. "	20,470	5,260	8,350
U.S.A. .. .. "	2,120	5,140	7,470
Belgium .. .. "	1,310	550	470
Total (all countries) ..	26,590	12,230	18,224
C.i.f. value .. .. £	318,000	457,700	334,900
<i>Galvanised corrugated sheets.</i>			
Great Britain .. Met. tons	19,670	1,830	4,200
U.S.A. .. .. "	1,490	1,830	3,230
Germany .. .. "	1,930	360	470
Total (all countries) ..	24,690	4,340	8,000
C.i.f. value .. .. £	421,300	246,400	200,400
<i>Tools and utensils of all kinds.</i>			
Great Britain .. Met. tons	6,770	2,680	3,720
Germany .. .. "	1,980	1,090	2,300
U.S.A. .. .. "	1,790	560	850
France .. .. "	670	210	140
Total (all countries) ..	11,630	4,860	7,210
C.i.f. value .. .. £	817,200	924,300	793,200
<i>Cutlery.</i>			
Great Britain .. Met. tons	260	100	30
Germany .. .. "	410	230	150
U.S.A. .. .. "	160	40	30
France .. .. "	60	50	10
Total (all countries) ..	910	430	230
C.i.f. value .. .. £	250,500	279,700	83,800
<i>Tinplate in sheets.</i>			
Great Britain .. Met. tons	17,770	1,760	9,620
Germany .. .. "	710	4,300	3,840
U.S.A. .. .. "	2,530	—	240
Total (all countries) ..	21,370	6,210	13,770
C.i.f. value .. .. £	423,200	364,200	361,100
III.—LOCOMOTIVES, WAGGONS, CRANES, BOILERS, MACHIN- ERY, ETC.			
<i>Locomotives.</i>			
Great Britain .. Met. tons	750	890	380
Canada .. .. "	—	1,330	—
U.S.A. .. .. "	9,200	6,170	3,200
Germany .. .. "	3,150	410	640
Belgium .. .. "	550	110	200
Total (all countries) ..	13,700	8,970	4,480
C.i.f. values .. .. £	705,600	1,406,300	547,600

Suppliers.	1913.	1921.	1922.
<i>Railway cars and waggons.</i>			
Great Britain .. Met. tons	9,560	900	760
Belgium .. .. "	32,130	300	5,520
U.S.A. .. .. "	25,320	6,960	1,780
Germany .. .. "	1,670	700	1,160
Total (all countries) .. "	69,020	8,870	9,220
C.i.f. value .. .. £	1,890,500	658,700	474,000
<i>Motor cars.</i>			
Great Britain .. .. No.	112	41	25
Canada .. .. "	—	—	13
U.S.A. .. .. "	814	403	2,265
Italy .. .. "	412	236	243
Germany .. .. "	613	124	121
France .. .. "	953	120	47
Switzerland .. .. "	142	—	29
Uruguay (in transit) .. "	64	—	35
Total (all countries) .. "	3,218	977	2,775
C.i.f. value .. .. £	965,000	479,500	600,000
<i>Accessories for motor cars.</i>			
Great Britain .. Met. tons	30	30	20
U.S.A. ... .. "	80	520	1,070
Germany .. .. "	160	50	110
Italy .. .. "	50	45	20
France .. .. "	150	30	20
Switzerland .. .. "	13	3	10
Total (all countries) .. "	500	690	1,280
C.i.f. value .. .. £	110,200	184,800	190,200
<i>Scales.</i>			
Great Britain .. Met. tons	140	80	60
U.S.A.* .. .. "	210	100	30
Germany .. .. "	210	60	70
Total (all countries) .. "	640	260	177
C.i.f. value .. .. £	30,200	33,900	14,700
<i>Hydraulic pumps and accessories.</i>			
Great Britain .. Met. tons	280	120	100
U.S.A. .. .. "	380	230	190
Germany .. .. "	400	100	60
Total (all countries) .. "	1,330	510	400
C.i.f. value .. .. £	92,700	104,300	59,100
<i>Boilers.</i>			
Great Britain ... Met. tons	2,070	850	480
Germany .. .. "	640	310	130
Italy .. .. "	80	—	80
France .. .. "	190	170	30
U.S.A. .. .. "	130	550	20
Total (all countries) .. "	3,190	2,070	770
C.i.f. value .. .. £	133,500	185,400	48,300

\* Preferential import tariff rate, viz., 20 per cent. reduction (Belgium since 1921).

Suppliers	1913.	1921.	1922.
<i>Cranes.</i>			
Great Britain .. Met. tons	1,600	1,240	730
Germany .. .. "	700	60	150
U.S.A. .. .. "	270	620	90
France .. .. "	380	40	—
Total (all countries) ..	2,990	2,020	990
C.i.f. value .. .. £	130,300	215,800	77,300
<i>Sewing machines.</i>			
Great Britain .. Met. tons	405	5	4
Canada .. .. "	—	230	60
U.S.A. .. .. "	4,480	425	637
Germany .. .. "	1,310	300	524
Total (all countries) ..	6,220	960	1,230
C.i.f. value .. .. £	559,100	199,100	157,200
<i>Spinning and weaving machines.</i>			
Great Britain .. Met. tons	8,290	2,570	3,090
Germany .. .. "	870	660	440
Italy .. .. "	100	400	200
Total (all countries) ..	10,200	3,930	3,850
C.i.f. value .. .. £	312,000	503,200	424,500
<i>Accessories for spinning and weaving machines.</i>			
Great Britain .. Met. tons	1,260	910	1,400
Germany .. .. "	80	45	85
Italy .. .. "	120	100	55
Total (all countries) ..	1,550	1,130	1,660
C.i.f. value .. .. £	126,100	350,600	346,500
<i>Looms.</i>			
Great Britain .. Met. tons	1,400	880	940
Germany .. .. "	60	80	90
Italy .. .. "	50	170	40
Switzerland .. .. "	—	80	8
Total (all countries) ..	1,540	1,220	1,110
C.i.f. value .. .. £	29,300	97,300	65,400
<i>Industrial machinery (unspecified).</i>			
Great Britain .. Met. tons	4,950	2,390	1,260
Germany .. .. "	5,900	1,900	1,950
France .. .. "	4,430	1,640	640
U.S.A. .. .. "	1,120	2,280	290
Belgium .. .. "	650	210	140
Total (all countries) ..	17,610	9,250	4,730
C.i.f. value .. .. £	747,000	1,162,400	377,800

Suppliers.	1913.	1921.	1922.
<i>Agricultural machinery (unspecified)</i>			
Great Britain .. Met. tons	410	60	60
Canada .. .. "	—	—	40
U.S.A. .. .. "	990	370	320
Germany .. .. "	740	300	300
Total (all countries) ..	2,400	940	740
C.i.f. value .. .. £	96,400	101,200	47,600
<i>Machinery and apparatus (unspecified).</i>			
Great Britain .. Met. tons	8,000	2,490	2,190
Germany .. .. "	10,120	3,920	4,700
U.S.A. .. .. "	4,910	4,700	2,820
Italy .. .. "	790	500	380
France .. .. "	2,740	770	250
Belgium .. .. "	510	190	110
Total (all countries) ..	28,290	14,110	11,120
C.i.f. value .. .. £	1,769,300	1,974,500	1,064,700
<i>Motors (unspecified).</i>			
Great Britain .. Met. tons	340	70	180
Germany .. .. "	380	470	150
U.S.A. .. .. "	210	90	30
Total (all countries) ..	1,140	690	430
C.i.f. value .. .. £	83,100	84,700	44,100
IV.—COPPER.			
<i>Copper plates, ingots and bars.</i>			
Great Britain .. Met. tons	970	330	580
U.S.A. .. .. "	10	120	570
Germany .. .. "	600	130	260
France .. .. "	160	10	30
Total (all countries) ..	1,880	740	1,500
C.i.f. value .. .. £	162,800	110,400	146,800
<i>Copper, cast, moulded and filings.</i>			
Great Britain .. Met. tons	440	60	190
U.S.A. .. .. "	60	60	160
Germany .. .. "	110	20	50
France .. .. "	100	20	20
Total (all countries) ..	720	190	430
C.i.f. value .. .. £	67,700	25,500	38,000
<i>Insulated electric copper wire.</i>			
Great Britain .. Met. tons	40	10	160
U.S.A. .. .. "	750	330	450
Germany .. .. "	170	130	380
Italy .. .. "	70	65	50
Total (all countries) ..	1,050	600	1,230
C.i.f. value .. .. £	89,300	144,200	123,500

Suppliers.	1913.	1921.	1922.
<b>V.—CHEMICAL PRODUCTS.</b>			
<i>White zinc paints.</i>			
Great Britain .. Met. tons	210	50	290
Belgium .. .. .	2,540	710	2,370
Germany .. .. .	350	55	350
France .. .. .	150	10	160
U.S.A. .. .. .	5	8	10
Total (all countries) ..	3,330	840	3,200
C.i.f. value .. .. . £	96,700	33,800	111,300
<i>Aniline dyes.</i>			
Great Britain .. .. Kilos	15,893	11,759	9,176
Germany .. .. .	394,533	395,413	572,384
U.S.A. .. .. .	—	59,541	63,123
France .. .. .	1,589	1,375	2,204
Total (all countries) ..	431,112	514,640	699,425
C.i.f. value .. .. . £	117,600	285,400	161,609
<i>Linseed oil.</i>			
Great Britain .. Met. tons	4,290	1,500	2,900
Argentine .. .. .	1	400	700
Netherlands .. .. .	70	100	430
Germany .. .. .	400	60	120
Total (all countries) ..	4,850	2,090	4,260
C.i.f. value .. .. . £	170,500	134,200	227,000
<i>Soda ash, potash.</i>			
Great Britain .. Met. tons	6,860	4,650	7,340
U.S.A. .. .. .	20	300	400
Germany .. .. .	140	50	230
France .. .. .	6	120	—
South Africa .. .. .	—	—	200
Total (all countries) ..	7,080	5,160	8,290
C.i.f. value .. .. . £	51,500	81,600	104,800
<i>Paints, prepared.</i>			
Great Britain .. Met. tons	1,680	620	1,040
U.S.A.* .. .. .	330	190	280
Germany .. .. .	250	50	150
Netherlands .. .. .	30	10	30
France .. .. .	115	20	20
Belgium* .. .. .	7	1	15
Total (all countries) ..	2,520	900	1,550
C.i.f. value .. .. . £	137,500	108,700	140,500

\* Preferential import tariff rate, viz., 20 per cent. reduction (Belgium since 1921).

Suppliers.	1913.	1921.	1922.
<i>Varnishes.</i>			
Great Britain .. Met. tons	200	50	70
U.S.A.* .. .. "	130	65	135
Germany .. .. "	30	7	40
Netherlands .. .. "	6	1	20
Total (all countries) ..	390	130	280
C.i.f. value .. .. £	50,400	27,900	43,600
<i>Chemical manures.</i>			
Great Britain .. Met. tons	340	60	200
Germany .. .. "	6,770	2,080	2,060
Netherlands .. .. "	900	190	1,370
Belgium .. .. "	1,270	—	600
Total (all countries) ..	9,470	2,340	4,340
C.i.f. value .. .. £	88,900	35,300	48,300
<i>Caustic Soda.</i>			
Great Britain .. Met. tons	7,260	1,860	10,690
U.S.A. .. .. "	70	990	5,480
Total (all countries) ..	7,580	2,900	16,380
C.i.f. value .. .. £	105,300	86,700	410,600
<i>Chemical products (unspecified).</i>			
Great Britain .. Met. tons	5,650	2,260	4,020
Germany .. .. "	6,820	3,120	7,770
France .. .. "	1,790	980	1,520
U.S.A. .. .. "	420	970	1,090
Total (all countries) ..	15,930	8,140	15,880
C.i.f. value .. .. £	1,007,600	862,200	903,400
VI.—ELECTRICAL MATERIAL AND APPARATUS.			
<i>Electric cables.</i>			
Great Britain .. Met. tons	1,250	260	300
Canada .. .. "	—	410	410
U.S.A. .. .. "	490	960	830
Germany .. .. "	580	140	110
Belgium .. .. "	1	—	110
France .. .. "	150	40	40
Total (all countries) ..	2,580	1,920	1,400
C.i.f. value .. .. £	169,500	277,000	122,100
<i>Apparatus for electricity and electric light.</i>			
Great Britain .. .. "	1,510	470	380
Germany .. .. "	2,010	470	840
U.S.A. .. .. "	2,940	1,290	970
Total (all countries) ..	7,070	2,590	2,690
C.i.f. value .. .. £	689,600	813,200	576,300

\* Preferential import tariff rate, viz., 20 per cent. reduction.

Suppliers.	1913.	1921.	1922.
<i>Dynamics and generators.</i>			
Great Britain .. Met. tons	100	40	60
U.S.A. .. .. "	370	470	160
Germany .. .. "	170	115	50
Total (all countries) ..	760	670	360
C.i.f. value .. .. £	61,000	143,900	72,900
<i>Motors.</i>			
Great Britain .. Met. tons	210	85	130
Germany .. .. "	480	770	620
Italy .. .. "	85	85	240
U.S.A. .. .. "	465	545	150
Switzerland .. .. "	165	120	120
Total (all countries) ..	1,490	1,630	1,370
C.i.f. value .. .. £	123,100	318,800	224,100
<i>Transformers.</i>			
Great Britain .. Met. tons	40	10	45
U.S.A. .. .. "	795	570	220
Germany .. .. "	150	115	160
Total (all countries) ..	1,010	730	460
C.i.f. value .. .. £	84,000	149,700	66,400
VII.—FUEL, OILS AND CEMENT.			
<i>Coal.</i>			
Great Britain .. Met. tons	1,927,390	235,800	1,010,100
U.S.A. .. .. "	274,800	596,500	161,500
Total (all countries) ..	2,262,350	843,130	1,176,300
C.i.f. value .. .. £	4,018,600	2,813,000	2,230,500
<i>Cement.</i>			
Great Britain .. Met. tons	130,370	22,540	39,810
Germany .. .. "	188,810	82,550	100,550
Denmark .. .. "	7,320	16,630	63,900
Belgium* .. .. "	60,220	11,300	35,560
U.S.A.* .. .. "	50,660	8,000	26,340
Sweden .. .. "	—	1,620	23,800
Total (all countries) ..	465,310	156,900	319,600
C.i.f. value .. .. £	1,466,900	945,500	1,205,600
<i>Lubricating oils.</i>			
Great Britain .. Met. tons	1,580	530	510
U.S.A. .. .. "	11,700	11,200	18,960
Germany .. .. "	1,390	20	35
Total (all countries) ..	17,100	12,330	19,720
C.i.f. value .. .. £	327,000	526,600	501,800

\* Preferential import tariff rate, viz., 20 per cent. reduction (Belgium since 1921).



Suppliers.	1913.	1921.	1922.
<i>Mineral fuel oil.</i>			
British West Indies (Barbados, Jamaica) .. Met. tons	—	—	8,330
Mexico .. .. "	7,290	221,310	131,400
U.S.A. .. .. "	2,300	32,280	17,320
Belgium .. .. "	—	10	40
Total (all countries) ..	9,690	262,000	152,000
C.i.f. value .. .. £	42,900	1,295,100	432,700
<i>Gasoline.</i>			
Great Britain .. Met. tons	10	—	40
U.S.A. .. .. "	28,670	31,540	28,340
Mexico .. .. "	—	11,690	12,780
Total (all countries) ..	28,970	47,210	44,540
C.i.f. value .. .. £	515,000	1,729,200	1,189,600
<i>Kerosene.</i>			
U.S.A. .. .. Met. tons	105,200	60,280	68,400
Mexico .. .. "	—	18,650	12,950
Total (all countries) ..	106,670	79,530	81,900
C.i.f. value .. .. £	969,800	1,801,400	1,240,200
VIII.—FOODSTUFFS.			
<i>Wheat.</i>			
Canada .. .. Met. tons	3,930	—	1,270
Argentine .. .. "	429,520	328,610	423,070
U.S.A. .. .. "	4,720	48,230	10,170
Uruguay .. .. "	70	1,710	1,850
Total (all countries) ..	438,430	378,550	436,360
C.i.f. value .. .. £	3,291,000	6,631,800	5,052,100
<i>Wheat Flour.</i>			
Great Britain .. Met. tons	2	20	—
Argentine .. .. "	103,960	31,190	80,460
U.S.A.* .. .. "	56,930	26,300	36,500
Uruguay .. .. "	6,120	5,390	3,100
Total (all countries) ..	170,160	65,610	120,110
C.i.f. value .. .. £	2,134,800	1,659,200	2,050,100
<i>Codfish (dried).</i>			
Great Britain .. Met. tons	2,610	970	2,300
Canada .. .. "	6,520	4,280	4,270
Newfoundland .. .. "	25,840	9,370	6,550
Norway .. .. "	12,010	2,430	2,790
U.S.A. .. .. "	2,090	560	140
Japan .. .. "	—	8	100
Total (all countries) ..	49,570	17,820	16,320
C.i.f. value .. .. £	1,680,700	1,264,800	964,500

\* Preferential import tariff rate, viz., 30 per cent. reduction.

Suppliers.	1913.	1921.	1922.
<i>Salt, rock and white, except table salt.</i>			
Great Britain .. .. Met. tons	10,460	1,190	1,020
Uruguay .. .. "	12,030	13,900	18,260
Spain .. .. "	28,240	18,160	14,410
Argentine .. .. "	4,900	2,570	4,040
Germany .. .. "	3,480	2,110	930
Total (all countries) .. .. "	60,810	38,860	39,040
C.i.f. value .. .. £	156,800	150,300	147,800
IX.—MISCELLANEOUS.			
<i>Aeroplanes.</i>			
Great Britain .. .. No.	2	6	—
France .. .. "	67	45	13
U.S.A. .. .. "	17	1	6
Italy .. .. "	4	13	—
Total (all countries) .. .. "	90	66	19
C.i.f. value .. .. £	119,300	68,200	41,740
<i>Cinematograph films.</i>			
Great Britain .. .. Kilos	515	—	111
U.S.A. .. .. "	18,535	12,625	15,801
Germany .. .. "	2,647	3,907	5,406
France .. .. "	(a)	(a)	(a)
Italy .. .. "	2,821	3,776	1,527
Total (all countries) .. .. "	27,538	22,844	24,992
C.i.f. value .. .. £	159,000	106,800	97,300
<i>Enamelled iron manufactures.</i>			
Great Britain .. .. Met. tons	210	85	40
Germany .. .. "	1,080	405	270
U.S.A. .. .. "	60	50	20
Sweden .. .. "	7	—	6
Total (all countries) .. .. "	1,430	580	360
C.i.f. value .. .. £	103,600	108,200	33,800
<i>Glass and Crystal (manufactures of, unspecified).</i>			
Great Britain .. .. Met. tons	70	30	15
Germany .. .. "	760	80	100
France .. .. "	620	60	120
Belgium .. .. "	250	45	115
U.S.A. .. .. "	70	60	20
Czecho-Slovakia .. .. "	—	30	45
Total (all countries) .. .. "	2,060	326	445
C.i.f. value .. .. £	207,400	107,900	99,290

(a) Statistics not available.

Suppliers.	1913.	1921.	1922.
<i>Glass for windows.</i>			
Great Britain .. Met. tons	1,510	760	1,740
Belgium .. .. "	5,330	910	3,520
Germany .. .. "	260	150	370
Total (all countries) .. "	7,450	2,150	5,770
C.i.f. value .. .. £	136,000	96,600	153,700
<i>Leather belting (for machinery).</i>			
Great Britain .. Met. tons	160	34	23
Germany .. .. "	40	2	6
U.S.A. .. .. "	20	8	5
France .. .. "	20	3	2
Total (all countries) .. "	250	53	42
C.i.f. value .. .. £	76,700	43,000	24,700
<i>Photographic apparatus.</i>			
Great Britain .. .. Kilos	51,322	37,162	37,169
Germany .. .. .. "	79,606	33,158	118,563
U.S.A. .. .. .. "	25,790	41,403	85,641
Belgium .. .. .. "	1,425	21,729	31,704
France .. .. .. "	91,628	24,083	18,670
Total (all countries) .. "	254,665	162,917	294,304
C.i.f. value .. .. £	59,500	89,200	101,100
<i>Porcelain and Earthenware.</i>			
Great Britain .. Met. tons	5,060	1,610	1,810
Germany .. .. .. "	2,070	340	410
France .. .. .. "	310	160	190
Netherlands .. .. "	980	260	170
Japan .. .. .. "	150	110	150
Czecho-Slovakia .. .. "	—	—	20
Belgium .. .. .. "	420	20	2
Total (all countries) .. "	9,210	2,610	2,823
C.i.f. value .. .. £	478,700	403,300	345,900
<i>Printing Paper.</i>			
Great Britain .. Met. tons	610	1,430	560
Norway .. .. .. "	6,460	3,780	11,030
Germany .. .. .. "	10,400	5,300	9,200
Sweden .. .. .. "	4,940	2,850	7,610
Finland .. .. .. "	3,830	7,170	5,690
Netherlands .. .. "	—	—	1,070
U.S.A. .. .. .. "	110	710	820
Belgium .. .. .. "	1,460	—	480
Total (all countries) .. "	30,050	22,620	37,080
C.i.f. value .. .. £	491,500	1,238,100	925,600

Suppliers.	1913.	1921.	1922.
<i>Refractory bricks, and for building</i>			
Great Britain .. .. Met. tons	7,090	870	1 510
Germany .. .. "	3,860	440	1,300
U.S.A. .. .. "	580	2,010	120
France .. .. "	150	480	35
Belgium .. .. "	1,580	—	480
Total (all countries) ..	13,390	4,901	3,190
C.i.f. value .. .. £	54,200	62,300	27,100
<i>Resin.</i>			
Great Britain .. .. Met. tons	30	6	7
U.S.A. .. .. "	18,430	7,450	14,200
Germany .. .. "	90	6	14
France .. .. "	4	1	10
Total (all countries) ..	18,930	7,540	14,371
C.i.f. value .. .. £	293,600	173,300	200,100
<i>Rubber tyres and inner tubes.</i>			
Great Britain .. .. Met. tons	40	10	110
Canada .. .. "	—	—	200
U.S.A. .. .. "	10	90	400
Italy .. .. "	50	50	40
France .. .. "	270	70	300
Germany .. .. "	110	7	25
Total (all countries) ..	530	280	1,075
C.i.f. value .. .. £	153,700	93,650	255,300
<i>Skins and hides, tanned or otherwise prepared.</i>			
Great Britain .. .. Met. tons	130	10	13
Argentina .. .. "	230	310	340
U.S.A. .. .. "	190	130	260
Uruguay .. .. "	60	140	240
Germany .. .. "	410	15	50
France .. .. "	330	20	30
Total (all countries) ..	1,440	630	950
C.i.f. value .. .. £	975,300	453,600	643,400

## APPENDIX VI.

## BALANCE OF BRAZILIAN EXPORT AND IMPORT TRADE.

Years.	Exportation.	Importation.	Balance.	Deficit.
1899-1903 ..	£ 176,433,000	£ 120,584,000	£ 55,849,000	—
1904-1908 ..	235,464,000	164,968,000	70,496,000	—
1909-1913 ..	333,755,000	268,424,000	65,331,000	—
1914-1918 ..	281,415,000	203,257,000	78,158,000	—
1919 .. ..	130,085,000	78,177,000	51,908,000	—
1920 .. ..	107,521,000	125,005,000	—	17,484,000
1921 .. ..	58,587,000	60,468,000	—	1,881,000
1922 .. ..	68,578,000	49,192,000	19,386,000	—
Total 1899-1922	1,391,838,000	1,070,075,000	341,128,000	19,365,000
Balance of trade, 1899-1922 .. .. .				£321,763,000

## APPENDIX VII.

## CENSUS OF INDUSTRIAL WEALTH IN BRAZIL IN 1922.

	Value in milrês. (paper)
Unconstructed urban property .. ..	10,000,000:000 \$
Constructed urban property .. ..	5,500,000:000 \$
Property other than lands and buildings..	7,000,000:000 \$
Lands .. .. .	8,325,275:527 \$
Improvements on lands .. .. .	1,918,186:722 \$
Agricultural machinery and instruments..	324,546:442 \$
	<u>33,068,008:691 \$</u>
	(say, £1,000,000,000)
Cattle .. .. .	5,000,000:000 \$
Capital employed in the cold storage industry .. .. .	187,000:000 \$
Capital employed in the leather industry..	11,000:000 \$
Textile industry .. .. .	2,000,000:000 \$
Boot and shoe industry .. .. .	340,000:000 \$
Sugar industry .. .. .	326,000:000 \$
Extractive industries .. .. .	86,000:000 \$
Railways .. .. .	1,700,000:000 \$
Port works .. .. .	700,000:000 \$
Mercantile Marine .. .. .	230,000:000 \$
Federal Ports and telegraphs .. .. .	85,000:000 \$
Paid-up capital of National and foreign banks .. .. .	625,648:000 \$
	<u>11,290,648:000 \$</u>
	(say, £335,000,000)

## APPENDIX VIII.

FOREIGN COMPANIES AUTHORISED TO OPERATE IN  
BRAZIL.

FROM 1ST AUGUST, 1922 TO 31ST DECEMBER, 1922.

*Name and Nationality of Companies.*

Cia. Portugal e Ultramar (insurance), Portugal.  
 The World Auxiliary Insurance Corporation, Ltd., England.  
 The Worthington Company, Inc., U.S.A.  
 Great American Insurance Company, U.S.A.  
 Cia. Italo-Argentina de Seguros Geraes, Argentine.  
 Pilkington Brothers (Brazil), Ltd., England.  
 Niles Machine Tool Corporation, U.S.A.

FROM 1ST JANUARY, 1923 TO 31ST JULY, 1923.

Lagerhaus A-G, Switzerland.  
 Metropolitan Vickers Electrical Company, England.  
 Firestone Tyre & Rubber Company, U.S.A.  
 S. A. Ribereña del Plata, Argentine.  
 South American Gold Areas, Ltd., England.

## APPENDIX IX.

## THE RIVER SÃO FRANCISCO.

This river rises in the Canastra Range, in Minas Geraes, and flows northward, crossing the whole of the interior (sertão) of Bahia, divides Bahia from Pernambuco and then, flowing eastward, divides Alagoas and Sergipe.

Two-thirds of the river are navigable, viz., from the interior of Minas to Alagoas, where the Paulo Affonso Falls interrupt navigation: a small branch of the Great Western of Brazil Railway runs, however, from the point where navigation ceases to Piranhas, below the falls, and from this spot there is river navigation via Propriá to Penedos, where ocean-going steamers call.

The river has many tributaries, the principal being the Rivers Paracatú, Carinhanha, Rio Grande (left bank) and Rio das Velhas and Rio Verde (right bank). It has important towns on its banks, e.g., Pirapóra, São Francisco and Januario (in Minas Geraes); Carinhanha, Urubu, Chique-Chique, Pilão Arcado, Joazeiro, Barra and Remanso (in Bahia); Petrolina (in Pernambuco).

The marginal lands of this river are well adapted for tropical cultivation. Inundations are frequent and large, and damage to crops is great at times, but the territory in question produces large crops of tobacco, cotton and cereals.

Owing to the constant floods the greater part of the territory in question consists of cattle farms; selection is poor and in fact almost non-existent, but a good trade is done in the exportation of hides and skins.

The marginal lands both of the River São Francisco and of that river's tributaries are extremely fertile, but for the most part uncultivated and abandoned to a rudimentary system of cattle raising.

Large tracts of plateau-lands exist, especially on the left bank of the river, towards Goyaz, and uncultivated bush and forest lands, where large quantities of the wild " mangabeira " tree are found. From this tree the local inhabitants extract " mangabeira "-rubber, which has a good sale but has not the same consistency or value as the " seringa "-rubber (Para rubber) from Amazonas.

The River Sao Francisco has been called the " Brazilian Mediterranean," on account of the large zone it serves and of the many States of the Union which make use of it. There is no doubt that the problem of developing its utility and of opening up the zone it serves is an attractive one since the economic and politico-economic results to be anticipated therefrom are very great; but large capital outlay would probably be necessary for dealing with any such project and very careful surveys, examination and calculations would have to be made as a preliminary to any investment of capital, while it would also be vital (I imagine) to secure the goodwill and indeed active support of Brazilian Government in an enterprise of this sort.

The schemes put forward by private interests are ambitious, and should always be carefully investigated before any capital expenditure is made. Certain French elements are reputed to be interested in the scheme for development.

It is proposed to erect :—

- (a) A dam at Pirapóra (Minas Geraes) for irrigation in the lower part of the river and to increase the volume of water available for navigation in the upper part thereof.
- (b) Dams in the Rio Paracatú and Rio das Velhas for irrigation purposes
- (c) Dams in the rivers Corrente, Rio Grande and Rio Preto (Bahia) for irrigation.
- (d) A dam at the fall of Sobradinho, to increase the volume of water and for irrigation purposes in Bahia and Pernambuco.

Further, in order to cope with the difficulty of interrupted navigation (caused by the Paulo Affonso Falls), it is proposed to construct a canal joining the River São Francisco to the River Itapicurú (north of Bahia), thus giving uninterrupted access up to the River São Francisco mouth in the Atlantic Ocean.

The labour problem and regional climatic conditions would require thorough preliminary investigation before any capital expenditure on such schemes.

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